

LESSONS IN PERCEPTION



THE AVANT-GARDE FILMMAKER



AS PRACTICAL PSYCHOLOGIST



PAUL TABERHAM

Lessons in Perception

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The Avant-Garde Filmmaker as Practical Psychologist



Paul Taberham



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For Noelle, Atticus, Ezra and Bast

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INTRODUCTION

Existing film scholarship that draws from the field of cognitive science has characterized commercial filmmakers as practical psychologists, who are experts at shaping our senses and 'preying (usually in a good sense) on our habits of mind in order to produce experiences' (Bordwell 2011). A skilled filmmaker will elicit emotional responses, draw the viewer's attention to the appropriate part of the frame, make the audience jump, follow stories, and remember important items of information. In short, filmmakers are very skilled at guiding the thought processes, visual attention and reactions of their audience.

While directors, screenwriters, editors and cinematographers are not normally trained psychologists, the application of folk wisdom was in effect during the earliest stages of filmmaking history. Pioneering filmmakers employing the 'tableau' style (in which each scene plays in a single shot with a static camera, far back from the action) guided the viewer's eye by way of composition and staging. They drew on common-sense assumptions about pictorial emphasis and guided the viewer's visual attention by having one actor come forward while the others turned away, or one actor might briefly move to the centre of the frame. Recently, Tim Smith has used eye-tracking equipment to empirically illustrate how filmmakers use dialogue, composition, staging, lighting, cutting, face expressions and gestures in order to steer our attention quite minutely within the frame to areas of maximal information (Smith 2012).

The use of folk wisdom amongst filmmakers was not employed exclusively for the purposes of guiding visual attention, however. Emotional responses also became an area of interest – while filmmakers and actors had not conducted research about the power of face expressions in a formalized setting, they understood that viewers would respond differently to the onscreen events if they saw a face well up with tears, raise an eyebrow or smile up close rather than from a distance. The changes that took place during the development in film style since the era of tableau filmmaking – the rise in sophistication of cinematography, editing and sound design – hinged on the collective efforts of filmmakers across cinema's history intuitively discovering how to interface with evolved and socially learned habits of mind, in order to provoke the intended effects on its audience. Joseph Anderson places the role of the filmmaker as a practical psychologist and the universality of cinema's ability to elicit many of its intended effects across cultures in an economic context. He comments that the producers, technicians and artists in Hollywood discovered how to make their products accessible to individuals across economic, national and cultural boundaries in order to maximize potential profits through trial and error, rather than training and research in psychology (Anderson 1996: 13). He also notes that the capacities we developed that allow us to engage with movies were not designed specifically to watch movies; they evolved to meet other needs that filmmakers were able to exploit. Our minds are the result of past evolution, when our capacities were being sorted by the process of natural selection. We have perceptual and cognitive systems developed 'in another time, in another context, for another purpose' (ibid.: 15), yet cinema is tailored to suit our needs in order to elicit the responses that it does.

The analogy between the filmmaker as a 'practical psychologist' and an actual psychologist could be misleading if the differences are not recognized, however. While filmmakers are skilled at guiding the visual attention and thought processes of their audience, the underpinning mechanisms that allow viewers to respond so precisely do not necessarily need to be accounted for. David Bordwell comments:

Throughout history, filmmakers have worked with seat-of-the-pants psychology. By trial and error they have learned how to shape our minds and feelings, but usually they aren't interested in explaining why they succeed. They leave that task to film scholars, psychologists, and others. (Bordwell 2012)

The activities of filmmakers and psychologists need not be understood as synonymous, then. Art and the field of psychology have different origins, purposes, effects, and criteria for success. Furthermore, psychologists have a responsibility to hypothesize and confirm, prove and disprove, and report their findings, while artists are free to explore and create effects without needing to explain the underpinning psychological mechanisms. Commercial filmmakers only need to understand how to exploit the human mind, and they are accountable only to themselves and their financial investors. Notwithstanding all of these differences, we can recognize a point of overlap where the interests of filmmakers and psychologists meet.

This book will advance the claim that the model of the filmmaker as a practical psychologist can be extended to some of those who work within the avantgarde, but in a different sense to commercial filmmakers. While this model does not pervade all experimental filmmakers, there is a cross-generational tendency within the field that fits this pattern. Experimental filmmakers who fall within this tendency may be understood as practical psychologists in three principal

ways. First, they draw inspiration from mental operations and perceptual facilities that have also been studied by actual psychologists - albeit avant-garde filmmakers generally explore these themes through introspection rather than laboratory-based scientific analysis. The ways in which the concerns of avantgarde filmmakers and cognitive scientists intersect will be surveyed; topics will include narrative comprehension, memory, visual perception, synchronization and synaesthesia. Secondly, avant-garde filmmakers can be understood as practical psychologists in the sense that they provide cognitive and perceptual activities that are generally unrehearsed in cinema, if not life more broadly. Unlike the work of commercial filmmakers, experimental films are not tailored to exploit existing habits of mind in order to be effortlessly engaged. Finally, avantgarde filmmakers can be understood as practical psychologists in the sense that they produce films that offer occasion to reflect on human comprehension skills, perceptual facilities and general habits of mind by subverting the ways they are typically engaged. This book as a whole will demonstrate how the various case studies offer an occasion for such reflections.

Put more concisely, this book sets out to demonstrate how a range of avantgarde filmmakers introspectively draw inspiration from their own mental capacities, provide cognitive experiences under-rehearsed in life and commercial art, and offer spectators the occasion to reflect on their own habits of mind. By way of example, narrative comprehension is one sense-making skill that humans possess that has been studied by psychologists. When watching an experimental film, the viewer might be called upon to make radical interpretive inferences in order to engage with the work, rather than exercising linear narrative comprehension. They might also need to draw imaginative connections between the onscreen events instead of receiving a linear story, or engage emotionally with a film without full narrative coherence, and these are mental experiences we seldom encounter in other domains of art or life in general. Skills that are well rehearsed in popular cinema are set aside, and alternative methods of engagement take their place. Where commercial filmmakers generally exploit familiar methods of perception and comprehension for viewers to engage with their work, avant-garde filmmakers seek out alternative ways for viewers (with the same mental architecture) to exercise their minds and discover aesthetic interest in places they might not otherwise find it. In doing so, this book will argue, the avant-garde filmmaker oftentimes 'trains' the viewer to suppress certain mental habits that are routinely exercised in traditional narrative films, and instead cultivate new ways to attend to onscreen events.

This model of the practical psychologist does not apply perfectly to all avantgarde filmmakers, and so the focus will be on those most relevant. It would also be too simple a dichotomy to suggest that while mainstream filmmakers 'prey on' our skills of perception and comprehension, avant-garde filmmakers investigate and draw attention to our habits of mind by challenging them. In reality, avantgarde filmmakers can exploit familiar capacities (e.g. the illusion of cinematic motion with 24 frames per second), and commercial filmmakers sometimes draw attention to our habits of mind as well (with the use of non-chronological story-telling, for instance). Avant-garde filmmakers, in other words, are not the only heroic outriders, but a premium is placed on challenging existing mental routines when engaging with their work – whether the filmmakers themselves actively consider the psychological mechanisms of the film viewer or not.

In some instances, the work of a filmmaker might be self-consciously informed by existing research on perception and cognition, as in the case of Paul Sharits' flicker films drawing inspiration from W. Grey Walter's *The Living Brain* (discussed in chapter six), or Ken Jacobs adopting the Pulfrich effect after reading Richard L. Gregory's influential book *Eye and Brain: The Psychology of Seeing.* The Pulfrich effect works on the basis that when one eye is covered with a light filter, each eye will receive visual data at slightly different times. In turn, this creates the sensation of visual depth when looking at a flat image (like a movie screen) moving horizontally. Jacobs has knowingly put this effect to productive use.

At other times, a film artist may work more intuitively by paying attention to their own habits of mind and examining the way in which they attend to the natural world. Stan Brakhage drew inspiration from his own perceptual experiences, calling it 'Sense as Muse' (2001d [1967]: 129). An interest in sense perception and comprehension amongst avant-garde filmmakers and writers became more pronounced in the 1960s with the work of Brakhage, along with Ken Jacobs, Michael Snow and Hollis Frampton – each of whom made reference to, or was discussed in relation to, perception and cognition. Maureen Turim comments that following this era a subsequent impatience with the personal and privileging of the perceptual led artists to champion 'theory films' in the 1970s (Turim 2009: 532) as found in the work of Yvonne Rainer or Laura Mulvey, for example. However, even if many avant-garde filmmakers resisted 'privileging the perceptual' or they predated the loose affiliation between the avant-garde, cognition and perception, their work nonetheless raises questions about the ways in which we engage with cinema that can be addressed by appealing to knowledge gleaned by the field of cognitive science.

To make the position of this book clear, then, a tendency within the field of experimental film is being surveyed. The goal is not to suggest that experimental film is best understood solely through the optics of cognitive science. Nor is it suggested that the cognitive psychologist is the most suitable surrogate for the avantgarde filmmaker in general, as opposed to the psychoanalyst, theorist, agitator or another kind of figure. Rather, instances in which this is the case, and the ways in which this may be illustrated, will be explored. In addition, while the general concept of the practical psychologist is the broad framing device for the book as a whole, it will also offer an occasion to revisit a body of films that warrant more critical attention than they have already received. Not all of the issues discussed will relate directly to cognitive science, even if this remains the framing device.

For the remainder of this introductory chapter, the way in which research on cognition and perception is relevant to a discussion of avant-garde film will be explained. Then, the central goals and structure of the book will be detailed, along with a rationale for the use of cognitive science. Some of the advantages and limitations of applying cognitive theory to a discussion of avant-garde film will also be considered, along with a contextualization of where this book sits in relation to existing literature on experimental films.

Cognition, Perception and Avant-Garde Film

Now that the terms by which the avant-garde filmmaker may be understood as a practical psychologist have been defined, the ways in which existing research on cognition and perception is relevant to avant-garde film may be considered in further detail. In one sense, this book can be understood as a continuation of existing scholarship on avant-garde film, since it expands on prior references to cognition (the processing of information) and perception (the reception of information). In another sense, it can be understood as a break from existing scholarship. While filmmakers and scholars have made recurrent reference to cognition and perception when discussing experimental films, few have drawn from the field of research itself. The influential writer P. Adams Sitney contends that avant-garde film addresses skills of cognition and perception, rather than exploiting them by confounding, and in turn drawing our attention to them. He describes Michael Snow's use of the camera in Wavelength (1967) as a 'model of cognition' (Sitney 1978: xxxiv); for example, without using any of the research from the field of cognitive science to inform this claim. Paul Sharits published 'HEARING/ SEEING: Cinema As Cognition' in 1978 in Afterimage without making explicit reference to research from the field of cognitive science, or psychology more generally.

Likewise, reference is often made to 'perception' without the use of research from the field of perceptual psychology. For example, Michael Snow describes his own film *Back and Forth* (1969) as a 'lesson in perception' (Snow, quoted in Sitney 2002: 356) and Stan Brakhage famously sought to provide an 'adventure in perception' (Brakhage 2001a [1963]: 12) in his work, yet neither made explicit reference to scientific accounts of conventional perception. Jeffrey Skoller characterizes Stan Brakhage, Jonas Mekas, Maya Deren, Hollis Frampton and Ernie Gehr as central figures in an 'aesthetic of subjective and perceptual exploration' (Skoller 2010: 6) without elaboration. While these various critics, scholars and artists are not obligated to draw from scientific theories of cognition and perception in their discussions, the recurrent reference to these themes calls for a direct pairing.

One writer who addressed this disparity in a discussion of avant-garde film is William Wees, who focused on visual perception. In Light Moving in Time: Studies in the Visual Aesthetics of Avant-Garde Film (1992), he argues that critics and writers interested in avant-garde film make claims about visual experience without drawing from the relevant bodies of knowledge. He comments that from the beginning, avant-garde filmmakers have insisted on the visual nature of their chosen medium. Fernand Léger claimed that 'The image must be everything' (1979: 41), while Man Ray described Emak Bakia (1926) as 'purely optical, made to appeal to the eyes only' (1963: 273). Dziga Vertov said his goal was to produce 'a finished étude of absolute vision' (1984 [1923]: 37) and Germaine Dulac campaigned for 'an art of vision ... an art of the eye' (1978 [1925]: 41). Indeed, the camera-as-eye, as seen in Man Ray's Emak Bakia (1926) and Dziga Vertov's Man with a Movie Camera (1929) is a recurring motif in avant-garde film. In addition, violence to the human eye also features in films such as Luis Buñuel and Salvador Dalí's Un Chien Andalou (1929), and Sidney Peterson's The Cage (1947).

Wees comments that critics and scholars engaged in avant-garde film also highlight the importance of visual experience, yet existing critical approaches are ill-equipped to examine the specifically visual aspects of avant-garde film. For instance, Dudley Andrew proposes in Concepts in Film Theory that experimental filmmakers use their art to 'pose questions about seeing' (1984: 35), but does not elaborate on this claim. Gene Youngblood states early in Expanded Cinema that 'film is a way of seeing', but subsequently skims over the relationship between cinematic and everyday vision so as to focus on the ways in which film and video can evoke 'expanded consciousness' (1970: 72). In Sitney's seminal Visionary Film, he states that the central theme of his book is the 'dialogue of camera eye and nature', but his principal concern turns out to be 'the cinematic reproduction of the human mind' (2002: 370); in addition to this, the term 'visionary' refers to the imagination, rather than visual perception. Finally, David Curtis comments that avant-garde filmmakers 'have explored the camera's ability to emulate and enhance human visual perception' (1971: 12). Again, however, this claim is not explained in further detail.

The fields of cognitive science and perceptual psychology, then, are undervalued resources that are readily available to provide an illuminating and enriching account of much avant-garde film practice. As such, scholarship on avant-garde film has seemingly been calling out for a cognitive and perceptual appraisal, but few have picked up the challenge. This book attempts to extend that discussion, first articulated by William Wees and shortly afterwards by James Peterson in *Dreams of Chaos, Visions of Order: Understanding the American Avant-Garde Cinema* (1994).

Book Structure

With the relevance of cognitive and perceptual research to experimental film in place, the central goals of the book can be outlined. One of the principal aims is to frame a tendency within avant-garde filmmaking as a form of practical psychology that exploits capacities developed for the natural world and mainstream aesthetic contexts, and also creates a space in which the viewer is invited to suppress some cognitive and perceptual skills routinely exercised in traditional cinema, and instead attend to the film using less familiar methods.

No single era or subcategory of avant-garde filmmakers will be focused upon for the entirety of the discussion. The first section considers avant-garde film as a broad entity, with a loose family of filmmakers whose creative concerns intersect. In section two, particular attention is paid to visual perception, with Stan Brakhage and Robert Breer, both of whom stand out as archetypal examples of filmmakers who challenge our visual-perceptual skills in a vivid and distinctive way. The third part of the book focuses on visual music, extending the discussion to audiovisual relations in abstract animation.

The first section focuses more on the cognitive than the perceptual, while sections two and three are more concerned with the perceptual. To briefly distinguish between the two: perception can be understood as the process of using the senses to acquire information from and about the surrounding environment. It also involves testing hypotheses (e.g. 'is it a face? Are there eyes? If yes . . . if no . . .'). Cognition, by contrast should be understood as perception coupled with the mental activities that follow the reception of information, such as comprehension, inference, reasoning and learning. In short, perception refers to the acquisition of information, and cognition involves the processing of information. Cognition, then, follows perception and the two are closely linked.

Chapters one and two will focus on the cognitive skills of narrative comprehension and memory respectively, and the ways in which these commonplace facilities are challenged by avant-garde films. Chapter one will suggest that a narrative mode of comprehension is often challenged and problematized without being fully discarded in a variety of ways in experimental films. In some cases, a story might be embedded but hidden to viewers who cannot make the appropriate creative inferences, or who lack the necessary extra-textual knowledge. Alternative forms of organization that wholly reject narrative and provide alternative paths of appreciation will also be outlined. In chapter two, the challenges that the avant-garde poses to human memory will be considered. Since memories are reconstructive rather than photographic, formal aspects that pertain to the avant-garde (such as an emphasis on surface detail or an unclear global structure) make them more difficult to remember than narrative-dramatic cinema and prone to distortion. This may, however, be an aesthetic virtue for reasons that will be explored. The rest of the book will focus more closely on the perceptual, rather than cognitive processes. Initially, the purely visual will be addressed. Chapter three will extend the discussion of the filmmaker-as-psychologist by considering Stan Brakhage's concept of the 'untutored eye'. His films aim to resist our natural inclination to identify and organize objects in our visual array, and instead compel us to attend to the visual field as a series of colours, shapes and textures. Brakhage's films and writings will be considered in light of research on visual perception. Chapter four will explore the model of the filmmaker-as-psychologist in relation to Robert Breer, in the context of research on motion and depth perception – two ordinary visual capacities that are disrupted by Breer in his films for the purpose of aesthetic interest.

In the third subsection, the discussion of perception will extend into the relationship between our audio and visual skills, with a specific focus on visual music (abstract animation, sometimes accompanied by a soundtrack). The larger claim in this subsection is that while films in this tradition do not appeal to a narrative mode of comprehension, they are tailored towards unambiguous aesthetic appreciation by exploiting two hardwired reflexes: first, they exercise our ability to detect varying types of synaesthetic correspondence (the focus of chapter five); second, they exploit our commonplace facility to identify audiovisual synchronization, and also appeal to our unique engagement with symmetry and hallucinatory vision (the focus of chapter six).

The conclusion draws the various themes together, and additional lines of enquiry are outlined for a consideration of avant-garde film within a cognitive framework. Collectively, the book aims to survey some of the points of shared concern between avant-garde filmmakers and cognitive psychologists, and illustrate some of the possible paths to aesthetic interest uncharted by commercial cinema. By necessity, the chapters vary in length according to the needs and objectives of each topic.

Evidence and Methodology

With a rationale for the discussion and a broad outline of the book in place, we can consider the types of evidence that will be used, and how the methodology of cognitive film theory will be employed. Cognitive aestheticians are committed to the relevance of empirical evidence, but formal experiments have not been conducted for the purposes of this analysis. Rather, the implications of research conducted in scientific conditions are used as a foundation for the observations featured in this book (as is commonplace with this approach to film scholarship). A variety of psychological and neuropsychological theories and studies will be employed alongside existing scholarship on avant-garde film, close analysis of case studies, personal observations and artists' commentaries on their own work.

This book is also broad in the range of fields explored within cognitive theory. Deep cognition (e.g. narrative; memory) will be discussed in chapters one and two, while the surface processes of visual perception (motion, depth) and auditory-visual perception (cross-modal verification, synaesthetic correspondences) will be considered in chapters three to six. The breadth of psychological theories employed in this discussion is a testament to the range of levels at which avantgarde filmmakers challenge their viewers.

Synthesizing strains of psychology that emerge from outside cognitive science proper is commonplace in cognitive film theory. Carl Plantinga summarizes the cognitive approach in a way that is consistent with the method applied in this book:

Cognitive film theory does not necessarily imply a commitment to cognitive science, strictly defined, and certainly not to cognitive science exclusively. One might say that cognitive film theorists tend to be committed to the study of human psychology using the methods of contemporary psychology and analytic philosophy. This can be an amalgam of cognitive, evolutionary, empirical, and/ or ecological psychology, with perhaps a bit of neuroscience and dynamical systems thrown in the mix. (Plantinga 2002: 21)

The tradition of cognitive film theory is employed as a framework for this discussion because it is arguably the most productive framework available when addressing ordinary behaviours such as perception and comprehension. Efforts are made to acknowledge the filmmakers' craft and also to attempt to discern the intuitive psychology that underpins it. While cultural or ideological topics may be more productively addressed by psychoanalytic, feminist or Marxist readings,¹ the cognitive framework is used here for three principal purposes:

- To examine the ways in which avant-garde films can draw upon basic perceptual facilities without specialist knowledge (e.g. visual depth perception).
- To explore the ways in which avant-garde films challenge existing cognitive and perceptual facilities (e.g. suppressing narrative cues; restraining top-down processing; destabilizing the perception of consistent objects).
- To test whether the intuitions of artists and critics are consistent with cognitive research, and if they are not, how the claims of artists and scientists can be related, mediated or integrated (e.g. Brakhage's theory of the untutored eye in relation to constructivist theories of perception; Len Lye's intuitions on visualizing sound in relation to research on synaesthesia).

The argument that binds these discussions together is that the avant-garde need not be understood as a wholesale rejection of traditional aesthetic preferences or inclinations. Instead, avant-garde films accommodate and problematize our existing comprehension and perceptual skills in a variety of ways while also cultivating more specialized skills. As such, an interest in the avant-garde need not be framed as simply a matter of 'preference', but rather it may be measured by the spectator's ability to detect and willingness to adopt viewing procedures that are not tailored towards effortless human discourse processing skills.

Advantages and Limitations of Cognitive Theory to Avant-Garde Scholarship

Up to this point, a rationale has been provided for the relevance of cognitive and perceptual research on avant-garde film, the shape of the book has been outlined, and the ways in which cognitive research will be applied within this book have been described. The next step will be to examine the virtues and potential disadvantages of cognitive theory as body of knowledge in relation to avant-garde film in closer detail.

A criticism levelled against cognitive film theory that closely followed its inception is that it is ill-equipped to discuss alternatives to mainstream aesthetics. In 'Cognitivism: Quests and Questionings', written in 1989, Dudley Andrew comments that cognitive theory addresses normal cases, but avoids 'complex deformations of vision and narration produced by sophisticated artists' (Andrew 1989: 5). Of course, cognitive theory *is* flexible enough to be applied to such complex deformations. Soon after Andrew made these comments, Bordwell responded by commenting that there was evidence to the contrary, since he had already used cognitive theory to address the films of Eisenstein, Resnais, Godard and Bresson amongst others (Bordwell 1990: 108). Ernst Gombrich had also discussed the idiosyncrasies of individual creative voices in the field of fine art from a cognitive perspective. Later, James Peterson would do the same with avantgarde film.

In 1994, James Peterson commented that some considered a cognitive approach to the avant-garde 'perverse', since cognitive film theory putatively builds a model of the spectator who is super-rational and computer-like, taking cues from a movie and spitting out the correct interpretation with ease. Since avant-garde films are often confusing and are open to a range of possible interpretations, they would appear to be incompatible with the cognitive approach. He comments:

Any theory of the avant-garde that suggests that its viewers can unproblematically produce the proper interpretation of its films would certainly be wrong, but a cognitive approach does not commit one to the view that each film has only one 'right' viewing experience, or that the experience always involves active engagement. . . . human problem solving rarely follows the rigorous principles of formal logic. (Peterson 1994: 8–9)

Drawing from a body of scientific research with the intention of illuminating a 'radical cultural phenomenon' may also feel incongruous, since the scientific method is impersonal and dispassionate by design, while much existing avant-garde filmmaking and scholarship is infused with Romantic ideals that celebrate individual passions and spontaneity. P. Adams Sitney's seminal *Visionary Film: The American Avant-Garde*, 1943-2000, for instance, takes Romanticism (in part, a reaction against the scientific rationalization of nature in the late eighteenth century) as the central framework by which to discuss the American avant-garde. In spite of this, as it has already been suggested, there is a range of shared concerns and points of convergence between avant-garde filmmakers and cognitive psychologists.

Cognitive film theory encompasses a range of different approaches. These include discussions of affect and emotional response, narrative comprehension, eye tracking, neurocinematics, analytic philosophy, empirical data on broad stylistic patterns and evolutionary psychology. I have suggested elsewhere (Taberham 2014) that some of the principal evolutionary accounts for the emergence of art are dismissive or hostile to the avant-garde. If art is a pleasure technology or 'cheesecake for the mind', as Steven Pinker memorably dubbed it, why does modernist art (and the avant-garde from which it arose) '[take] all the fun out of art'? (Pinker 2002: 412). Geoffrey Miller (2010: 258) has suggested that artworks serve the purpose of sexual display, illustrating skill and resourcefulness on the part of the artist. But the avant-garde begs the question as to why would an artist create work with such a limited appeal when they could reach a broader audience with commercial art. Ellen Dissanayake (2010: 85) has suggested that narrative arts contain humanly relevant themes that derive from evolved needs and interests, and Dennis Dutton (2010: 184) adds that there is an evolutionary advantage to imagine hypothetical scenarios without the high-cost experimentation of actual practice. Experimental film, however, tends to negotiate humanly relevant themes in an oblique way, rendering it an inefficient platform to experience hypothetical scenarios through story.

All these postulations are plausible pieces of the puzzle for the existence of art as a broad entity. However, Brian Boyd offers an additional evolutionary theory that is more accommodating to the avant-garde. He frames the creation and appreciation of art as a form of 'play', a rewarding mental activity that can develop intelligence and aesthetic sensitivities (Boyd 2010: 14). By extension, avantgarde film can exercise the mind in novel and expansive ways. This is not to be understood as an activity with an evolutionary advantage, but rather a by-product of an evolved behaviour.

Since no single megatheory can encompass the diversity of cinematic phenomena, there are limitations to the application of the cognitive framework. Raymond Tallis calls for a more moderate position than 'neuromania' (Tallis 2011), which advances the assumption that all human thought and behaviour can be understood and illuminated by observing the activity of neurons in the brain. Those who advocate cognitivism with caution are in agreement. In 'A Case for Cognitivism', Bordwell comments:

most theoretical accounts exude a sweeping confidence that we are on the verge of the next Big Theory of Everything. Cognitivism can look like such a Big Theory, but it is not; move down even a notch from my broad survey and you will find that sharply distinct explanatory models crystallize around particular questions. (Bord-well 1989: 33)

Psychoanalytic, Deleuzian, feminist, queer, Marxist and phenomenological methodologies crystallize around their own respective questions as well. Indeed, some bodies of filmmaking may call forth a particular system of analysis according to their own interests or preoccupations. Yvonne Rainer, for instance, was less concerned with matters of perception and was more interested in investigating the reproduction of ideology, drawing from Marxist media theory, and exploring themes ranging from terrorism to menopause and divorce. A film like Kenneth Anger's Fireworks (1947), which dramatizes an adolescent gay fantasy, invites a reading through the lens of queer scholarship. Hollis Frampton's Zorns Lemma (1970), by contrast, self-consciously addresses the spectator's search for order and the process of comprehension. In this instance, the cognitive theorist may draw from a body of research that provides a workable means to explain the mechanisms that underlie the spectator's engagement with the film. It would not necessarily offer a thematic interpretation, or encompass all possible implications – but neither would any other theoretical framework. As such, an appropriate set of questions can be staked out and addressed that are suitable to the chosen methodology, and that is what this book aims to do.

If there are passages where the reader feels opportunities were missed to relate discussions back to Deleuze, phenomenology or other branches of continental philosophy, that is because I am staying within my own specialist province, leaving other considerations to those with more expertise. It is not to imply that those other methodologies are unworthy of consideration. Indeed, they have already been put to productive use. Notably, the tradition of phenomenology can be understood as a 'fellow traveler' with cognitive theory; as an approach to discuss film in relation to perception. In brief, philosopher Edmund Husserl argued that our engagement with phenomena during everyday thought is informed and limited by a series of mediating historical and cultural hierarchies. As such, the essence of an object may be understood if the transparent layers of presuppositions are made explicit and then set aside. Annette Michelson was the first to make reference to phenomenology in a discussion of avant-garde film in her article 'Toward Snow' (1978), and this was later picked up by Vivian Sobchack (1992) and P. Adams Sitney (2002: 354).

Since traditional cinema guides the viewer towards an 'intentional directedness' of its various objects (in which each object appears to serve a purpose instead of existing in and of itself), movies become an exemplar of 'making manifest the directed and irreducible correlation of subjective consciousness and its objects' (Sobchack 2009: 436). Stan Brakhage, by contrast, provides his audience with a different mode of engagement with the images onscreen – something closer to Husserl's 'transcendental ego', uncoloured by layers of preconceptions. Consider his famous dictum from *Metaphors on Vision*: 'Imagine an eye unruled by man-made laws of perspective, an eye unprejudiced by compositional logic, an eye which does not respond to the name of everything' (2001a [1963]: 12). Sobchack (1992), R. Bruce Elder (1998: 313–24) and Alex Cobb (2007) have also drawn upon phenomenology to discuss the work of Brakhage.

Apart from that brief aside, this book will focus on cognitive science instead of attempting to straddle cognitive science (associated with the analytic philosophical tradition) with the continental school of enquiry. A detailed discussion about the similarities and differences between phenomenology and cognition runs beyond the scope of this book. But suffice to say, while perception is addressed both by phenomenology and cognitive science, their respective origins, vocabularies, bodies of research and theoretical goals are different.

Now that some of the possible advantages, limitations and alternatives to cognitive theory for the study of avant-garde film have been surveyed, the ways in which this approach might be placed within the broader context of existing literature on avant-garde filmmaking may be considered.

Literature on Avant-Garde Film

While a cognitive framework is employed in this discussion, a pluralistic approach is still endorsed, since there is no 'essential' way to address avant-garde film – a variety of methods and approaches can be applied depending on what the questions and objectives are. Different styles of writing, to state a simple fact, produce different effects. Jonas Mekas' journalistic writing, for instance, might deepen one's emotional connection with the work he discusses. Of Ken Jacobs' *Little Stabs at Happiness* (1960), Mekas says '[Jacobs'] shapes and forms transmit to us, evoke in us, or rather produce in us the states and forms of radiance . . . [of] Happiness in full consciousness' (Mekas 1972: 351). Of Bruce Baillie, Mekas says '[he is] the eternal rider, superimposed on the map of the US ... but in the images of his films, he always seems to be going after some definite, and probably always the same, image' (ibid.: 417). Mekas' prose is infused with personal passions and the subjective treatment of a poet. This is a valuable endeavour, and can deepen a reader's connection with the artist's work.

Stan Brakhage's prose is also often poetic in nature, although he usually writes to address his own creative method, offering a window into the thought processes taken towards developing his personal style. Particularly in his early writing, he revels in the polyvalence of language, adding puns and aiming for deliberate ambiguity, with the goal of creating a disbelief in the rigidity of any statement, 'knowing only poetry immortal enough to escape the rigorous belief in any one word-world as a sense-killing finality' (Brakhage in McPherson 2001: 8). In 'my eye', for instance, he states:

In non-chicken-littleness, my eye opening out to it, now hedging wording it, mind's eye narrowing down to it, destroying it. Imagine the headline: THE SKY ISN'T BLUE, discovered by-on-while-etc. Impossibility of all of it. I sky-hypnotized, my eye involved without view, seeing thru the so-called color of it, discovering light, now sighting it down to 'flakes', 'God-gold', 'falling', 'down'. (Brakhage 2001b.: 27)

In this instance, Brakhage's prose may bear more of an aesthetic effect on the reader than an informative effect.

Standish Lawder made an extravagant claim about his film *Raindance* (1972) that appears to call forth the authority of scientific investigation, but is closer in spirit to the intuitive and evocative style of Mekas and Brakhage:

Raindance plays directly on the mind through programmatic stimulation of the central nervous system. Individual frames of the film are imprinted on the retina of the eye in a rhythm, sequence, and intensity that corresponds to Alpha-Wave frequencies of the brain. . . . The film directs our mental processes, controlling how we think as well as what we see.²

The risk of invoking such a pairing of lyricism with scientific rhetoric is that claims are made in order to evoke a particular effect that do not necessarily accord with scientific research. The nature of synaesthesia is another casualty of this - the word possesses a long-standing poetic, metaphorical connotation in the arts, but it is also a specific neurological condition. The two distinct (if connected) terms risk being conflated. The goal of 'locking down' on particular truths or giving words singular meanings may be misinterpreted as an affront to the polyvalence and romanticism that is characteristic of the avant-garde. One important response to this concern would be to note that the goal of the cognitive approach is not necessarily to offer ingenious interpretations. Rather, it is to explicate the techniques of the filmmakers and their effects on the spectator. Examining the way in which the capacities that avant-garde filmmakers exploit and challenge deepens our understanding, if not necessarily our emotional relationship with the work, but both approaches are worthwhile lines of enquiry. Chapter one, for instance, will explore how avant-garde films can engage our capacity for narrative comprehension. Chapters three and four consider how the films of Stan Brakhage and Robert Breer engage our visual capacities in unique ways. Doing so can illuminate how the case studies 'play on the mind', but it may also enrich our understanding and appreciation of the work, and it can shed light on the intentions of the artist, which are not always easy to discern.

Research on cognition and perception has already been productively applied to discussions of the avant-garde. William Wees' *Light Moving in Time* fruitfully drew from research on visual perception to argue that while the search for meaning from our surroundings is always active and draws from pre-existing knowledge, the naive, untutored vision that Brakhage sought to represent could be achieved if we are sensitive to the full range of our visual experiences. This will be discussed at length in chapters three and four. Unlike Wees' perceptual discussion of avant-garde film, James Peterson's *Dreams of Chaos, Visions of Order* makes more explicit use of cognitive theories in order to deepen our understanding of avant-garde film. Drawing from Bordwell's *Narration in the Fiction Film* (1985) but focusing on a separate canon of films, the book demonstrates how the formal practices and critical rhetoric of avant-garde film both exploit and are influenced by the cognitive capacities of the viewer.

While the discussion in this book differs from Peterson's in ways that will be explained, his work will be briefly detailed so that an alternative use of cognitive science to explore avant-garde film can be considered. Basing his account of the viewer's activity on constructivist theories of language, perception and reasoning, Peterson suggests that productively engaging with avant-garde film requires matching the film's details to the appropriate viewing procedures, since viewers mentally 'construct' films in the process of making sense of them. The viewer must establish sufficient coherence within the film's elements by matching those elements to the appropriate template schemata or heuristics.³ Sufficient coherence, instead of total coherence, is sought, since making sense of avant-garde films should be understood as a puzzle without a clear-cut or definitive solution. Another claim that rests at the core of Peterson's book is that making sense of avant-garde films does not require a completely unique set of comprehension skills, even if they may initially seem unfamiliar and alien. Rather, viewers of avant-garde films 'rely on skills learned through exposure to normal, everyday discourse, as well as through exposure to many kinds of aesthetic discourse such as literature, painting and fiction film' (Peterson 1994: 17). The postulation that appreciating artwork depends on the use of ordinary perceptual and mental capacifies is commonplace amongst cognitive aestheticians, but it is particularly anomalous in the context of avant-garde film. Up to a point, this claim constitutes an alternative to the received wisdom voiced by Curt Hersey, that 'avantgarde films are designed to be difficult to understand and often require special knowledge to decipher the meanings' (Hersey 2002 4).

An additional claim at the core of Peterson's book is that American avantgarde films can be understood as 'a distinct film practise operating in specific institutions, with a set of formal conventions and implicit viewing procedures' (Peterson 1994: 6). Like Sitney, Peterson places greater focus on the communal interests and shared aesthetic conventions amongst artists, developing his own set of categories, rather than defining the avant-garde as an explosion of forms. In *Dreams of Chaos*, *Visions of Order*, American avant-garde film is divided into three open and flexible tendencies: the poetic, the minimal and the assemblage strains. Each one calls for different – and sometimes multiple or overlapping – strategies of comprehension, although they cannot be defined by listing a rigid set of properties.

The 'poetic strain' draws together the trance, lyrical and mythopoeic forms of the American avant-garde (see Sitney 2002: Chapters 5, 6 and 7), which were developed roughly from the mid forties up to the mid sixties. It encompasses the abstract work of Marie Menken and Harry Smith along with the 'experimental narratives' of Maya Deren and Kenneth Anger. The poetic strain can be broadly understood as an approach to cinema modelled roughly on modern poetry, which places the subjectivity of the author at the centre. Peterson provides a series of heuristics for comprehending poetic films that allow the viewer to match local details within a larger framework of the work. These include: 'interpret overt manipulation of film style as a representation of an altered mental state, such as a dream, memory, hallucination, or fantasy' (ibid.: 38), and 'be suspicious of the spatial and temporal continuity suggested by devices of continuity editing' (ibid.: 42).

The 'minimal strain', which is closely tied to 'structural film' (Sitney 2002: Chapter 12), calls for different viewing procedures to the poetic strain. Peterson argues that this shift towards the minimal strain in the sixties emerged following an increasingly intimate relationship between American avant-garde film and the visual arts. In essence, films from the minimal strain call upon simple and identifiable conceptual frameworks in order to engage the viewer with the work.

Finally there is the 'assemblage strain', which is split into two different styles: the compilation film (which is made from found footage – as in the work of Bruce Conner) and collage animation (animations from appropriated pictures, as found in the work of Larry Jordan and Stan Vanderbeek). Peterson suggests that within the assemblage strain, narrative comprehension might provide a high degree of global coherence, even if the story is bare-boned and simple. The purpose of assemblage film is to marshal disparate materials into a coherent structure (Peterson 1994: 155). An assemblage film might contain a narrative structure, or the images might be organized thematically, rather than narratively (ibid.: 168). The viewer may also make sense of the films by paying close attention to graphic relationships between the images (ibid.: 164) and the overall mood (ibid.: 161).

This book differs from Peterson's in several ways. First of all, it focuses less on specialist skills developed for engaging with avant-garde films (i.e. heuristics), and more on the ways in which ordinary capacities are exploited without recourse to specialist knowledge. As such, this analysis does not set out to argue that viewers unfamiliar with the avant-garde approach the work with all the necessary viewing procedures 'pre-installed'. Rather, some necessary capacities are already in place (e.g. weak synaesthetic correspondence in chapter six, or detection of audiovisual synchronization in chapter seven – both natural perceptual 'reflexes'), while other capacities must be developed to engage aesthetically with certain works, such as attending to films that cue narrative expectations without fully indulging them (chapter one), and stretching the threshold for sustained object perception (chapter four). In addition, pre-existing categories within avant-garde film are applied instead of subscribing exclusively to Peterson's, or developing an all-encompassing series of new ones. More time is spent discussing visual perception than Peterson, and less on comprehension or heuristics.

Chapters one and two (which address narrative and memory) make recurrent reference to Peterson's work. After this, the discussion branches away. However, *Dreams of Chaos, Visions of Order* provides a fertile starting point as a cognitively informed discussion of the avant-garde. Peterson challenges the long-standing assumption that '[the] American avant-garde community trumpets the ideal of an aesthetic revolution' and persuasively suggests that it 'lives a reality of refinement and revision' (ibid.: 186). It is also an informative synthesis of literary and art theory, narrative theory, and cognitive theories of perception, which is channelled towards illuminating a path for those who want to engage with American avant-garde films. Peterson illustrates how film viewing is structured by its historical and social context, and that viewing habits evolve as the institution of the avant-garde changes – avoiding the pitfall of advocating the model of the spectator as an ahistorical, transcultural agent. In addition to all of this, his case studies are illuminative.

Now that some of the possible relationships between avant-garde film and cognitive theory have been outlined and existing research on avant-garde film has been surveyed, attention will finally be turned to the way in which avantgarde film is to be understood in the context of this discussion.

Experimental/Independent/Underground/Artists' Film

While avant-garde film will be discussed in the context of cognitive theory, this book does not suggest that the elements that make a film 'avant-garde' relate solely to the way in which they call upon our cognitive skills. For instance, commercial motivations, production processes and means of financing and distribution also have a bearing on a film's status as avant-garde or experimental. While commercial filmmaking is motivated by profit, and labour is divided between a collective of people, the avant-garde typically operates in an 'artisanal' or personal mode, and is self-funded or financed by grants from arts institutions. Instead of undergoing commercial distribution, avant-garde films are normally distributed independently or through film co-operatives to be exhibited by film societies, universities and museums (Smith 1998: 395). One may also suggest that avant-garde films *evoke* more than they *tell*; the creative process is often based on a non-rational mode of intuition, and the creation of a work of art might place greater emphasis on the act of discovery rather than planning all the details in advance. Fred Camper proposed a six-part 'test', which gauges whether a film can be suitably dubbed avant-garde or not. Many avant-garde films do not fulfil all of the criteria, but they will adhere to most:

- The film will be made by a person or small collective, self-financed or on a small grant, without expectation to make a profit.
- The filmmaker will fulfil several roles that are typically assigned to separate people in mainstream film production. They might work as director, script-writer, editor and director of photography, for instance.
- A linear story is not provided.
- The materials of cinema are consciously employed in a way that calls attention to the medium.
- The film will possess an oppositional relationship to both the stylistic characteristics of mass media and the value systems of mainstream culture.
- It does not offer a clear, univalent 'message'.4

For our purposes, this is a sufficient set of parameters by which avant-garde film may be understood. In later chapters, however, more tendencies that pertain to the avant-garde will be detailed and finally summarized in the concluding chapter. A working definition of avant-garde film will be revisited in the conclusion.

The status of avant-garde film as 'oppositional' may be briefly considered. Laura Mulvey suggests that avant-garde film is to be understood as a 'negation' of the dominant mode of filmmaking (Mulvey 1996: 17). Likewise, David James sees the avant-garde as a 'critical' phenomenon, intended to be an affront to the values and aesthetic practices of mainstream society. Murray Smith refers to this understanding of the avant-garde as reactive, while P. Adams Sitney voices an understanding in which the mainstream and the avant-garde operate 'in different realms with next to no influence on each other' (Sitney 2002: xii). While Sitney's book is widely influential, the reactive understanding remains the dominant way of thinking about the avant-garde. In reality, the motivations of each artist can be taken on a case by case basis.

Why use the term 'avant-garde'? For a tradition that strives to continually develop new aesthetic avenues, it is perhaps natural that many modern-day film artists do not want to be associated with a term that was coined in the nine-teenth century. Today, the term evokes the past rather than innovation, or an advance-guard. As Dave Kehr argues in a *New York Times* review of Kino's DVD box set *Avant Garde 3*:

It's about time that someone came up with a more accurate and evocative term than 'avant-garde', particularly because it refers to a vast and widely varied tradition of films that fall outside the norms of feature-length narrative filmmaking. (Kehr, 2009)

This is a widely recognized issue.⁵ No alternative has been universally embraced, however. Fred Camper comments:

I'd like to think the lack of a stable name is a sign of the movement's health. I mean, to take off on Gertrude Stein's famous remark to the effect that a museum can't also be 'modern', if you know exactly what avant-garde film is and how to name it, it probably isn't very 'avant-garde', right? (Camper n.d)

'Avant-garde' is a French term with a military origin, which today risks evoking elitist and adversarial overtones (Poggioli 1981: 27; Meecham and Sheldon 2000: 16). Brakhage commented that in the 1920s and 30s, the 'avant-garde' Parisian works of Man Ray, Fernand Léger, René Clair, Salvador Dalí and Luis Buñuel were the only alternative to narrative-dramatic filmmaking. As a result, any film that did not follow the path of the commercial filmmaker was aligned with the work of the French artists. The term was subsequently applied to American filmmakers who emerged in the 1940s, such as Maya Deren, Sidney Peterson and James Broughton, who were not trying to emulate the French filmmakers. Rather, they were simply working as artists, using film.⁶ Even with the vast differences between these various eras, geographies and trends, Smith and Camper's given definitions of avant-garde film suggest how these temporally and geographically dispersed films can be placed into the same category.

Robert Hughes compares the cultural landscape of the late 1800s, when the term was originally coined, with more recent history:

What has our culture lost in 1980 that the avant-garde had in 1890? Ebullience, idealism, confidence, the belief that there was plenty of territory to explore, and above all the sense that art, in the most disinterested and noble way, could find the necessary metaphors by which a radically changing culture could be explained to its inhabitants. (Hughes 2009 [1980]: 9)

In the contemporary landscape of experimental film and video, modern day film artists are unlikely to refer to themselves as avant-garde, since the term seems archaic today. But while it evokes an era that began in the late nineteenth century and arguably came to a close around the 1950s, the term has lingered (in film if not the art world more broadly). Examining a cross-section of books on more or less the same body of films, one finds a division in titles between experimental cinema, independent film, artist's film, underground and avant-garde film. Each comes with its own distracting implication. 'Experimental' is objectionable because it implies that the films are experiments, rather than fully realized works of art. The term 'independent film' today is largely associated with institutions like the Sundance Film Festival, Miramax and The Weinstein Company. An 'artist's film' brings to mind contemporary artists like Matthew Barney who branch out into filmmaking – and this is a slightly different tradition to the one explored in this book. 'Underground film' brings to mind the New York-based subculture of the 1960s, which revolved around Andy Warhol.

Scott MacDonald has suggested that of all possible alternatives, 'avant-garde' has the 'widest currency' and is 'generally understood to refer to an ongoing history that has been articulated in different ways in different places' (MacDonald 1993: 16). The term 'avant-garde' is used here instead of the alternatives for this simple reason, even if it carries associations of European art from the early twentieth century. It is perhaps also the term most strongly associated with the broad range of canonical figures discussed in this book. However, the terms avant-garde, experimental and artist's film will be used interchangeably. While all terms have different connotations and potential controversies, they overlap and all refer broadly to the same body of films – albeit with a range of subcategories, such as psychodrama, visual music, structural film and so on.

To summarize, this introduction set out to establish that there has been a temporally and geographically dispersed practice amongst avant-garde filmmakers to creatively draw inspiration by contemplating mental and perceptual capacities that also interest cognitive psychologists. This tendency provides psychological experiences that are under-rehearsed in life and commercial art, and offers spectators occasion to reflect on their own minds by subverting routine psychological habits exercised when engaging with commercial cinema. While this tendency does not pervade experimental film as a whole, it covers a range of filmmakers who will be discussed in this book.

This chapter also has suggested that scholarship on avant-garde film makes recurrent reference to cognition and perception, yet the field of cognitive science has generally been under-exploited, and so that discussion will be extended into three parts. The first part focuses on cognition, the second part focuses on visual perception, and the third part considers audiovisual perception in visual music. The ways in which avant-garde films draw upon and also challenge perceptual facilities will be considered, and the intuitions of artists and critics will be compared with cognitive research. It has been acknowledged that a cognitive discussion of avant-garde film is best equipped to address a specific set of questions relating to perception and comprehension, and is not intended to replace other methodologies. Other approaches have been briefly discussed that can serve to deepen one's relationship with a film. In addition, Peterson's *Dreams of Chaos*, *Visions of Order* has been detailed and critiqued, which is a notable precursor to this book. Implicit within the following analysis is the conviction that avant-garde films, taken broadly, need not be understood in terms of the negation or the denial of pleasure. Rather, they forge new routes to aesthetic interest that allow favourably disposed spectators to think, experience and conceive in novel ways.

Notes

1. Consult Peter Gidal's Materialist Film (1989), David James' Allegories of Cinema (1989) and Lauren Rabinovitz's *Points of Resistance* (2003) for examples of texts that focus on the ideological dimensions of avant-garde film.

2. See online synopsis of *Raindance* on the Canyon Cinema website: http://canyoncinema.com/ catalog/film/?i=1470.

3. Peterson follows Bordwell's lead, who claimed in *Narration in Fiction Film* that the heuristics (i.e. loose rules of thumb) needed for making sense of mainstream films are more widely shared than those used for art films (Bordwell 1985: 154). Avant-garde films appeal to heuristics that are more specialized still. Bordwell's discussion of schemata and heuristics is extended in chapter six of *Making Meaning* (1989).

4. Paraphrased from Camper's online article 'Naming, and Defining, Avant-Garde or Experimental Film' available at: http://www.fredcamper.com/Film/AvantGardeDefinition.html.

5. See also: A. Rees A History of Experimental Film and Video (2011: 3–4) and L. Rabinovitz Points of Resistance: Women, Power, and Politics in the New York Avant-Garde Cinema, 1943-71 (2003: 14–15).

6. Quoted in By Brakhage: An Anthology Volume Two. Disc 3, Brakhage on Brakhage.

Part I COGNITION

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CHAPTER I

THE SPECTRE OF NARRATIVE

A specter is haunting the cinema: the specter of narrative. If that apparition is an Angel, we must embrace it; and if it is a Devil, then we must cast it out. But we cannot know what it is until we have met it face to face.

- Hollis Frampton, 'A Pentagram on Conjuring the Narrative'.

'The rejection of linear narrative', according to P. Adams Sitney, is '*nearly* a defining feature' of the avant-garde (1978: vii [italics added]). His provisional commitment to the importance of the rejection or displacement of narrative speaks of other elements that come into play when defining avant-garde film. Commercial motivations, production processes and means of financing and distribution may also have a bearing on a film's status as avant-garde (Smith, 1998: 395). Evidently, the avant-garde is not defined solely by its use, rejection or renegotiation of narrative. But as Sitney suggests, the manner in which narrative is negotiated is a central topic, albeit a contentious one. If there is a lack of unity amongst filmmakers and scholars about how the avant-garde negotiates or should negotiate narrative, it is because both 'narrative' and 'the avant-garde' are equally elusive terms, and while theories have been proposed, there is no definitive consensus about what constitutes a narrative, or an avant-garde work of art.

This chapter will begin by suggesting that narrative and avant-garde film are sometimes assumed to be alien to one another, without mutual significance. The goal, then, will be to challenge this assumption by demonstrating how narrative is sometimes present in avant-garde films, albeit in unconventional ways. After explaining in detail some of the ways in which avant-garde films can work obliquely with narrative, this chapter will propose two types of strictly nonnarrative form in avant-garde film that call upon alternative methods of engagement to narrative comprehension.

This discussion fits into the broader themes of the book in two principal ways. First of all, the subject of narrative is one of several recurring themes in discourse about avant-garde film that has also been widely discussed in the field of cognitive science.¹ In addition, the model of avant-garde filmmakers working as practical psychologists is also pertinent here. Commercial filmmakers utilize the audience's ability to follow an ordinary narrative, and the viewer will typically follow the storyteller's lead without conscious effort. The filmmaker might still challenge the viewers – withholding information, surprising or misleading them – but they will rarely compel the audience to pay attention to their own habits of mind, or risk confounding them without an eventual reinstatement of coherence. Some experimental filmmakers, by contrast, oftentimes subvert the pervasiveness of traditional narrative as a mode of engagement in cinema, and also compel the viewer to appeal to other sense-making skills that are less widely exercised in film-going experiences.

Thus, instead of providing an experience whereby the viewer is called upon to exercise their previously well-rehearsed skills in following a narrative, the avantgarde filmmaker provides a novel experience in a variety of ways that will be detailed in this chapter. In short, the viewer might need to make bolder inferences in order to discern the story that is being presented obliquely onscreen. They might also need to adapt their viewing habits and learn to let go of expectations of a conventional story, even though narrative expectations are cued. Allegorical messages might be identified, even if they are not couched in a conventional story. The film might also call upon the viewer to pay closer attention to the feelings evoked by the film, instead of attempting to 'understand' it in a conventional sense. When narrative comprehension is challenged, the avant-garde may reveal experiences and pleasures un- or under-rehearsed in cinema that expand the viewer's sensitivities and range of engagement skills.

To begin with, this chapter will provide an overview that surveys contrasting attitudes on the relationship between narrative and avant-garde film amongst scholars and artists. Following this, aspects of the cognitive position on narrative will be detailed; the concept of narrative as a mode of thought (as opposed to a text-structure) will be considered, an explanation for the pervasiveness of narrative will be outlined, and so will David Bordwell's model of narrative comprehension (which is informed by cognitive theories of mind). Following this, four studies will explore some of the ways in which narrative norms have been challenged and subverted by avant-garde films. Finally, two alternative systems of organization to narrative will be proposed: catalogue form, and the meditative film. The implications of these alternative systems of organization on the viewer's comprehension skills will be explored.

Perspectives on Avant-Garde Film and Narrative

The resistance to narrative amongst artists in theoretical writing stretches back to the 1920s. Dziga Vertov declared in 1923: 'As of today cinema needs no psychological, no detective dramas. As of today – no theatrical productions shot on film . . . Into the confusion of life, hereby decisively enter' (Vertov 1978 [1923]: 7). In the 1940s, Maya Deren compared cinema's dependence on narrative to airborne planes flying above and along earth-bound highway routes and train lines. She comments:

What has been most responsible for the lack of development of the cinematic idiom is the emphatic literacy of our age. So accustomed are we to thinking in terms of the continuity-logic of the literary narrative that the narrative pattern has come to completely dominate cinematic expression in spite of the fact that it is, basically, a visual form. (Deren 2005 [1959]: 27)

In a branch of cinema that polemically defines itself as liberated from traditional conventions, narrative form is sometimes referred to as a 'constraint'. Wheeler Winston Dixon and Gwendolyn Audrey Foster, for instance, state:

The American experimental filmmakers [were inspired] to abandon the constraints of narrative and to create something more ambitious. . . [Man Ray, Kirsanov, Léger and others] heralded the birth of a new freedom in the cinema, wherein narrative became secondary to visual poetry. (Dixon and Foster 2002: 3)

Similarly, Michael O'Pray characterizes avant-garde work as 'unburdened by narrative' (O'Pray 2003b: 56) and refers to 'the avant-garde's predilection for disjoined forms and structures in which "narrative" played no part' (O'Pray 2003a: 14). Peter Gidal does not just refer to his film work as 'non-narrative', but as 'anti-narrative' in a more defined act of expulsion (Gidal 1979). From Gidal's perspective, surrealists and post-World War I American filmmakers such as Maya Deren and Kenneth Anger would have undermined their oppositional status by incorporating 'dramatic' elements into their films.

For Malcolm Le Grice, the use of cinematic forms that do not conform to narrative conventions is the avant-garde's major claim to intervention on an aesthetic, ideological and political level. His objection to narrative form lies in the ideology hidden beneath the unproblematic 'linearity' of presentation that is made invisible and validated in dominant culture.

This linearity of causal sequence is by definition authoritarian. Even if the content is transgressive or anarchic, the form locks the audience into a consequence that unifies the subject impotently with and within the narrative. It is the linear coherence of the narrative and its conclusion that repress the subject

(viewer) by implicitly suppressing the complexity of the viewer's own construction of meaning. Transmitted as a culturally validated convention, narrative subsequently becomes a model by which experience is interpreted – that is, becomes a filter for the life experience outside the cinematic (Le Grice 2001 [1997]: 292).

Not all theoretical texts on avant-garde film assume that narrative is or should be entirely removed. Annette Michelson, an advocate of the avant-garde, claims that the crux of cinematic development lies 'in the evolution and redefinition of the nature and role of narrative structure' (1978 [1970]: 410). The avantgarde would be the place for this development to occur. Murray Smith comments that 'narrative has been displaced, deformed, and reformed [in the avant-garde], rather than simply expunged altogether' (Smith 1998: 397). Similarly, Edward Small comments that 'when experimental film/ video does deal with narrative ... it typically presents fragmented narratives that tend to confound the conventions of classical continuity' (Small 2005: 21).

Writing in the late 1980s, Tom Gunning referred to what he termed the 'submerged narratives', found in the work of Phil Solomon, Lewis Klahr and other members of a tendency he dubs 'minor cinema'. He comments that in their works, 'plots stir just beneath the threshold of perceptibility. The sea swells of these subliminal stories align images into meaningful but often indecipherable configurations' (Gunning 1989–90: 4). In the passage quoted from Sitney at the beginning of this essay, he took care to comment that linear narratives are rejected, implying that non-linear narratives sometimes take their place (one would assume that, like Le Grice, linearity refers to a causally linked chain of events, although this is not made explicit).

This chapter assumes a moderate position on the relationship between avantgarde film and narrative, echoing and refining the claims made by Michelson, Smith, Small and Sitney by suggesting that while narrative reigns supreme in commercial cinema, it has been productively renegotiated within the avantgarde on some occasions, and outright rejected on others. As such, it may be understood as a starting point of creative intervention if it is productively reformulated. This chapter will consider how this is achieved. Before considering the use of narrative in avant-garde film in a series of case studies, however, we can form a conceptual framework of narrative by exploring it in a cognitive context.

Cognitive Narratology

Thus far, it has been established that writers and artists are divided on the function and presence of narrative in avant-garde film. All agree, however, that it is not used in a conventional sense. If avant-garde films are designed to exercise the mind in ways that are unfamiliar in commercial forms of filmmaking, why did narrative become the dominant organizational form in cinema to begin with? This is a question that cognitive researchers have addressed.

According to cognitive theories of mind, narrative form is as pervasive as it is because the ability to think within a narrative framework is an important tool for making sense of the natural world. General audiences appear to have a preference for the clarity of linear narrative in cinema and literature because mentally organizing the varied and tangential array of events in our daily activities into a causally linked chain of events creates clarity and our lives become manageable. As such, developing narrative comprehension as a mode of thought is a fundamental part of human cognitive development. Studies in artificial intelligence have shown that acquiring this skill requires detailed linguistic and cognitive operations (Mateas and Sengers 1999; Herman and Young 2000), so if it is not innate, this otherwise complex process is readily learned. We are hardwired to develop this ability, because it is one of the most powerful mechanisms the mind possesses for making sense out of the complicated events of the world.

In On the Origin of Stories: Evolution, Cognition, and Fiction, Brian Boyd comments that in order to manage our lives as efficiently as we do, our minds must have been prepared before birth to learn the information specifically relevant to human problems (Boyd 2010: 39). Through evolution, the mind has been tailored towards seeking meaningful patterns (including narrative patterns) from birth, even if this skill is only fully developed later. Evolutionary psychologist Henry Plotkin explains that the world can be partitioned, described and learned about in an infinitely large number of ways. As such, if a truly general-purpose learning device was let loose in the world without constraint, it could begin acquiring information about the world in an infinitely large number of search paths. In turn, the device would be unlikely to learn anything that is biologically useful within a single lifetime. Through evolution, we address this problem in the following way:

[Evolution gains] knowledge of the world across countless generations of organisms, it conserves it selectively relative to criteria of need, and that collective knowledge is then held within pools of species. Such collective knowledge is doled out to individuals, who come into the world with innate ideas and predispositions to learn only certain things in specific ways. Every human, every learner of any species, begins its life knowing what it has to learn and be intelligent about – we all come into the world with the search space that we have to work in quite narrowly defined. (Plotkin 1997: 173, quoted in Boyd 2010: 40)

Generating narratives is also central in the transmission of knowledge. Soon after toddlers develop the ability to speak, they begin creating narratives out of their own experience and they also become interested in the stories around them. There is ecological value in understanding events in narrative terms then – it is adaptive to pass on your experience to others. Most forms of personal

experience² cannot be transmitted from one generation to the next genetically, but change and adaptation are crucial for survival. In narratives, meanings are stabilized and lessons are learned from one's own experiences that can be applied to future situations (Anderson 1996: 144).

It is the very pervasiveness of narrative for reasons explained by Boyd, Plotkin and Anderson that may underscore the impulse of avant-garde artists to challenge or reject linear storytelling, as well as the desire to create work that calls upon the spectator to generate meaning independently, rather than having it served to them. If avant-garde filmmakers aim to provide mental activities for their spectators that are generally unrehearsed in the cinema, abandoning narrative comprehension (or creating challenges in doing so) would be a fertile creative starting point. The viewer is left to find other avenues with which to engage with the work.

Up to this point, it has been established that there is a disparity amongst artists, critics and theorists as to what role narrative should serve avant-garde film. We have also considered why narrative is so widespread, and why avant-garde artists are compelled to challenge its application. But what is the nature of narrative? Within a cognitive context, narrative is understood as a mode of thought, rather than as a text structure. Both of these ways of looking at narrative enable and give form to the other; however, if a film is organized by a narrative structure, it will accordingly facilitate a narrative mode of engagement.

In 'The Narrative Construction of Reality', for instance, Jerome Bruner (1991) argues that narrative operates as a mental instrument in the construction of reality. While describing some of its properties, he moves throughout the article between mental 'powers' used to navigate the natural world, and the elements of narrative discourse that trigger these powers when engaging with a fictional story. For Bruner, a narrative will feature a chain of causally linked events taking place over time, while equilibrium is disrupted and reinstated through intentional agents. This definition is a commonplace list of characteristics for those who think of narrative as a text structure, yet for Bruner these textual elements serve as *cues* for the spectator's mental activity. The focus is on the viewer's activity rather than the text itself, but both can be understood as different 'faces' of the same phenomenon. While the different emphases of the two traditions should be understood, they also share an underlying connection.

David Bordwell provides a general model for the ways in which spectators respond to narrative film in a long-standing theory first introduced in *Narration in the Fiction Film* (1985) and later developed in *Poetics of Cinema* (2008). Central to his model is the assumption that the spectator draws on real-world knowledge and awareness of narrative conventions in order to go beyond the information given directly in the film. Previous theories of narrative, Bordwell suggests, downplayed the viewer's role or characterized them as passive victims of narrational illusion who are 'positioned' by narrative. In Bordwell's theory, a nar-

rative film cues the spectator to execute a variety of operations, and so his central line of enquiry asks what the spectator does when comprehending a narrative film, and what features of the film solicit narrative comprehension.

Bordwell's model operates on the assumption that perceiving and thinking are active, goal-oriented processes, and so a spectator constructs a perceptual judgement on the basis of non-conscious inferences. Not everything that is relevant to the story is directly declared in the film itself, so the narrative is tailored to encourage the spectator to execute story-constructing activities, going beyond the information given to flesh out the story.³ This is done with the use of schemata – organized clusters of knowledge that guide our thought processes. Cues, patterns and gaps are presented that shape the viewer's application of schemata and the testing of hypotheses. When information is missing, perceivers will make inferences or guesses about it. If events are presented out of order, perceivers will mentally reorder them. Spectators will also seek causal connections between events, both in anticipation and also in retrospect. Bordwell summarizes his model in the following way:

the perceiver of a narrative film comes armed and active to the task. She or he takes as a central goal the carving out of an intelligible story. To do this, the perceiver applies narrative schemata which define narrative events and unify them by principles of causality, time, and space. Prototypical story components and the structural schema of the 'canonical story' assist in this effort to organize the material presented. In the course of constructing the story the perceiver uses schemata and incoming cues to make assumptions, draw inferences about current story events, and frame and test hypotheses about prior and upcoming events. (Bordwell 1985: 38–39)

When discussing the events depicted and the psychological elaborations spectators create, Bordwell distinguishes between the plot (all of the events directly perceived), and the story (the sum total of the events that take place in the tale, both perceived and inferred). The story is the product of inferential elaboration that the spectator constructs while engaging with the plot. Style interacts with plot to create the story. While plot refers to the information that is imparted, style refers to the way that the information is framed within the use of cinematic techniques – mise en scène, cinematography, editing and sound (ibid.: 49–53).

Narration, then, can be understood as the process by which the film prompts the viewer to construct the ongoing story on the basis of the plot as it is presented, while interacting with style. Plot guides our comprehension of the story; it can juggle the order of story events with a flashback or flash forward, and a retardation in the plot can delay the revelation of information, postponing complete construction of the story in order to arouse curiosity, suspense and surprise. The plot can provide an omniscient range of knowledge, but it can also restrict the flow of information to what a single character knows. Since the spectator's drive to anticipate narrative information is ongoing and insistent, hypotheses are continually validated and disqualified. Exploiting the tentative, probabilistic nature of mental activity, narrative film both triggers and constrains the formation of hypotheses and inferences. Expectations are strategically aroused and then validated, undermined or left open.

With all of this in mind, we can consider the ways in which a series of avantgarde films cue or challenge the spectator's ability to psychologically elaborate on the plot – the representational information presented by a film – in order to build a coherent story. Do these films facilitate these activities? Do they restrict the flow of knowledge as traditional narratives do? Do they prompt hypotheses, and are these hypotheses then validated or undermined?

One additional element of Bordwell's model - his consideration of protagonists – will be outlined before the case studies are considered. A typical narrative will feature an array of characters, and the spectator will intuitively grasp a hierarchy of characters with a central protagonist at the core. The central protagonist will typically be given the most screen time, and we will see most of the action from their point of view. Their value system will most likely give the film its moral compass, and they will undergo an internal change during the course of the story (i.e. learn a life lesson). The central protagonist is usually the one with whom we sympathize most keenly, and they will mobilize the thrust of the story. To simplify the process of characterization, filmmakers will use archetypes when introducing a narrative agent, allowing spectators to project a whole cluster of personality traits onto him or her (ibid.: 115). When dealing with archetypes, spectators can quickly infer the gist of their personality – the obnoxious lawyer, the cop who does not play by the rules, the mischievous boy, and so on. Narratives usually give strong first impressions of characters that establish the conceptual ground rules.

Facial expressions are an important tool when using characters in a narrative film. Following Smith (1995: 98–106) and Carl Plantinga (1999: 239–55), Bord-well comments that aside from revealing mental states, facial expressions can also invoke 'emotional contagion' and 'affective mimicry' (2012: 116) when the viewer copies the expressions or gestures they are watching (usually in weakened form). When this occurs, the spectator might 'catch' the emotion they see on-screen, increasing their empathetic response.

These issues will be considered in the forthcoming case studies. Are protagonists employed in the same way in avant-garde films? Are there easily identifiable central protagonists? Are psychological shortcuts employed through archetypes to simplify characterization? Are spectators equally prone to emotional contagion and affective mimicry in avant-garde films? What variations among different types of avant-garde films do we find in relation to these questions? In the next section, we will consider whether avant-garde films cue the spectator to execute the same set of operations as narrative films. If they are different, we will consider *how* they are different.

Renegotiating Narrative in Avant-Garde Film

To restate a central goal established in the introductory chapter, one of the broad purposes of this book is to examine how avant-garde films guide the spectator's mental activities in ways that are unfamiliar in commercial cinema. Now that a general model for narrative comprehension has been outlined, we can consider some of the ways in which specific avant-garde films challenge familiar skills that spectators typically exercise when watching conventional narrative films. Note that the purpose of these case studies is not to explain precisely how spectators will respond to each film, since there will always be an element of subjectivity and some variation in response between individuals. Rather, we can consider the ways in which the films themselves present challenges to some of the spectator's basic skills of narrative comprehension.

While avant-garde films do not consistently abandon *all* of the traditional cues to narrative convention, such cues are typically altered in avant-garde film-making. The field of avant-garde film is too broad to be definitively schematized, but possible 'renegotiations' of our mental powers in the construction of narrative could include the following:

- A chain of events may feature, but would not necessarily be linked according to dramatic consequence. They might instead be connected 'thematically', or according to graphic interest.
- Shot-to-shot relations may mark a coherent passage of time, but they might instead be framed within a neutral temporal grid, in which there is no linear temporal progression, flashback or flashforward.
- Agents often feature, but not prototypical character types. They may be psychologically opaque, with unclear motivations, intentions and thoughts.
- The film will not typically be motivated by a disruption and subsequent reinstatement of equilibrium.
- The spectator's ability to elaborate on the events represented and infer other events that took place may be more restricted than in the case of traditional narrative films.

These elements will be considered across a series of case studies that have been previously categorized as avant-garde films. The first, *The Life and Death of 9413:* A *Hollywood Extra* (1928) solicits relatively conventional activities for narrative comprehension, but incorporates stylistic idiosyncrasies. The second and third case studies, *Lucifer Rising* (1980) and *Valse Triste* (1977) both contain what will be termed 'veiled' narratives. Failure to discern the appropriate strategy for narrative engagement (in the case of *Valse Triste*) or lacking the suitable specialist knowledge (in the case of *Lucifer Rising*) will prevent the spectator from inferring the story (sum total of events seen and inferred) from the plot (events depicted

onscreen). In both of these case studies, the embedded narratives will be outlined, but closer attention will be paid to the way in which these films tell their stories and their effect on the spectators. The fourth case study, *At Land* (1944), cues narrative expectations by presenting a central protagonist on a quest, but without adhering to spatial, temporal or causal logic. Instead, the viewer is invited to draw out an allegorical reading of the film, even if this interpretation is not couched in a conventional story.

Collectively, the case studies demonstrate that narrative need not be understood as a 'demon' of cinema – to return to Frampton's imagery in the opening quotation to this chapter – that is, an oppressive and constraining force that the avant-garde filmmaker must exorcise. Narrative can instead be thought of as a system of mental cues that has, at times, been productively renegotiated by avantgarde artists to provide novel aesthetic experiences. Above all, before we cast narrative as either 'angel' or 'devil' or something else again, we must meet it 'face to face' – that is, carefully examine just how it works in a range of avant-garde films.

Self-reflexivity, Absurdist Humour and Style-Centred Narrative in The Life and Death of 9413: A Hollywood Extra (1928)

Robert Florey and Slavko Vorkapich's *Hollywood Extra* demonstrates that a film that cues an unambiguous narrative mode of comprehension is not necessarily excluded from the avant-garde as long as other stylistic, institutional and ideological factors are in place. The ease with which the narrative may be understood speaks of Florey and Vorkapich's creative goal as film artists to influence commercial practice rather than inspire an avant-garde outside it. Instead of risking cultural and commercial marginalization, the film was domestically produced and circulated as an experimental art film, and found industrial recognition (James 2005: 43). It tells the story of an actor, seduced by the glamour of Hollywood, who attempts to develop a career in the film industry. By the end, he is dehumanized and destroyed by his failure to achieve stardom. Poverty stricken, he dies and ascends to heaven where he regains his individuality and finds solace and fulfilment as a 'star' in the heavens. The allegorical statement is unmissable: Hollywood chews up hopeful actors and then spits them out, but there are greater goals we can aspire to than being a movie star.

Stylized with expressionistic lighting, bold compositional lines and angles, and a static camera, the film is punctuated with handheld, on-location footage of Hollywood with natural lighting. The actors perform with deliberately hammed, exaggerated gestures and simple props, and the editing patterns shift from brief continuity-based scenes to montage sequences. We begin by seeing the protagonist (henceforth 9413) bedazzled by Hollywood's city lights, prompting viewers to infer that he has just arrived. In the next scene, he appears in a casting agent's office. Assuming a causal chain of events and linear passage of time, viewers are

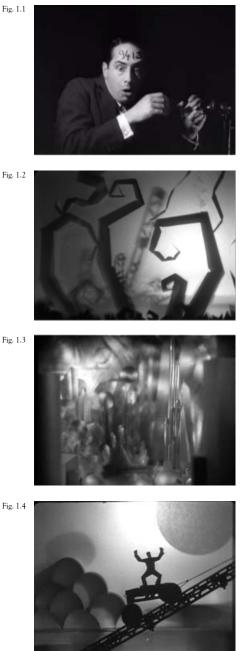
cued to infer that 9413 most likely moved into a rented flat, researched for locations of casting agents, and prepared a portfolio before travelling to the office. Viewers are already cued to infer the story from the plot.

While 9413 attempts to succeed in Hollywood, the spectator is presented with images of money being handled, the word 'dreams', shoes being shined and a barber's pole. Seeking a narrative salience, viewers are cued to infer that 9413 is spending his money in search of his dreams in an effort to look presentable while seeking work. Suffering repeated rejections from casting agents and overwhelmed by bills he is unable to pay, 9413 lays his head down, defeated. The next image reveals his gravestone. Again, viewers are cued to mentally elaborate, this time by inferring that 9413 died alone, his body was discovered and he was buried in a pauper's grave.

In addition to its use of commonplace narrative cues to prompt the spectator into making narrative elaborations, the use of a protagonist in Hollywood Extra is conventional as well. A protagonist is one of the first things we look for in a narrative, and 9413 is unambiguously signposted as such. He has the most screen time, and we sympathize with him more than anyone else. He also experiences the greatest internal changes in the story (learning the hardships of life in Hollywood, and that it is better to be an angel in heaven than a Hollywood star). His face also lends itself vividly to emotional contagion and affective mimicry quite gratuitously on occasion, with exaggerated expressions. To a degree, the film's performance style can be explained by the norms of mainstream silent film acting, which are more overtly expressive than modern-day acting norms, but Hollywood Extra self-consciously overplays this. In one sequence pictured on the following page, 9413 suffers another rejection from the casting agent over the phone. After looking dejected for a moment, he then recoils in dread as bills that he is unable to pay fall through his letter box (Figure 1.1). In this narrative context, the actor's performance can evoke a vivid empathetic reaction, and the viewer might copy the gesture or expression of the character in muted form.

Hollywood Extra may prove to be an exception to the rule that avant-garde films disrupt narrative norms, and it is also an exception to the broader claim set forth in this chapter that avant-garde films provide cognitive challenges that are not typically rehearsed in other cinematic traditions. Minimal challenges are made to the viewer's comprehension skills in this case study. This may be understood in light of the fact that Florey and Vorkapich sought to influence Hollywood by working within it, rather than risking cultural marginalization.

Why is it canonized as an avant-garde film, then? David James comments that *Hollywood Extra* anticipates the post-war minority cinemas in which disempowered social groups on the edge of the industry sought to represent themselves and articulate their own resentments about the financial hardships they faced and the poor treatment they received at the hands of studio executives (2005: 47). In acknowledging the seductive power of Hollywood while simultaneously



Figures 1.1–1.4. Stills from The Life and Death of 9413: A Hollywood Extra (1928). Screen captures by the author.

inhabiting an equivocal undercurrent, the film serves as a precursor to the work of Kenneth Anger, Jack Smith, George Kuchar and Andy Warhol, all of whom also developed their own ambivalent relationships with Hollywood. James comments that this particular film, by virtue of its chosen subject matter, is the 'prototypical twentieth century avant-garde film' and that 'often what we have come to call avant-garde films [that] should be understood as the realization of dissenting impulses and counter movements on the margins of the dominant mode of film production' (ibid.). In making this argument, James implies that the narrative status of a film is immaterial as to whether it is avant-garde or not. Rather, the spirit of dissent is at the core of the avant-garde, while the formal design operates flexibly as in relation to that independent spirit. Narrative is arguably one formal resource among many available to the avant-garde filmmaker - a claim that stands in direct opposition to those cited earlier by Wheeler Winston Dixon, Michael O'Pray and Malcolm Le Grice.

It should be noted, however, that the 'spirit of dissent' is not within the sole province of the avant-garde. Michael Moore's documentaries, for example, also feature a dissenting impulse but it is manifest in a different way. However, in addition to James' dissenting impulse as being indicative of Hollywood Extra's status as an avant-garde film, and issues of funding and circulation, there are other elements that lend the film oppositional credibility without placing great challenges on the spectator's comprehension skills

Some of the stylistic flourishes in *Hollywood Extra* evoke the expressionistic style of films of the 1920s, as found in the work of F.W Murnau, Fritz Lang and Robert Wiene. Like *The Cabinet of Dr Caligari* (1920), for instance, visual form is used in the scenery to denote psychic states. As 9413 fails to gain recognition as an actor, Hollywood becomes a cruel and threatening environment with scorpion-like claws looming overhead (Figure 1.2).

Some of the mise en scène and cinematography, such as the closing image of heaven (Figure 1.3), bears a visceral, graphic quality comparable to that of abstract films of the time with the use of soft focus, rotating light sources, superimpositions and cardboard models – as found in Mary Ellen Bute's *Rhythm in Light* (1936), for example. But a superficial similarity to contemporaneous avant-garde films in sequences that are couched in clear narratives, as we also find in the stargate sequence of 2001: A Space Odyssey (1968), does not on its own station a film within the avant-garde.

One element that contributes to the 'radicalization' of *Hollywood Extra* is that it is self-reflexive, drawing attention to its own artifice. At the beginning, 9413 is supposedly bedazzled by the bright lights of Hollywood. As the film cuts between his face and the artificial city, he is clearly in a darkened studio. He shifts his head in short, abrupt movements with hammed wide-eyed wonderment, mouthing 'ooh!' 'aah!' as he pretends to gaze. In over-playing his performance (even by the performance norms of the time), the actor provides an implicit 'wink' to the audience, implying that he is not, in reality, staring at a city. Rather, he is inside a studio. In addition to this, any dialogue spoken by the actors is visibly mouthed as 'ba-ba' rather than anything that could plausibly relate to ordinary speech. Attention is also drawn to the artifice of the film towards the end when 9413 ascends to heaven in a string-pulled cart. No effort is made to hide the fact the character, at this moment, is a paper cut-out (Figure 1.4).

The very title of the film is a cue to understand it as an allegory. On occasion in *Hollywood Extra*, events and scenarios are so comically absurd that they should be taken as allegorical rather than literal. For instance, a letter written to a studio director is addressed to 'Mr Almighty' – evidently a joke about the excessively esteemed social level that casting directors are bestowed in the film industry. In another scene, each aspiring actor's new status as a 'product' upon their arrival in Hollywood is marked by their assigned number being written on their forehead. To demonstrate that each actor sheds their individual identity in order to bend to the generic demands of movie stardom, they all perform in simple face masks. In another sequence, the protagonist metaphorically struggles to 'climb the stairway of success' and keeps reappearing at the bottom of a literal stairway in a series of jump-cuts as he tries to progress to the top. When human behaviour in *Hollywood Extra* seems excessively improbable, it may be interpreted allegorically.

Finally, *Hollywood Extra* is stylistically flamboyant and disjunctive. The film is, at times, filmed with actors in a controlled studio environment; at other times,

it features misframed (by commercial standards), handheld documentary footage of Hollywood; at other times, cityscapes are made from cardboard cut-outs with studio-controlled lighting. This inconsistency, from highly controlled artificial sets to handheld location shooting, is not couched in the service of the narrative. Instead, the stylistic eclecticism can be understood as a creative synthesis of the expressive options available to the filmmakers. Rather than being motivated by the narrative (e.g. a dream, or flashback) the shifts in style are tailored to be an independent object of attention in themselves.⁴

According to Bordwell, typically the plot (information presented) controls the stylistic system (mise en scène, cinematography, editing and sound) when constructing the story. In a film like *Hollywood Extra*, stylistic techniques can be applied that are not justified by the plot's manipulation of story information. Since the bold alternations in style possess no clear link to the developing plot and story, it may be that in *Hollywood Extra* the style has come forward to claim our attention independently from the story that is being told. Stylistic flourishes can be made and attended to for their sheer visceral appeal. Bordwell's idea of a stylistic flourish here bears similarity with Roland Barthes' notion of a film's 'third meaning', lying beyond denotation and connotation: the realm in which stylistic elements become 'fellow travellers' of the story (Barthes 1977: 64, cited in Bordwell 1985: 53).

It is the stylistic flourishes, self-reflexivity and comic absurdity of the characters' behaviour that tells us that Florey and Vorkapich did not just set out to tell a simple story. To fully appreciate the intentions of the filmmakers, attention must be paid to elements that are not essential to the construction of the story. In this instance, then, a canonical avant-garde movie broadly fulfils the criteria of a traditional narrative-dramatic film – albeit with an idiosyncratic style.

Released today, Hollywood Extra with its easily discernible narrative and stylistic flourishes might sooner be considered an independent film, closer in spirit to a filmmaker like Michel Gondry or Wes Anderson rather than Robert Beavers or Ben Rivers. However, distinctions between commercial filmmaking and narrative cinema, which sits stylistically on the fringes, did not exist at the time of Hollywood Extra's release. In the 1920s, films with a relatively unambiguous narrative line of action like Hollywood Extra, such as La Glace à Trois Faces (1927) and Soul of the Cypress (1921) fell within the avant-garde's extension, alongside non-linear character-based films such as The Seashell and the Clergyman (1928), Un Chien Andalou (1929) and The Fall of the House of Usher (1928) – all of which worked with a less clearly defined chain of causally linked events. Avant-garde film may have strayed further from the routine of cueing narrative comprehension as a mode of engagement, as the difference between commercial filmmaking and the 'prestige' movies such as Italian neorealism became more defined from the 1940s onwards. I would suggest that as 'art cinema' crystallized as a separate branch of filmmaking practice, avant-garde film became more radicalized as an 'alternative' cinema.

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Narrative and Allusion in Lucifer Rising (1980)

Hollywood Extra demonstrates how, in the 1920s, an avant-garde film could tell a linear story and put relatively few demands on the spectator's comprehension skills. Instead, it was self-reflexive, absurdist, stylistically disjunctive and 'oppositional' in its critique of Hollywood. The following case study demonstrates one of the possible ways in which a filmmaker can challenge the spectator's skills of narrative comprehension without abandoning them entirely.

While Kenneth Anger considered *Lucifer Rising* to be the culmination of his life's work during production (Cott 1970: 16), it is not widely considered his best film. Over thirty years since the completion of the *Magick Lantern Cycle*, *Scorpio Rising* is perhaps the film best remembered as his chef-d'oeuvre. But while *Lucifer Rising* is arguably his most elaborate, ambitious and formally sophisticated work, it is also perhaps his most elusive. This, it will be argued, is because of the unusual way in which he arranges the plot so as to challenge the construction of a coherent story if the spectator lacks prior, specialist knowledge. He has commented in an interview (1972):

my films are, even though it may be a surprise to hear this, I consider them narrative films. In other words I have characters – I don't necessarily say 'this is Tom, and this is Dick and this is Harry'... but my [films] do have human characters in them. They follow through a progression and development... In visual terms, you're introduced to a character.

By leaving out an explanation of who Tom, Dick and Harry are in his narratives, Anger refrains from contextualizing characters and scenarios. The gaps in narration that occur in *Lucifer Rising* are not comparable to the concept of 'retardation' – salient pieces of information that are omitted to arouse curiosity. Basic contextual information is omitted that would enable the spectator to understand the motivations of each character, elaborate in detail beyond the information presented, and mentally construct a coherent story. This is not to suggest that Anger assumes a spectator with highly specialized knowledge. Rather, viewers who are familiar with the relevant mythology may appreciate the film on one level, but another response to the film is accommodated for the majority of viewers who are not already familiar with the relevant specialist knowledge.

The way in which Anger tells his story may be loosely comparable to the allusion of stories in paintings. Consider Sandro Botticelli's iconic *Primavera* (1482) (Figure 1.5). Without contextual knowledge, the painting looks like a pastoral scene with an assortment of subjects engaged in personal activities. Three women dance, a man picks an apple, a cherub fires an arrow and other events take place. Viewers with the relevant specialist knowledge will recognize that the painting is an allegory for the lush growth of spring, inspired by the poem 'De Rerum Natura' by Lucretius. Various mythological characters are depicted. For instance, Venus, the Goddess of love, stands in the middle within an arch. The

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Figure 1.5. Botticelli's La Primavera (1481). Courtesy Wikimedia Commons.

Three Graces, companions of Venus standing on the left, dance at the onset of spring. Mercury (on the far left) inspects the orange grove, and Amor (the blind-folded cherub) fires an arrow of love (Montresor 2010: 18–21).

The painting can be enjoyed with or without this contextual knowledge – for the atmosphere that it evokes, or its formal use of colour or compositional balance, for instance. But contextual knowledge alters the experience of the painting, since the surrounding myths that inspired the scene cannot be discerned from the work alone. Nor can the painting be fully interpreted without this contextual knowledge – we cannot understand the significance of the physical gestures or the activities of the various characters. *Primavera* may still be appreciated without contextual knowledge, even if the various references are not recognized.

Lucifer Rising operates on a similar basis. Anger's unique contribution in renegotiating narrative form is that he fashioned the plot in *Lucifer Rising* in such a way as to render the story indiscernible to viewers who are not familiar with the relevant mythologies. For the unfamiliar, the film feels like a series of arcane and mysterious allusions (like *Primavera*), presented sequentially, rather than consequentially. For viewers familiar with the relevant mythologies, the film features a series of causally linked events, with intentional agents and a linear trajectory.

The film is scored with a prog rock soundtrack, and the camera remains largely static. Like *Hollywood Extra*, continuity edits are used sparingly and much of the film is edited in montage sequences. There is no dialogue or use of intertitles, and a series of events occur without contextualization that will be perplexing to the

uninitiated. For example, a man and woman in ornate Egyptian clothes signal to one another with staffs. Another man waves a wand at a statue of a hawk, and a woman dressed in grey worships at the face of a Sphinx. Later, a man stands under Stonehenge and performs a ritual, while a woman climbs an ancient pillar. A priest performs a ritual around a circle, and another man appears shortly afterwards with 'Lucifer' written on his jacket. Other similarly mysterious events take place. The film appears to contain the ingredients of a narrative – motivated agents shifting between a series of scenarios – but it is not clear what story motivates these various sequences. Presented with the visual events alone, the viewer is limited in their capacity to develop predictions that will be validated or undermined, because the contextual information that underpins the various events is never made clear. The viewer is also restricted in their ability to make inferential elaborations, join events causally or construct a coherent story.

All narrative-dramatic film relies implicitly on contextual background knowledge, which is typically used unconsciously and effortlessly. *Saving Private Ryan* (1998), for instance, can be contextualized with prior knowledge about World War II. Likewise, *Brassed Off* (1996) is enriched by prior knowledge about British mining communities in the 1980s. *Lucifer Rising* draws from a radically different culture – a set of esoteric myths rather than a historical context. In addition to this, prior knowledge does not just enrich and contextualize the film, it is needed for basic coherence when drawing meaningful connections between the events that take place. As such, the unconscious use of contextual knowledge when engaging with a film becomes more explicitly apparent in *Lucifer Rising*.

Anger draws from lore that was synthesized by Aleister Crowley (b.1875– d.1947), an English occultist who developed his own belief system, Thelema, which fused Egyptian, Judaic, Babylonian and Hindu mythologies. Drawing from astrology, Crowley believed that 'aeons' (lasting approximately 2,150 years each) correlate to the rise and fall of civilizations and cultural tendencies. Recent cultural changes were thought by Crowley to indicate that the human race was shifting from the Piscean Age of Christian rule, characterized by self-sacrifice and submission to God, into the Aquarian Age under Lucifer's rule, which is characterized by free-spirit and rebellion (Bills 1993: 362). The central trajectory of *Lucifer Rising*, then, features a dramatization of the shift from the Piscean Age to the Aquarian Age.

To examine the way in which a sequence could be experienced in light of specialist knowledge, we can consider a scene towards the end of the film. A man stands in an open field, summoning lightning, while rocks burst from the earth. A coil briefly appears, and we see a human silhouette surrounded by dazzling lights. For the unfamiliar, this sequence would look like a series of dissociated images in an already puzzling film. For the informed, each image possesses an individual salience that can be causally connected to the images following and preceding it. They will recognize that a high priest is standing in Avebury (a Fig. 1.6

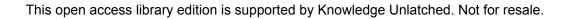


Screen captures by the author.

Neolithic henge) summoning the new world in a transition from the Piscean Age to the Aquarian Age, leading to rocks bursting from the earth. The coil represents completion and perfection in a new world - a reference to the 'universe' tarot card, denoting that the transition to the Aquarian Age has concluded. Finally, we see Lucifer, the angel of light and new overlord, in his true form bathed in shimmering, dazzling light.

In addition to the seemingly disconnected chain of events in Lucifer Rising, there is no clear central protagonist, nor is anyone's perspective privileged. Since the characters are so psychologically opaque, there are no character archetypes that attach themselves readily to the various agents. We are limited in our ability to sympathize with them, share their values or gauge their internal change. Since their faces are relatively inexpressive, emotional contagion and affective mimicry is muted. When faces are expressive (e.g. when Lucifer smiles, or Lilith weeps), it is unclear what motivates these expressions - unlike 9413, for example, whose face expressions are placed in a clear context. In traditional narratives, the spectator may know more story information than any individual character. In other narratives, we may be restricted to what certain characters know. In Lucifer Rising, viewers without specialist knowledge will know significantly less than the onscreen characters.

According to Anger's discussion of the film, the figures in Lucifer Rising are to be understood as spiritual forces of nature, rather than individuals with personal motivations (Mekas 1973: 16). Those who are already familiar with the mythological figures will already know their names and understand the forces that they represent. Isis (Figure 1.6), for instance, is the Egyptian goddess of birth and motherhood, who is benign, joyful and married to Osiris (the lord of death and resurrection) (Figure 1.7). Lilith (Figure 1.8) is the Babylonian spirit of discontent in female form,



the rejected would-be consort to Lucifer. The Adept (Figure 1.9) is a high priest who serves as an intermediary between mortals and deities, and heralds the Age of Aquarius. Lucifer (Figure 1.10), capricious and rebellious by nature, is the angel of light and ruler of the Aquarian Age. Anna Powell suggests that by removing audience identification with psychologically rounded characters, Anger 'draws us more directly into the forces they represent' (Powell 2002: 92). This leads to a very different form of character engagement to traditional story telling. In *Lucifer Rising*, the characters are not imbued with coherent individual agency, they are not empathized in an ordinary manner, they do not undergo a clear internal change, and they do not easily fit into familiar archetypes.

For those unfamiliar with the relevant myths, the nature and motivations of each character will remain unclear, since their behaviour in the film does not grant us clear access. Ed Small comments that 'Narrative depends on characterisation, and mere appearance of people in a painting or film or lyric poem lacks any adequate psychological scope for genuine characterization' (Small 2005: 25). Anger characterizes his protagonists, yet he does so through esoteric symbolism and metaphor.

The Adept, for instance, is characterized as being in possession of a high level of self-confidence. Not by way of his actions, but through the appearance of the unicursal hexagram – an empowering insignia used by Aleister Crowley. It appears once on his bedsheets, and another time overlaid on top of the red wall in his sacred chamber. Similarly, Lilith's walk through a forest is intercut with images of a forest fire, a tornado and falling rocks, signposting her as an apocalyptic and destructive deity. One might not interpret the fire and falling rocks as something that is literally occurring in the sequence, but rather it serves as visual rhetoric, telling us that 'Lilith is trouble'.

What, ultimately, is at stake when discussing Anger's renegotiation of narrative? Beyond commenting that it is alienating for viewers who lack the specialist knowledge needed to draw meaningful connections between the events, how might the film provide an unfamiliar and enriching experience for the viewer? What novel thought processes might spectators undergo that they do not typically exercise when viewing conventional narrative cinema?

A speculative proposal would be that for some, *Lucifer Rising* is still an evocative and resonant film, even when the story cannot be discerned. They may still 'feel a sense of authority, a will, the guiding light of intent, and you have to trust that [the filmmaker] knows what he's doing even if you can't decode the film shot for shot'⁵ (Solomon, quoted in MacDonald 2006: 211). When a film creates a powerful mood that cannot be coherently ascribed a specific meaning, according to Torben Grodal the film generates a 'saturated' quality. He comments:

There is no clear goal that might provide an outlet to such feelings through narrative action. The saturated emotional charge of the associative networks . . . provides feelings of deep meaning, for instance when we are watching some art films. The feeling of deep ungraspable meaning need not correspond to deep, buried meaning in the film. Sometimes, indeed, the opposite is true. (Grodal 2009: 149)

Of course, there *is* meaning embodied in *Lucifer Rising*, but it is not necessarily profound. Anger commented on one of the cast members who persistently asked what the film meant:

Everything had to mean something to him in his logical mind, and I told him it doesn't matter what it means, that it matters to me, not to you . . . if you're an initiate [of Thelema]; it's almost like a childish fairytale.⁶

As such, the veiled narrative serves as an embedded yet obscure structure that motivates the progression of the film. However profound we may find the meaning of the film, an important function of the imagery is that it evokes a vivid atmosphere. This distinctive mood, for Anger, is best accomplished by way of his unique allusion-based renegotiation of narrative form.

The neurologist Vilayanur Ramachandran discusses a comparable experience of unspecified profundity in which some of his patients, following a stroke, experienced a disruption in the 'salience pathways' in their brains. As a result, they believed themselves to be sensing a profound significance in all objects that surrounded them ('seeing the universe in a grain of sand'), and invariably accounted for this as a religious experience (Ramachandran 1999: 179). Since Anger framed the experience of his films as spiritual invocations (Rowe 1974: 26), this implies a further parallel between this profound yet diffuse sense of salience in his film and the mental activities that Ramachandran and Grodal discuss.

This mode of engaging with cinema will be generally unfamiliar, at least to viewers accustomed only to mainstream narrative-dramatic films. Paying closer attention to the atmosphere evoked by the film, without needing to couch it in terms of full narrative coherence, would require a bold adaptation in viewing habits for most, which might be enriching if the viewer can adapt to the film's aesthetic demands. Bordwell has commented that it would be 'odd' to say that you were deeply moved by a film, when the story was incomprehensible (2008: 94). Yet *Lucifer Rising* demonstrates, along with films like *Last Year at Marienbad* (1961) and *Inland Empire* (2006) that a spectator can respond emotionally to a film and sense an unspecified profundity that lacks full narrative coherence, as long as an authority or a guiding light of intent is sensed, rather than being a poorly told, incoherent story. As the aforementioned examples and reference to Grodal suggests, this effect is quite common in art cinema.

This case study considered the use of allusion-based plotting as a method to 'veil' a hidden story. The next case study will turn to the way in which metonymy and metaphors can be used in the plot to create a similar effect. Again, a linear narrative will motivate the progression of the film, but challenges will be applied, which makes the story difficult to discern.

Metaphor and Metonymy in Valse Triste (1979)

In a traditional narrative, the plot is arranged to facilitate the spectator's ability to detect causal connections between scenes, make inferential elaborations and coherently construct the story. The previous case study demonstrated that the plot can also be arranged so as to block or complicate the construction of a coherent story. With *Lucifer Rising*, the viewer requires a specialist body of esoteric knowledge in order to place the events within a coherent narrative framework. In *Valse Triste*, the plot also playfully obstructs the spectator's sense-making skills and 'veils' the narrative, but it does so by telling its story through metaphor and metonymy. While a narrative line motivates the construction of the film, it is nonetheless hard to discern.

The basis of this case study is indebted to James Peterson, who refers to films built entirely from found footage as 'compilation narratives'. Some have stories that are easy to discern, such as Charles Levine's *Horse Opera* (1970), which condenses several films into a single archetypal cowboy tale. More recently, 'mashup' films have appeared online such as Antonio Maria Da Silva's *Hell's Club* (2015), which applies a similar technique, drawing together a range of popular movies into the same imaginary space through editing and cunning use of layering. On other occasions, metaphor and metonymy carry the primary responsibility for representing the basic story events. Inventive viewers can discern a story in them, and enjoy novel psychological experience by inferring the story from the plot though creative leaps of the imagination.

Metonymy can be understood as a form or process of substitution, where an event or concept is not directly represented, but is instead replaced by something intimately associated with it. A linguistic example would be referring to a business executive as a 'suit'. In cinema, a kidnapped child in a fairground could be represented by a balloon floating away, or hard labour could be represented by hands toiling in a field. In a film like *Valse Triste*, then, the viewer must make a creative inference in decoding the metonymic substitution. For instance, as a boy lies down to sleep, the planet earth recedes into the darkness, 'leaving the world behind' as he dreams.

In addition to metonymy, Peterson also suggests that *Valse Triste* relies heavily on metaphors. One of the accounts of metaphor that has been particularly prominent in cognitive studies is referred to by Patrick Colm Hogan as the 'feature matching' theory. He explains that a metaphorical statement calls on the perceiver to understand the target by reference to the source. For example, if one says 'Smith was a real lion in the board meeting', Smith is the target, and lion is the source. The subject then scans their lexical entry for lion in order to find the right properties that might be appropriately applied. 'Four-legged' and 'eats raw meat' will be eliminated, while 'fierce' and 'merciless' might be usefully employed. If, however, we know that Smith was not fierce or merciless, but rather he was eating ravenously during the meeting, this is more likely to be the relevant constituent between the target and the source. Hogan comments that 'metaphor is not a matter of transferring constituents per se, but of transferring salience or, more simply, bringing previously known information into greater prominence' (Hogan 2003: 90).

In *Valse Triste*, Bruce Conner marshals a series of disparate movie clips into an original narrative. However, each image provides a prompt to narrative inference through metaphor or metonymy, rather than a literal depiction of the action. With the possible exception of the very opening, there is no action or object depicted in the film that should be interpreted as directly representing the line of events. Peterson states:

Since [compilation narratives] are highly elliptical, the viewer must be more prepared than usual to make bold inferences about spatial and causal relationships of the sort demanded by the rhetorical figure of metonymy. Since metaphors are so prevalent, viewers must look for even very tenuous conceptual links between images. This is the strategy the viewer must adopt in comprehending narrative in the avant-garde compilation: to readily infer metonymic replacements along the story line, and search for often wildly exotic metaphors. (Peterson 1994: 168)

Valse Triste tells the story (for those who can discern it) of a boy's first wet dream, and the ensuing sense of guilt and exposure that he feels. We are initially presented with a boy turning out his bedroom lamp and resting his head; this is the one case where a shot 'directly' represents the action of the implied narrative. We see a troupe of young women exercise in synchronization, waving their arms and legs in the air. Viewers primed to search for narrative cues might infer that this is a metonymic substitution for the boy's dream in which young women are flaunting their bodies. In perhaps the film's most blunt metaphor, a hose squirts water. The music shifts in tone from serene to grave as the boy imagines the consequences of his unintentional actions. The viewer is then cued to make another metonymic leap when they see a mother, father and sister congregate in their front yard, with the mother pointing to something she has just seen. In this instance, viewers who discern the narrative are cued to imagine that it is a paranoid fantasy, in which the boy imagines his whole family saw what he did and passed judgement.

The degree to which the spectator experiences the film as a narrative depends on whether they unearth the hidden story by appropriately recognizing its metonymic and metaphorical substitutions. While a metaphor such as the squirting hose is fairly unambiguous when considered outside the context of the film as a whole, the narrative is still easily missed. This is accountable in part by virtue of the fact that there is no literal base of action in the film. In *Hollywood Extra*, for instance, the image of 9413's metaphoric struggle to 'climb the stairway of success' is depicted by showing the character struggle to climb an actual flight of stairs. In this example, the metaphor is set within a literal line of action in which the images can be taken at face value, and so the metaphor is easier to discern. In *Valse Triste*, with the possible exception of the opening image of a boy turning out his bedside lamp, there is no literal line of action that the metaphors are replacing. As such, viewers who are primed to interpret the given images as a series of substitutions will understand that the function of the opening image is very different to that of the rest of the images, in spite of the fact that it looks like the rest of the film – a sepia-toned found footage clip. It still feels one step up from the original baseline of literal events.

One of the reasons the story and in turn the metaphors and metonymic substitutions in *Valse Triste* are difficult to interpret is because they shift from physical events (i.e. the hose squirting) to other forms of representation. In one image, a boy brings his father firewood for kindling, metonymically implying that the father and son have a practical relationship, rather than an emotionally intimate one. Paranoid fantasies also feature through metaphor, such as a stone cracking in two, perhaps representing the son's fear that his family will 'break apart' following his unintentional actions. In one instance, then, the target of the substitution is a commentary on the relationship between the father and his son. In the second example, the target is a paranoid fantasy (i.e. the fear that his family will break apart). The shifting status of each image is not clearly signposted.

For those who discern the narrative, a story is told with a linear temporal progression, an intentional agent and a disruption of equilibrium. Without recognizing the implied story, however, they do not identify these elements of narrative. Instead, the film will be experienced as a loosely bound montage of images based around America of yesteryear that are unified visually by sepia colour tones. While a narrative interpretation is available, then, it is not forced upon the viewer.

The elusive quality of the film and the lack of a clear protagonist allow the images to possess a free-floating relevance, and the viewer may mentally elaborate on the images as freely as they are inspired to. Early in the film, we encounter sepia-toned clouds, wheat fields, wind turbines and a herd of sheep. To some, it may simply represent a nostalgic depiction of Kansas in the 1940s. To offer another reading laden with hidden meanings, the landscape may be understood as wholesome and 'sexless', an interpretation suggested by the forbidding image of a wire fence. The flock of sheep might represent a simple agricultural scene, or it might represent the boy 'counting sheep' as he falls asleep. It could also represent a flow of semen that is stirring as he dreams. The power of the film is that it accommodates all possible readings.

Appreciation of the film does not hinge on detecting the narrative, then. The juxtaposition of Jean Sibelius' evocative and appealingly incongruous music (entitled 'Valse Triste', which means 'Sad Waltz') with rural Kansas gives the film an enigmatic and bewitching mood. Peterson comments that if viewers are unable to discover a narrative or thematic level by which to engage with the film, 'they can still make a general appraisal of its overall mood or atmosphere' (Peterson 1994: 161). Viewers can engage with the film by simply appreciating the peculiar atmosphere conjured. Found footage films frequently use material for the use of irony and camp, as found in early Bruce Conner films such as A Movie (1958). In his later work such as Valse Triste and 5:10 to Dream Land (1976), by contrast, the films evoke an atmosphere of sincerity and foreboding through the use of found footage and music. For those who do detect the story, it also provides a novel path towards narrative comprehension.

If the narrative is discerned, it is a slender and simple story. The revelation of information is not retained to arouse curiosity, expectations are not provoked in order to be validated or left open, and the events are not reordered with flashbacks or flashforwards. Instead, a simple series of events follow one another from a central protagonist's point of view. The reward for the viewer lies in discerning the narrative, rather than engaging with a story that features a complex structure. *Valse Triste*, then, exemplifies a way to renegotiate narrative comprehension through the use of metaphor and metonymy. In the following case study, we can consider another method for renegotiating narrative without abandoning it entirely.

Allegorical Inference and Narrative Cues in At Land

The previous two case studies may be understood as containing 'veiled narratives' – coherent stories that guided the construction of the work, but where the ultimate form of the plot (information presented) is arranged such that the story (events seen and inferred) is, for many, indiscernible. In *At Land*, a different method is employed. Story information remains unhidden, but events are not guided by familiar principles of causal logic. Yet, it triggers our narrative instincts and expectations through elements that are characteristic of traditional narrative films – distinct characters feature in a staged enactment, and these characters are filmed through conventional means with long, medium and close-up shots. Lines of action are coherently represented through conventional editing. Events are rendered ambiguous because the film relies heavily on symbolism and allegory, and while the central character appears to be intentional and active, her underlying motivation remains obscure. Space and time are sometimes deliberately disorientated through spatial elisions and temporal ellipses. Maya Deren comments that if cinema is to take its place beside the other art forms,

it must relinquish the narrative disciplines it has borrowed from literature and its timid imitation of the causal logic of narrative plots, a form which flowered as a celebration of the earthbound, step-by-step concept of time, space and relation-ship which was part of the primitive materialism of the nineteenth century. (Deren 2005 [1960]: 128)

While this sounds like a call for an expulsion of narrative, she refers to her own work as 'still based on a strong literary-dramatic line as a core' (Deren 1965, quoted in Sitney 2002: 9). Sitney calls her style 'open-ended narrative form' (2002: 21) and Al Rees refers to her early film works as 'narrative film-poem' (Rees 2011: 58). Thus, in spite of Deren's call for a cinematic art that does not depend on narrative, her own work is still closely aligned with it. This seeming paradox is negotiated by way of altering (without fully rejecting) the terms by which narrative is to be experienced.

The ambiguity with which At Land renegotiates narrative form is characteristic of 'trance film', or the 'psychodrama' – a branch of American avant-garde film explored further by works such as Kenneth Anger's Fireworks (1947), James Broughton's The Potted Psalm (1946), Sidney Peterson's The Lead Shoes (1949) and Stan Brakhage's The Way to Shadow Garden (1954). The trance film and psychodrama are broadly understood as synonymous – although the 'trance film' (coined by Parker Tyler) draws attention to the protagonist as a somnambulist or entranced figure, and is suggestive of the protagonist's interior quest. Sitney's 'psychodrama' highlights the work as a 'drama' (i.e. an emotionally charged human plight), while the word 'psycho' bears three plausible implications: first, it emphasizes the psychological and subjective rather than the material and objective; secondly, a psychotic, disturbed state of consciousness; finally, it alludes to psychoanalysis and Freudian symbolism – although Deren resisted psychoanalytic readings of her work (see Rees 2011: 59).

In psychodramas, the protagonist (typically the filmmaker her- or himself who is in the process of coming of age) progresses towards a scene of self-realization, and they are marked by what they see rather than what they do. The protagonist typically remains isolated from their environment and the other characters. Al Rees defines it in the follow way:

The 'psychodrama' (or 'trance-film') was modelled on dream, lyric verse and contemporary dance. Typically, it enacts the personal conflicts of a central subject or protagonist. A scenario of desire and loss, seen from the point of view of a single guiding consciousness, ends either in redemption or death. Against the grain of realism, montage-editing evokes swift transitions in space and time. (Rees 2011: 58) In At Land, swift transitions in time and space occur early in the film. At the beginning, Deren's character (henceforth 'the Dreamer') washes up on the shore as though she emerged from the sea. She begins her journey by climbing a piece of driftwood that has materialized next to her. Edited as though it was a single fluid motion, the Dreamer pulls herself up the driftwood and finds herself peering into a dinner party (Figure 1.11). She goes unnoticed by the guests as she crawls along the table. The camera fragments her body with close up photography. Through strategic editing, successive shots situate parts of her figure in different locations – alternating between the dinner party and a jungle (Figure 1.12).

Already, the viewer is called upon to amend several viewing strategies associated with orthodox narrative comprehension. In a typical narrative film, viewers are presented with a coherent space and passage of time. Even if the plot reorders the chronological events with a flashback or flash forward, the viewer is normally able to mentally reorder events into a chronological timeline. In At Land, the spatial organization and passage of time is more flexible and undefined. If the film was organized like a traditional narrative, the spatial leap from the beach to the dinner party may have been accounted for by establishing that the Dreamer possesses supernatural powers and can teleport between spaces. Or, it may have been cutting between two different occasions in a flashback/flashforward sequence. In At Land, instead of establishing a coherent transition in space (even in a fantasy context) or temporal relations, the shift in space is motivated by the desire to undermine the surface realism of cinematography. Rees comments that 'the manipulation of time and space was equally a property of film form, so that editing could undermine the surface realism of cinematography to create a new language that was film's alone' (Rees 2011: 59).

Destabilizing basic comprehension skills related to causal logic and spatiotemporal continuity for the purpose of creating an expressive language unique to cinema creates a unique set of demands on the viewer's comprehension skills. In conventional narratives, the spectator is able to draw on real-world knowledge



Figures 1.11–1.12. The Dreamer journeys through a dinner party (1.11) and jungle (1.12) in At *Land* (1944). Screen captures by the author.

and narrative conventions in order to make inferences beyond the information given. In *At Land*, the spectator's ability to do this is limited. Instead, the viewer is invited to seek out allegorical or thematic inferences, some of which may require a more effortful, imaginative leap. For instance, instead of seeking a narrative explanation as to why the Dreamer's body seemed to inhabit a jungle and a dinner party simultaneously, the viewer might instead consider the contrast between the untamed wilderness and civilization with social order. One could infer that the Dreamer explores both spaces with the same curiosity, since to an outsider they are both landscapes with their own set of mysteries.

As such, events need not occur or follow one another according to dramatic consequence in Deren's psychodrama. Instead of cueing the spectator to effortlessly and unconsciously apply narrative skills of comprehension, Deren invites the viewer to reflect on their own skills of comprehension, and make a more conscious effort to generate allegorical readings of the events. Broadly speaking, the film may be understood as featuring a woman of the sea who is 'at land', investigating human civilization. After losing a chess piece, she undergoes a series of encounters, learning about the suppression of women's rights before retrieving the piece and fleeing back to the sea. But the meaning of the chess piece, as with every other event, is left to the viewer to interpret.

Maria Pramaggiore suggests that At Land materializes the hidden dynamics of the external world by literalizing social structures that underpin male and female relations. She also suggests that the central metaphor of the film is built around the game of chess, which operates through binary oppositions (Pramaggiore 2001: 248). The Dreamer resists the oppositional categories that we live by – winning or losing, male and female, mobile and immobile, nature and civilization, and the black and white of the chess pieces.

Rather than wholly rejecting narrative, At Land cues narrative expectations because they are, in some ways, facilitated in a conventional sense. Up to a point, the viewer's relationship to the Dreamer is similar to traditional character engagement. She features in every sequence and can be easily identified as the central protagonist. Her actions mobilize the events of the story, and the plot is restricted to the events that she encounters (as is sometimes characteristic of traditional narrative). But she is difficult to read psychologically, since her motivations, values, origins and thought processes are never made explicit. In turn, like Anger's deities in *Lucifer Rising*, there is no character archetype to liken her with in order to simplify characterization.

As is often the case with conventional narratives, the central character is also motivated by a goal that is established early in the film (the retrieval of her chess piece). Following her climb through the jungle, the Dreamer reaches the far end of the dinner table, having gone unnoticed at the dinner party. Here, she observes chess pieces on a board playing a game of their own accord, without a guiding hand. A black queen knocks a white pawn off the table, and the pawn miraculously falls into a pool of water at the beach. The Dreamer also reappears on the beach and pursues the piece as it drifts along a stream. Establishing the Dreamer as a lone agent on a quest sets up a conventionalized, goal-driven structure that will be familiar to most viewers. Yet the salience of the emblematic chess piece remains a mystery throughout the film.

Other events take place that require imaginative interpretation, since they appear disconnected and incoherent according to narrative logic. Set on a detour, the Dreamer follows an amorphous, shape-shifting man into a house and peers around the living room, observing chairs and furniture draped with white sheets. As her eyes scan the room, she eventually settles on the man (who has changed form once more), now immobile and bedridden, also draped with a white sheet. They exchange an ominous look, without speaking. The highly mobile woman is rendered static by the immobile man. Again, in the absence of causal coherence, the viewer is invited to make another imaginative leap and find an allegorical meaning. One might interpret that the film suggests women are mobile by nature, but are rendered immobile by men when they enter a domestic space. The chess metaphor can also be extended, in which the bedridden and immobile man is comparable to the largely immobile King in a chess game, while the highly mobile Queen (the Dreamer) typically sacrifices herself for him. In this film, she does not sacrifice herself, and instead leaves the house. Again, this interpretation requires an imaginative stretch that viewers might not make.

To detail one final scene, the Dreamer finally returns to the beach and encounters two women playing chess. Like the scene at the dinner party, her presence goes unnoticed as she observes them. The two women seemingly speak cordially, without acknowledging that they are aggressively knocking off one another's pieces from the chess board. The Dreamer coaxes the adversaries onto the same side of the board, and they go into an ecstatic trance as she sensually strokes their hair. In this instance, the scene may be imaginatively interpreted as a call for women to joyfully unite, instead of being cordial but thinly veiled adversaries.

Unlike a traditional narrative, little emphasis is placed on strategically arousing expectations that are subsequently validated, undermined or left open. There is little reference to previous events that took place as the film progresses, and it is unclear what to anticipate. Instead, the spectator is perpetually in the present, with minimal hypotheses about what might happen next, or any ability to infer events that are not represented. The viewer must adapt their viewing strategies to engage with the film – letting go of full narrative cohesion, even though it may be cued by the presence of a lone, goal-oriented agent who passes through a series of scenarios. Seeking an allegorical relevance for the peculiar sequences also exercises the imagination of the viewer in uncommon ways.

In summary, *Lucifer Rising*, *Valse Triste* and *At Land* each present the viewer with a particular set of challenges related to narrative comprehension. In the case

of *Lucifer Rising* and *Valse Triste*, the primary challenge lies in discerning the story from the plot. In *At Land*, the challenge lies in interpreting the onscreen events in a creative and meaningful way. In each example, transtextual reference to other works by the same artist or relevant literature will prime the viewer to understand the 'rules of the game' before engaging with the film. For instance, in *Lucifer Rising* the viewer may already be aware that they can focus on the atmosphere evoked by the film and think of it as an invocation if they are not aware of the extra-textual knowledge that frames the story. For *Valse Triste*, suitably primed viewers will know that they need to search for exotic metaphors and metonymic substitutions. In *At Land*, viewers can seek allegorical inferences, and let go of the expectation for linear stories in spite of the fact that narrative cues feature in the film.

The elements that have been detailed – imaginative inferences, metaphors, metonymy and saturation – all bleed into one another across the case studies to some extent. All of these characteristics are generally under-rehearsed in conventional narrative-dramatic cinematic experience. Saturation (a diffuse sense of 'deep' meaning) may be sensed in *Valse Triste* and *At Land*, for instance. Both *Hollywood Extra* and *At Land* feature absurd events that can be interpreted allegorically (actors in *Hollywood Extra* perform in face masks, two women in *At Land* enter a blissful trance after an unseen woman strokes their hair). Visual metaphors also feature in *Lucifer Rising* as well as *Valse Triste*. Transgressive subject matter features in *Hollywood Extra* (sharing the under-represented plight of the Hollywood actor), and it features in the other films too – *At Land* resists categories and boundaries imposed by social standards of the time, *Lucifer Rising* draws from esoteric religion, and *Valse Triste* addresses the taboo subject of burgeoning pubescent sexuality.

Unlike *Hollywood Extra*, which offers a more traditional narrative, the other three films are non-prescriptive and do not offer univalent messages. Rather than being called upon to make unconscious narrative-building inferences, the viewer instead needs to provide their own more conscious and effortful interpretations of the films, and the richness of their experience will be defined to some extent by their own imagination. Anger, Conner and Deren, then, can be understood as filmmakers who intuitively sought to renegotiate the native, pervasive sense-making skill of narrative comprehension, providing cognitive activities that are unrehearsed in other contexts, and inviting spectators to reflect on their own minds by challenging habitual sense-making skills, which are ordinarily applied in commercial cinema without conscious effort. Other experimental filmmakers can be considered in the same context.

While the focus has been on the subversion of traditional narrative comprehension, the next subsection will offer two subcategories that reject narrative more fully. We can consider how they exercise the mind in ways viewers might not otherwise have the opportunity to when working with traditional narrative or quasi-narrative forms.

Alternatives to Narrative

Rather than renegotiating narrative structure (as the previous case studies did), two alternative organizing systems will be proposed here that require alternative methods of engagement to narrative. The first is called catalogue form and the second is meditative film. While these types of film more wholly deny narrative as a system of organization (which in turn prohibits narrative skills of comprehension), they are not necessarily more difficult to engage with. There are many familiar non-narrative ways of organizing information that are easy to understand; for instance, Edward Branigan comments that essays, chronologies, inventories, prayers, instruction manuals and recipes do not prompt narrative skills of comprehension (Branigan 1992: 1). None of these systems of organization Branigan lists feature intentional agents progressing through a series of causally linked events; they do not call upon the spectator to infer events that are not represented, nor do they withhold information to create suspense. In these instances, the information is organized for different purposes to narrative - to present an argument, help mentally organize information or to be instructive. In addition, essavs, inventories and recipes do not typically fall within the realm of the aesthetic, while narratives do. It is also generally considered to be the case that stories solicit a wider range of emotional responses and, when effective, they are compelling for extended periods of time - at least there is a widespread assumption that this is the case. Avant-garde filmmakers, however, have demonstrated that alternative systems to narrative organization can also be used for aesthetic purposes.

Form and structure is a central concern for filmmakers working within the avant-garde. Nicky Hamlyn comments that in narrative movies, form is predetermined to a major extent by 'a combination of the demands of the screenplay, genre and grammatical conventions. Film and video artists do not have this convenience (which in any case they would see as a hindrance)' (Hamlyn 2003: viii). Instead, experimental filmmakers create new structures – whether in relation to narrative, as we have seen, or moving entirely away from and beyond it – which becomes a principal theme of their work. Le Grice suggests that in the avant-garde, rather than being connected according to dramatic consequence, sequences might instead be placed together according to 'mathematical systems, randomness, musical analogy, [or] unconstrained subjectivity, creating conditions of montage, all of which counteract and create alternatives to narrative structure' (Le Grice 2001 [1997]: 294).

Two possible alternatives to narrative construction will be detailed. These categories are not to be understood as alternatives to given terms such as psy-chodrama, structuralist film or visual music. Rather, they represent two possible ways of categorizing films that group works together that are mentally engaged in similar ways.

Theme in Catalogue Form

The concept of the catalogue film draws from educational psychologist Arthur Applebee, who claims that when we are confronted with a complex set of information it is handled through the imposition of structure (Applebee 1978: 56). Narrative comprehension is one possible structure, but others are available. He suggests that a series of alternatives are developed prior to the acquisition of narrative skills during infancy that remain available into adulthood. For example, a heap is a random collection of data assembled by chance – objects are linked together only through an immediacy of perception. An episode is an isolated incident that depicts a cause and effect. An unfocused chain is a series of cause and effects with no continuing centre. A catalogue is created by collecting items of information that are similarly related to a 'centre' or core. So a list of personality traits of an individual or a sequential list such as consecutive numbers, or the alphabet, both constitute catalogues.

While a catalogue is a structure in the mind, a film can be arranged in such a way so as to prompt this method of engagement (in the same way a film arranged as a narrative prompts narrative engagement). Exercising the mind in this way for aesthetic effect will be generally unfamiliar, even if recognizing a catalogue is a commonplace skill. A catalogue film, then, is created by collecting shots (often found footage), each of which is related to a 'centre' or core, and organizing them according to a guiding principle that does not feature a traditional line of dramatic consequence or linear passage of time. In Kurt Kren's 2/60 48 Köpfe Aus Dem Szondi-Test (1960), for example, there is a catalogue of faces taken from newspapers (Figure 1.13).

In spite of the absence of narrative, such films may still invite thematic interpretations, even if it is not by way of a traditional story. For instance, Lenka Clayton's catalogue film *Qaeda*, *Quality*, *Question*, *Quickly*, *Quiet* (2002) isolates the words from George Bush's 'Axis of Evil' speech in 2002 and reorders them alphabetically. The rigid and impersonal structure of the film invites the viewer to consider Bush's use of language, rhetoric and recurring preoccupations by arranging his words into a dispassionate, alphabetic form instead of providing a more prescriptive commentary.

Hollis Frampton is perhaps one of the most explicitly and self-consciously informed examples of an experimental filmmaker acting as a practical psychologist, who touches on issues in his art that converge with the field of psychology more generally. Exploring the human search for order and comprehension, the middle section of Frampton's iconic structuralist film *Zorns Lemma* (1970) contains multiple sets of information that relate to a core. The viewer is challenged into seeing if they can detect the embedded orders and patterns – some of which are easy to identify and others that are more difficult to discern. At the beginning, the alphabet is plainly and unambiguously established as the initial governing pattern, with each shot appearing for twenty-four frames – one second. Since it is the Elizabethan alphabet, the letters J and U are absent. After its first cycle the Elizabethan alphabet repeats itself, this time on letters found in and around Manhattan – creating a contrast between the 'old' alphabet and modern civilization. Typically, our intuitive search for order draws attention to the first letter of each word.

Once the alphabet is complete, it begins again. Over time, each letter is replaced by a picture until they have all been replaced. Every letter substitution contains an image that belongs in a specified catalogue. For instance, sensitive viewers will notice that four of the letter substitutions (X, Z, Y and Q) reference the four elements: fire, water, earth and air. In addition, a number of the substitutions contain people doing manual tasks with their hands (Macdonald 1993: 70). For the viewer, then, the challenge becomes that of grouping a series of images into a set of categories. Sitney comments that the substitution process 'sets in action a guessing game' (Sitney 2002: 367). We eventually understand the nature of the film, that with each cycle, a letter will be substituted. But we cannot predict which letter it will be, or what the nature of the substitution will be when it arrives. The film, in turn, sets the mind in motion in ways that are different to narrative storytelling.

The catalogue film, as it is defined here, does not take sequential ordering as a necessary condition. In addition to the Elizabethan alphabet, *Zorns Lemma* features thematic groupings as well as sequential ordering, and this has been explored by other filmmakers as well. Marco Brambilla's *Sync* (2005) organizes a series of images into a catalogue, although it is not organized in a linear sequence with a beginning and an end. A wide range of pornographic films and sex scenes are compiled together into a series of two-frame rapid fire clips, in which the sequences are organized schematically. Kissing shots, various sexual positions and camera angles are clustered together, accompanied by a military snare drum (Figure 1.14).

The dynamic film densely categorizes the shared, commonplace visual tropes, demonstrating the pervasiveness of generic conventions. More broadly, the viewer is invited to consider how often they experience carbon copies of the same images (and narrative structures) from movie to movie without noticing that the differences are only cosmetic. In addition to this, the viewer may also pay attention to their own speed of perception, since each image lasts for about two frames (i.e. a twelfth of a second) and yet spectators are still able to mentally compartmentalize each group of images, even if each visual group lasts for a few seconds each.

Some films may fall in between the categories that have been proposed. Matthias Müller's *Home Stories* (1990) can be understood as a catalogue film, but it begins to resemble another renegotiation of narrative form by continually allud-



Figures 1.13–1.15. Successive images in the catalogue films 2/60 48 Köpfe Aus Dem Szondi-Test (1960; 1.13), Sync (2005; 1.14) and Home Stories (1990; 1.15). Screen captures by the author.

ing to narrative scenarios. It features a collage of Hollywood melodramas from the 1950s and 60s, filmed directly from the artist's television set. Categories of activity have been lifted from their original contexts, and placed alongside one another. Every shot features a female star (e.g. Lana Turner, Tippi Hedren, Grace Kelly and Kim Novak) in a domestic setting. The clips fluidly intercut one another, as if they had been choreographed to do so. Seemingly mimicking one another's actions, they anxiously rise from their beds, switch lights on and off, listen at the door, peer out of windows, run through empty hallways, turn their heads, and other similar activities (Figure 1.15).

With their original narratives stripped away, the fragments of film remain charged with suspense and each woman appears to express a single, unified emotion. Shots are edited together so as to create the impression that they occupy the same space and look back and forth at one another. Women seemingly become domestic victims of the voyeuristic cinematic gaze. Michael Hoolboom (1997) suggests that the home is used as an architecture to 'contain female desire' with women being framed within doorways, headboards and windows, creating a sense of 'visual enclosure'. In 1950s and 60s melodramas, as the title suggests, a woman's place is in the home.

Home Stories depicts active agents, whose larger motivations and intentions are undisclosed. As such, spectators might empathize with them by reading their anxious faces, but we will not know what prompted them. Equilibrium is not disrupted or reinstated, nor is there any clear goal motivating the progression of the film. The chain of events we see are not causally connected, nor are they situated within a coherent, unified space or linear passage of time. Rather, the clips are compiled categorically, and the viewer is left to generate their own interpretation of the film. The use of generic narrative situations invokes narrative expectations, in a sense, but it does so only to do something very different from traditional storytelling.

More recently, a similar organizing system to the catalogue film has become widespread on YouTube in the form of 'supercuts', which catalogue a variety of movies together for comic effect. Titles include *Every Jason Statham Punch. Ever* (2015) and *Things Owen Wilson Says* (2015), which marshals together every time Owen Wilson reuses recurring turns of phrase like 'come on', 'God damn it' and 'what are you talking about?' in various movies. Films produced that are intended to be viewed on YouTube and other streaming sites have developed an aesthetic of their own, distinct to that of television. In the case of the supercut, while they do not explicitly identify as experimental films, they nonetheless tap into a system of organization that was first pioneered in the realm of the avant-garde.

What is at stake when viewers attend to catalogue films instead of narrative films? Like the three prior case studies, the catalogue films do not offer clear 'messages' with singular meanings, although they invite interpretations as illustrated in this discussion. Viewers do not exercise familiar sense-making skills they typically make use of when watching narrative films. Patterns, orders and similarities may be identified (sometimes easily and sometimes less so). Although generating 'clusters' of information is a widely exercised skill in everyday life (e.g. identifying friends from different social groups or remembering recipes), it is not typically used for aesthetic interest. Identifying themes that the films address (e.g. political rhetoric, formulaic cinematic tropes, or female representation) also becomes a challenging and expansive activity, since they are negotiated in an uncommon and non-prescriptive way.

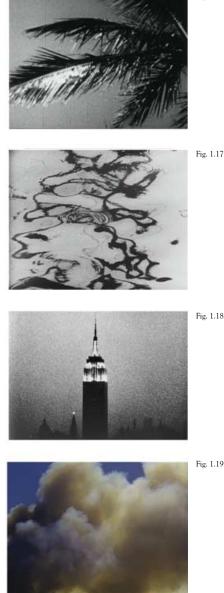
The Meditative Film

Another category of avant-garde film that offers an alternative to narrative organization will be named 'meditative film', although it connects directly to Scott MacDonald's already established term avant-garde 'ecocinema' (2013: 20). In essence, they are the same kind of film, but the word 'meditative' emphasizes the way in which the mind is exercised when engaging with this type of work, and it downplays the significance of providing 'alternative film experiences that may help nurture an environmentally progressive mindset' (ibid.). These films typically feature rural landscapes, industrial landscapes or cityscapes – commonplace sights, and yet they are visually rendered in such a way that the environment's sensual beauty is revealed to the viewer anew. The camera will typically remain static, and there is a minimal level of action onscreen, allowing objects and landscapes to be contemplated in detail with minimal intervention from the artist

(aside from meticulous framing). Duration plays a more active role than motion, and the films are either silent, or feature ambient sounds. A meditative film may consist of a single extended shot, or it might include several lengthy shots. MacDonald suggests that this type of film encourages 'patience and mindfulness - qualities of consciousness crucial for a deep appreciation of and an ongoing commitment to the natural environment' (ibid.: 19). Evoking the Lumière Brothers' formative films, the meditative film is committed to the individual shot as a photograph in motion.

Peter Hutton and Nathaniel Dorsky are two of the most consistently committed filmmakers to this tendency within the avant-garde. Other examples of this approach would include Henwar Rodakiewicz's Portrait of a Young Man (1925-31) (Figure 1.16), Ralph Steiner's H2O (1929) (Figure 1.17), Andy Warhol's Empire (1964) (Figure 1.18), James Benning's Ten Skies (2004) (Figure 1.19) and 13 Lakes (2004), and Abbas Kiarostami's Five Dedicated to Ozu (2003). These films are still divergent, in spite of their similarities. Hutton and Dorsky, for example, were motivated by spiritual impulses, while Steiner and Warhol were not. Some were intended to be screened in galleries (Warhol), others in film festivals (Benning, Hutton) or art cinemas (Kiarostami). In addition, each individual film engages themes that move beyond the issue discussed here, dealing with particular histories, landscapes or industrial growth, for example. Yet all exercise the mind in a comparable way.

The meditative film does not take a narrative form or rework narrative principles. vet it finds an alternative without the aggression that is sometimes implied by avant-



Figures 1.16–1.19. Individual shots as photographs-in-motion in the 'meditative films' Portrait of a Young Man (1925-31; 1.16), H2O (1929; 1.17), Empire (1964; 1.18) and Ten Skies (2004; 1.19). Screen captures by the author.

Fig. 1.18

Fig. 1.16

Fig. 1.19

garde polemics. Agents may pass through the landscapes, but they are not furnished with any detailed depiction of human intention. The temporal relation between each shot is undetermined and, in any case, immaterial. There is no conflict and no resolution, and equilibrium remains in balance for the duration of the film. The feeling of balance experienced while engaging with these works might be compared to mindfulness meditation, where the spectator feels 'present', instead of reflecting on the past or anticipating the future.

While narratives typically feature a change of affairs (e.g. good fortune to bad, and vice versa), the meditative film features change only in the most minimal and gradual sense – a leaf may sway, a boat will drift along a river. Events occur in time, but a change of affairs in the traditional sense does not take place. Where everyday life is negotiated with a series of tasks, the meditative film (like meditation itself) provides a spiritual cleansing. Rather than offering an informational 'hit' or an emotional thrill, these works provide a 'reprieve in the midst of the hysteria of contemporary life' (MacDonald 2006: 244).⁷ Where cinematic images are typically 'fraught with information' (ibid.: 243), the meditative film allows the viewer to escape from daily business in order to find stillness, rather than excitement.

Peter Hutton comments that his work is designed to draw the viewer back to a time when there was not a sophisticated history of cinema. The Lumière Brothers' films, he suggests, feel revelatory today because there is an innocence to their work – instead of attempting to provide the viewer with a larger idea that results from the accumulation of images in narrative form, spaces are explored without the baggage of cinematic history or a sense of overriding intent. Objects are responded to as they occur, and spectators are drawn back to the time when the simple impression of photographs in motion were a source of delight (ibid.: 246). Hutton's films are contemplative, and they conjure a quiet, yet attentive level of awareness in the viewer that evokes quiet revelations.

Skagafjördur (2004), by Hutton, documents a region in northern Iceland, from which its title is derived. Each of the thirty-six shots serves as an independent tableau, lasting about fifty seconds, separated by brief episodes of black leader that cleanse the visual palate. The film begins in rich black and white tonalities, which are later interspersed with colour imagery. Rolling hills, open skies and calm waters feature, sometimes in a haze of mist, sometimes clear, and sometimes with clouds. There is an occasional hint of civilization in the landscapes depicted such as a telephone line, a lone fisherman, a bird, a window from a room framing the image. But these elements feature as bit-part inhabitants of the landscape, rather than motivating the film.

Like many of Hutton's works, *Skagafjördur* is a contemplative, carefully composed film that draws from traditions of nineteenth-century landscape painting and still photography. Sitney characterizes Hutton as an artist on a persistent quest to transform the feeling of quietude and loneliness into pictorial beauty, commenting: 'The persona of the filmmaker looming within Hutton's work seems to go looking for loneliness, all over the world, in fact, as if convinced that beauty reveals itself most poignantly within the modalities of alienation' (Sitney 2008a).

How, then, does the meditative film exercise the mind in ways distinct from narrative film? One possibility is that the spectator must adjust their viewing habits so as to operate at an uncommonly low level of psychological arousal from external stimuli. Joseph Anderson suggests that human activity is, in part, an effort to maintain optimal (not maximal, but optimal) arousal.

Increasing the level of arousal increases performance to a point, up to some optimal level, after which performance falls off (inverted U function), and humans will typically attempt to act to change the level of arousal to maintain an optimal level: they will doodle or hum when they are bored (under-stimulated), and they will 'escape' from a situation of over-stimulation or attend only to parts of the incoming stimulation if they find themselves in a situation from which they cannot escape (Anderson 1996: 117).

An arousal-level theory of motivation was developed after studies in sensory deprivation. Subjects were deprived of stimulation in a variety of ways, and the effects were noted. In sensory deprivation tanks, following an initial sleep, several subjects maintained deprivation until they hallucinated. For some, their behaviour was disturbed up to several weeks later (Ellis 1973: 87). When given stimulation, the viewer needs to detect meaningful patterns. While hissing or white noise generates information to attend to, the elimination of form, pattern and meaning from the input to the subject results in under-stimulation, even though outside information has not been wholly eliminated. As such, optimally arousing stimuli in cinema typically provides the spectator with a narrative, which offers a familiar route to pattern, form and meaning.

Movies that are designed to elicit high and medium levels of arousal are abundant in popular cinema, such as action movies, horror, thrillers, dramas, rom-coms and comedies. In these examples, the filmmakers aim to provide optimal arousal levels in the viewers. Films can also provoke lower levels of arousal, which will test the patience of some viewers, as found in the 'slow cinema' (De Luca and Barradas Jorge 2016) films of Robert Bresson or Bela Tarr, for instance. With the meditative film, arousal levels may be lower still. There is no dialogue, minimal screen motion, and narrative comprehension skills such as inferring events that are not depicted are not required. If the viewer can adapt their viewing habits, attend to small visual details and work at a lower level of arousal for an extended period of time, they will learn to engage with the meditative without feeling under-stimulated. Narrative films, then, can evoke a wide array of emotions and moods, but not the full spectrum of states that are available to human consciousness. The meditative film points to and aims to elicit one such alternative type of mental state.

Aside from the novelty of experiencing meditative film in a state of low arousal, one may speculate that it helps cultivate a psychological discipline comparable to actual meditation. Research suggests there are benefits to meditation, such as helping reduce anxiety and depression (Zeidan et al. 2013) and improving concentration (Mrazek at al. 2013). The challenge when meditating, like that of engaging with the films discussed, is that of overcoming boredom. When turning one's attention to a single point of reference like focusing on the breath, bodily sensations or a single word (mantra), the purpose is to turn one's attention away from distracting thoughts and focus on the present moment. This can lead to feelings of restlessness, however. According to John Eastwood et al. (2012), we need a certain amount of psychological energy or arousal to experience boredom. When we are in a state of low arousal and little is happening, we feel relaxed. In a state of high arousal, we have energy that we would like to devote to something, but cannot find anything engaging. When one is able to slow the mind down into a state of low arousal, we are ready to both meditate, and engage with meditative film.

Artists like Hutton, Dorsky, Benning and Rodakiewicz can be understood as filmmakers who made intuitions about the mind and its possible threshold for arousal levels, offering viewers occasion to attend to their perceptions in a way they would not in other contexts, and providing viewers occasion to contemplate their cognitive and perceptual facilities.

Conclusion

The challenge of the avant-garde film tradition, it has been argued, lies not in the wholesale rejection of narrative. Rather, some works wholly reject narrative as an organizing system, while others employ elements of traditional storytelling to prompt the viewer into a narrative mode of comprehension, without providing full narrative cohesion. If narrative skills of comprehension are challenged or rejected, viewers are called upon to exercise other mental skills such as seeking out radical metaphors and metonymy, paying attention to diffuse feelings of significance, generating creative allegorical interpretations, clustering units of information into thematic groups, and operating at an uncommonly low level of arousal for the duration of the film. In turn, the avant-garde reveals experiences and pleasures that were previously under-rehearsed or absent in cinema, expanding our aesthetic sensitivities, media literacy and skills of engagement. Narrative engagement might be the most pervasive method of comprehension we apply when viewing a film – but if it is denied, the patient and persistent will find a second port of call.

As it has been argued earlier in this chapter, according to cognitive theories of mind, narrative comprehension is an essential tool for negotiating everyday life.

In cinema (and storytelling in general) causally linked chains of events are fashioned and streamlined through shifting points of view, temporal ellipses and spatial changes, in order to enable the process of comprehension. Why, then, might an artist frustrate the audience's desire to draw a coherent narrative interpretation of its events? For some, the absence of a narrative structure in avant-garde art forces the viewer into actively participating in interpreting the film rather than passively receiving meaning (Carroll 1996; Le Grice 2001 [1997]). It also reflexively encourages the viewers to be constantly aware that they are watching a film, stripping away the illusion central to mainstream cinema (Hersey 2002). Another explanation has been proposed here, which is that the filmmakers provide an experience for the viewer, in which they are called upon to apply their minds in ways that are under-rehearsed in mainstream narrative-dramatic cinema.

What has been explored in this chapter is a set of exemplary films, some canonical and others less well known, in an attempt to clarify some of the possible relationships between narrative and avant-garde film. Rather than arguing that the avant-garde broke free from the restrictions of narrative, it has been suggested that some avant-garde films productively separate narrative as a mode of cognition and a text structure by 'veiling' the story through substitutions or allusions (as in the work of Conner and Anger). Maya Deren's trance film, by contrast, contains some elements of narrative (such as a central character on a quest), while denying others (disorientating spatial/temporal relations, and employing ambiguous symbolism), cueing narrative expectations without fully indulging them. In Hollywood Extra, we see that some films are placed in the avant-garde canon that cue all the familiar narrative modes of engagement, yet the film challenges the audience in other ways by being self-reflexive, stylistically disjunctive, and employing absurdist symbolism. By considering catalogue form and the meditative film, two possible alternatives to narrative have been considered that draw viewers towards developing thematic readings of mental categories, and operate at an uncommonly low level of arousal.

The historical pervasiveness of narrative as an organizing system in cinema, literature and theatre suggests that its dominance in popular cinema is not arbitrary, but rather we possess a natural instinct to engage in those terms. Simultaneously, it is possible that the dominance of narrative only served to compound its status as the 'only dish on the menu' in popular cinema, compelling avantgarde filmmakers to find alternatives. Yvonne Rainer refers to the 'tyranny' of narrative, commenting:

The tyranny of a form that creates the expectation of a continuous answer to 'what will happen next?' fanatically pursuing an inexorable resolution . . . in space and time . . . seemed more ripe for resistance . . . Can specific states of mind be conveyed without being attached to particularities of place, time, person, and relationship? Can an audience learn to abandon its narrative expectation? Can subject matter dealing with perceptual and photographic phenomena be sequentially – rather

than narratively – linked to material that has already been invested with 'storyness?' (Rainer 1999 [1978]: 12)

Rainer, along with Laura Mulvey and Chantal Akerman possessed a suspicion of conventional narrative, an attitude also widespread amongst structural filmmakers in the 1970s. As the influence of structural film diminished, however, narrative became a major concern for both feminists and others within the avant-garde (Smith 1998: 408). A discussion of the more narratively engaged strains of filmmaking that emerged – such as the 'Menippean satire' (Sitney 2002: 410) and the 'new talkies' (Peterson 1994: 180) – would be an avenue for further discussion.

Other theories of narrative within avant-garde film could also be considered. For instance, Hollis Frampton and Stan Brakhage are two filmmakers who saw their work as being inextricably tied to narrative, even if their films themselves do not contain narratives. This is because there is still a narrative explanation for the creation of their films, and each work is also placed within the narrative of film history. In 1980, Frampton published the book *Circles of Confusion*, which opens with an essay entitled 'A Pentagram for Conjuring the Narrative',⁸ a five-part article that argues that even for a work that is decidedly non-narrative, there is still the 'story' of the film's production. For all the elements of a film, there is an explanation of how it got there that can be couched in narrative terms. Frampton called the postulation of the inevitability of narrative 'Brakhage's Theorem', claiming that Brakhage had proposed it to him. He summarized it in the following way:

For any finite series of shots . . . there exists in a real time a rational narrative, such that every term in the series, together with its position, duration, partition, and reference, shall be perfectly and entirely accounted for. (Frampton 2009 [1980]: 140)

In his late-career painted abstractions (discussed in chapter three), Brakhage seemingly strayed as far from narrative as any film artist has done. Echoing 'Brakhage's Theorem', in 1993 he commented that he underestimated the level to which dramatic narrative infiltrated his own life and that of his family through radio, TV, newspapers and mainstream cinema. In turn, his children acted out dramatic narratives in their games, and Brakhage created a situation for himself in his home that was itself like a narrative. Operating as an intentional agent, Brakhage would shift between a series of causally linked events in the household, creating art, tending to his children and assisting with household chores. He went on to state that 'my work was tied to the whole history of cinema when I thought that wasn't the case. The films weren't free to grow aesthetically but dragged down by their subject matter. Despite all the evolutions of my film grammar . . . , they were still tied to the more traditional dramatic-narrative framework' (Gangulay 2002: 141).⁹

Michael Snow's widely discussed *Wavelength* (1967) also challenges conventions of narrative form and comprehension. The film seemingly contains fragments of a narrative that strays into the film, but the fragments of narrative have no direct bearing on the form of the film. It begins as a wide shot of a loft space, and four events take place: two men place a bookcase against the left wall of the room; two women listen to The Beatles' song 'Strawberry Fields Forever' on the radio; a man walks into the frame and drops dead; and a young woman comes into the room and makes a phone call to report the dead man. These events are widely dispersed across the 45-minute film, as the camera intermittently zooms towards a photograph of the sea, which is at the opposite end of the room. The film ends on a close-up of the photograph.

The events contained in the film make no impression on the progression of the zoom or the form of the film more generally. The camera does not follow the plight of any of the characters, or contextualize the circumstances in which the various events took place. A film that appears to be about a zoom across a loft is seemingly interrupted by a story that strays into the space. Murray Smith comments that 'the narrative and non-narrative elements co-exist in the film, like oil and water, rather than merging or binding together' (Smith 2009: 7).

This rigid separation of form and narrative can be understood as another exemplar of the freedoms claimed and won by avant-garde filmmakers in their renegotiations of narrative as an organizing system.

Notes

1. For example, see anthologies: G. Fireman, T. McVay Jr and O. Flanagan Narrative and Consciousness (2003); D. Herman, Narrative Theory and the Cognitive Sciences (2004).

2. While a lengthier discussion of this would be tangential to the larger issue, it should be noted that some kinds of experience can be transmitted genetically in the form of epigenetic inheritance.

3. Bordwell's widespread and influential assertion that the viewer 'constructs meaning' from films has been critiqued by Berys Gaut (2010: 164–79), who claims that while there is a limited role for construction in some films, Bordwell's position fails to prove that genuine construction lies at the core of the comprehension and interpretation of films. Bordwell's position is contrasted with the detectivist view of interpretation, which claims that meaning is determined independently of the viewer's opinion about it – audiences are directed towards meaning, which is determined by the film's intrinsic features. While that debate will not be addressed in detail, I will comment that Bordwell's key insights can be restated in 'detectivist' terms. That is to say, films do direct spectators towards their meaning, but spectators then have to pick up these cues and do something with them – that is, use their perceptual and cognitive capacities, including relevant background knowledge, to detect the meaning. The viewer can be understood as 'constructive' in this sense.

4. This is not to be mistaken with Bordwell's concept of 'parametric narration'. While style-centred narration can sometimes be considered parametric, Bordwell comments 'any film might contain an aesthetically motivated flourish – a gratuitous camera movement, an unexpected or unjustified color shift or sound bridge . . . In parametric narration, style is organized across the film according to distinctive principles' (Bordwell 1985: 281). Parametric narration features a small set of devices that

recur frequently and systematically and that are subtly decorative (as found in the work of Yasujiro Ozu, for instance) – rather than a narrative that flaunts its style. *Hollywood Extra* is not quite as systematic as this.

- 5. Originally stated in reference to Stan Brakhage's work, but it is useful in this context as well.
- 6. Quoted in BFI edition of the Kenneth Anger DVD Magic Lantern Cycle (2011).

7. Scott MacDonald's discussion of Peter Hutton was, along with ecocinema more generally, the inspiration for this film type. See also 'It's About Time: Slow Aesthetics in Experimental Ecocinema and Nature Cam Videos' by Stephanie Lam in the edited collection *Slow Cinema* (2016), edited by Tiago de Luca and Nuno Barradas Jorge.

8. Now available in the book On the Camera Arts and Consecutive Matters (Frampton 2009).

9. A number of Brakhage's claims, which he asserted with conviction, were difficult to accept for some – such as his refusal to distinguish between the abstract and the figurative, or his criticism of Sitney and others for labelling him as an 'imaginative film maker, as an inventor of fantasies or metaphors' rather than being 'the most thorough documentary film maker in the world'. See Victor Grauer's article, 'Brakhage and the Theory of Montage' (1998).

CHAPTER 2

GHOST FILMS OF THE AVANT-GARDE

I am not greedy. I do not seek to possess the major portion of your days. I am content if, on those rare occasions whose truth can be stated only by poetry, you will, perhaps, recall an image, even only the aura of my films. And what more could I possibly ask, as an artist, than that your most precious visions, however rare, assume, sometimes, the forms of my images.

-Maya Deren, 'Cinema as an Art Form'.

Maya Deren's declaration acknowledges a generally overlooked, yet crucial fact about art – once our immediate experience is over, the work spends its life nestling in our memories, returning intermittently outside aesthetic contexts. Deren shows a particular sensitivity to the way in which art is subjectively rendered in the mind, which may be characteristic of the avant-garde. We can ask: what is it that the artist aims to create – a vivid experience, or a persistent memory? The answer might be given that they try to provide both. A central claim advanced in this chapter, however, is that the rewards of some avant-garde films sometimes lie more in their long-term resonance rather than in their immediate impact. This is not to suggest that avant-garde films are easy to remember, on the contrary, the claim will also be made that formal characteristics that pertain to the avant-garde make them difficult to recall. However, there are dimensions to the creation and retention of our memories following an encounter with avant-garde films that may encourage a vivid memory.

A film transforms when it is revisited as a memory. While cinema is durational, a memory – a network of associations, emotional responses and arresting images – returns in an instant. Responses that are initially provoked may transform into something else when revisited at a later time. A work of art may haunt the viewer with feelings that were not experienced during the initial encounter after a period of digestion. In this sense, the long-term pay-off contrasts with the assumed instant gratifications of popular mainstream movies. When a film resonates, then, it returns to the viewer intermittently, perhaps because they liked it in the immediate, or because it ages well as a memory. It might leave the viewer with an 'itch', a feeling that there is something about the work that has not been fully grasped yet, which makes it persist in the mind.

Why is remembering an avant-garde film after the fact an aesthetic, rather than a psychological issue? The claim will be advanced in this chapter that the difficulty viewers can find in remembering avant-garde films may be an aesthetic virtue. Avant-garde films are notably polyvalent, in the sense that they are more open-ended in the range of interpretations they seem to invite than most narrative-dramatic films. Viewers may subjectively alter and embellish the films over time, as if they serve as an imagining board with which the viewer is able to free-associate with, long after the film has been directly encountered. The way we remember works of art directly informs our overall relationship with them, after our immediate experience is over.

The subject of memory is also relevant to a discussion of the cognitive dimensions of avant-garde film because it has provided filmmakers with a fertile starting point for formal experimentation, and it has also been researched by cognitive psychologists. Since there is a largely unexplored convergence in interest between this particular subset of artists and psychologists on the subject of memory, it will be productive to consider observations from both groups in light of the other. This discussion, then, relates to the broader theme of this book by drawing together shared interests between cognitive scientists and avant-garde filmmakers. We can consider the intuitions of filmmakers Stan Brakhage, Maya Deren and Larry Jordan within the context of research from the field of cognitive psychology.

Like chapter one, avant-garde film will be discussed as a broad phenomenon rather than focusing on a specific artist or movement. Since this discussion is not limited to the work of a specific filmmaker or category of filmmakers, there will inevitably be counter-examples to the broader argument, since avant-garde film is such a diverse field; however, an argument will be offered that relates to general patterns relating to experimental film.

The discussion will begin by outlining the ways in which memory is a recurring theme in avant-garde film. Following this, some of the main concepts behind cognitive theories of memory will be detailed. Some of the formal details that relate to narrative organization and that have a bearing on human memory skills will be considered, and these details will be related back to a series of case studies. Then, the spectator's personal responses (e.g. emotional reaction, level of analysis, pre-existing specialist knowledge) will be examined, and how they have a bearing on their recollection of the work. It will finally be suggested that an unstable memory can be an aesthetic virtue in relation to experimental films. Broadly speaking, this discussion attempts to illuminate another way in which avant-garde filmmakers take 'sense as muse', drawing creative inspiration from the nature of the mind. The chapter will also demonstrate how their films challenge commonplace cognitive routines; if viewers expansively adapt to the mental habits called upon to engage with avant-garde films, they may remember the works they encountered with greater clarity, recalling surface details, isolated images, their own personal interpretations and the atmospheres evoked without recourse to a narrative thread.

Avant-Garde Film and Memory

The fluid, transitory field of memory that is shaped by subjective concerns, biases and interests has served as an inspiration in both avant-garde film and other instances of cinema's more enigmatic texts. It appears during the early stages of the French New Wave – Alain Resnais' *Last Year at Marienbad* (1961) explores the unreliability of memory, while Chris Marker's *La Jetée* (1962) tells the story of a man haunted by an image from his childhood. More recently, David Lynch's loose trilogy of films *Lost Highway* (1997), *Mulholland Drive* (2001) and *Inland Empire* (2006) all explore the biases and embellishments that the mind retrospectively creates to cope with overwhelming guilt.

Within the field of experimental film, Jeff Scher has produced a trilogy of animations entitled You Won't Remember This (2007), You Won't Remember This Either (2009), and You Might Remember This (2011). These films deal with a phenomenon known as childhood amnesia, where the parent is able to remember what their child will ultimately forget (Husbands 2014). The treated found-footage films of Phil Solomon, such as The Emblazoned Apparitions (2013), address collective memory, and resemble the liminal quality of experiences that have dissolved into memories. Drawing the viewer's attention to their own mental skills, Hollis Frampton's (nostalgia) (1971) and Malcolm Le Grice's Blackbird Descending (Tense Alignment) (1977) both compel the spectator to reflect on their own short-term memories while engaging with their films.

Drawing from her own intuitions about the mind, filmmaker and theorist Maya Deren proposes two organizational axes for memory – the horizontal and the vertical. She suggests that a vertical progression – that is, chronological and causally linked – is the method generally used in popular storytelling; however, it is only one possible method for mentally organizing events. The horizontal axis, by contrast, provides non-chronological, associational links, which can be replicated in cinema. She comments:

By 'horizontal' I mean that the memory of man is not committed to the natural chronology of his experience . . . On the contrary, he has access to all his experience simultaneously . . . he can compare similar portions of events widely disparate in time and place. (Deren 2001 [1946]: 11)

In An Anagram of Ideas on Art, Form and Film, Deren suggests that exploring the horizontal axis of memory in filmmaking will create an imaginative environment that cinema lends itself to in a manner distinct from other art forms. She comments that the filmmaker 'can place together, in immediate temporal sequence, events actually distant, and achieve, through such relationship a peculiarly filmic reality' (ibid.: 42).

Stan Brakhage also reflected on memory, but not by attempting to emulate its non-chronological form through cinema. Rather, he noticed that occasionally he made films that most viewers would not remember seeing, even immediately following the programme in which it was screened amongst other works. These films would not be mentioned except in the vaguest terms, and would not be critiqued in print. Brakhage said the following:

My natural supposition was that these films were 'weak' in some way, perhaps even defective; but then I did begin to notice also that defects in more memorable films of my making, even works . . . quite crippled by error, were thoroughly critiqued, immediately and ever after. I finally came to the sense that there were some films which just naturally seemed to slip past any easy consciousness of most viewers and to, thereby, lodge (perhaps 'hide' is a better word) in the (dare I say 'collective'?) unconscious. I too would tend to forget them, or if I did remember them it was very much as one would make special effort to protect or to socially mature a neglected child. (Brakhage 2003 [1996]: 83)

Dubbing these forgettable works 'ghost films', Brakhage suggested that they have a quality that defies language description, and in turn defy normal routes to 'memorable-ness'. Where an unmemorable film would ordinarily be considered a failure, then, Brakhage speculated that these ghost films might be his greatest successes, in the sense that they cast off all references to language and become pure works of 'moving visual thinking' (a concept that will be explored in chapter three). Brakhage concluded '*Only* a ghost film could possibly break thought-bonds of language and exist as, say, movement haunt, tone-texture haunt, ineffable-haunt. The sense of such a film might naturally exist within the spectator, very like the kind of passing image which prompts dreams that *cannot* be verbalized' (ibid.: 86). Although this chapter is not a direct defence of Brakhage's postulation, it will explore some of the unique ways in which avant-garde films may serve as memories that distinguishes them from commercial cinema.

The focus of this chapter is not about the way that the spectator's memory skills are exploited *during* the film, as in the case of *Blackbird Descending* (*Tense Alignment*) or (*nostalgia*). Nor is the focus on films whose forms are inspired by the liminality of memory (such as *La Jetée*, *Lost Highway* or Maya Deren's psychodramas). Rather, the way in which avant-garde films are recalled after they have been directly experienced will be considered, in a manner that is distinct from commercial films.¹ The chapter will expand on the idea suggested by Brakhage

that films that are difficult to remember (as many avant-garde films are, it will be proposed) possess a peculiar resonance and this can be understood as an aesthetic virtue, rather than a failure.

Setting the Ground Work

So far, the suggestion has been made that memory is a recurring topic in avantgarde film that can be productively enlightened by research from the field of cognitive science. The next step is to establish some of the central principles of memory as it is understood within cognitive science, before returning to a series of case studies. Within the cognitive theory of mind, memory is understood as consisting of three broad stages: encoding, storage and retrieval. Encoding takes place when the experience initially registers in our perceptions. Following that, it is retained in the 'memory stores', meaning that specialized memories are preserved in particular areas, such as episodic memories (e.g. recalling an anecdote) or procedural memories (e.g. physical routines like how to tie one's shoe laces, or ride a bike) (Evsenck and Keane 2000: 205–7). However, memories can undergo trace decay if they are not vividly encoded or revisited once they have been stored, disappearing over time (ibid.: 170). During storage, interference might also occur. This is when prior or future knowledge interferes with existing memories and they are distorted. Retrieval takes place when a memory is recalled from storage and returned to the subject's conscious attention. This may occur spontaneously and involuntarily, or it may occur through conscious effort. On occasion, a memory might be retained in the memory stores but still be difficult to retrieve – when one says it is 'on the tip of my tongue' for example, the memory is present but is difficult to access.

To reiterate a maxim commonly cited during cognitive discussions of art, we engage with aesthetic experiences with the same mental equipment developed for interacting with the natural world. The capacity to remember our experiences in life and art is no exception to this rule. Unlike everyday experience, however, the artist can control the form of the film, which will have a bearing on the accuracy with which a film is encoded, and is subsequently stored and retrieved.

In the first of three primary subsections entitled 'Narrative Organization and Memory', it will be argued that certain typical features that pertain to the avantgarde discourage clear long-term recollection – particularly if they are not organized in a way that prompts a narrative mode of engagement. Broadly speaking, it will be suggested that events in avant-garde films are more commonly linked sequentially, rather than being connected according to dramatic consequence. The viewer may also be drawn towards mentally attending to moment-bymoment details, rather than binding the work together into a coherent whole. The surface details (i.e. retinal impressions) are oftentimes emphasized over the semantic details (the 'meaning'). Finally, the trajectory of an avant-garde film is not typically motivated by clearly defined goals. This discussion relates to and builds on the discussion of narrative in the previous chapter. Implicit within the overview of cues that prompt a narrative mode of engagement is the understanding that narrative films connect events consequentially, with a clear global structure (i.e. a narrative arc). In addition to this, a narrative will feature events that are motivated towards a goal, and the viewer will largely need to pay attention to the semantic details, rather than the surface details. Table 2.1 summarizes the principal claims advanced in the first subsection.

int-Garde Film	
Good memory	Trace decay/ Distortion
Consequential series of events	Sequential series of events
Clear global structure	Emphasizes local details
Semantic details	Surface details
Drive-to-a-goal	No clearly defined goal

Table 2.1'Good' and 'Bad' Memory: Formal Features of Conventional andAvant-Garde Film

According to existing research conducted on memory, then, we appear to be ill-equipped to remember the central details of avant-garde films; since they frequently emphasize surface details, events are often sequentially linked rather than causally connected, and they lack a dramatic goal. These claims largely draw from David Bordwell's discussion of memory in *Narration in the Fiction Film* (henceforth *NiFF*), along with Joseph Anderson's *The Reality of Illusion* and James Peterson's *Dreams of Chaos*, *Visions of Order*. Materials drawn directly from the field of cognitive science will also be used.

In the second subsection entitled 'Personal Responses', the ways in which avant-garde films imprint themselves differently to narrative-dramatic films will be considered. While the first subsection focuses on the details of the film itself, the second subsection will consider the personal responses of the individual spectator – their emotional reactions, interpretations, the level of detail with which they analyse the work they encounter, and the unique body of knowledge that each viewer brings to their own experience. It will be suggested that the larger affective tone of the work will be more readily retained rather than moment-by-moment emotional reactions. The general 'gist' of the film is more easily recalled than individual incidents. If the spectator responds vividly to a film, rather than with indifference, they may mentally revisit it and strengthen their memory of the work. If the viewer possesses prior, specialist knowledge that informs the film, or if they analyse it in closer detail, the clarity with which they recall the work will be enhanced. This subsection can be summarized in Table 2.2.

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Trace Decay/ Distortion
Emotion
Local details
Shallow processing
Generic events

 Table 2.2
 'Good' and 'Bad' Memory: Subjective Features of Conventional and Avant-Garde Film

In the third subsection entitled 'Interference in Action', there will be a consideration of the ways in which a distorted memory may serve as a creative springboard for films that invite multiple interpretations, like those in the avant-garde. This will be explored in relation to Larry Jordan's *Hamfat Asar* (1965).

Since memory is a highly subjective capacity, there is no exact science for predicting what the spectator will retain – different viewers will hold onto their own unique configuration of elements within a film. But while the subjective dimension of memory is crucial, we can nevertheless gain insight about our experience of films and how they might be recalled through scientific investigation that has already been conducted.

Narrative Organization and Memory

In the following subsection, the claim that films that cue a traditional narrative mode of comprehension are easier to remember in the long-term than avantgarde works will be expanded on. In a sense, this builds on the previous chapter, but the goals are different. When conventional stories are told in movies, they cue operations in the spectator that facilitate a familiar, well-rehearsed narrative mode of thought, which in turn allows the spectator to make inferences beyond the information given. Here, the suggestion will be made that a narrative structure also aids the encoding, storage and retrieval of films as memories.

Aside from the exceptionally gifted, people do not retain their experiences with photographic accuracy. The psychologist Donald Spence (1984) argues that the episode as remembered will instead have 'narrative truth', in which the most salient features of the event are retained. As such, surface details are more likely to be forgotten, and so are elements that do not carry any relevance to the experience. For instance, if you get a bus to town, you are unlikely to remember the price of the fare or the faces encountered unless they have some kind of salience (e.g. you are 20p short, or you see a friend). Narrative truth is accurate in some respects, but not what we might consider 'historically faithful', since the entire set of details in an experience is too rich to be accurately preserved (Spence, quoted in Anderson 1996: 157).

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While our lives are complicated by tangential experiences, pulling us in a series of digressions, we normally choose a consistent thread from our past and synopsize it as a memory: stable agents are tracked, events causally lead to one another, and irrelevant details are filtered out when recounting an anecdote to ourselves and other people. Psychologists David Rubin and Daniel Greenberg comment:

Narrative structure . . . establishes a major form of organization in autobiographical memory, providing temporal and goal structure. Autobiographical memories are usually recorded as narrative; they are told to another person and to oneself. (Rubin and Greenberg 2003: 61)

Just as our autobiographical memories are easier to remember if they are organized like narratives, an unambiguous narrative in a film also facilitates a clearer memory. Encoding is easier, which in turn increases the amount of detail that is stored, and makes retrieval more efficient. Accordingly, a memory is more likely to be subject to distortion (in which additional knowledge alters memories) or trace decay (in which memories deteriorate over time) if the information is not structured in narrative form. Some of the characteristics of narrative that have a bearing on our memories will be considered, and their implication for the retention and recollection of avant-garde films. The discussion of narrative organization and memory will be divided into a series of subsections that consider details emphasized by the various films that have an influence on our encoding, storage and retrieval of the works.

Global Structure and Local Details

What perceivers remember and what they forget in the long-term is in part dictated by the governing structure of a work of art. Clear recollection favours the global structure, rather than the local details. Joseph Anderson explains:

both superordinate and subordinate events can be remembered. But long-term memory seems to favor the superordinate units, the larger event, the overall structure. Put another way, all levels of memory are subject to forgetting. The lower levels of the hierarchy are more vulnerable than the higher ones. . . . the whole is more memorable than the parts. This seems to be true of biographical memory, or recall of a story, and of what we take away from the viewing of a film. (Anderson 1996: 155)

Narrative organization provides the viewer with a clear global framework with which to comprehend a film (Branigan 1992: 13), which in turn will also shape the details of the memory. But it is not the only possible form of global organization. Many structural films with their simplified, sometimes predetermined

shapes marking a move away from the more subjective, passionate and complex forms of filmmaking practised by Stan Brakhage and other poetic filmmakers² feature eminently simple governing shapes, which make the work easier to recall. Ernie Gehr's *Serene Velocity* (1970), for instance, is governed by an exceptionally plain and simple governing pattern that makes the 'larger event' of the film easy to remember. It features the empty corridor of a university building. The frame looks like a shiny green field, with patterns added by fluorescent lights on the ceiling, which reflect on the other three sides of the corridor. In a series of fast, rhythmical edits, the zoom lens alternates back and forth every four frames. Initially, the shift in composition is minor, but as the 23-minute film progresses, the spatial interval between each shot becomes wider and wider.

The governing pattern is straightforward and easy to remember – spatial intervals between shots become progressively wider as the film progresses. If the whole is more memorable than the parts, the 'whole' is very easy to discern, and is thus easy to remember. Sitney describes the larger structure by commenting that 'In its overall shape *Serene Velocity* moves from a vibrating pulse within an optical depth to an accordion-like slamming and stretching of the visual field' (Sitney 2002: 401). In this instance, then, the global structure of an avant-garde film is eminently clear and easy to recall. Viewers are likely to remember it accordingly.

More commonly, particularly outside the structural tradition, avant-garde films do not contain an easily discernible governing shape, which in turn encourages the viewer to pay closer attention to the parts rather than the whole – the 'subordinate' events rather than the 'superordinate' – which are more difficult to encode and store as memories. Robert Breer's *Rubber Cement* (1975) is one such example of a film whose global structure is unclear, and this will impair the viewer's recollection of the work at a later time. Ute Holl comments:

Every time we see a film by Robert Breer, it looks different. Some images disappear; other images are carved deeply into the memory and stay with us. We never jump into the same stream of images twice. (Holl 2011: 48)

This is in part attributable to the fact that the range of seemingly dissociated objects cannot be bound into a unified global structure. There is no developing pattern like the expanding and contracting visual field in *Serene Velocity*, no chronological cycle like the alphabet in *Zorns Lemma* (discussed in chapter one), and no narrative arc to bind the chain of events together. Instead, viewers are encouraged to attend to the local details without integrating them into a larger structure. *Rubber Cement* features a collage of disparate artefacts from Breer's life and intercuts them: rotoscoped family footage of a dog and a woman at play in a park; domestic life – a plate, a cup, newspaper clippings; and Breer's own artistic heritage – the anarchic Felix the Cat, and the abstraction of Hans Richter's *Rhythmus 21* (1921) (evoked by expanding and receding rectangles); rubber ce-

ment (which Breer uses to make his films); and abstract shapes. The film, then, is unstable in the sense that the content is unpredictable, and also in the sense that the objects are rendered in unpredictable ways – some are drawn in realistic proportions, while others are in cartoon-like proportions. Some images are abstract, while others are figurative; there is rotoscope, collage, crayons and paint continually intercutting with one another.

A series of title cards appear intermittently, dividing the film into four subsections (Amos Chases a Stick/ Frannie's Plate and Cup/ Julie Plays Basketball/ Rubber Cement), yet a clear global structure is difficult to discern, as the various visual motifs intercut alongside one another, irrespective of the title cards. As such, remembering the film depends on recalling the local details (i.e. the various items featured), which are more complex, dissociated and difficult to retain – particularly since they cannot be integrated into the larger shape of the work. A traditional narrative possesses a clear global structure, which is easier to remember. *Serene Velocity* is also governed by a radically simple global structure. *Rubber Cement*, like many avant-garde works, is more loose and associative in shape.

Surface Details and Semantic Content

So far, the claim has been advanced that avant-garde films are difficult to remember if they are not governed by a clear global structure. The broad shape of the work might be eminently simple (in the case of *Serene Velocity*) but it might also be far more complex, or unclear. Here, the suggestion will be made that avant-garde films also often emphasize the surface details over the semantic content, and this also makes them difficult to remember. Philosopher Jerry Fodor distinguishes between the two by commenting that when checking a clock, we are much more likely to recall the time (i.e. the semantic content) rather than the shape of the numerals (surface details) – even though both must have registered at some stage of perception (Fodor 1983: 56–57). In his discussion of 'ghost films', Brakhage made comparable intuitions about the mind, commenting that our ability to recall details of motion is limited by our descriptive vocabularies.

The capacity to remember *any* imagery from the flowing-river experience of motion pictures is exactly dependent upon one's capacity to name what has been seen. A picture is (as I define it) a collection of nameable shapes framed (i.e. in interrelated composition). But it is almost impossible to name the motions of these shapes-as-things in other than the most general way ('fast', 'slow', 'up', 'down,' 'jerky', 'smooth', 'right', 'left' and so forth) (Brakhage 2003 [1996]: 85–86).

Outside the avant-garde, surface details of cinema are intended to be appreciated – from Ingmar Bergman's elegantly composed dramas to Michael Bay's action spectacles. In narrative film, however, the function of the surface detail is typically subordinated to the story that it serves, and it may be forgotten once it has been integrated into the larger, more 'meaningful' structure of an overarching narrative. The sensuous appeal of some avant-garde films by contrast – the colour luminance, film grain quality, motion, composition and camera movement – more fully comprises the film's central concerns. James Peterson comments:

to disregard the plastic qualities of the images [of poetic film³] is to disregard a major part of the experience of the film. Thus, we are faced with a contradiction: human discourse processing seems designed to discard central features of the work. (Peterson 1994: 50)

In addition to Peterson's poetic strain (which is abstracted from more specific terms, identified by earlier critics), other categories of avant-garde film such as visual music, abstract film (Rees 2011: 28) and lyric film (Sitney 2002: 160) also draw the spectator's attention to the surface detail.

Peterson comments that surface patterning is also central to poetry, in which the readers do not just decode its meaning; rather, they pay attention to the ways in which the semantic features are patterned with rhyme, rhythm and alliteration (Peterson 1994: 23). This comparison might be extended by thinking of the pure abstraction of Len Lye's A Colour Box (1935), for example, as being analogous to non-referential, phonetic poems such as Hugo Ball's 'Karawane' or Isidore Isou's lettrism poems. Other films such as Marie Menken's Glimpse of the Garden (1957) and Richard Serra's Railroad Turnbridge (1976) 'use real objects and . . . isolate them from their everyday context in such a way that their abstract qualities come forward' (Bordwell and Thompson 2003 150). This is loosely comparable to Gertrude Stein's poems in which the 'referents' (i.e. the words) are familiar but are similarly isolated from traditional contexts so as to bring forward their abstract qualities.

Training viewers to pay closer attention to the abstract qualities of their visual surroundings rather than their functional context may be understood as an activity that expands our range of aesthetic sensitivities. While we generally assess our visual surroundings for the purpose of gauging their semantic relevance, in these films we pay closer attention to their surface details. We typically use our ability to recognize shapes and colours for practical reasons (e.g. interpreting traffic lights). In abstract films, we attend to the abstract quality of our visual field for non-utilitarian purposes. Bordwell and Thompson comment:

This impractical interest has led some critics and viewers to think of abstract films as frivolous. Critics may call them 'art for art's sake', since all they seem to do is present us with a series of interesting patterns. Yet in doing so, such films often make us more aware of such patterns, and we may be better able to notice them in the everyday world as well. No-one who has watched *Railroad Turnbridge* can see bridges in quite the same way afterward. In talking about abstract films, we might amend the phrase to 'art for life's sake' – for such films enhance our lives as much as do the films of other formal types. (ibid.: 150)

Abstract films, then, sensitize the viewer to the graphic details we encounter in everyday life. Returning to Fodor's example of the clock being registered for its semantic detail (i.e. the time) rather than the surface details (the design), one might imagine a catalogue film (as defined in chapter one) featuring a collage of clocks. If each image of a clock face lingers for a sufficient amount of time, the viewer may eventually pay closer attention to the surface details of the clocks to retain interest, rather than the time they tell. In turn, the sensitized viewer attends to their visual field in an uncommon manner. This idea has been expressed by modernist writing. Malcolm Turvey details the 'automation of perception' theory, which suggests that viewers might be trained into possessing greater visual sensitivity after engaging with modernist works of art that escape the way reality ordinarily appears to us:

Art . . . compensates for a supposed inherent limitation of everyday sight – its tendency to habituate – by impeding this tendency and making people attend to things that they usually overlook. Needless to say, for modernists who subscribe to this theory, it is very important that at least some of the time people be made conscious of what they normally miss due to habituation, even though modernists differ over why this is important. The crucial point here is the distrust of everyday sight that this widely used justification for modernist art is premised on. Normal vision misses a lot; art helps us see more and better. (Turvey 2008: 102–3)

To reiterate, avant-garde films often emphasize the surface over the semantic, and according to existing research on memory, this poses a particular challenge to our memory skills, since the human mind is more prone to recall semantic details.

Consequential/Sequential Events

It has been suggested that an indiscernible global structure and an emphasis on surface details – both characteristics commonplace in avant-garde film – present a challenge to their encoding and storage in memory. The relationship between the events as they occur will also have a bearing on the way in which they are remembered. During recollection, viewers are more likely to mix the ordering of the events up if they were ordered sequentially ('and then . . .') rather than consequentially ('as a result . . .') when encountered. In other words, causal connections best facilitate the retention of events that took place, and the order in which they occurred.⁴ This has a clear implication for avant-garde films, since events seldom follow one another according to dramatic consequence. In the case of *Rubber Cement*, for example, the spectator may struggle to remember whether they saw Felix the Cat or the newspaper clippings first. In that example, however, there is a heavy emphasis on the surface details over the semantic content. When a film draws the viewer's attentions primarily towards the surface de-

tails, causal connections or events occurring according to dramatic consequence will be uncommon.

In some instances, films that do not emphasize the surface details still present events sequentially rather than consequentially. Sidney Peterson's *The Petrified Dog* (1948), for example, puts a greater emphasis on the semantic over the surface, featuring distinct characters in a staged enactment, filmed through relatively conventional means. Yet events are not, for the most part, ordered according to dramatic consequence. We encounter a series of sequences that are continually intercut, whose significance to one another is never made explicitly clear. Several characters are tracked, and their paths occasionally cross. Goals are never established and scenarios are never contextualized. The spectator remains perpetually in the present – unable to infer what the characters are doing when they are off-screen, and largely unable to predict what is likely to happen next. As such, events occur sequentially rather than consequentially, and the immediate experience of the film will discourage a clear and unambiguous memory that can be returned to at a later time.

Characters in *The Petrified Dog* include a 'loony' who runs across a city and jumps on a public monument of Abraham Lincoln; a woman who applies lipstick and then starts eating it; and a photographer who takes pictures of himself standing next to a statue of a lion (the petrified dog). Later in the film, the photographer gets knocked over by the loony, who is running through the park. The film also features a musician who sits on a wall with a flower between his toes strumming a guitar, and an artist who pretends to paint onto an empty canvas in a park and who is joined by another man. They talk, and the artist gives a cup of water to the man, who throws it on the ground and walks away.

All of these lines of action (amongst others) are intercut with one another. Each event in *The Petrified Dog* lacks a causal connection with the preceding event. The various lines of action are self-contained, simple, peculiar, and do not appear to be connected according to a clear chain of dramatic consequence with the other lines of action. Viewers need to create their own imaginative interpretations of the various scenarios, rather than being provided with a straightforward story with rational character motivations. *The Petrified Dog* seems to depict a hermetically sealed universe with its own rules of behaviour.

Since the various scenarios that intercut with one another do not appear to be causally connected, this encourages free interpretation and multiple-meaning interpretations on the part of the viewer.⁵ James Peterson calls this 'free interpretation sets', 'sets of potential meanings that fit some of the details, but leave many others unexplained. Faced with an apparently loosely organized discourse, readers try out these possible meanings, perhaps settling on one that seems to fit best, perhaps entertaining a number of them indefinitely' (Peterson 1994: 25). Discourse that encourages play with free interpretation sets, however, generally puts greater demands on the spectator if they are to try and remember the ordering in which the events occurred.

Drive-to-a-Goal

Aside from an indiscernible global structure, an emphasis on surface details and a sequential (rather than consequential) arrangement of events, the absence of a clearly established goal also makes a film difficult to encode, store and retrieve. Bordwell comments:

One researcher found that comprehension and memory are best when the story conformed to the drive-to-a-goal pattern. When the goal was stated at the end of the tale, comprehension and recall were significantly poorer, but still not so poor as when the goal of the action was never stated. (Bordwell 1985: 35)⁶

If the goal is made clear near the beginning of a tale (as it normally is in traditional narrative films), comprehension and recall is best facilitated. If the goal is stated at the end of a tale, recall is poorer. If a goal is never made clear, recall is poorer still. *Rubber Cement* and *The Petrified Dog*, for instance, lack clearly established goals. Dramatic goals are generally absent from most avant-garde films.

In the case of structural films, it is sometimes apparent to the viewer where the film is heading – even if a 'goal' in the traditional sense is not made clear. In *Serene Velocity*, a viewer might reasonably hypothesize that the spatial interval between the shots will get progressively wider until it is as wide as the camera allows. The middle section of Hollis Frampton's *Zorns Lemma* (1970) works towards the completion of a cycle (every letter of the alphabet is to be replaced by a picture) instead of progressing towards a goal. Michael Snow's *Wavelength* (1967) works towards the completion of a zoom across a loft space into a photograph on the opposite wall, rather than a 'goal' in the traditional dramatic sense.

If a film is motivated by a clearly established goal, the salience of each element will be placed into a hierarchy. Where important plot points will be retained, minor details are more likely to be filtered out. Many avant-garde films (particularly those that emphasize surface details) 'flatten' the various elements – making it unclear which elements are more salient and need to be retained. One such film that flattens the various events, without establishing a goal or ascribing importance to any given moment, is Ron Rice's *Chumlum* (1964).

In the amorphous world conjured by Rice's film, we encounter a collage of faces and limbs, frequently and abruptly superimposed over one another, often in a number of layers that are difficult to discern. There is a progression of events only in the loosest sense – we begin with an exterior of a building, and then cut to the interior, seeing Jack Smith swinging back and forth in a room. He is joined by a group of ambiguously gendered members of Andy Warhol's 'factory' entourage assembled in fancy dress, evocative of harem dancers in a kitsch *Arabian*

Nights production. In a loft space, they smoke opium, sway on a hammock, dance and caress one another. They appear to be entranced and passive, with Jack as a 'grand wizard' who has cast a spell on them. After lounging and playing in the loft space, they later continue dancing and swaying together in a forest, and then a beach. The camera movements are loose and relaxed, the pace is leisurely, and the dissonant music (made with a hammered dulcimer) is a free-flowing drone, which never leads to an eventual tonal resolution. There is no dialogue and there are no intertitles. A goal of any kind is never made explicit, there is no conflict, and no resolution or completion of a cycle. As such, this will restrict the viewer's ability to place events in a hierarchy of importance, or remember in what order they took place.

Aside from progressing without a clearly established goal, *Chumlum* serves as a prototypical avant-garde film whose formal characteristics discourage a clear memory according to all the factors outlined so far. In addition to the absence of a dramatic goal, the ordering of events is largely sequential rather than consequential. *Chumlum* also draws the viewer's attentions closer to the local moment-by-moment incidents rather than placing each one in a broader context. The spectator is perpetually in the present when viewing the film, and little is done to recall back to the previous events in order to understand the present, or make inferences beyond the information given. The imagery invites spectators to pay more attention to the surface detail than traditional narrative films, which favour semantic details – with the superimpositions, the textural properties become particularly apparent. Figures and environments fuse to create an array of colours, movements and bursts of light. Viewers also discern a semantic gist as well (since the film is not entirely abstract), but the surface details do more of the expressive work than is commonplace in a traditional narrative film.

The viewer is alerted to pay close attention to the surface details and consider the evocations of the film rather than the 'meaning' early on. Near the beginning, we see Jack Smith sitting alone, swaying back and forth. He is abruptly superimposed with an image of fur and also a woman skating in circles (Figure 2.1). This combination of images contains no easily discernible meaning (beyond 'his thoughts move in circles'), and so the viewer may instead attend to the abstract quality of the textures and motions as they interplay with one another. The circular movements of the skater counterpoint the fur and Jack, both of which sway back and forth towards the camera at different speeds.

While the viewer may remember having seen the film itself, most specific visual impressions will likely be forgotten. Speaking from personal experience after having rewatched *Chumlum*, I noticed on one occasion an image I felt I had never seen before (Figure 2.2). The unremarkable shot featured an underexposed loft space with a few decorations, and the camera slowly rotates. While that moment is decidedly forgettable, it contributes to the atmosphere of the film more generally. Since *Chumlum* evokes more than it tells, few images contain important information in the conventional sense. But the atmospheric effect of the images (along with the atonal music, which never resolves) is cumulative. What is known holds less fascination than what is imagined, and the seemingly virtual, private and fleeting character of the film has the quality of an internal experience such as a memory or a dream. In other words, one retains a diffuse, generalized memory of the film's atmosphere, sound and imagery rather than something more specific.

The central theme of this section has been the distinction between cues that prompt a narrative and a non-narrative mode of engagement. Cues that facilitate a narrative mode of engagement feature the establishment of a clear goal, ordering events consequentially, providing a discernible global structure, and placing each incident within a broader dramatic context. Films that challenge or discard this mode of engagement, by contrast, lack a clear goal, feature sequentially ordered events, emphasize local events without referring to the wider context, and they emphasize the salience of the surface details over the semantic details. All of these characteristics that discourage clear recollection in the long-term, it has been suggested, are more commonplace in avant-garde films – although this tendency is not without exception. Films that fall within the structural strain may prove less challenging in relation to long-term memory than abstract or lyric films, for instance, since their global structure is apparent, and they do not always emphasize the surface over the semantic.

While certain details may be forgotten, others will still be remembered. However, if the ordering of events, semantic details, surface details and global structure are forgotten, what is retained? The next section will address this question.

Personal Responses

Up to this point, it has been proposed that formal tendencies that pertain to avant-garde films pose particular challenges to our long-term memory skills. Here, it will be suggested that in spite of this, they may still resonate vividly – leaving the viewer with recurring mental images that might be accompanied by a sense that there was something in the film that has not been fully grasped yet, even if they cannot fully place what it is they perceived. The theories of memory that have been discussed so far have referred to the form of the films themselves, saying little about the subjective interpretations or emotional responses of viewers. It may be these elements that make some films resonate in the long-term.

While a narrative structure enhances the spectator's ability to retain certain details of a film, narrative films are not impervious to being forgotten. A narrative structure may help recall certain features within a film; viewers do not ordinarily remember the entire work wholesale. We might only remember an isolated element – a sound, an arresting image, or a feeling detached from the chain of events that precede and follow it (Rubin and Greenberg 2003: 62). The story may sometimes dissolve from memory through trace decay, particularly if it is not revisited and strengthened over time. Evoking Deren's non-chronological, associative 'horizontal axis', Victor Burgin describes his experience of a narrative movie fragmenting from its original context and intermingling with other memories:

What was once a film in a movie theatre, then a fragment of broadcast television, is now a kernel of physical representations, a fleeting association of discrete elements ... The more the film is distanced in memory, the more the binding effect of the narrative is loosened. The sequence breaks apart. The fragments go adrift and enter into new combinations, more or less transitory, in the eddies of memory: memories of other films, and memories of real events. (Burgin 2006: 16)

Non-narrative films, already fragmentary, can be remembered in a similar way. Next, a discussion will be made addressing the emotional responses and subjective reactions to avant-garde films that can lead to enduring non-linear memories.

Mood and Emotion

Whether or not images and events are retained, the spectator's affective response to a film may endure long after it has finished. Greg Smith makes a distinction between mood and emotion, arguing that the primary emotive effect of commercial cinema is to create mood. An emotion refers to a feeling that is immediate and more intense and focused if it is directed at a specific object ('I'm so mad at my boss right now'), while mood refers to one's broad affective state (e.g. 'I'm just cheerful today'). A mood is more diffuse and longer lasting than an emotion, orientating the subject towards a particular frame of mind and encouraging them to pay particular attention to certain emotions. Smith explains:

Moods are expectancies that we are about to have a particular emotion, that we will encounter cues that will elicit particular emotions. These expectancies orient us toward our situation, encouraging us to evaluate the environment in mood-congruent fashion. A cheerful mood leads one to privilege those portions of one's environment that are consistent with that mood. Moods act as the emotion system's equivalent of attention, focusing us on certain stimuli and not others. (Smith 2003: 38)

A mood is more easily recalled than an emotion, and the two can be confused. Memories of emotions are suspect sources of evidence about actual emotions. Humans are bad at remembering the specifics of their emotional experiences because it is more efficient and easier to remember a condensed version with a clear label instead of storing all the details. If a prototypical script labelled 'happy' covers much experience during a particular episode, we label that memory as a 'happy' episode, even if it does not capture all the ups and downs that were actually experienced. Doing so leads the subject to misguidedly believe that they were continually cheerful for an entire weekend, for example, when this is unlikely to be the case (ibid.: 36).

In cinema, the mood refers to the global affect of the film, while emotions constitute the more local, moment-by-moment experiences. The James Bond movie *Skyfall* (2012) may be remembered as 'thrilling', even though it is, at times, comical, sad, pensive and horrific. There are a range of emotions the viewer will experience during the film, even if the global mood dominates the affective memory. Some avant-garde films may leave the spectator with particularly evocative and distinctive moods they will remember that are not typically encountered in mainstream narrative-dramatic films. Even if we do not retain the order of events or specific images, the global mood may still be consolidated while other elements undergo trace decay.

In gauging moods, consider Rice's Chumlum in comparison to Peter Tscherkassky's Dream Work (2002), a black and white film made with footage from the Hollywood thriller The Entity (1981), in which a woman is tormented and abused by an unseen demon. Film is treated directly to produce an agitated, flickering visual impression, which is matched by dissonant sonic articulations that are sampled from the original movie. Both Chumlum and Dream Work challenge our long-term memory skills in a similar manner – emphasizing surface details and local events without presenting a dramatic goal, or providing a clear global structure. Yet, both films evoke distinctive moods through filmic cues - facial expression, figure movement, music, lighting, mise en scène, set design, editing and camera movement. All of these elements contribute to the emotional tone of the two films. Neither one orientates the spectator in a clear narrative, but the particular character of both films might, by nature, create an atmosphere that is only expressible by way of disorienting the spectator. Broadly speaking, Chumlum (Figure 2.3) evokes the feeling of serene intoxication, while Dream Work (Figure 2.4) creates a more threatening, disoriented mood.

As such, the trajectory of both films, and most of the imagery, may be forgotten over time. Yet the atmosphere that they create may linger in the mind. Returning to Maya Deren's expression of hope that 'during those rare occasions whose truth can be stated only by poetry, you will, perhaps, recall an image, even only the aura of my films' she acknowledges the difference between the external impression of her images, and the internal aura created by her films – what might be understood as the 'mood'. Once stored as memories, both the image and the aura can be detached from their original contexts and enjoyed in isolation. The feeling of a film – the *mood* – might endure more than any singular image.

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Figures 2.1–2.4. Evocations of mood in *Chumlum* (1964; 2.1–2.3) and *Dream Work* (2002; 2.4). Screen captures by the author.

Gist

Aside from the mood of a film, what else might the viewer remember? Bordwell comments that 'When confronted with a narrative, perceivers seek to grasp the crux or fundamental features of the event' (Bordwell 2008: 137).⁷ In other words, part of the goal of story comprehension is the extraction of the 'gist'. The gist of The Wizard of Oz (1939), for instance, might be framed as 'Dorothy is trapped in the Land of Oz, and she needs to get back to Kansas'. The narrative trajectory is summarized. However, what takes place when the perceiver is not confronted with a narrative? How might the film be mentally summarized or recounted to another person? The fundamental features of the events that are detected and retained are no longer defined by dramatic consequence. In Rubber Cement, the gist may be difficult to identify, and the viewer may need to resort to arrested images (e.g. Felix the Cat, abstract shapes) rather than defining any 'crux or set of fundamental features'. When the thematic gist can be identified, this will be more readily retained. The Petrified Dog might be summarized as something as simple as 'people in the 1940s doing peculiar things'. Chumlum might be summarized as 'New York artists cavorting in a loft space'.

When the 'gist' of an avant-garde film is identified, it might refer to the structure of the film or a single event rather than a narrative conflict. It might be eminently simple and clear, for instance, the gist of *Serene Velocity* (1970) is that the spatial interval between each shot of a corridor gets progressively wider. The gist of Andy Warhol's *Sleep* (1963) is that a man lies in bed and sleeps. In Larry Gottheim's *Fog Line* (1970), the gist is that a cloud of fog clears across a forest.

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We are more likely to remember the semantic, rather than the surface details when recalling 'gist' – even when a film emphasizes the surface over the semantic. By way of separating the semantic gist from the surface details, consider Kurt Kren's ASYL (1975). In producing the film, Kren set up a camera in a country house, and over a period of twenty-one non-consecutive days in late autumn, he fed the same film strip through a camera. Each time, a masking board was placed over the lens with holes in new places so that different parts of the terrain were exposed on different days. Within a single frame, the same landscape appears to reveal itself in multiple seasons. A snow bank leads into a grassy meadow, and raining portions of the frame lead into sunny portions. Seasons run seamlessly into one another. Surface details of the film are difficult to retain, yet the gist of this film is remembered effortlessly – the same landscape is exposed in multiple conditions and overlaps itself. In short, even though some films in the avant-garde emphasize surface details, the fundamental semantic features – the gist– remains.

Distinctiveness and Depth of Processing

In addition to the global mood and the semantic gist of a film being memorable, the memory of a film is more likely to endure in the long term if it is distinctive, and if the work is psychologically processed by the spectator in some level of depth. Hans Eysenck (1979) argued that memory traces that are unique will be more readily retrieved than those resembling other memory traces. Similar memories are prone to fusing with one another. If one has a mundane and repetitive job, for instance, most days will blend into one another in memory. However, if employees come to work in fancy dress one day, this occasion will be more memorable because it is distinctive. Likewise, a film will be memorable if it is idiosyncratic. The avant-garde typically favours the novel and unfamiliar, even within its own broad variety of forms. Viewers who are unaccustomed to the norms and conventions within experimental film will particularly find this to be the case, whether they love the film or hate it.

While unique films are less likely to blend with memories of other films, they may also provoke detailed contemplation. Craik and Lockhart (1972) suggested that depth and elaboration of processing are key determinants in building more intricate, longer lasting and stronger memories. According to their 'levels of processing' model, a perceiver's depth of processing falls on a continuum from shallow to deep. Shallow processing, such as attending to sensory characteristics like surface details and phonetic sounds, leads to a fragile memory trace that is prone to rapid decay.⁸

An intermediate level of processing relates to the recognition and labelling of objects. Deep processing refers to engagement with semantic details, relating objects to other memories in a network of associations, and assessing meaning and importance. These 'deeper' processes lead to a more elaborate and durable memory trace by activating several layers of the object's or the event's meaning and linking it to pre-existing networks of semantic associations.

All viewers will access the same perceptual array when viewing a film, yet the depth and elaboration of processing will vary from viewer to viewer. It can be very detailed or it can also be shallow, depending on the way the viewer is mentally equipped, in addition to their mood when they encounter the work. The literate viewer, who is sensitized to the specialist viewing habits required by avant-garde film, is more likely to process works in a greater level of depth – identifying possible thematic interpretations, discerning graphic patterns with the use of colour, motion and visual depth, or considering techniques that the filmmaker employed. A less sensitive viewer is unlikely to contemplate a film in the same level of detail. Viewers might lower their threshold for the level of meaningfulness extracted and simply pay attention to the surface details of the film, allowing the imagery to wash over them, and bathe in the feelings evoked, or they might subject a film to a deeper level of analysis.

Some avant-garde works (particularly those from the poetic or lyrical strains) accommodate both deep and shallow levels of processing. Bruce Baillie's *Castro Street* (1966), for example, accommodates both experiences, depending on the interpretation of the viewer. For some, it can be appreciated purely as a sensorial experience. Lucy Fisher, on the other hand, offers a 'meaningful' interpretation that would lead to deeper processing, paying closer attention to the graphic patterning and suggesting that the film reflects the influence of Eastern philosophy on Baillie's work:

It is precisely this sense of unity revealed in disunity, of resolution in opposition that reigns supreme on all levels of *Castro Street* – on the level of shot-to-shot superimposition, directionality of movement, tonal composition, sound-image relation, and spiritual sensibility. (Fisher 1976: 21)

One might also contemplate Scott MacDonald's comment that the film depicts the industrial landscape in the context of growth and productivity (as it was considered in the 1950s) rather than as an invasive blemish on the natural world, as it was thought of by the time the film was made in the 1960s (MacDonald 2001: 193). An engaging response to *Castro Street* does not hinge on these thematic interpretations. The viewer might equally appreciate the sensorial dimension of the images, even if their semantic content is discerned, enjoying the fluid textures, rhythms and movements that Baillie creates from the industrial landscape, without considering any deeper thematic dimensions or recurring graphic patterns and motifs that feature. Both deep and shallow responses are facilitated.

Some images in avant-garde film are simply rich with evocative implications that invite detailed contemplation. Deren's iconic mirror-faced cloaked figure from *Meshes of the Afternoon* (1943) is suggestive of a myriad of possibilities that

are never explained. Who, or what, is the cloaked figure, and what are its intentions? It looks like death with a mirror for a face. Is that it? If so, what is being suggested? Such a figure may serve to haunt the viewer, since it remains both evocative and elusive.

In this author's own subjective recollection of *Chumlum*, the most persistent and enduring image appears early on. Jack Smith stares directly into the camera, making 'mystical' gestures with his hands, and he is superimposed with a river flowing into the distance (Figure 2.5). It looks as though he is casting a spell on the viewer. The fast motion of the water coupled with Jack's stillness, the intensity of his gaze and his peculiar hand gestures created an evocative atmosphere, and the image imprinted itself vividly into my memory – prompting more detailed contemplation than any other image in the film. Revisiting this image whenever I remember the film consolidated it as a memory in my own subjective experience.

If the viewer encounters a film already possessing the relevant, specialist knowledge to appreciate it fully, this will provoke more detailed processing and strengthen the memory, since recognition (i.e. 'that's Mario Montez' rather than 'that's a person') alone prompts an intermediate level of processing, irrespective of detailed contemplation. This may come in the form of contextual knowledge. *Chumlum*, for instance, has ties with other films, which will serve as elements in the associative network evoked by the film for some spectators. If you are already familiar with Jack Smith and the New York underground milieu of the 1960s, you will recognize the cast of the *Chumlum*, and this in turn will elicit more meaningful processing. It was shot while Jack Smith's *Normal Love* (1963) was in production and the cast lounged about. The costumes worn in the film are also reminiscent of Federico Fellini's *Juliet of the Spirits* (1965) and *Satyricon* (1969), which might also serve as associative cues.⁹ For unfamiliar viewers, the film will look like a collage of unfamiliar faces and they will not be able to associate the various characters to their ties with the New York underground.

Fig. 2.5



Figures 2.5–2.6. Images that persist: *Chumlum* (1964; 2.5) and *Hamfat Asar* (1965; 2.6). Screen captures by the author.

Specialist knowledge may also come in the form of aesthetic sensitivities. Some of us have a greater sensitivity for surface detail, for instance. If you have specialist knowledge on fonts, numerals and clocks, for example, you are more likely to remember surface details of the clock than those without specialist knowledge. Those with specialist knowledge are more likely to remember the movement of the film or the colour. What may endure as a memory in Peter Tscherkassky's *Dream Work* is the way in which objects within the frame move. Since they are so distinctive, jump-cuts, jittering movements and speckles flashing across the screen might govern one's memory of the film rather than any specific nameable image.

Flashbulb Memories

In addressing the subjective dimension to a viewer's memory of a film, we have so far considered the mood, the 'gist' of a work, and the detail with which the viewer analyses the film through associative cues and prior specialist knowledge. Here, I suggest that moments with a high level of emotional charge are also encoded, stored and retrieved more readily.

A memory that is rehearsed frequently will be more stable. Put simply, if the viewer has a strong reaction to the film (whether they love it or hate it), they are more likely to revisit it as a memory later or discuss it with others. In turn, it will be less susceptible to trace decay. Brown and Kulick coined the term 'flashbulb memories' and suggested that memories that are produced by very important, dramatic and surprising public or personal incidents, such as learning about the events of 9/11 or the birth of one's child, are generally very accurate and immune from being forgotten (Brown and Kulick 1977: 73–99). While this original idea has faced criticism, there is empirical evidence to support the view that shocking events can lead to enduring and persistent memories (see Pillemer 1990; Conway 1994).

While sequences in movies are not personal events, they nonetheless aim to produce emotionally charged responses through novelty, surprise and rarity. Plot twists from narrative films might produce dramatic revelations or startling sequences, such as the iconic shower scene in *Psycho* (1960). Since avant-garde films do not tend to tell traditional stories, plot twists are less likely to occur; however, there might still be images that arouse intense emotional responses, particularly since some filmmakers are interested in the depiction or provocation of extreme psychic states. For instance, the iconic eye-slicing scene from *Un Chien Andalou* (1928) continues to startle viewers today. The dissected corpses in Stan Brakhage's *The Act of Seeing with One's Own Eyes* (1971) can also provoke vivid feelings of disgust or horror. Sexually charged imagery from Carolee Schneemann's *Fuses* (1967), Paul McCarthy's images of young women hacking at a human leg in WGG *Test* (2003), and Matthew Barney's disquieting vision

of the male body in *Hoist* (2006) all might imprint themselves on the viewer by virtue of their emotional charge, provoking flashbulb memories.

Interference in Action

The claim has been made that avant-garde films present a distinct set of challenges to our memory skills. Aesthetic elements that draw the viewer away from a narrative mode of comprehension (surface details emphasized over the semantic, a sequential chain of events, an unclear global structure and no clearly defined goal) discourage clear encoding and long-term storage and retrieval. Other elements relating to subjective responses, such as deep processing, the 'mood', the 'gist' and flashbulb memories, are more likely to facilitate long-term recollection. In turn, one's memory of an avant-garde film may be heavily shaped by subjective responses. What is the implication of this discussion, however? To restate a question posed at the beginning of this chapter, how is the recollection of avant-garde films an aesthetic rather than a psychological concern?

In the final section of this discussion, it will be suggested that when engaging with avant-garde films, the viewer is left with space to subjectively alter and embellish the work in memory in a way that may enrich or inform their original experience. Since avant-garde films do not always lock into a singular meaning; some works can be understood as an imagining board that the viewer might free-associate with at a later time. A distorted memory, in turn, may serve as an aesthetic virtue in films as polyvalent and fluid as many of those in the avant-garde. Larry Jordan's experience with *Hamfat Asar* (1965) will be taken as a case study that demonstrates this.

Jordan explained in an interview that one critic wrote an article describing images from *Hamfat Asar* that were not there. In turn, this helped Jordan identify that his intuitive creative goal for the film was to create an unreliable memory:

she described in detail a sequence I would love to have filmed, but I hadn't. It wasn't in the film. There were things like that, but this was so specific that I knew that she'd seen the scene in her mind and put it together from the film in general, but I hadn't made that sequence . . . [T]hat was the first time I realized that that's what I was trying to do. I wasn't trying to pass what was in my mind to somebody else's mind. I was trying to put up a Rorschach inkblot kind of imagery on the screen that other people would then take and combine with their own, I call predispositions, and make meaning, their own meaning, not my meaning out of it. (Jordan 1995–1996)

Hamfat Asar is animated with cut-out Victorian illustrations, in the spirit of Max Ernst's surrealist collages. The background remains static, and there is a tight-

rope across the middle of the screen and peculiar hybrid objects move across the frame. Some walk on the tightrope, others float across the screen. Some objects pass from one side of the frame to the other, while others appear and disappear in jump-cuts or dissolves (Figure 2.6).

Why might the critic have created the memory of a sequence that never occurred? True to the avant-garde prototype, *Hamfat Asar* contains no clear global structure, no clearly defined goal, and events are sequentially rather than causally linked. In this instance, the spectator's memory was distorted, and the artist welcomed these subjective alterations.

Yet the question remains: why might she have created scenes in her mind instead of simply forgetting what she saw? Memory should be understood as an act of reconstruction, guided by pre-existing assumptions, rather than complete recovery of prior perceptions. Some details will be retained, while others will be filtered out, altered or embellished.¹⁰ Frederic Bartlett explored the nature of reconstructive memory in 1932. In one of his investigations, he presented a Native American folk tale entitled 'The War of the Ghosts' to a group of participants who were unfamiliar with the storytelling conventions of Native Americans. They were asked to recall it several times over the course of a year. All the participants altered details of the story in ways that reflected their cultural norms and expectations. The further in time the participants were from their initial reading, the more the details changed. Participants omitted details that they considered irrelevant, changed the order of events, and 'rationalized' details by padding them out and making them more comprehensible to someone from their own cultural background (Bartlett 1995 [1932]: 71). Elements that were of marginal relevance to the story were particularly prone to being forgotten, such as the fact that the young men in the tale hid behind a log, or that they heard the sound of a boat being paddled in a river.

By presenting the participants with details and storytelling conventions that were unfamiliar to their own cultural background, and by monitoring how it was later recalled, Bartlett demonstrated how an individual's existing assumptions influence the way in which information is recalled over time. He also demonstrated that long-term memories are not fixed, but rather they alter over extended periods. As such, the accuracy with which a spectator recalls a film will depend on their own cultural background and personal assumptions.

The critic Jordan cites (but does not name) who wrote about *Hamfat Asar* unwittingly altered it, in a similar manner to the participants in Bartlett's experiment, who adjusted and embellished the Native American folk tale. Jordan explains that the journalist described sequences that did not feature in the film, but she did not 'rationalize' it into a narrative. When she mentally reconstructed the movie, sequences she saw became distorted and intermingled with other images stored in her mind. She lost track of which were seen in *Hamfat Asar* and which were imagined or encountered elsewhere.

Just as Larry Jordan cheerfully accommodated the critic's subjective embellishments to *Hamfat Asar*, other avant-garde films might be similarly enriched as they nestle in the mind, since they do not typically attempt to tell a clear story or put across a specific message. Instead, they create an imaginative space within which the spectator is free – to a point – to respond with their own subjective reactions. As commented in the introduction, the temporality of a film compresses during recollection. Cinema is durational, but a memory comes to us in a snapshot. In a frozen moment, one recalls a network of associations, internal responses, arresting images, memorable lines and global moods. Lacking clear episodic memory after it has been mentally encoded, a film may be compressed into a neutral temporal grid once it is stored, and its character changes. Where a film is external, a memory is internal; where a film is physical and recordable, a memory is virtual and reportable; where a film is public and permanent, a memory is private and fleeting (Jahn 2003: 199).

Weeks, months or even years after viewing a film, it might be remembered in a different light. The feelings initially provoked can miraculously mutate into something different. In the transformative space of memory, some works of art that are initially bewildering feel complete and unified after a period of digestion, haunting the viewer with feelings that were not experienced in their immediate encounter. This long-term pay-off stands in contrast to the assumed instant gratifications provided by Hollywood blockbusters. The rewards of a film might cash themselves out in the form of long-term resonance, rather than short-term impact. Paying attention to one's subjective embellishments when recalling an avant-garde film and taking them seriously, instead of thinking of them as distortions or mistakes, may be another expansive habit to cultivate when engaging with avant-garde films. Embellishing or altering an avant-garde film that is stored as a memory, then, need not be understood as a neutral contingent fact, or an error. It can instead be understood as a legitimate way with which to interact with the work once it is nestling in memory stores. The 'aura' of a film may still be retained and will return to us intermittently, even when the rest of the film dissolves through trace decay.

Conclusion

As Brakhage suggests, films that are hard to remember are not necessarily aesthetic failures; they may nestle in the mind or alter in unique and novel ways. The ghost film, as he calls it, exists in the mind as 'movement haunt, tonetexture haunt, ineffable-haunt' (Brakhage 2003 [1996]: 86).

This chapter has illustrated how avant-garde films can become ghost films in memory. In part, this is because elements of narrative organization are oftentimes absent in avant-garde films – events are sequential instead of consequential, local details are emphasized over the global structure, surface features are emphasized over semantic features, and there is seldom a clearly defined goal. All of these elements, according to cognitive theories of memory, make them difficult to remember. There are, however, subjective dimensions to the viewer's response that may make some works particularly memorable according to other existing theories. Viewers may remember the global mood of a film; they may also recall the 'gist' or fundamental semantic features even if the surface details are a more central concern; an avant-garde film may prompt detailed analysis and contemplation in the viewer; and 'flashbulb' memories might be generated if the film emotionally startles the viewer. All of these subjective elements, according to existing theories, may make the films more memorable in the long term.

The purpose of this chapter was to explore another one of the distinctive ways in which avant-garde filmmakers challenge our cognitive capacities. Existing theories of memory suggest that the details of formal elements that pertain to avant-garde films are, broadly speaking, more difficult to encode and store as memories than conventional, narrative-dramatic movies. The subjective details that each viewer will pick out and remember in their own unique way – particular moments, personal interpretations, elements that may even be embellished or altered retrospectively – are more likely to endure in the long-term. As such, the proposal has been made that memories of avant-garde films are oftentimes highly subjective, more so than conventional narrative-dramatic movies.

One habit that viewers can employ when thinking about experimental films, then, may be that they can pay closer attention to the way in which these works refine, alter or are embellished in the mind and appreciate these alterations as part of the experience of the work, rather than thinking of them as mistakes. Since avant-garde films are generally more open-ended in their meaning and evoke more than they tell, subjective rendering may be a productive habit to cultivate. As we learned from Bartlett's experiment, memory is not a stable field, and the film as remembered might reveal new insights into the work once it is revisited as a memory. In turn, ease of comprehension and recall is not the only aesthetic virtue when engaging with a film – complexity and ambiguity during recollection can also add to the value of the work.

Notes

1. For discussions of mainstream and arthouse cinematic representations of memory, see: A. Sinha and T. McSweeney Millennial Cinema: Memory in Global Film (2012); and R. Kilbourn's Cinema, Memory, Modernity: The Representation of Memory from the Art Film to Transnational Cinema (2012).

2. See Sitney (2002: 347-70) for a more detailed definition of the structural film.

3. See introduction for a discussion of the poetic strain.

4. Discussed by Bordwell in NiFF (1985). See: P.W. Thorndyke, 'Cognitive Structures in Comprehension and Memory of Narrative Discourse' (1977: 77–110). Later discussed in Allan Paivio's Mental Representations: A Dual Coding Approach (1990).

5. For example, Stan Brakhage interprets the man who throws water at the ground as a metaphor for the art critic in *Film at Wit's End* (Brakhage 1989: 58), while P. Adams Sitney interprets the same character as a beggar (Sitney 2002: 59).

6. See also E. Lichtenstein and W. Brewer, 'Memory for Goal-Directed Events' (1980: 412–45). Later discussed in Phillippe Baumard's *Tacit Knowledge in Organizations* (1999).

7. For more on 'gist' see Feldman et al. 'Narrative Comprehension' (1990: 1-78).

8. In this context, the word 'shallow' is being used for descriptive purposes. I am not using it to make a value judgement. It is not, in this instance, synonymous with 'superficial', 'facile' or 'oversimplified'.

9. In Mary Jordan's Jack Smith and the Destruction of Atlantis (2006), it is suggested that after Fellini received a copy of Smith's Normal Love and Flaming Creatures (1963) from Jonas Mekas, some of Fellini's costumes emulated Smith's style.

10. For a discussion of how this process may be exploited in narrative-dramatic filmmaking, see Daniel Barratt's "Twist Blindness": The Role of Primacy, Priming, Schemas, and Reconstructive Memory in a First-Time Viewing of The Sixth Sense' (2009). He argues that M. Night Shyamalan guides the audience into making false assumptions, and in turn they misremember events depicted in the film.

PART II VISUAL PERCEPTION

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CHAPTER 3

BOTTOM-UP PROCESSING, ENTOPTIC VISION AND THE INNOCENT EYE IN THE FILMS OF STAN BRAKHAGE

The purpose of this chapter is to consider how Stan Brakhage as a practical psychologist compels the viewer to attend to their visual perceptions in a unique way when engaging with his films. It will begin by outlining John Ruskin's concept of the innocent eye, and its relevance to Brakhage's creative aspirations. The discussion will then consider the idea of the innocent eye in the context of existing theories on visual perception, and suggest that 'retutored eye' may be a more suitable name. Following this, two ways will be proposed in which Brakhage was able to retutor the eyes: the first is by paying special attention to entoptic vision (visual impressions whose source is within the eye itself) as a source of inspiration; the second is by developing a series of techniques that compel the viewer to attend to the visual information on the screen in a way that subordinates semantic salience, and emphasizes the surface detail.

Stan Brakhage's concept of the 'untutored eye' and the constructive theory of perception marks one of the clearest convergences between the concerns of avant-garde filmmakers and cognitive scientists. Constructivists argue that perception is indirect in the sense that we usually depend on internal processes instead of direct perception.¹ They suggest that the reason the world appears to be stable as we encounter it, even though our sensory information is in constant flux, is because we apply schemata – arrangements of knowledge already possessed by the perceiver – to almost everything we encounter, using them to predict and classify new sensory data. According to constructivist doctrine advanced by Hermann von Helmholtz and later elaborated on by psychologists Jerome Bruner, Ulric Neisser and Richard Gregory (Eysenck and Keane 2000: 54), perception is an active, goal-orientated sense-making process. Because sensory information is incomplete and ambiguous, it cannot determine a percept alone. The perceiver, then, makes a perceptual judgement based on a series of inferences.

Inference proceeds on a continuum between two poles. It can be developed from the bottom-up, meaning that sensory information provides the details necessary to make the appropriate inference. This occurs when the sense data alone determines perception without transformation in light of stored information; for example, touching a hot stove tells you that it should not be handled. When the inference is made from the top-down, perception is guided by expectations, background knowledge and problem-solving processes (Bordwell 1985: 31). Face recognition would be one example of top-down perception. In both top-down and bottom-up processing, inferences are involuntary and virtually instantaneous, but most percepts involve both top-down and bottom-up processing.

Like our interactions with the natural world, film spectatorship involves both top-down and bottom-up processing. Bottom-up visual perception such as edge, colour, depth, motion and aural pitch detection is employed, without recalling associated memories and creating only immediate impressions. Cinematic storytelling, however, cannot be defined by bottom-up categories as objects contained therein are referential and thus depend on prior knowledge and unconscious inferences. Because avant-garde film invariably problematizes narrative comprehension and sometimes puts a greater emphasis on surface detail, this suggests that bottom-up and top-down processing are employed in a manner distinct from conventional narrative-dramatic filmmaking.

Of all filmmakers from any aesthetic tradition, Stan Brakhage perhaps made the clearest call for the possibility of a cinema that depends solely on bottom-up processing, in which the work is to be engaged by virtue of its surface details, without relying on prior knowledge and expectations. With this creative ambition, Brakhage studied his own perceptions and intuitions rather than using constructivist language or making direct reference to it. Nonetheless, there is a direct convergence between his creative concerns and this theory of perception. The pervasiveness of the following passage written by Brakhage demonstrates how widely it has been used when understanding his aesthetic:

Imagine an eye unruled by man-made laws of perspective, an eye unprejudiced by compositional logic, an eye which does not respond to the name of everything but which must know each object encountered in life through an adventure of perception. How many colors are there in a field of grass to the crawling baby unaware of 'Green'? How many rainbows can light create for the untutored eye? How aware of variations in heat waves can that eye be? Imagine a world alive with incomprehensible objects and shimmering with an endless variety of movement and innumerable gradations of color. Imagine a world before the 'beginning was the word'. (Brakhage 2001a [1963]: 12)

Although this declaration was considered liberating for filmmakers in its time, it was only radical insofar as that the sentiment had not yet been fully articulated in a written statement for filmmakers. Film scholar William Wees traces Brakhage's declaration back to a variety of other writers, who predate the above passage from Metaphors on Vision. In J.D. Salinger's 'Teddy' for instance, the title character claims that if children are taught that grass is green 'it makes them start expecting the grass to look [that] way', rather than 'some other way that might be just as good, and maybe much better' (1970 [1953]: 299). J.R.R. Tolkien suggests in a 1947 essay 'On Fairy Stories' that we need to 'clean our windows; so that the things seen clearly may be freed from the drab blur of triteness or familiarity – from possessiveness' (quoted in Pearce 2001: 166). Aldous Huxley used the psychoactive drug mescaline to inhibit his interpreting mind. Describing his experience in The Doors of Perception he comments that 'Visual impressions are greatly intensified and the eye recovers some of the perceptual innocence of childhood, when the sensum [is] not immediately and automatically subordinated to the concept' (2009 [1954]: 25).

Looking further back, the term innocent eye originates with the art historian John Ruskin, who comments in A Joy For Ever that 'one of the worst diseases to which the human creature is liable is its disease of thinking. If it would only just look at a thing instead of thinking what it must be like . . . we should all get on far better' (2007 [1857]: 106). For Ruskin, one of the greatest barriers to true visual sensitivity is that people see what they think they know to be there, rather than what they actually see. In constructivist language, Ruskin would say that our ability to attend to the world from the bottom-up is inhibited by the nonconscious reflex of applying top-down processing (although his theory predates constructivism by about a century). In The Elements of Drawing, he comments 'The whole technical power of painting depends on our recovery of what may be called the *innocence of the eye*; that is to say, of a sort of childish perception of these flat stains of colour, merely as such, without consciousness of what they signify – as a blind man would see them if suddenly gifted with sight' (Ruskin 2011 [1865]: 52). Brakhage's famous passage, then, should be understood as part of a longer tradition, and his 'untutored eye' can be understood as continuous with Ruskin's 'innocent eye'.²

How might viewers switch off their interpreting mind in the natural world, and attend to their visual surroundings without engaging them for their semantic content? As Ruskin suggests, newborn babies are not yet equipped to interpret their surroundings, and giving sight to the blind through surgery also offers a form of innocent vision. Unlike a baby, the newly sighted child or adult can articulate his or her experience. The earliest report of this came in 1728 by the surgeon William Cheselden, who removed cataracts from a 13-year-old boy who had been blind from birth. Reportedly, once given sight, the boy could not immediately make any judgement with regard to distances, nor could he discern objects as being separate. Subsequent reports suggest similar cases in which the newly sighted individual perceives coloured patches, indistinctly separated from one another (Wees 1992: 59). What Cheselden came to believe, then, is that the optical field (i.e. vision for the subject not yet in possession of a visually interpreting mind) resembles an arrangement of coloured patches for everyone in early infancy. It is only over the course of time that these sensations take on shape, solidity, distance and identity.

Although newborn babies, or those who have just been given sight, might serve as a utopian model for the experience of 'innocent' vision governed solely by bottom-up processing, current constructivist research suggests that those with ordinary vision are unable to return to such a visually naive state. Top-down processing and the application of schemata to our visual field is always present and we have a spontaneous, uncontrollable reflex towards experiencing our surroundings as solid, three dimensional and nameable. Psychologist Richard Gregory characterizes perceptions as hypotheses, suggesting that perceptual information is always 'cooked' by prior knowledge and expectations. Summarizing this position, he comments 'if past experience, assumptions, and active processing are important, there can hardly be raw data for vision' (Gregory 2004: 9). Cognitive psychologist Donald Hoffman describes the human facility to process and construct one's visual field as a form of 'creative genius' when detailing early developmental stages of visual construction. He explains how quickly we lose our visual 'innocence':

By about the age of one month, kids blink if something moves towards their eyes on a collision course. By three months they use visual motion and construct boundaries of objects. By four months they use motion and stereovision to construct the 3D shapes of objects. By seven months they also use shading, perspective, interposition (in which one object partially occludes another), and prior familiarity with objects to construct depth and shape. By one year they are visual geniuses, and proceed to learn names for the objects, actions, and relations they construct. (Hoffman 2000: 12)

The period when a newborn child can be said to possess innocent vision, then, is short-lived. In *Art and Illusion* (2002 [1960]), art historian Ernst Gombrich drew from the constructive theory of visual perception in an effort to argue that the artist's eye is never 'innocent' by demonstrating how artists are guided by prior knowledge and expectations when painting scenes. Comparing the artwork of an 11-year-old child next to the work of the English romantic painter John Constable, Gombrich observes that the child misses or underestimates the modifications that various objects undergo when seen from different angles, or in different light. In addition, when painting a pastoral landscape, the objects that would interest a child – like swans and trees – tend to be oversized (ibid.: 247–48).

The child, then, depends heavily on pre-existing top-down conceptual frameworks for each object in the painting. Gombrich also observes that medieval artists operate in a similar way to modern-day children in the sense that they also have single, generic templates for painting objects of interest. He comments, 'The medieval artist, like the child, relies on the minimum schema needed to "make" a house, a tree, a boat that can function in the narrative' (2002 [1960]: 248)

Constable, by contrast, does not solely draw from a set of generic assumptions about how a tree, a swan or any other object is painted; he also makes allowances for the transformations that colours and shapes undergo depending on lighting and the position of objects. Did he attend to his surroundings with an 'innocent eye' when re-creating them on canvas, addressing solely his bottom-up perceptions? Not necessarily. According to Gombrich, Constable represents a heightened state of accomplishment as an individual artist and, in the collective evolution of fine art in the West, he was an exemplar in his ability to reproduce what appeared in front of him. His ability to observe his surroundings without reverting back to a pre-existing set of schemata for each object might be understood as the application of 'innocent' vision - a visual sensitivity working from the bottom-up, unguided by pre-existing concepts; however, Gombrich suggests the contrary. Constable draws from more schemata and thus more prior knowledge in order to reproduce his visual field, rather than less. This type of vision comes from years of training and learning the variables available to the artist, not from a return to innocence. Gombrich explains:

Whenever we receive a visual impression, we react by docketing it, filing it, grouping it in one way or another, even if the impression is only that of an inkblot or a fingerprint . . . It is the business of the living organism to organize, for where there is life there is not only hope, as the proverb says, but also fears, guesses, expectations which sort and model the incoming messages, testing and transforming and testing again. The innocent eye is a myth. (ibid.: 251)

In applying the conventional constructivist position on visual perception, Gombrich claims that Ruskin's innocent eye (and Brakhage's untutored eye, by extension) is implausible. Top-down processing cannot simply be switched off. If the innocent eye is to be considered a myth, however, there may be a simple way of shifting the terms by which we are to define innocent vision to make it a plausible concept again. The problem may lie in calling Constable's mode of vision 'innocent' or 'untutored', which implies naivety and pure bottom-up processing.

Visual psychologist James J. Gibson, a contemporary of Gombrich, accommodated the idea of a mode of seeing that is comparable to the notion of an innocent eye. He distinguishes between the visual world and the visual field, and these might be comparable to 'tutored' and 'untutored' vision. Gibson compares these two different modes of visual attention by asking the reader to imagine a room they might inhabit. In the first mode (the visual world), one sees a familiar and stable scene of floors and walls, and a variety of objects with relative distances between them. The book at the far end of the room looks like it is the same size as the book next to you. Square objects look square, and horizontal objects look horizontal. This is a commonplace, familiar way of engaging one's visual surroundings that draws explicitly on top-down processing, as the viewer recognizes that the visual impression of the various objects is informed by their spatial distance, and the angle at which they are being viewed. Gibson then asks you to imagine looking at the same room and attending to the visual field as if it consisted of patches of coloured surface, divided by contours:

The attitude you take is that of the perspective of a draftsman (that is, seeing that, as on a flat picture plane, 'square objects' are really trapezoid, 'horizontal surfaces' are inclined planes, the book across the room is much, much smaller than the one lying in front of you, and so on).... You may observe that it has the characteristics somewhat different from the former scene. This is what will be called here the *visual field*. It is less familiar than the visual world and it cannot be observed except with some kind of special effort. (Gibson 1950: 26–27)

What we need is a compromise between Gombrich's acknowledgement that we possess a natural impulse to file and categorize visual stimuli, and Gibson's distinction between the visual world and the visual field - both of which require top-down processing, even though the visual field is loosely comparable to the bottom-up visual array that newborn infants experience. The conflict between the two theories perhaps arises from describing the visual field as innocent or untutored vision, which implies strict bottom-up processing, and is considered an implausible claim today. We might instead call it retutored vision, which requires more schemata and 'eye training' for engaging with the world, and is in this sense radically top-down. Gombrich and Gibson agree that attending to the visual field requires a special effort. Engaging with the visual field, like draftsmen do, or Constable did when he painted his surroundings, is a radically top-down activity, while the newborn baby and the 13-year-old boy who had his cataracts removed engaged with their visual fields radically from the bottom-up. The newborn baby and the painter ultimately reach a similar place, so to speak, but they approach it from different directions.

Sense as Muse

Up to this point, the possibility that a person can attend to their surroundings with an innocent eye has been explored, experiencing the most immediate and unmediated form of visual perception. Existing research on visual perception suggests that returning to this naive state is an impossibility. Although existing top-down perceptual facilities cannot be discarded, it has been suggested that viewing habits may be retutored so that the viewer may attend to the visual field instead of the visual world. They do so with the use of a specialized effort that depends on top-down inferences, rather than bottom-up data-driven perception.

For Brakhage, the 'untutored eye' represents a primal vision of the world, as if it is being seen for the first time. He was, however, aware of the top-down dimension to visual perception (although he did not use that term). Paul Arthur (2003) suggests that Brakhage's aesthetic is designed to drive towards an ideal, rather than attempting to attain an impossible goal:

Although he readily admits that any actual return to a state of 'innocent', childlike vision is impossible, the persistent project throughout his vast oeuvre has been to guide the eye in a journey of 'untutoring', using every possible cinematic tool as leverage for that journey.

As such, we as viewers do not experience innocent vision itself when viewing his films. Instead, we see Brakhage's representation of innocent vision that should sensitize us to a richer and more varied visual life. The argument advanced so far has been that while it may feel like we are discarding prior visual habits, in reality we are expansively developing new skills and sensitivities. Engaging with Brakhage's films, it is suggested we retutor our visual skills, instead of untutoring them.

Because cinema has traditionally exploited the ordinary human perceptual habit of focusing on the visual world instead of the visual field, Brakhage sought to develop an expressive style that compels the viewer to pay attention to the visual field in his films, retutoring the spectator's visual sensitivities by drawing attention to the surface details, rather than their semantic content. The next consideration will address how Brakhage retutors the viewer's eyes.

Brakhage wrote his famous passage about the untutored eye at the same time that he was working on *Dog Star Man* (1961–1964; henceforth *DSM*), a film that invoked responses in his audience that alluded to the possibility of a cinema that could sensitize the viewer to the visual field over the visual world. The poet Robert Kelly famously summarized his reaction to *DSM* with the phrase 'mind at the mercy of eye at last'³ (2005 [1965]: 14). Kelly's image of the mind at the mercy of the eye may not hold in the strictest sense for reasons already detailed, yet it serves as an evocative metaphor for a film that subdues the viewer's tendency to attend primarily to the semantic dimension of the imagery onscreen.

One of the ways in which Brakhage accomplished this effect was by attempting to refamiliarize the viewer with the actual experience of seeing, rather than the idealized conception of vision expressed in traditional filmmaking with the conventional use of tripods, focusing, tracking dollies, steady panning and zooming. In a letter to Jonas Mekas, Brakhage wrote, 'I find myself feeling that it is the total physiological impulse of a man must be given form in the making of a work of, thus, called, art' (1982 [1965]: 32). A year later, Brakhage commented that his goal as a filmmaker was to create a filmic equivalent to the act of seeing, stating 'film is, thus, premised on physiological sense – *takes* Sense as Muse'⁴ (2001d [1966]: 129).

How might the physiological impulse of man be captured in film? How might sense serve as a muse? In addition to filming point-of-view shots and emulating saccadic eye movements by hand-operating the camera, Brakhage also found inspiration by paying attention to entoptic phenomena – visual experiences whose source is within the eye itself. This is one characteristic of human vision that the conscious mind learns to ignore, as it is of no adaptive benefit – visual information is distinguished from visual noise (Blom 2010: 174; Helmholtz 2005 [1925]: 323). Marilyn Brakhage (2010) explains:

a major shift [developed in a] strand of Brakhage's work, as 'vision' was increasingly presented as 'thought process' – as the . . . feedback of the nervous system in response to the incoming light being 'spanked' in upon it (as he would say) were given equal weight to any exterior sights.

One example of the entoptic effect includes 'floaters' or muscae volitantes, transparent blobs that slowly drift across our visual field.⁵ These can be caused by swollen red blood cells suspended above the retina, which become most visible if you lie on your back and look up towards the sky. Treating the film directly with intermittent marks on the film strip, Brakhage appears to add muscae volitantes to the mechanical vision of the camera lens with speckles of light on the film frame (as illustrated in Figure 3.1). Craig Dworkin makes a similar observation:

the dust, hair, and scratches visible after that printing – like the surface manipulations of paint flicked from a brush onto the surface of the film or scratches etched



Figures 3.1–3.6. Entoptic effects and 'bad practice' in Stan Brakhage's *Dog Star Man* (1961–1964; 3.1–3.2, 3.5–3.6), *The Dante Quartet* (1987; 3.3) and *Desert* (1976; 3.4). Screen captures by the author.

into the emulsion – all simulate the flinch and drift of entoptic imperfections which cast shadows on the retina as debris floats through the vitreous fluid. (2005: 135)

The purkinje tree is another entoptic effect. This is a reflection of the retinal blood vessels in one's own eye, which becomes most visible if you sit in a darkened room, close one eye and shine a light back and forth in the other eye,⁶ such as one is likely to see at the optician's during an eye examination. In DSM, trees are a recurring motif, which at times loosely resemble the purkinje tree, as illustrated in Figure 3.2.

Phosphenes are another visual experience not provoked by information provided by the outside world. Patterns of light are perceived in the visual cortex without light entering the eyes; these can be caused by electrical or magnetic stimulation, or simply by rubbing one's closed eyelids, which stimulates cells on the retina, producing 'pressure phosphenes', speckles that can create the impression that you are moving through a star field or a darkened tunnel. They might also be caused by a blow to the head (hence 'seeing stars'), a vigorous sneeze, or standing up too quickly with low blood pressure. Phosphenes also become visible when falling asleep, which is a possible origin of the 'Sandman'. The treated film in Brakhage's *The Dante Quartet* (1987) resembles phosphenes (Figure 3.3).

In addition to phosphenes, the visual system also produces a persistent low level of grainy light, referred to as visual 'noise', even when there is no stimulation of the eye by light (Gregory 2004: 93). Visual noise is most easily discernible when we close our eyes or sit in a darkened room. Once sensitized, visual noise can be registered with our eyes open as well. Generally, as with phosphenes and various entoptic effects, we typically ignore these visual impressions. Gregory comments: 'Imagine some neural pulses in the brain: are they due to light entering the eye, or are they merely spontaneous noise in the system? The brain's problem is to "decide" whether neural activity is representing outside events, or whether it is mere noise, which should be ignored' (2004: 93). Brakhage once said that he is inspired by human vision, and is 'involved with a process so naturally always existent its workings have been overlooked' (1982b [1966]: 40). It might not only be the persistence of visual noise that compels us to disregard it; the brain itself appears to be geared to do so.

In Vision: Human and Electric, Albert Rose (1973: 46) claimed that being in a 'tense or apprehensive emotional state' can elicit an increase in the visibility of visual noise. Approximating the agitated and excited vision he experienced watching his proud wife following the birth of their first son, Brakhage filmed his wife during childbirth, and treated the celluloid directly. He gives her face a white halo and blood-like dashes of red using paint in *Thigh Line Lyre Triangular* (1961).

In Desert (1976) (Figure 3.4) Brakhage emulates the impression of shimmering beams of light that appear when one squints, as well as the visual distortions that occur when you are in an intensely hot environment. Flash blindness is another visual phenomenon that can serve as an inspiration. This is where the retinal pigment is bleached and oversaturated by a bright light (e.g. a flash photograph), which causes temporary visual impairment. As the pigment returns to normal, so too does sight. Brakhage's underexposed images, as featured in *DSM*, for example, resemble this effect. All these visual experiences and others take the 'sense as muse' for Brakhage, reawakening the viewer to the subjective dimensions of human vision that we typically ignore.

Dworkin suggests that Brakhage's films reawaken the viewer to the physical nature, the corporeality of human vision rather than conceiving it as an objective, unmediated window to the outside world:

Brakhage's films, in short, momentarily replace the illusion of the eye's transparent clarity with a clear view of its obstructions. His films, like the bodily experiences they imitate, frustrate the idealization of vision by documenting the obstructions and impediments that the eyes themselves present, and they remind us of the corporeal ground for resisting those ideologies that have attended myths of unmediated transparency. (2005: 136)

When Brakhage aspired to 'sound the depths of all visual influence' (Brakhage 2001a [1963]: 13), he sought to represent all visual information that reaches the visual cortex, and not just light that enters the eye. Training as a draftsman would be one method for retutoring the eyes, observing the visual field in a similar manner to the way Constable observed his surroundings. Attending to entoptic phenomena and other subjective dimensions of vision provide another route, which extends and builds on Ruskin's original conception of the innocent eye.

Here, this discussion draws from Wees's account of Brakhage in *Light Mov*ing in *Time* (1992). Wees argued that Brakhage is best understood as an artist who attempted to capture undiluted vision, freed from mental embellishments. Though this chapter is influenced by Wees's discussion, it places the topic in a constructivist context, proposing the less problematic term retutored eye, elaborating on claims set forth by Gombrich and various perceptual psychologists, and also elaborating on entoptic vision, illustrating Brakhage's use of it in his films.

'Bad Practice' and Flattening the Screen

Brakhage developed a series of methods in *DSM* and other films to inform human vision with novel experiences, which might be taken as 'bad' practice with the camera. For example, he resists traditional aesthetic values of 'good' composition, compelling viewers to engage his images with 'an eye unprejudiced by compositional logic' rather than traditionally appealing standards of visual composition. There are images in *DSM* that could be considered poorly framed (Figure 3.5).

Other techniques include letting the 'wrong' amount of light into the lens, according to commercial standards, through overexposure or underexposure. Objects might be stretched out of shape with attachable lenses (Figure 3.6), or out of focus. All of those effects occur in DSM.

In adopting putatively 'bad' practice with the camera, Brakhage compels the viewer to appraise his visual style according to a unique set of aesthetic criteria. Nicky Hamlyn offers a rationale for this, and ties Brakhage's approach to the broader practice of avant-garde filmmaking:

in discussing these films one inevitably resorts to expressions like 'out of focus', yet such expressions are already problematic. First, and most obviously (and not just in relation to Brakhage's oeuvre), the phrase is value laden in ways that will be familiar to anyone who is familiar with experimental film. It assumes a normative and narrowly drawn understanding of vision as focused and stable. In questioning the instrumentalism of dominant cinema's use of film technology, experimental filmmaking must involve a rejection of ostensibly technical terms that turn on unexamined or assumed correlations between focus, clarity, objectivity, and good practice/craft. Such questioning is not unique to Brakhage's oeuvre, of course, but his work constitutes, with a few exceptions, a consistently sustained attack on the dichotomy of focus versus unfocused. (2005: 115)

Coming into focus can be understood as the process of textures sharpening, with lines or edges forming, rather than reaching a discernible, idealized form. Focused and unfocused was one dichotomy Brakhage rejected, along with over- and underexposed. In order to produce the work he did, Brakhage also refused the dichotomy between representation and abstraction, commenting: "abstract", "non-objective", "non-representational", etc. I cannot tolerate any of those terms and, in fact, had to struggle against all such historical concepts to proceed with my work' (1993: 11). Denying such a distinction, Brakhage sensitizes the viewer to the visual field by gliding and shimmering across images that contain discernible and indiscernible objects in the same manner and fluidly cutting between them, without treating the referent images as if they need to be contemplated any differently to the non-referential imagery.

One of Brakhage's other central strategies when drawing the viewer's attention to the visual field rather than the visual world is 'flattening' the cinematic image, following the lead of modernist painters that had preceded him. Clement Greenberg explains:

Realistic, naturalistic art had dissembled the medium, using art to conceal art; Modernism used art to call attention to art. The limitations that constitute the medium of painting – the flat surface, the shape of the support, the properties of the pigment – were treated by the old masters as negative factors that could be acknowledged only implicitly or indirectly. Under Modernism these same limitations came to be regarded as positive factors, and were acknowledged openly. . . It was the stressing of the ineluctable flatness of the surface that remained, however, more fundamental than anything else to the processes by which pictorial art criticized and defined itself under Modernism. For flatness alone was unique and exclusive to pictorial art. (1995 [1960]: 86–87)

Applying a modernist sensibility to cinema, Brakhage comments that 'we have an eye capable of any imaginings. And then we have the camera eye, its lenses grounded to achieve 19th-century Western compositional perspective' (2001b [1963]: 15). In essence, Brakhage suggests that the film camera is tailored to emulate principles of visual perspective that were developed during the Renaissance, which create the illusion of visual depth on a flat canvas (see Livingstone and Hubel 2008: Chapter 7). To undermine the illusion of depth, Brakhage developed a series of specialized techniques; for instance, 'flat' paint was placed over 'deep' photographed imagery. He also tried 'spitting on the lens [and] wrecking its focal attention' (Brakhage 2001b [1963]: 18), and using extreme close-ups so that that the viewer cannot discern what they are looking at, or how shapes and objects relate to one another spatially.

In emphasizing the flatness of the cinematic screen, Brakhage sought to dispel the impression that the cinematic image is a 'window' into a three-dimensional environment. Near the inception of cinema, in the Lumière Brothers' *Arrival of a Train at Ciotat* (1896), the illusion of visual depth is vividly exploited as a train approaches from the distance and moves past the camera (Figure 3.7). For Brakhage, the screen can be understood more productively as a flat canvas on which novel and exploratory visual experiences may take place, rather than a window through which you see into a three-dimensional space. The window



Figure 3.7. Arrival of a Train at Ciotat (1896) exemplifies the illusion of visual depth. Screen capture by author.

analogy in reference to the cinematic screen remains inadequate for Brakhage in the sense that we cannot look through the screen in the way we can look through a window. Instead, the cinema screen becomes a canvas on which the true nature of human vision may be reawakened. In 'A Moving Picture Giving and Taking Book', Brakhage comments that the filmmaker must see '*with*, *not through*, the eye . . . *with*, rather than thru, machine' (Brakhage 2001c [1965]: 112). As Wees explains:

The 'machine' is no more a 'window' than the eye is. Both eye and 'machine' *make* what is seen; hence, cinematic equivalents of seeing cannot be divorced from the materials and processes of filmmaking, any more than human sight can be separated from the body's visual system. (1992: 84–85)

Again, Brakhage highlights the corporeality of the 'physical eye' rather than the idealized form of vision advanced by traditional conceptions of cinematic vision. In highlighting the constructedness of cinema by flattening the screen, he alerts us to the parallel constructedness and materiality of human vision.

Conclusion

Two principal lines of discussion have been explored in this chapter. First, the concept of the untutored eye was placed in a historical context and reassessed in the context of cognitive theories of visual perception, suggesting that it might instead be called the 'retutored eye', which carries less problematic implications. Following this, there was a consideration of how Brakhage went about retutoring the eyes, suggesting that taking sense as muse, Brakhage reintroduced the corporeality of visual perception by approximating entoptic vision and phosphenes; he also exercised 'bad' film practice, compelling viewers to re-evaluate traditional aesthetic standards; in addition, he alerted the viewer to the true nature of the cinematic image by attempting to collapse illusions of visual depth.

There are other dimensions to Brakhage's aesthetic that invite an appraisal from the cognitive perspective. In the later part of his career, Brakhage argued that one of the most significant expressive potentials of film was its ability to re-create that which he came to call 'moving visual thinking' – a non-verbal, non-symbolic dimension of thought that verges over 'into the un-nameable or the ineffable' (Brakhage 2010). Marylin Brakhage goes on to explain:

Perceiving the mind's movements as being in constant interplay with both visually and sonically received and experienced rhythms, he theorized further that the aesthetic creation of either visually ordered or sonically ordered rhythms could present meaningful equivalents of those inner movements, and he created works in constantly renewing visual forms that would not only respond to a variety of sights seen – while simultaneously manifesting an interior life and documenting complex layers of optic feedback, or 'closed-eye vision' – but that would give to the eyes (and mind) something analogous to what music gives to us through hearing: 'visual music'.

In Rage Net (1988), Brakhage created an equivalent to his inner movements while being in a state of anger by painting directly on the celluloid. In *Lovesong* (2001) he created an equivalence to his inner movements that occur during lovemaking. He went as far as to state 'if science comes up with a machine so you could tap into people's actual thinking process and then project whatever they're thinking as vision and put it up on a screen, I'm doing that laboriously by painting, because we don't have any way to do that'.⁷ This may seem like a promising line of discussion for a filmmaker who mines his own cognitive facilities when producing art. Neural oscillations may be the closest phenomena in cognitive science that parallels the idea of ineffable movements in the mind that interact with the 'rhythms' of the exterior world that can then be approximated through film. As such, the mind does respond rhythmically to the outside world. Evidently, this is a complex topic, which has to be considered in more detail in another discussion that does not focus directly on visual experiences. Note, however, that aside from bearing a loose parallel with research from cognitive science, the concept of moving visual thinking relates directly to Romanticism and the 'intellectual' or 'imaginative eye'. According to M.H. Abrams:

The preoccupation is with a radical opposition in ways of seeing the world, and the need to turn from one way to the other, which is very difficult, but works wonders. 'Single vision', the reliance on the 'bodily', 'physical', 'vegetable', 'corporeal', or 'outward eye', which results in a slavery of the mind to merely material objects, a spiritual sleep of death, and a sensual death-in-life to this way of seeing [Romantic] poets opposed the liberated, creative, and resurrective mode of sight 'throe and not with the eye', the 'intellectual eye', the 'imaginative eye', or simply, 'the imagination'. The shift is from physical optics to what Carlyle in the title of one of his essays called 'Spiritual Optics', and what Blake and others often call 'Vision'. (Abrams 1972: 377, quoted in Turvey 2008: 105)

According to Malcolm Turvey, Brakhage articulates a powerful version of the 'human subjectivity theory', in which various forces in modernity such as science, technology and 'instrumental reason' altered the way that the average person's mind works, enslaving modern consciousness to rational, instrumental imperatives that are 'intrinsically divorced from the senses, the body, and nature in general' (Turvey 2008: 104). Because we cannot *see* in the fullest sense of the word, the artist can compensate for our flaws in normal vision by, for instance, looking inward to attain visual knowledge that is free from rationalistic consciousness, via moving visual thinking. Alternatively, as in the case of Brakhage, they might evoke a cinema that re-creates vision with saccadic movements, phosphenes and entoptic vision.

According to existing cognitive research, it is not modernism that alienates us from attending to the full richness of visual experience; it is the nature of the brain itself to mentally organize objects encountered and ignore non-utilitarian visual experience such as phosphenes and entoptic vision (Gregory 2004: 93). Brakhage is an exemplar of the model of the practical psychologist who explores his own cognitive capacities and draws inspiration from them while expansively engaging the viewer in a novel way. It is not the goal of this article, however, to justify all of Brakhage's intuitions about the mind or visual perception by finding a direct correlation in the field of cognitive science. Brakhage was inspired by the idea of providing an antidote to modernist consciousness, of returning to a prelinguistic visual utopia, of refusing the distinction between figurative and abstract imagery, and attempting to express an ineffable visual correlation to the movements of the mind. These concepts enabled him to produce a prolific and evocative body of work. Their value as theories can be measured in large part by the art they inspired, rather than whether they run directly parallel with existing scientific research. The interactions between human perception and thought with its corporeality, limitations and idiosyncrasies – productively served Brakhage as a creative muse.

The previous chapter suggested that avant-garde filmmakers sometimes direct the viewer's attention to the surface details of a film over its semantic content. While Brakhage was widely connected to this idea, and was perhaps cinema's most outspoken polemicist of the 'untutored eye', he was not the only artist who used referential imagery while directing the viewer's attention to surface detail. This discussion, then, might be expanded upon by considering how other filmmakers pursued similar creative goals – Ken Jacobs and Malcolm Le Grice, for example, did so by manipulating film footage with an optical printer. Bruce Baillie, Peter Tscherkassky and Ron Rice used different techniques to similar effect. In the following chapter, we will consider Robert Breer's creative approach to directing the spectator's attention to surface details and challenging human visual perception.

Notes

1. The indirect processing theory advanced by constructivism was counterpointed by James Gibson's theory of direct perception. Gibson argued that there are no internal representations involved. For my discussion, I focus on the more conventional constructivist approach.

2. Note that Ruskin suggested the artist should attend to their visual surroundings with an innocent eye, while Brakhage's idealized untutored eye was framed as a perceptual idyll not just for filmmakers or artists, but for all people gifted with vision. 3. Kelly's comment was originally made in reference to Brakhage's extended version of DSM, titled *The Art of Vision*.

4. Brakhage may, in fact, have been extending a long-lost tradition. Lewis-Williams and Dowson speculated in their article 'The Signs of All Times' (1988) that entoptic vision served as the basis for images in Palaeolithic art. Richard Bradley made a similar claim in 'Deaths and Entrances: A Contextual Analysis of Megalithic Art' (1989).

5. Re-creation available at http://25.media.tumblr.com/tumblr_lo39gbBisN1qao6oao1_500.png (accessed 13 February 2014).

6. Re-creation available at http://upload.wikimedia.org/wikipedia/commons/d/df/Purkinje_Tree_BM.jpg (accessed 13 February 2014).

7. Taken from 'Avant-Garde Filmmaker Stan Brakhage' clip, available at http://www.youtube .com/watch?v=EFDQfHvyzGI.

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CHAPTER 4

ROBERT BREER AND THE DIALECTIC OF EYE AND CAMERA

Like Stan Brakhage in the previous chapter, this analysis will illustrate how Robert Breer is another exemplar of an avant-garde filmmaker working as a practical psychologist who looked inwards to his own perceptual facilities. Taking sense as muse, Breer produced work that compelled viewers to attend to their perceptions in unique and enriching ways. While he was more casual than Brakhage about his creative goals and theoretical concerns in interviews, and did not provide theories on how to engage with his work in the way Brakhage did, the thresholds, abilities and limitations of visual perception were evidently a creative concern for Breer. His films once attracted the interest of a perceptual psychologist:

I had a scientist following me around at one point. He got excited by my films because he hadn't thought of the consequences of this kind of rapid change. And *I* never thought about consequences; I just thought about how it looked to compose this way. (Breer, quoted in MacDonald 1992: 25–26)

Breer, then, did not need to understand the scientific basis for the perceptual capacities that he was challenging; he only needed to explore them for the purpose of aesthetic effect. Without needing to account for the capacities that he challenged, he took to exploring perceptual 'thresholds', a concept central to his aesthetic (Sitney 2002: 276), which is also important to psychologists, since identifying a perceptual threshold teaches us when one mode of experience ends and another one begins. This chapter will explore thresholds of cinematic motion and depth perception in the context of Breer's films, illustrating some of the unique perceptual experiences his films offer.

Since Breer is not discussed in detail as often as Brakhage, this chapter in part seeks to remedy this disparity by conducting a lengthier analysis of his work. The

context of his artistry will be set in place, and then the concept of the dialectic of eye and camera will be explained in light of his work before two visual capacities he challenged will be explored – cinematic motion and depth. Before Breer's perceptual challenges are discussed, then, the artistic context in which he emerged will be set in place, alongside an outline of his creative aesthetic.

Robert Breer in Context

In the years following World War II, Maya Deren, James Broughton, Sidney Peterson, Kenneth Anger, Gregory Markopoulos and Stan Brakhage drew inspiration from Greek mythology, Freudian symbolism, modernist poetry and Romanticism. Robert Breer did not draw from these same sources, nor did he attempt to evoke interior states in the same way. His early path was guided by twentieth-century painters: the abstractions of Russian constructivists and German Bauhaus, the absurdism of Dada, the collage art of cubism and Kurt Schwitters, Henri Matisse's spirituality and Piet Mondrian's grid-based minimalism (see Obrist 2001). Indeed, he began as a painter himself, becoming more interested in the aesthetic potential of motion after working as a canvas-based artist for several years.

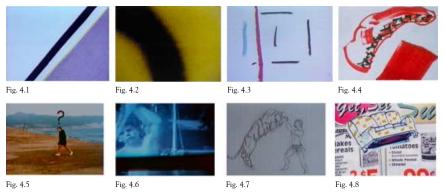
Amongst filmmakers, Breer drew inspiration from European, geometric abstract filmmakers Hans Richter and Viking Eggeling. Contemporaries included John and James Whitney, who developed a machine that could simultaneously generate images and sound; Jordan Belson, who generated abstractions that were loosely suggestive of macrocosmic and microcosmic imagery while drawing inspiration from meditation and spiritual practises; and Harry Smith, who reportedly drew creative inspiration from his experiences on hallucinogenic drugs. As a filmmaker, Breer found a kindred spirit in Peter Kubelka, who also saw the frame rather than the shot as the fundamental building block of cinematic expression. Breer, however, remained closely tied to his heritage as a painter. Lois Mendelson comments on Breer's painterly approach to film:

This relationship between the single frame and the moving image is especially important in Breer's work for it reflects his ability to work comfortably within both the pictorial and cinematic modes, and to use the one as a means of exploring the other. For Breer, work on each individual frame is essentially the work of a painter or draughtsman, and here he feels free to entertain himself with those options which are opened to pictorial artists. He considers the striving for a cinematic result another part of the work, involving a completely different set of options. (Mendelson 1981: 40)

Breer should not be understood exclusively as an animator, since he sometimes used live-action footage, and also produced paintings as well as mobile sculptures. Rather, he is a filmmaker for whom animation addressed many of his creative needs. He used the tools of a painter to make his films, exploring the transformation of lines and brushworks when they are magnified and projected onto the screen. These included a self-sticking commercial plastic called 'Zippatone' (Figure 4.1), spray paint (Figure 4.2), crayon (Figure 4.3) and magic markers (Figure 4.4), alongside collage materials – treated photographs (Figure 4.5), home video footage (Figure 4.6), childhood pencil drawings (Figure 4.7) and magazines (Figure 4.8).

Formalistic concerns guide his aesthetic, and opposites are characteristically juxtaposed: soft and hard lines, figuration and abstraction, stasis and movement, left to right, top to bottom and vice versa. Objects occupy the frame, making fast and slow movements, sometimes in repetitions and other times in variations. Objects are often dislocated from one another rather than moving around in pairings, as they would often do in Oskar Fischinger's animated films, or symmetrically mirroring one another. Jennifer Burford astutely comments that Breer 'cultivated a fake clumsiness, giving his films a recognizable signature' (Burford 1999: 85).

In Breer's cinematic frame, one does not enter a surrogate space in the traditional sense. Objects typically appear to float on a blank picture plane, acknowledging (as with Brakhage's frame) the cinematic screen as a flat canvas. A modernist painters' strategy (as discussed in chapter three: Greenberg 1995 [1960]), this heightened awareness of the picture plane begins with his very first films, which closely resembled his formative canvas paintings. The white 'canvas' of the cinematic screen was usually built from 4" x 6" flipbooks, which began as a convenience, since they were quick and easy to draw on and lent themselves to 'riffling' in order to preview the movement, but their appearance became one of Breer's aesthetic tropes. He used relatively simple apparatus – a table with a camera above it, cards and drawing implements, and he did not use the traditional technique of cel animation; instead he worked frame by frame with card. While this may seem primitive (indeed, it is the same technique employed by Émile Cohl, one of the pioneers of animation), Breer's rationale for not training



Figures 4.1–4.8. Animation subjects in the films of Robert Breer. Screen captures by the author.

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in traditional techniques was that he did not want to be 'contaminated' by conventional rules of animation (MacDonald 1992: 17).

Breer also did not make use of techniques employed by his avant-garde contemporaries such as direct film, in which the film strip is painted on directly (Len Lye, Harry Smith), or the optical printer, which allows filmmakers to re-photograph strips of film while adding visual effects (Ken Jacobs, Malcolm Le Grice). However, he developed an arsenal of techniques, several of which he would use in the same film, such as collage, rotoscope, treated photographs, flicker, tracing artworks and found footage. He would take techniques learned from one film and rechannel them into subsequent works. When observing his oeuvre as a whole, his career looks like an accumulation of techniques, which took confident form by the mid 1970s. From then until his final film in 2003, he produced a range of works that explored and further refined his distinctive style.

Instead of building his work from a linear series of scenes, Breer would create films where images and sounds 'skip around the way thoughts do' (Breer, quoted in Mekas 1962: 16). Figurative objects are as unstable and subject to transformation as the abstract images, and both are treated with equal levels of interest. No object seems more important than any other; images are treated in an 'egalitarian' fashion rather than hierarchically (Camper 1997).

Daily sights become re-energized under Breer's hand. Fred Camper comments:

Breer argue[s] with the Idealism of painters like Mondrian. To the imagined unity of things in a realm beyond the visible that Mondrian's paintings aspire to evoke, Breer counterposes his 'kitchen sink' approach, all the messy physicality of things in the world. Yet just as Mondrian's grids seem to stretch way beyond the edges of the canvases, like pieces of some much larger unity, Breer's inclusive approach creates films that seem to try to reach out and embrace everything – both the world of objects and its opposite, the world of ideal forms. (Ibid.)

Amidst the flurry of objects, abstractions and movements, spectators are called upon to pay close attention to the kinetic and colour-saturated imagery in a way they do not typically need to in conventional cinema or everyday life. Instead of providing the viewer with a space for quiet contemplation, Breer opts to create 'sparks' off the screen by placing objects in 'strenuous opposition'. He comments, 'I like violent energy coming off the screen. I think it's temperamental. It's how I played football. I want impact' (Breer, quoted in Moore 1980: 9). His kinetic and jovial approach to the craft masks his sophistication, technical dexterity and knowledge of the medium, yet his works remain relatively accessible while retaining their integrity as experimental films.

The viewer is never far from being reminded that all cinema, including the film they are watching, is illusory. Filmmaking tools are never far from view. Sitney comments that '[t]he weight of his interests as an artist lies in the creation and breakdown of illusions. For Breer, this becomes clearest when the materials of the illusions are revealed' (Sitney 2002: 275). This reflexive selfawareness, along with other aspects of his work, places Breer's films in the modernist tradition:

with its pull towards abstraction and a corresponding rejection of the kind of illusionism which had dominated art since the Renaissance. [Modernist artists] were interested in the specificity of their media as well as in the concrete nature of art objects themselves. Thus they turned their energies to formal problems, creating works of art which revealed rather than camouflaged the materials and methods of construction. (Mendelson 1981: 3)

While Breer may have been working within the context of modernism, which liberated him to create art that reveals its own artifice, this chapter will advance the claim that his work also compels the viewer to pay attention to their own perceptual thresholds as a means of aesthetic interest, and attend to their visual perceptions in novel and unfamiliar ways. In the first part of this analysis, the concept of 'the dialectic of eye and camera' will be detailed. The rest of the discussion will explore two primary aspects of cinematic visual experience that Breer challenges: cinematic motion and illusions of visual depth. Both will be considered within the context of research on visual perception.

In addressing Breer's unique use of cinematic motion and depth, the unique characteristics of his work become apparent. Breer provides his spectators with perceptual experiences that they will not experience in naturalistic contexts, or from most other filmmakers.¹ Once his viewers become accustomed to Breer's unique visual style and arsenal of techniques, they will be sensitized to new possibilities for visual experience.

Aside from the thresholds between cinematic motion and stasis, and visual depth and flatness, other dichotomies that Breer creatively destabilized include high and low art; the screen as canvas and screen as surrogate environment; and abstraction and figuration. Rather than subscribing to the claim amongst 'purist' abstract artists that 'red is red', for Breer 'blood is red, and red is red, and the confusion is possible and right' (Camper 1997). Breer created an ambiguous interplay between both. This ambiguity is evident in *Swiss Army Knife with Rats and Pigeons* (1980), where Breer demonstrates how a Swiss army knife can look both like a Swiss army knife, but also like a red oblong (i.e. how an artist might see it) (Figure 4.9). In other words, the threshold is destabilized between J.J. Gibson's concept of the visual world, in which visual surroundings are engaged in light of their semantic content, and the visual field, in which surroundings are engaged



Figure 4.9. Destabilization of visual world and visual field in *Swiss Army Knife with Rats and Pigeons* (1980). Screen captures by the author.

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as coloured patches and forms (as discussed in the previous chapter). With an outline of Breer's aesthetic in place, we can consider how his work will be explored within the context of this analysis.

The Dialectic of Eye and Camera

The discussions of Brakhage and Breer in this book have both been informed by William Wees' *Light Moving in Time: Studies in the Visual Aesthetics of Avant-Garde Film* (1992). Wees coins the phrase 'the dialectic of eye and camera' and uses it as his principal point of reference when discussing the visual aesthetics of avant-garde film. He begins by explaining that like the human eye, the film camera is fundamentally an instrument for analysing changes in light flux over time. As such, it provides some parallel with human vision. However, he also suggests that the camera risks being tailored to satisfy socially determined expectations about what an image of the world should look like, rather than capturing the full range of possible experiences:

Any cinematic expression of vision must emerge from the optical, photochemical, and mechanical processes of making and showing films. Although these processes differ greatly from those of visual perception, they are designed to produce an image comparable to the world we see when we look around us. Hence the conventions of photographic realism accepted by the dominant film industry. Because of those conventions, most films offer a very limited and highly standardized version of 'visual life': focused, stable, unambiguous representations of familiar objects in three-dimensional space. (Wees 1992: 3)

Cinematic vision, in turn, can be erroneously understood as being synonymous with human vision. What the human eye is capable of seeing and what the camera is capable of sharing is alike in some respects, but they are also different in significant ways. While the visual experience of popular cinema bears some resemblance to everyday vision, it does not capture the full range of possibilities, and so exploring the 'dialectical relationship' between the camera and the eye means that you creatively explore the ways in which the two are both alike and divergent. Collectively, avant-garde filmmakers have turned that dialectical relationship between the camera and the eye into a positive, creative force, producing films that reveal and highlight the difference between the eye and the camera. The suggestion, then, is that when exploring the dialectic of eye and camera, the filmmaker as practical psychologist asks 'how is my own vision unlike cinematic vision?' How might cinema become a tool to visually attend to my perceptions in a way that I do not in the natural world? How is the camera eye unlike the human eye? We are presented with unique visual experiences we could not encounter in life, nor in commercial works of art.

Filmmakers who choose to ignore or subvert conventions of cinematic vision might confront the viewer with complex and dynamic experiences, with techniques like superimposition, kaleidoscopic vision, soft focus, unusual angles, disorientating camera movements, flicker effects, scratching and painting on film. In order to express some novel visual experiences, artists like Michael Snow and Paul Sharits expose the mechanical nature of the cinematic apparatus, while filmmakers Jordan Belson and John and James Whitney offer a range of visual experiences without making explicit reference to the cinematic machinery. Robert Breer is another filmmaker who was interested in exploring aesthetic experience by demonstrating the differences between human vision and the possibilities of cinematic vision. He addresses this dialectic in a way that Wees' other case studies - Stan Brakhage, Kenneth Anger, Jordan Belson, James Whitney, Paul Sharits and Michael Snow – do not. In the context of this discussion, artists who attempt to provide visual experiences that are explicitly unlike visual experiences encountered in the natural world expansively offer the spectator the opportunity to psychologically attend to visual stimuli in a way they might not otherwise. Breer's films, and this chapter, exemplify another unique way in which the visual system can be engaged.

Note, however, that while Breer is being read through a niche set of ideas from the study of visual perception, viewers do not need to know the science of perception in order to appreciate the visual experiences provided in his films – they only need ordinary human visual capacities to experience their effects. The perceptual research explains some of those capacities, and this chapter will illustrate how Breer exploits them. But knowledge of these perceptual mechanisms is not necessary to appreciate his work in the way that Brakhage is understood more clearly if the viewer has prior knowledge about Romanticism or abstract expressionism, for example. With this said, the explanations offered here may still heighten one's appreciation of Breer's artistry, even if they are not required to appreciate his work.

Now that the general framework for this analysis is in place, Breer's work will be explored in closer detail. This discussion will be split into two sections: the first will consider how Breer challenges motion perception; the second will explore depth perception.

Motion

With Breer's creative context in place along with an outline of his aesthetic and an explanation of the dialectic of eye and camera, the perceptual challenges presented in his films may be examined. The differences between cinematic and human vision will be considered, initially in relation to motion perception.

Breer's use of cinematic motion was unique because he never took it for granted. He used cinema to address his own creative concerns with movement,

which was as much an aesthetic concern as form, composition and colour, and not because he decided to be a filmmaker, which features movement by nature. More than the painters-turned-filmmakers who predated him such as Oskar Fischinger, Dwinell Grant and Walter Ruttmann, Breer did not rely on the smooth motion, which traditional animators exploited (or aimed to accomplish). Instead, in a dialectic of eye and camera, Breer explored the expressive potential of pulling and stretching between the perception of movement and still images, and balancing on the threshold between the two.

In his early career as a painter, Breer followed the 'neo-plasticians' Mondrian and Kandinsky, and practised a 'severe kind of abstraction' in which he would limit himself to three or four hard-edged forms per canvas, each with its own distinct colour. He comments:

I was not entirely at home within the strict limits of neo-plasticism. . . I became interested in change itself and finally in cinema as a means of exploring this further. I wanted to see if I could possibly control a range of variations in a single composition. You can see that I sort of backed into cinema since my main concern was with static forms. In fact, I was even a bit annoyed at first when I ran into the problems of movement. (Breer, quoted in Sitney 2002: 272)

His interest in motion assumed the forms of several different types of media. His contribution to a Parisian exhibition in 1955 entitled *Le Mouvement* is marked as a turning point in his career, when he became more fully committed to the artistic exploration of motion. In that instance, he contributed a flipbook to the exhibition entitled *Image Par Images* – designed to demonstrate the process taken to arrive at a composition. A subsequent manifestation of his interest in movement was realized in his motorized sculptures known as 'floats', showcased in Tokyo in 1970, which would create an atmosphere rather than a spectacle by moving imperceptibly slowly (Pardey 2011: 100–4).

Breer also became interested in pre-cinematic optical toys. Aside from using flipbooks to chart the creative process of an abstract composition and placing them in a gallery context, he also built thaumatropes (two-sided panels that visually fuse when spun) and mutascopes – hand-cranked motion picture devices that worked on a similar principle to flipbooks. While the mutascope predates cinema, it exploits the visual system in a similar way. For Breer, it has the added appeal of making some of the ethereal elements of cinematic experience concrete through a tangible object that requires physical participation. Similarly, flipbooks, mutascopes and thaumatropes all have a material presence, and nothing is hidden from the spectator. Breer was conscious of the context in which his films were screened – the darkened room of a cinema hid the materiality of film, and he also considered the context to be somewhat 'melodramatic' (Breer 1973b: 57).

With his trademark sense of humour, Breer makes recurrent reference to the stillness of the individual frame, the fundamental building block of cinema, through the repeated use of still photographs in his films. Comparable to Michael Snow's photograph of the ocean that eventually overwhelms the frame in Wavelength (1967), there is an inherent paradox in filling the frame with a still photo within a 'moving' cinematic sequence, and a simultaneous acknowledgement that cinema is comprised wholly of still images. Cinema itself is built around creating the impression of motion with the rapid succession of still images, and Breer finds a variety of methods for doing so. In Fist Fight (1964), he simply shakes a photograph of himself in front of the camera to give it movement. A similar technique occurs later in Bang! (1986) to crudely give the impression that an aeroplane is flying across the screen. The images are accompanied by the sound of a plane engine (Figure 4.10).

Within this discussion of cinematic motion, the analysis will be divided into a series of subsections that describe some of the techniques Breer developed that challenge our visual capacities. These techniques will also be related back to existing knowledge about visual perception to demonstrate how they challenge our perceptual habits in unique ways.

Flicker Fusion and Phi Movement

To begin with, the basis of cinematic motion will be considered, and how it is different to motion perception in the natural environment. Before coming back round to Breer's formal and perceptual









Figure 4.10. Movement of a still photograph in *Bang!* (1986) Screen captures by the author.

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challenges, a moment should be taken to understand the difference between cinematic and real-world motion. To do so, consider the story of a 48-year-old woman who, in 1983, had suffered a stroke five years previously and consulted her neurologist with an unusual complaint:

The visual disorder complained of by the patient was a loss of movement vision in all three dimensions. She had difficulty, for example, in pouring tea or coffee into a cup because the fluid appeared to be frozen, like a glacier. In addition, she could not stop pouring at the right time since she was unable to perceive the movement in the cup (or a pot) when the fluid rose. Furthermore the patient complained of difficulties in following a dialogue because she could not see the movements of the face and, especially, the mouth of the speaker. In a room where more than two people were walking she felt very insecure and unwell, and usually left the room immediately, because 'people were suddenly here or there but I have not seen them moving'. (Zihl, quoted in Hoffman 2000: 140)

The subject had a condition known as akinetopsia. While she had good acuity perception (resolution), normal colour perception, could perceive depth and could easily recognize objects, she could not see motion. This motion deficit was limited to vision, however; she easily perceived the movements of objects on her skin, and the sound of objects moving around the room. The fact that her sense of motion perception was affected without the rest of her visual abilities such as colour or form changing tells us that there is a region of the visual cortex that is devoted specifically to motion, and that motion is reconstructed by your visual intelligence rather than passively received. While it may appear to be the same process, the way in which the visual cortex engages with natural-world and cinematic motion is different, even if they 'look' the same. The experience of cinematic motion is made possible by two visual phenomena – flicker fusion and phi movement. Both of these will be detailed.

In its early stages at Edison Films in 1895, film ran at approximately forty frames per second. This proved to be impractical because of the resulting expense and weight of the film stock. After further experimentation, the scientists at Edison Films discovered that images photographed slower than 16fps resulted in excessively jerky motion and a distracting flicker. Finally, experimentation at Western Electric led to 24fps becoming the industry standard, improving sound quality and making mild speed fluctuations tolerable (Anderson 1996: 55). If you look at a strobe light that blinks twenty-four times per second, you would see a discernible flicker. Accordingly, you would also notice twenty-four flashes of light per second in a traditional film projector unless each individual frame blinks multiple times. Flicker fusion occurs at about fifty flashes per second, when the retina is unable to discriminate between flashes and the luminosity appears consistent. If each cinematic frame flashes twice, it would flicker forty-eight times per second – which runs just short of the required fifty. Instead, a three-bladed

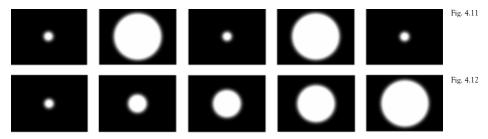
shutter is used to raise the flicker rate to seventy-two flashes per second – three times for each frame, which is well past the threshold for perceptual fusion.²

While flicker fusion explains why we do not perceive a flicker or black frames when viewing film projectors, even though the screen is blank for half of the time we view a film, the reason we perceive motion is because of the phi phenomenon. To create smooth movement in film, each frame should only vary a little bit from its neighbour. This is common knowledge, but the reason behind it is less widely known. Phi movement is an optical illusion that allows us to experience continual movement instead of a rapid sequence of pictures. If the distance between two objects in a frame is adequately close and the time interval between their transition is sufficiently brief, we perceive a single object. This does not only occur in cinema – flipbooks, mutascopes and other optical toys like the zoetrope and praxinoscope work on the same basis.

If we were to see the five frames in Figure 4.11 played out at standard speed (24fps), the transitions from frame to frame would be too dissimilar to perceive a consistent circle growing bigger and smaller. Instead we would see a rapid alternation between a large circle and a small one. In Figure 4.12, however, the visual transitions are minor enough that we would experience phi motion, and we would perceive a consistent circle growing rapidly.

The visual system is unable to detect the difference between the successive changes in the static frames of a motion picture and the continuous changes of natural movement. We supply information when perceiving cinematic motion that does not exist. Even though phi motion appears to be the same as the movement we experience in the natural world, the visual cortex constructs it differently. Psychologist Richard Gregory explains the foundation for this phenomenon:

The simple notion that the image-retina system is tolerant of gaps explains phi movement. For vision needs tolerance, to cope with all manner of inadequacies. . . This use of tolerance is a basic engineering principle. Moving objects can momentarily disappear, as when a running animal for a moment is hidden behind a nearby tree; but it is useful for observers to see this as a continuous movement of the same object. The image-retina system tolerates gaps, provided the jumps in space and



Figures 4.11-4.12. Comparison of flicker (4.11) and phi motion (4.12).

time are not too large. As a fortunate pay-off, this tolerance in space and time allows cinema and television to be economically possible. (Gregory 2004: 118)

As we shall see, both flicker fusion and phi movement become pertinent when considering Breer's unique use of cinematic motion. While he never altered the cinematic apparatus so as to expose the process of flicker fusion, he visibly and self-consciously used the frame rate of 24fps as a given structure within which to explore creative options – one may speculate whether he might have fluctuated the shutter speed as an extension of his aesthetic if he had the means to do so. He also found ways to challenge the illusion of phi motion, which will also be considered.

Thorough illustration is particularly valuable when discussing the work of Robert Breer. A string of consecutive frames from a Breer film elucidates the method by which he creates his effects, because an individual frame carries a small but vital unit of what is needed to create the overall experience. While perceptual ambiguity (balancing on the thresholds between stasis and motion, depth and flatness) serves as an expressive cornerstone of his films, the individual frame possesses a simple clarity when viewed on a page. Played in succession, however, a new ambiguity arises. Robert Breer commented: 'I think even in painting the clue to what I do has something to do with ambiguity and controlling ambiguity and making it dramatic . . . to get ambiguity as an expressive feature of the thing' (Breer, quoted in Cote 1962: 17). The various techniques that Breer developed to challenge the perception of cinematic motion will be schematized.

Flicker

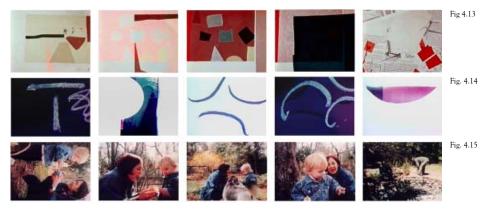
The first technique to be considered that Breer utilized when exploring the camera-eye dialectic is the flicker effect. He is not the only artist to employ this technique, but he is closely associated with it. While the flickers of Peter Kubelka, Tony Conrad and Paul Sharits feel 'structural, turbulent, [and] sometimes violent' (Burford 1999: 100), Breer's flickers feel jovial, like flipping through a deck of cards. Discussing part of the rationale behind the flicker effect in his film, Peter Kubelka said the following:

Cinema is not movement. This is the first thing . . . Cinema is a projection of stills – which means images which do not move – in a very quick rhythm. And you can give the illusion of movement, of course, but this is a very special case, and the film was originally invented for this special case . . . Where is, then, the articulation of cinema? Eisenstein, for example, said it's the collision of two shots. But it's very strange that nobody has ever said it's not between shots but between frames. It's between frames where cinema speaks. And then, when you have a roll of very weak collisions between frames – this is what I would call a shot, when one frame is very similar to the next frame. (Kubelka, quoted in Sitney 2002: 296)

Kubelka's distinction between weak and strong collisions is a pertinent one for the purposes of this discussion – a weak collision facilitates phi motion, while a strong collision does not. One reason Breer provides strong collisions, then, was for the purpose of revealing the artifices of cinema instead of concealing them. Drawing an analogy between the filmmaker and magician, he once suggested that 'The hat should be transparent and show the rabbit.' (Breer 1973a: 70). Exploring the dialectic of eye and camera by demonstrating how ordinary vision and cinematic vision are different, Breer chose to dispel the impression that we are looking at consistent objects in motion when viewing cinema. If each visual collision is sufficiently strong, the viewer will register each of the twentyfour frames per second, rather than relaxing the eye onto seemingly consistent objects through phi motion. His first film to exploit this technique was the ten second loop Image by Images 1 (1954), which was composed entirely of dissociated shots lasting a single frame. This was followed by Recreation (1957), which also contained frames sufficiently different that they would be experienced as a string of strong collisions, rather than a smooth passage of time with consistent objects in motion (Figure 4.13).

While the use of single-frame sequences had been used previously (in Man Ray's *Retour á la Raison* (1923) and Fernand Léger's *Ballet Mécanique* (1924) for instance), Sitney accredits Breer as the pioneer of the 'flicker film' and discusses the implications of this style:

conventionally, only tiny variations in the shape and position of images are permitted by animators to give the illusion of a continuous naturalistic motion. Breer's invention was to abolish all of the slight variations and to project a continuously repeating strip of film in which each frame was essentially independent of the others. Thus any sense of continuous movement would have to be replaced by a more



Figures 4.13–4.15. Strong collisions in *Recreation* (1957; 4.13), *Rubber Cement* (1976; 4.14) and *What Goes Up* (2003; 4.15). Screen captures by the author.

general notion of rapid change, an affirmation of the static in the centre of the greatest speed that cinema affords. (Sitney 2002: 273)

Once visually accustomed to the visual speed of the flicker effect, the viewer may notice more details as the mind quickens and visually attends to the screen in an alert state. Viewers pay attention to minute scales of time (24th of a second) when encountering a flicker film – scales of time we do not typically pay attention to outside aesthetic contexts. Here, the mechanical apparatus of cinema is exposed in the flicker film. Wees comments:

What projectors are designed to hide, the flicker effect restores to visibility. It prevents the smooth fusion of frames normally perceived during film projection. Through this rupture in the normal perception of the cinematic image, one can catch a glimpse of the discontinuous and mechanical processes that underlie the seemingly continuous and natural flow of images on the screen. (Wees 1992: 151–52)

Breer used this technique throughout his career. In *Eyewash* (1959) live-action frames collide, and in *Rubber Cement* (1976), sketched abstractions combine to produce a flicker effect (Figure 4.14). In *What Goes Up* (2003) Breer uses family photos of his daughter and grandson playing in a park in rapid succession to create a flicker sequence (Figure 4.15)

Fusion Flicker

The second technique that offers an unconventional perceptual experience resembles the flicker effect, but will be termed the 'fusion flicker'. Like the conventional flicker, each frame is radically different to the preceding one, creating a series of strong collisions. The difference is that in the fusion flicker, two or more frames rapidly alternate back and forth, visually fusing with one another. In both, the viewer pays attention to minute scales of time, but the effect is different.

There are two ways in which the fusion flicker is manifest. In the first, solid colours rapidly alternate, '[blending] together in the viewer's eye' to create 'a uniquely cinematic color fabric' (Mendelson 1981: 23). While the frames appear separate and distinct when observed as freeze-frames, they take on 'a third colour of electric intensity' (ibid.: 4), which exists only in the spectator's visual cortex and not on the screen. Colours become pulsating and ephemeral, assuming a 'shimmering opalescent quality' (ibid.) when experienced in rapid alternation. This occurs in *Eyewash* (Figure 4.16). Seven years later in 66, a bulb-shaped portion of the frame shimmers in black and white (Figure 4.17).

Alternation also occurs in Breer's films when two separate objects visually fuse – the same effect created by the thaumatrope, in which two objects visually superimpose by rapidly alternating (e.g. a bird in one image and a cage in another fusing together). Instead of an ordinary superimposition, the two images pulsate and vibrate together. For instance, in *Rubber Cement*, a woman and a dog visually fuse to create the impression that they are running towards one another (Figure 4.18). Later in the same film, a lone bird fuses with a sketchy seashore, and appears to inhabit the landscape (Figure 4.19).

Some flicker fusions feature more than two alternating sequences. In *Bang!* Breer creates a unique and intricate visual experience in a three-way alternation (Figure 4.20). Using footage originally rotoscoped in *Fuji* (1974), a bespectacled face stares out of a window (A). This is layered on top of a forest (AB). The forest



Figures 4.16–4.22. Flicker fusion in *Eyewash* (1959; 4.16), 66 (1966; 4.17), *Rubber Cement* (1976; 4.18–4.19), *Bang!* (1986; 4.20, 4.22) and *Gulls and Buoys* (1972; 4.21). Screen captures by the author.

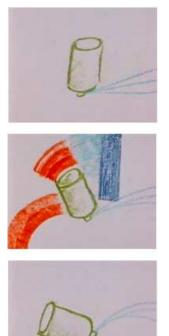






Figure 4.23. Incremental, uneven movement in *LMNO* (1978). Screen captures by the author.

is then seen on its own (B). Next, we see the face staring out of the window without the forest, but with the colours reversed (-A). Thus the alternation goes: A1, AB1, B1, -A2, AB2, B2, -A3, AB3 . . . The spectator experiences a flashing, shimmering scene in motion in which the background seems partially dislocated from the foreground. In *Gulls and Buoys* (1972), Breer 'segments' a cat into three parts: its front leg, its back leg and its body. Alternating rapidly between the three objects, they fuse to create a flickering, shimmering complete cat in motion (Figure 4.21). A similar segmentation occurs in *Bang!*, where portions of a scene from an American Football game visually fuse to create a complete scene (Figure 4.22).

Again, Breer offers a uniquely cinematic experience of movement, finding an alternative to ordinary phi motion and inviting the viewer to reflect on their own perceptions of cinematic movement.

Fluctuation

Fluctuation (as it will be named here) is a technique where the number of frames per drawing varies. Producing smooth movement in animation requires a small change in position with each frame, although moving objects and characters are often shot 'on twos' - meaning that each drawing is shown for two frames. By commercial standards, twelve drawings per second is the lowest possible number of images per second one can use without being considered objectionably jerky (Williams 2009: 75). For Breer, one drawing may appear for seven frames, the following might appear for three frames, the following for five frames, and so on. In LMNO (1978), for instance, we see a tumbling spray can. Instead of seeing a new image every frame in a series of weak collisions, we see incremental stages of the can's movement in an intentionally uneven series of frames. In the consecutive images in Figure 4.23, the first image appears for three frames, the second appears for

seven frames, the third lasts four frames, the fourth lasts two frames and the fifth lasts six frames.

The number of frames with which each image remains onscreen, therefore, fluctuates. Exploring the domain between motion and still pictures, Breer possessed 'a heightened awareness of the operation of the single frame as the locus of the tension between the static and the moving', according to Sitney (2002: 272). This technique offers viewers occasion to consider how cinema plays upon their perceptual capacities in order to create the impression of motion. In a Breer film, movement is staggered momentarily to show the viewer how the impression of motion is created, before resuming back to ordinary phi motion. Sitney referred to his work as 'the fusion of stills into flowing motion and then back again' (ibid.: 276).

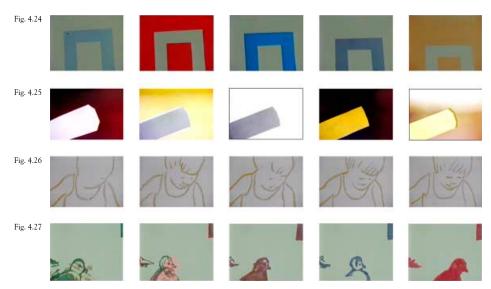
Lois Mendelson suggests that Breer's 'creative limitation' is the 'relentless temporal flow' of film – continual movement is his constraint. She compares Breer with the painter Paul Klee, who wanted to imbue static imagery with the feeling of motion, while Breer conversely wanted to allow spectators to experience each cinematic frame as a static picture in and of itself as well as part of a sequence:

the attempt to define the limits or thresholds of their respective media and to push beyond them as a strategy for expanding their aesthetic options led both Klee and Breer to incorporate ambiguity as a concrete feature of their work. (Mendelson 1981: 31)

Again, Breer explores the dialectic of eye and camera by demonstrating how phi motion may be pulled back to the threshold of perceptibility by providing what appears to be a series of still images transforming into motion and back. Our visual facilities are again engaged in a way that they are not in the natural world.

Phi Disruption

In addition to flicker, flicker fusion and fluctuation, Breer offered a unique perceptual experience by creating a uniquely cinematic distortion of phi motion with a technique that will be called phi disruption. This technique sits at the threshold between phi motion and the flicker effect with a series of pictures in which objects might undergo strong collisions in colour, but weak collisions in shape. Phi motion is neither conventionally exploited to achieve an impression of smooth motion, nor is it discarded through strong collisions. Instead, it is 'disrupted'. For example, in 69 (1968), a square moves downwards in a series of weak collisions, prompting the perception of phi motion (Figure 4.24). However, the colour of the square and the background changes with every frame. Thus, we are presented with a perceptual ambiguity: the squares in the frame formally undergo a series of weak collisions, telling us that we are looking at a consistent object, while the use of colour creates a flicker effect with strong collisions. This occurs



Figures 4.24–4.27. Instances of phi disruption: 69 (1968 4.24–4.25), Gulls and Buoys (1972; 4.26) and Swiss Army Knife with Rats and Pigeons (1980; 4.27). Screen captures by the author.

again in the same film with a rotating cylinder. The colour of the object and the background alters with each picture (Figure 4.25).

Phi disruption does not only occur with inconsistent colours, however. It is also accomplished by straddling a fine line between strong and weak collisions with form. From one image to the next, objects are similar enough in colour to be experienced as consistent, but loose enough in form that our perceptions are called into question. In *Gulls and Buoys*, this effect is rendered with a series of images of a young boy with a series of 'medium strength' collisions in form. He is drawn relatively consistently, but just outside the 'comfort zone' with a series of loose sketches (Figure 4.26).

Phi disruption, then, can occur through an object's form, and also through its colour. A collision may be relatively strong in relation to one property, but weak in relation to the other. On other occasions, both properties may cause phi disruption. *Swiss Army Knife with Rats and Pigeons*, for example, features a loosely sketched pigeon that walks across the screen (Figure 4.27). In each picture, the pigeon is similar enough to be perceptually bound together as the same bird, but different enough in its colour and form that our perceptions are called into question.

This effect is accomplished with the use of a rotoscope – a tool used for tracing from live- action footage. Patented by Max Fleischer in 1917, the rotoscope was developed with the intention of rendering animated figures with a high degree of realism. It was used in Fleischer's own *Minnie the Moocher* (1932) and later in Disney's *Snow White and the Seven Dwarfs* (1937) for this effect. Breer uses the ro-

toscope differently – instead of tracing the live-action footage with clear, smooth lines, he applies loose sketch work instead. As such, each frame is discernible due to the strength of collisions. Our visual perceptions are pulled in two directions at once: naturalistic motion is emulated, yet the collisions, as in the case of the loosely sketched boy in *Gulls and Buoys*, are just about strong enough that the frame rate visually registers – like a hint of naturalistic perception in an artificial, explicitly constructed environment. Initially developed by animators to hide their technique, the rotoscope becomes a tool for the reverse effect under Breer's hand. Fred Camper comments:

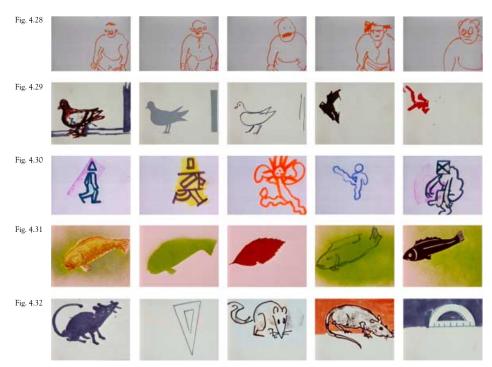
the drawing and movement offers enough to suggest actual scenes and everyday movements, but is rough enough . . . to also reveal the nature of the medium. Thus our natural tendency to want to see realistic movements is constantly being argued with, as we are returned to film rhythms with our desire to 'soar' into some other world taken apart. (Camper 1997)

Again, Breer examines his own perceptual facilities, and in exploring the camera/ eye dialectic, he reveals the way in which our propensity to perceive consistent objects can be stretched and stressed by creating visual arrays that are uniquely cinematic in their perceptual ambiguity.

Radical Phi Disruption

In addition to phi disruption, Breer sometimes makes notably bold alterations to the form of objects in adjacent pictures. In *Gulls and Buoys*, he rotoscopes a sequence in which a man rides a bike towards the camera. Instead of drawing a consistent head to match the body, he draws a series of comical faces, which change with every image – a relatively consistent body with an inconsistent, flickering series of heads. Again, perceptions are explicitly disrupted in a way we do not experience in naturalistic contexts (Figure 4.28). In *Swiss Army Knife with Rats and Pigeons* (Figure 4.29), we see a pigeon take flight. In each part of its movement, the pigeon is drawn in a different style with a variety of inks, paints and brushworks. *T.Z.* (1979) (Figure 4.30) features a series of bodies, which roughly occupy the centre of the frame. They appear to be separate figures, but are loosely bound together as a single object despite their radical differences, due to the fact that they appear onscreen for such a short period of time. The visual system never commits wholly to the idea that it is looking at a single figure, or at a series of separate figures in rapid succession.

In some instances, the object might be replaced for a single frame by another object with a comparable shape. In *LMNO*, a fish is drawn in a variety of styles and is momentarily replaced by a leaf (Figure 4.31). In *Swiss Army Knife with Rats and Pigeons*, the dominant compositional lines in two pictures of a rat are juxta-



Figures 4.28–4.32. Phi disruption via alterations in form in *Gulls and Buoys* (1972; 4.28), *Swiss Army Knife with Rats and Pigeons* (1980; 4.29, 4.32), *T.Z.* (1979; 4.30) and *LMNO* (1978; 4.31). Screen captures by the author.

posed with comparable drawing utensils – the rat's pointed triangular face in one, and its semi-circular body in the other (Figure 4.32).

Motion Summary

Amidst the flickers, flicker fusions, fluctuations, phi disruptions and radical phi disruptions, Breer includes pockets of traditional live-action movement as a part of his expressive arsenal. Ordinary phi motion looks peculiar in Breer's films, since it is always encountered within the context of his other unique applications of cinematic movement. It appears sporadically throughout his career – in *Eyewash*, an infant child turns his head, *T.Z.* features a misframed live-action shot of a patio and *What Goes Up* features a leaf falling on a photograph of a forest in ordinary motion.

The seemingly 'normal' movement of phi motion is defamiliarized in Breer's films, but also experienced anew by being reframed within the context of alternative approaches to cinematic motion. At the core of this discussion of move-

ment, the suggestion has been made that Breer may be understood as a central example of an avant-garde filmmaker-as-practical-psychologist, who explored the camera-eye dialectic, distinguishing between ordinary vision and cinematic vision, and employing the process of revealing that distinction as a creative force. In doing so, through introspection, he touches on themes that have been the subject of study by perceptual psychologists, gives his audience occasion to reflect on their own perceptual facilities, and expansively provides his spectators with visual experiences that compel them to attend to their senses in ways that they do not have the opportunity to when engaging with the natural environment, or other films.

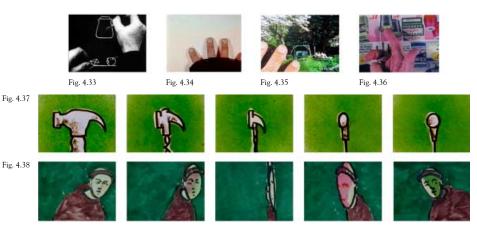
In addition, a series of creative techniques that Breer developed across his career has been schematized. In doing so, the general notion of 'rapidness' or 'flickering' may be replaced with a more nuanced set of expressive techniques. With a clearer sense of Breer's artillery of creative methods, his films may be attended to with greater sensitivity.

Now that cinematic motion has been explored in detail, the next part of this chapter will consider how Breer explored perceptual thresholds between flatness and depth within the dialectic of eye and camera.

Depth

Stan Brakhage and Robert Breer were contemporaries, and both constitute archetypal examples of avant-garde filmmakers who drew creative inspiration from visual perception. Both were also interested in the use and subversion of visual depth in cinema. Brakhage was far more vocal about his rationale behind collapsing the illusion of depth in order to engage the cinematic screen with an 'untutored eye', and resisting the inherent nature of the cinematic lens, which had been '[ground] to achieve 19th-century western compositional perspective' (Brakhage 2001c: 15). While Breer spoke less about the rationale behind his creative goals, this analysis will demonstrate that he was inspired to creatively pull and stretch between impressions of depth and flatness – much in the same way that he would shift between impressions of stasis and motion. While Brakhage flattened the screen by 'wrecking' focal attention, spitting on the lens, painting on the celluloid and applying other methods, Breer developed a different array of techniques to challenge our perception of depth, which will be explored in detail.

The self-reflexive acknowledgement of the tension between the flatness of the cinematic screen and inferred depth is not exclusive to Robert Breer. Emile Cohl's landmark *Fantasmagorie* (1908) features the artist's own hands assembling the animated characters, creating a 'material layer' on top of any inferred depth from the original picture (Figure 4.33). In some of Breer's films, we see his hands over the images, creating a second 'photographic' layer of inferred depth, while



Figures 4.33–4.38. Explorations of the tension between flatness and depth in *Fantasmagorie* (1908; 4.33), *Recreation* (1956; 4.34), *Time Flies* (1997; 4.35), *What Goes Up* (2003; 4.36), *LMNO* (1978; 4.37) and *Swiss Army Knife with Rats and Pigeons* (1980; 4.38). Screen captures by the author.

simultaneously flattening the original layer. These include *Recreation* (Figure 4.34), *Time Flies* (Figure 4.35) and *What Goes Up* (Figure 4.36).

Breer never took the illusion of depth on the cinematic screen for granted. He originally treated the cinematic screen as a flat canvas, just as he did the painter's canvas. Early work such as *Form Phases IV* (1954) followed the modernist tradition of acknowledging the flatness of the screen. In later work, Breer began to create illusions of depth, only to undermine them, or play perceptual games with his audience. *LMNO* features a rotating hammer, which initially appears to be three dimensional when seen in profile. As it rotates towards the screen, viewers discover that the handle is flat while the hammerhead is not (Figure 4.37). Breer invites his viewers to be conscious of illusions of depth on the cinematic screen.

In Swiss Army Knife with Rats and Pigeons, a second plane of depth is created when a picture of a monk lifts up from its canvas, creating a 'material layer' – perhaps an ironic comment on the idea of religious transcendence. The monk then turns around. Like the hammer, instead of giving the monk three dimensions, Breer makes him flat as he rotates, which could be interpreted as a reference to the flatness of Byzantine art (Figure 4.38). Sitney comments that Breer 'systematically alternates abstract, linear forms which affirm the flatness of the screen upon which they are projected with forms creating three-dimensional illusions and a sense of extreme depth in the screen' (Sitney 2002: 8).

Rules of Perspective

Like his work on motion, Breer takes a fundamental perceptual facility that is exploited by cinema and draws our attention to its illusory power. Identifying

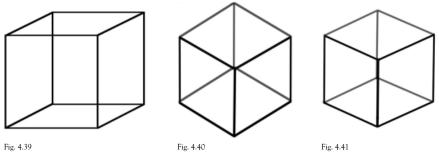
objects in a three-dimensional space is a core facility developed in the visual cortex, and it is as useful to us today as it was during the long period of our evolutionary development. As Joseph Anderson comments, 'we only have to cross a busy street to realize that our lives literally depend on our capacity to locate objects accurately in space' (Anderson 1996: 65). We are good at depth perception because our ancestors lived and died on the basis of their ability to know what occupied the space around them.

Any time one experiences visual depth, however, it is reconstructed. The brain uses a variety of cues to extract three-dimensional information from two-dimensional impressions. David Hubel and Margaret Livingstone explain:

As we look around, most of us think we 'see' a three-dimensional world. Yet since each retina is a flat sheet of neural tissue, all the brain could possibly acquire through the eyes are two flat images (one from each eye). The brain must somehow interpret these two flat images as three-dimensional space. (Hubel and Livingstone 2008: 100)

We do not always construct depth from a visual stimulus, however; we only do so when the visual information we are presented with conforms to the appropriate rules. Of Figures 4.39, 4.40 and 4.41, we more easily discern depth in the 'Necker' cube (Figure 4.39), and not so readily with the Kopfermann cubes (Figures 4.40 and 4.41). Even though all three objects depict a plausible impression of a cube from various angles, only the Necker cube does so according to the appropriate 'rules' (Hoffman 2000: 23–24). We do not perceive depth at any given opportunity, and since the Kopfermann cubes can be perceived as flat, symmetrical objects, the visual system more easily interprets them as such. Of course, the Necker cube can be experienced as flat, and the Kopfermann cubes may be experienced as three-dimensional, but with more of a specialized effort.

In an attempt to identify and emulate the rules that the visual system operates by in order to experience the world in three dimensions, Italian Renaissance artists developed the rules of perspective, which offered a means of representing



Figures 4.39–4.41. Depth can be perceived more readily in the Necker cube (4.39) than in the two Kopfermann cubes (4.40 and 4.41). Drawn by Kirsty Garland.

the three-dimensionality of the real world through the two-dimensionality of a painting. With the rules of perspective, the artist attempts to represent the shapes, colours and shading of the real world as if it were seen through glass. The film camera, like the photographic camera, embodies the principles for generating images according to the rules of perspective. However, controversy has ensued as to whether these rules, employed initially in drawing and painting and later in photography and motion pictures, are a natural function of the eye or a distorting cultural convention.

William Wees, echoing Jean-Louis Baudry (1975) and Stan Brakhage (2001b [1963]), argues that pictorial perspective is 'a rather unscientific mixture of theory, experiment, and artistic convention' (Wees 1992 37), and that the camera is a machine tailored to satisfy socially determined expectations about what an image of the world should look like. These are expectations that rest on assumptions about image-making and visual perception that date back to Italian Renaissance painting – predating the invention of cinema by several centuries. The Renaissance theory of perspective '[encourages] an implicit equation between seeing and picture making based on the presumption that vision operates according to the same rules that artists follow in producing pictorial perspective' (Wees 1992: 42). Others disagree with this position, and argue that perspectival painting and photographic imagery are not cultural distortions, but rather they capture a basic truth about visual experience. Anderson, for example, suggests that 'perspective may not be merely a cultural convention, it may be a built-in feature of the way we see' (Anderson 1996: 72), since the human eye also utilizes the same principles as the rules of perspective. The camera lens does not 'distort', then, according to Anderson. It emulates human vision.

Whether it is to be understood as a cultural convention or a fundamental truth about human vision, exploiting and disrupting the rules of perspective became a fertile ground for experimentation and expression in Breer's work. One of the freedoms afforded to Breer as an animator is that he was not subjected to 'the perspectival biases of the lens' (Wees 1992: 54) in the same way that live-action filmmakers were; therefore, he could exploit and discard them as he saw fit.

Depth Cues

In order to perceive three-dimensionality, we depend on depth cues, and these can take two different forms. One depth cue called stereopsis relies on both our eyes working together, and it arises from the fact that our eyes each have a slightly different view of the world. The overlapping fields of vision create a disparity, which helps us perceive our surroundings in three dimensions. Stereopsis also reminds us that cinematic images, like paintings, are flat. Most cues to depth, however, are 'monocular' and do not rely on both eyes working together. Artists who work with still paintings or photographic images are limited to the use of monocular depth cues, and these might include foreshortening, motion parallax, interposition, relative size, relative height, shadow, texture gradient, aerial perspective and linear perspective.

Before some of Breer's perceptual ambiguities generated by his use of depth cues are explored, the conventional emulation of naturalistic perceptions of depth should be considered. One such depth cue commercial animators apply is shadows – the shape and angle of a shadow will depend on where the source of light is situated. In a place with only one source of light (e.g. outside in the sunlight), all shadows go in the same direction. Objects in Breer's animation are not typically illuminated by an imaginary light source, so they do not normally cast shadows.

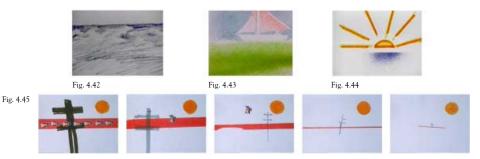
Animators, particularly those using CG with a wider colour palette, may also emulate naturalistic perceptions by applying a depth cue called aerial perspective (also known as atmospheric perspective). Here, particles in the atmosphere scatter light, and blue wavelengths of light are most easily scattered. This is why the sky is usually blue in sunlight, although scattering also occurs for other wavelengths of light as well. This has a bearing on our experience of depth. The further away an object is, the more its light will become scattered. As such, the more distant an object is, the more vividly it will be cast in the same colour as the sky. Distant objects also appear less sharp because most of their light particles are being scattered. Breer never exploited this technique in his work, since he did not attempt to re-create natural perceptions. Objects were seldom coloured realistically, and using crayons, pens, felt tips and other ordinary consumer products, a more limited range of colours was applied instead of a wide array of hues.

For Breer, animation was not a medium to be modelled on live-action movies; it possessed an expressive vocabulary of its own. As such, conventional depth cues were not exploited. In the following section, the way in which Breer extended his exploration of the camera-eye dialectic (exposing the difference between ordinary and cinematic vision) by providing a series of perceptual ambiguities with the use and subversion of depth cues will be considered. Like the previous section on motion, each depth cue will be explored in a series of subsections.

Relative Height

One of the ways in which Breer generates perceptual ambiguities is with the use of relative height as a depth cue. In western perspectival painting, the horizon line is usually somewhere in the middle of the image. As such, the most distant part of the sky and the ground are in the middle of the image, where the sky and the land or water meet. In turn, the nearest part of the ground is at the bottom of the frame, and the nearest part of the sky is at the top. In Breer's films, spatial relations are less clearly defined, and there is seldom a coherent 'landscape', or a horizon line, which creates the impression of a receding space. Occasionally, landscapes with horizon lines do appear, briefly creating spatial depth before disappearing again. In *Rubber Cement* (Figure 4.42), the viewer moves laterally along a beach. *LMNO* (Figure 4.43) features a boat floating along a river, in a loose approximation of naturalistic colours. A sunset over the ocean features in *ATOZ* (2000) (Figure 4.44).

Creating a visual ambiguity in *Time Flies* (1997), an abstract line and circle shrink, momentarily taking on the appearance of the sun and a horizon line. For that brief period, the frame appears to spatially recede into the distance. Then, the horizon line continues to shrink, undermining the momentary illusion of depth (Figure 4.45).



Figures 4.42–4.45. Perspective is fleetingly discernible in the Breer films *Rubber Cement* (1976; 4.42), *LMNO* (1978; 4.43), *ATOZ* (2000; 4.44) and *Time Flies* (1997; 4.45). Screen captures by the author.

As is the case with most depth cues discussed, the ambiguity in depth perception lies not in the individual frame, but in the passage from one image to the next. This often runs alongside the interplay between stasis and motion.

Relative Size

According to the relative size depth cue, the more distant an object is, the smaller it appears to be on your retina. With a mechanism known as 'size constancy', the visual system does not perceive far-flung objects as 'small' because it recognizes that the retinal impression of an object shrinks the further away it is. We recognize, then, that a distant car is not a toy, but rather it is a normal-sized car that is far away.

Since Breer does not typically orientate his objects in a coherent space or with a clear horizon line, it is sometimes unclear as to whether objects are big or close, or whether they are small or distant. In ATOZ, an acorn shrinks in size, but we



Figures 4.46–4.50. Ambiguities in relative size and motion parallax: ATOZ (2000; 4.46), LMNO (1978; 4.47), Swiss Army Knife with Rats and Pigeons (1980; 4.48), Bang! (1986; 4.49) and Fuji (1974; 4.50). Screen captures by the author.

cannot discern whether it is disappearing into a horizon (or 'falling'), or whether it is shrinking into nothingness (Figure 4.46).

Sandy Moore comments that there is a 'miasmic' deep space in *LMNO*, 'where things continually deport for, or arrive from a vague distant horizon' (Moore 1980: 8). In *LMNO*, a man either shrinks, or he falls into an undisclosed horizon and is flattened with a hammer (Figure 4.47). What does he fall into? Is it a giant hammer or a miniature man? Is the man in the background and the hammer in the foreground? We are presented with another perceptual ambiguity that is never made clear.

In Swiss Army Knife with Rats and Pigeons, a knife rotates towards the viewer, and then seemingly 'stabs the spectator in the face' by appearing to move towards the screen (Figure 4.48). On other occasions, objects move through the empty canvas of the frame, but are signalled as 'getting closer' rather than 'getting bigger' by using implied forms of motion. In *Bang*!, a fish swims imposingly close to the viewer through invisible water, approaching from the distant background. Implied motion, then, can be understood as an additional depth cue that is interlinked with relative size (Figure 4.49).

Motion Parallax

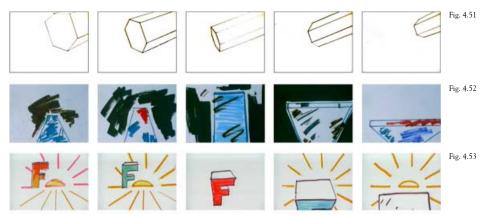
Motion parallax is a distinctive depth cue because it only occurs when objects are moving. According to this principle, nearby objects move faster in the visual field than objects in the distance when you are moving through space. In Fuji, the impression of visual depth is principally created by the speed at which the objects in the background and foreground move along the frame. In sequence where the point-of-view moves laterally along a fence and Mount Fuji, there is minimal use of the rules of perspective (Figure 4.50). When the sequence is seen in motion however, it becomes apparent that Breer uses motion parallax; the fence in the foreground appears to move at a greater speed than the mountain in the background. This abides by principles of everyday perception. To create this sequence, Breer rotoscoped footage taken from out the window of the Tokaido Express, a 135 mile an hour train during a trip to Japan. He explains, 'What attracted me to the footage was the mountain in the background and the possibility for motion perspective in the foreground. The film plays with deep space and the flat picture plane of the screen' (Breer, quoted in MacDonald 1992: 46).

When the images in the sequence above are seen individually, then, they appear relatively flat. But in this sequence from Fuji, the spectator is compelled to perceive depth when the images are experienced in rapid succession through motion parallax. Our perceptual facilities are pulled in two directions at once between flatness and depth – the flatness of the individual frames, and the depth as it is evoked by the motion.

Foreshortening

The final depth cue considered here is called foreshortening. On this occasion, Breer exploits our perceptual abilities in an ordinary way, but its use becomes the focus of aesthetic attention. Foreshortening is a depth cue that can be re-created by closing one eye and using a pen. If you hold the pen at arm's length and point it towards your eye, its projected length is small. As you rotate the tip away, the projected length grows until it is perpendicular to your eye. As you continue to rotate the pen, the projected length shortens again. This demonstrates that any line has its longest projection when it is perpendicular to your line of sight.

Foreshortening serves as one of the principal aesthetic concerns in 69, where viewers see geometric figures rotate and change in length (Figure 4.51). The rotation is not in the service of a larger narrative, or for the purpose of serving to evoke a coherent surrogate environment in which a story is set. Breer gives his spectators occasion to simply contemplate the impression, created by the process of foreshortening, that an object is rotating towards them and then into the distance.



Figures 4.51–4.53. Foreshortening in 69 (1968; 4.51), *Time Flies* (1997; 4.52) and ATOZ (2000; 4.53). Screen captures by the author.

This technique is a commonplace discipline for an artist. Since Breer works with the moving image, we pay attention to the transformative process of an object in its various stages of foreshortening. This occurs throughout Breer's oeuvre, such as in *Time Flies* (Figure 4.52), where an isometric, shape-shifting letter 'A' appears to rotate towards the viewer. Likewise in *ATOZ*, a giant 'F' appears to fall in the direction of the viewer (Figure 4.53). In these examples, Breer's use of a depth cue is ordinary, but he gives us occasion to contemplate its effect instead of using it in the service of a larger narrative.

In summary, the ways in which Breer creates perceptual ambiguities for the purpose of aesthetic interest have been considered. Since he does not usually use clear horizon lines, it is sometimes difficult to discern whether objects are large or up-close, or whether they are small or distant. We also considered how motion parallax can create the impression of visual depth, even when images appear to be flat when seen individually. The transformative stages of foreshortening, it has been demonstrated, become an independent object of interest in Breer's films. Other depth cues such as shadows and aerial perspective are never applied. Viewers are called upon to attend to their perceptions in ways they would not in other aesthetic contexts, or outside aesthetic experience.

Illusions of Depth and Motion in Fuji

Within the larger scheme of this book, the claim has been advanced that by offering spectators occasion to contemplate their own perceptual facilities, providing perceptual experiences that are unrehearsed in cinema, and drawing creative inspiration by exploring his own visual capacities, Breer can be understood as a practical psychologist working within the avant-garde. Providing novel perceptual experiences, Breer's films expand our range of possible routes to aesthetic interest by engaging with cinema in an unfamiliar or under-rehearsed way. In advancing these claims, two aspects of visual perception have been considered that Breer explored – motion and depth. In this discussion of motion, names have been coined for a series of techniques that Breer developed: fusion flicker, fluctuation, phi disruption and radical phi disruption. When exploring Breer's unique use of depth cues in order to provide perceptual ambiguities, the focus was on relative height, relative size, motion parallax and foreshortening. With all of these specialist terms in place, a single case study, Breer's *Fuji*, may be considered in light of the aforementioned analysis.

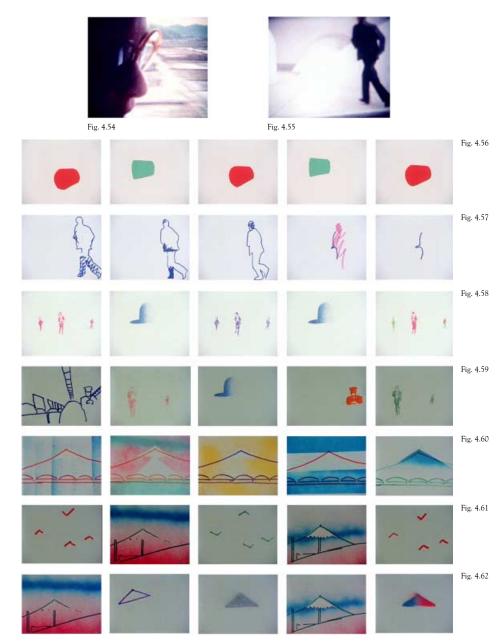
All of Breer's trademark aesthetic concerns that relate to motion and depth appear in *Fuji*. Here, he negotiates the thresholds between representation and abstraction, object consistency and inconsistency, motion and stasis, and a visual space that is both explicitly flat while simultaneously creating the illusion of depth. At one moment the sonic rhythm slows, and then it picks up speed again. Live-action footage operates as material for rotoscoping, and raw material for studies in motion and form. As with his other films, there is a clarity to each individual frame, but ambiguity arises in Breer's use of the passage from one frame to the next, where illusions of depth and motion appear and disappear.

The structure of Breer's *Fuji* bears a closer semblance to that of a musical composition rather than that of a narrative-dramatic film. That is to say that a 'motific' development takes place, using a limited range of short sequences as motifs and finding variations in how each one can be re-created differently through rotoscoping, and how they might be intercut with other visual motifs. James Peterson describes this pattern in the following way:

A film introduces a concept and subjects it to a series of permutations. For the viewer, comprehending this form is simply a matter of tracking the similarities and differences of the sections of the film. (Peterson 1994: 49)

At the beginning of *Fuji*, viewers are introduced to three visual motifs: a face by the window of the train (Figure 4.54), a man running across the screen (Figure 4.55), and a flicker fusion between alternating cylinders (Figure 4.56). Each sequence is separated by black leader tape. Since there are no immediately obvious causal links between them, the spectator can intuit that these images are being used for their graphic qualities rather than narrative purposes.

After the third motif is introduced and there is a final brief roll of black leader, the same image of the man running across the screen reappears; this time he is rotoscoped. Each picture in the rotoscoped sequence lasts eight frames, breaking visual continuity and the impression of a smooth passage of time (Figure 4.57). The sound of the trundling, continuous rhythm of the train provides sonic con-



Figures 4.54–4.62. Fuji (1974) brings together Breer's characteristic treatments of depth and motion. Screen captures by the author.

tinuity, creating tension between the aural continuity and the visual fluctuation. The first three images in Figure 4.57 visually register as the same man, and the following two are increasingly abstracted. Viewers continue to perceive the final highly abstracted image as a man, even though if seen in isolation it looks more like an abstract shape.

Following this, two new motifs are introduced. This time, viewers are only shown the rotoscoped images and not the original live action source material. Three distant human figures approach, and this alternates with an abstracted impression of a passing tunnel, which (unusually for Breer) casts a shadow (Figure 4.58). Each image lasts for two frames, as they alternate between the visual motifs. In a phi disruption, the approaching human figures are inconsistent in colour, but the forms are consistent enough that viewers may assume them to be the same objects.

A three-way fusion flicker also occurs between the human figures, the tunnel and a train ticket inspector (Figure 4.59). The inspector is subsequently isolated from his surroundings in the second freeze-frame from the right. All of the images, as they continue to alternate, last either two or three frames each.

By fifty-five seconds into the film, viewers have been introduced to most of the motifs and the visual techniques that Breer employs in the eight and a half minute animation: temporal fluctuations, alternations, and variations of the same short sequences through reinterpretation with a rotoscope.

Variations between the existing motifs are intercut until 1:55, when a new motif is introduced – Mt Fuji. In this sequence, the visual collisions between the forms of the mountain and fence are weak (implying consistency), but the colouring is inconsistent (Figure 4.60). Using phi disruption, Breer provides the spectator with a perceptual ambiguity in which two seemingly incompatible perceptions work in tandem. The form of the mountain remains consistent, but the colouring assigns the sequence a visual rhythm comparable to that of a flicker film. Where does the eye and its interpreting mind focus its attentions? On the consistent shape of Mt Fuji, or the inconsistent use of colour and its impact on the frame? Viewers may be more likely to focus their attentions on the consistent aspects of the frame, and defer the inconsistent aspects to the periphery of their attentions. Pulling our perceptions in two directions at once, Breer offers his audience a dual experience in which they register both the consistency of Mt Fuji and also the flickering inconsistencies running through it. It is also here where Breer exploits the use of motion parallax, creating visual depth by making the fence move laterally at a greater speed, while the distant mountain moves more slowly. At the same time, there is no use of shadowing, aerial perspective or occlusion to give the impression that the screen is anything but a flat canvas.

Creating another perceptual ambiguity, birds are introduced into the film at 5:10 and alternate frame by frame with Mt Fuji (Figure 4.61). As a flicker fusion sequence, it is clear by looking at the freeze-frames that they are drawn separately,

but on playback the images alternate so rapidly that they appear superimposed. This might be interpreted as a playful reference to the thaumatrope – commonly, the thaumatrope would feature a bird on one side of the disc, and a cage on the other. When the disc was spun, the bird would appear to be inside the cage.

David Curtis comments on the effect of perceptual ambiguity in his summary of *Fuji*, stating: 'The classic outline of Mount Fuji, filmed by Breer from a train, then rotoscoped, becomes involved in an extended speculation on the boundaries between representation and abstraction. Is it a mountain, or just another of Breer's geometric obsessions?' (Curtis 1983: 19). At 7:10, for example, forms isolate themselves and detach from their original place and move in their own direction. In this instance, the snow cap on Mt Fuji becomes an autonomous triangular shape that moves independently (Figure 4.62).

Breer's film, then, is a rich exercise in the breakdown and re-establishments of visual illusions one can create in animated film. Object consistency is destabilized by fluctuations, phi disruption and visual abstraction. Visual collisions are simultaneously weak and strong, and images experienced during phi disruption and slower fluctuations appear flat, while motion gives them depth.

Conclusion

According to evolutionary accounts, our present visual system had its beginnings millions of years ago when sea creatures developed light-sensitive pits on the surface of their bodies, and began to interact with the world on the basis of the new information that was available to them (Anderson 1996: 26). There is an adaptive advantage to vision, then. Creatures possessing little information about their surroundings are at greater risk of being grazed upon by their predators, while those that can see may take evasive actions, and become predators themselves. Breer, then, stretches this core capacity for the purpose of aesthetic interest, rather than for adaptive or utilitarian purposes. The films that he produced may be characterized as continually playing at the edge of depth illusions and the cinema screen's actual flatness, and between stasis and motion. Still images begin to move, and then become isolated images again. The depth/flatness threshold functions in a similar way – when the illusion of depth is invoked, a two-dimensional shape enters the frame and 'flattens' the screen. Fred Camper suggests that sometimes Breer's films seem almost like toys that never quite succeed, contraptions that never quite 'get going', model planes that crash after only the briefest of flights. But it's never one 'crash': the ecstatic nature of his work is that his films are taking flight and 'crashing' at every instant of their unreeling, and the 'crashes' are experienced as being every bit as pleasurable, just as cinematically rich, as much a part of the films' unity-in-disunity fabrics as the 'flights' (Camper 1997).

The purpose of this chapter, then, was not to propose a revision of our understanding of Robert Breer as an artist who self-reflexively creates and dispels his own cinematic illusions – an understanding set forth by Camper, Sitney and Breer himself. Instead, the goal was to look at this characterization in close detail and see how he creates the effects he evokes by schematizing them. All of this was considered in light of existing research on perception so that his work may be understood in the context of perceptual mechanisms that operate beneath the conscious radar. A 'pro-visual' discourse was employed, discussing visual effects while drawing from research on visual perception, and Wees' discussion of the camera-eye dialectic was extended by considering the ways in which Breer reveals some of the similarities and disparities between cinematic and everyday modes of visual experience.

It was also demonstrated how Breer's films call upon the audience to attend visually to the cinematic screen in an unusual way. Core perceptual capacities such as motion and depth perception are challenged – Breer uses film to challenge these core capacities. An attempt was made to elucidate what occurs onscreen so that the viewer might 'see' more of what they are looking at more clearly.

In closing, other aspects of Breer's aesthetic that may reward further consideration within a cognitive context will be outlined. Breer, characteristically for an artist in the avant-garde, stated that visual expression ought to be allowed free reign, and 'not tied to some organization imposed on it coming from extra-visual areas such as narration' (Breer, quoted in Moore 1980: 11). For him, cinema is fundamentally a visual medium, and a narrative can be detrimental to the visual experience. He commented:

One thing about narration is its effect on the figure-ground relationship. One common form of narration is to have a surrogate self on the screen that people can identify with. In cartooning it's a cartoon figure. Grotesque as he or she might be, the figure becomes an identity you follow. If that figure is anthropomorphic or animal, it has a face, and that face will dominate, the way an active ingredient in a passive landscape dominates the field. It sets up a constant visual hierarchy that to me is impoverished. I want every square inch of the screen potentially active, alive – the whole damned screen. I don't want any one thing to take over. The problem with narration is that the figures always dominate the ground. (Breer, quoted in MacDonald 1992: 22)

There are other recurring elements to Breer's aesthetic that would reward further consideration. For example, he had an ongoing interest in metamorphosis, and would rapidly intercut between photo realistic imagery and cartoonish pictures (e.g. a real life dog and Felix the Cat in *Rubber Cement*). He also took an interest in sounds and images, and their corresponding words – *Bang!* opens with a banging sound over a black screen, followed by the word 'Bang!' over a silent soundtrack. Also notable about Breer's work is that 'little cadenzas' (Moore 1980:

7) playfully emerge from his abstractions and then disappear again. These are typically macabre and comical. In the climax to Swiss Army Knife with Rats and *Pigeons*, a cartoon rat encounters a rat trap. Before realizing that it is a trap, he reads the word 'rat' and does a celebration dance. He then realizes that he has stepped into a trap and is killed. Parodying Mondrian's transcendental creative aspirations, the rat ascends to heaven via an upwards-moving Mondrian painting (Figure 4.63).

Elena Pinto Simon comments that his work 'abounds in anecdotes and small stories that erupt, dance brilliantly and briefly before our eyes, and disappear only to evolve into another brief narrative passage' (Simon 1979: 185). Breer acknowledges that he includes objects in his films that would belong in a story, but he refrains from providing one. Of T.Z., he comments:

I thought the material could support a story, I didn't think of a story supporting the material, because that would be against all my principles. Just when you think there is a story building, it gets sabotaged. I acknowledge an expectancy on the part of an audience looking at something . . . they would expect to have . . . a story, it's inevitable if there are figurative elements . . . I'm much more interested in not excusing the non-sequitur. The burden is on the viewer, let them figure it out. (Breer, quoted in Moore 1980: 10)

While fully realized stories are absent from his work, themes still arise in Breer's films. Thematic, 'extra-visual' elements feature without distracting from the visual experience. T.Z. is a portrait of his living space near Tappan Zee bridge, in New York's Hudson River valley. Camper interprets Swiss Army Knife as 'a metaphorical exploration of the work of an artist, seen as a knife which, through



Figures 4.63–4.64. The interaction of language and image suggest ephemeral meanings in Swiss Army Knife with Rats and Pigeons (1980; 4.63) and What Goes Up (2003; 4.64). Screen captures by the author.

Fig. 4.63

art, can cut objects into any shape' (Camper 1997). *Bang!* is an evocation of boyhood recalled through flashes of memory – sport, Tarzan, toy aeroplanes, images of World War II and a burgeoning interest in women. *What Goes Up?* can be understood as a 'testament' film, a portrait 'of an artist who, desperately trying to touch the world, realizes he can do so only through his art' (Camper 1997). *What Goes Up?* was made in the 'autumn' of his career, and so autumnal trees feature heavily, including an abstraction of falling leaves. The word 'fall' also becomes a pun, doubling up as a reference to autumn, but also the fall at the end of one's career, and the disastrous fall of a train that 'falls' to the ground (Figure 4.64). An elegiac atmosphere is evoked, then, without compromising the visual dynamism of the film. The final image in *What Goes Up?* is a still photograph of Breer lifting a glass to say goodbye.

Notes

1. Other animators have since been influenced by his style, notably Jeff Scher and Stuart Hilton.

2. As an aside, television (British standard) presents twenty-five images per second, each given twice, to raise the flicker rate to fifty per second.

PART III AUDIOVISUAL PERCEPTION

CHAPTER 5

SYNAESTHETIC FILM RECONSIDERED

This chapter will illustrate how filmmakers who created visual music have introspectively drawn from their own perceptual capacities (which have also been studied by psychologists) for the purpose of creative expression. The analysis will indicate other ways in which some experimental filmmakers can be understood as practical psychologists.

The concept of synaesthesia is at the heart of a wide variety of past and present-day filmmakers' aesthetics, motivations and creative goals. Psychologists Simon Baron-Cohen and John E. Harrison define synaesthesia as occurring when 'stimulation in one sense modality automatically triggers a perception in a second sense modality, in the absence of any direct stimulation of this second sense modality' (1997: 3). Films may document the synaesthetic experience of an artist, reflecting correspondences that she or he feels personally, or there may be a looser connection with the condition. This chapter looks at the various ways that sensory correspondences have been employed in film, to provide categories that can aid in future research and provide a better understanding of synaesthesia in relation to moving image cultures.

In order to fulfil those aims, a loose cluster of related concepts have been organized into more precise subdivisions by categorizing the various forms of correspondence-based art.¹ Building on the work of previous authors, the proposal will be made that the broad and varied spectrum of what we might term 'synaesthetic film' can be divided into the following categories:

- Synaesthetic re-creation: artists with the condition re-create their experience.
- Medium equivalence: one art form is used as an expressive basis for another.
- Amodal invariant films: the artist appeals to the widespread ability to perceptually bind sounds and images together according to common properties shared across modalities.

- Mechanical synaesthesia: analogue or digital information is ported through a machine that outputs sensory information into a different modality to the one it was intended for.
- Synaesthetic affect: different aesthetic elements of the same sequence in a film such as colour, camera movement, music and abstract forms all point towards the same emotion.²

All of these terms will be discussed in more detail. The suggestion will be made that the reason a variety of artworks are conflated together as 'synaesthetic' is because the notion of synaesthetic art was coined before the condition was scientifically understood.³ With the help of more recent information that has been made available by the field of cognitive science, we can put this loose cluster of films into the more precise series of subdivisions outlined above.

What Is Synaesthesia?

The term 'synaesthesia' is used to refer variously to a specifically defined medical condition, a more widespread sensory-cum-psychological human capacity and a metaphorical concept. The word is of Greek origins: 'syn-' translates to 'union', and 'aísthesis' means 'sensation'; thus, the term 'synaesthesia' means something akin to 'a union of the senses'. For a synaesthete, sensory input that is processed in one region of the brain spontaneously and involuntarily triggers sensory experience in one or more additional regions: in other words, an experience in one modality creates reaction in another modality as well. Synaesthesia (as clinically defined) can manifest itself in a variety of ways – there have been cases of synaesthetes hearing fragrances, feeling coloured pain, hearing tastes, tasting sounds, feeling sounds on their skin and tasting images, for example. Sometimes, colours correspond with musical notes or letters appear to be intrinsically connected to colours. Whatever the unique cross-sensory experience is, the synaesthete feels it consistently across their lives.

Writing about synaesthetic correlations dates back to Aristotle and Pythagoras, who speculated about a 'music of the spheres' linking the abstract concept of vibration to the physical world (Moritz 1997). The first formal documentation of synaesthesia in a scientific context was by Sir Francis Galton, in his article 'Visualised Numerals' (1880: 494–95), although claims of the condition's existence were widely contested (Ramachandran and Hubbard 2001: 3–34). Interest in synaesthesia was reinvigorated more recently⁴ and the condition has been confirmed today as legitimate through formal research and brain scanning experiments (Van Campen 2007: 5). For a synaesthete, regions of the brain that do not normally communicate, such as the visual and auditory cortexes, show signs of what is known as crosstalk, or 'hyperconnectivity'. For that reason, by way of example, a sound may generate activity in the taste region of the brain, or a tactile sensation may generate activity in the visual cortex, leading to visual impressions.

The influence of synaesthesia on the arts has been widespread. Within the realm of film, many people associate the condition with the genre of visual music, itself a generally defined practice involving various correlations that artists have forged between visual and aural aspects of their works. Visual music practice has, for instance, been motivated by purely formal concerns, as well as by the desire to document particular individual instances of synaesthetic experience. It also has been linked to higher-level mystical pursuits. In the late nineteenth century, when Theosophy and other alternative spiritual practices were being introduced to Western culture and the developing field of psychology promised to reveal the workings of the human mind, the intellectual community became aware of synaesthesia.

Dual interests emerged among scientists and artists. As Judith Zilczer explains, artists of the period 'considered synesthesia to be a mystical vehicle to attain a higher reality or state of consciousness. At the same time, pioneers in the budding field of experimental psychology . . . began to study cases in an effort to understand human perception. The resulting tension between spiritual idealism and scientific positivism spurred the development of visual music across Europe and the United States' (2005: 25–26). Colours were thought to give off a kind of vibration that linked to concepts of the life force. Thus, consistent with the relatively ephemeral spiritual concepts being explored, visual imagery in much early synaesthetic art tended to value abstraction over representation and concept over narrative. These relationships were influentially explored by Wassily Kandinsky in his book *Concerning the Spiritual in Art* (2000 [1912]).

Aimee Mollaghan refers to the term synaesthesia as 'something of a popular malapropism' (2015: 13) in relation to visual music films, and Paul Hertz is also quick to point out that visual music and synaesthesia are two distinct entities in his article titled 'Fischinger Misconstrued: Visual Music Does not Equal Synesthesia' (Hertz 2013). While they are right to point out that synaesthesia is sometimes misapplied when discussing visual music, this analysis aims to illustrate how and when it can be appropriately applied.

With a brief introduction to the condition and its legacy in the arts, we may now consider the categories proposed in this chapter, which will add nuance to the general concept of synaesthetic film.

Synaesthetic Re-creation

When an artist reports that he or she is a synaesthete and that person has attempted to document his or her experience through artistic means, the resulting creative expression can be categorized as an illustrative instance of 'synaesthetic re-creation'. In some instances it is difficult to ascertain whether an artist truly did or did not have synaesthesia, since their work was developed before the condition was formally recognized. With more recent examples, it is clear that the artist was a synaesthete.

Synaesthete Carol Steen explains how the tactile sensation of acupuncture led to her visualizing an impression of colour that was re-created in her painting *Vision* (1996). Steen recalls:

One day, many years ago, I was having an acupuncture treatment and was lying flat on my back, on a futon, stuck full of needles. My eyes were shut and I watched intently, as I always do, hoping to see something magical, which does not always occur. Sometimes what I see is just not interesting or beautiful. Lying there, I watched the soft, undulating, black background I always see when I shut my eyes become pierced by a bright red color that began to form in the middle of the rich velvet blackness. The red began as a small dot of intense color and grew quite large rather quickly, chasing much of the blackness away. I saw green shapes appear in the midst of the red color and move around the red and black fields. This is the first vision that I painted exactly as I saw it. (Steen 2001: 205)

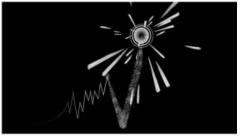
In this example, the work of synaesthetic re-creation only represents one of the two modalities experienced by the synaesthete: we do not need to feel the sensation of acupuncture that originally provoked or corresponded with the visual imagery in order to fully experience the resulting artwork. But in other works of synaesthetic re-creation, both of the corresponding sensations can be experienced simultaneously.

To take one illustrative example, synaesthete and animator Michel Gagné produced a synaesthetic re-creation film entitled *Sensology* (2010), in which he depicted the inner visions he experienced while listening to a musical composition by pianist Paul Plimey (Figure 5.1). Gagné describes his creative process in mystical terms:

The creation of this film was a true spiritual and artistic journey. Sometimes, I felt like I was channeling the images. I did no storyboards and virtually no preliminary work. I animated in a stream of consciousness, one frame at a time at a rate of 30 frames per second. The shapes revealed themselves as I listened to the music over and over again. The process was intensely focused and required [a] large amount of concentration. I was becoming part of the music and expressing my creativity at its rawest and most primal. Like Kandinsky taught us, every shape and sound has an equal vibration in the soul. When Paul Plimey saw a portion of the film for the first time, he said to me with tears in his eyes, 'It's like you read my soul'. (Gagné 2010)

Elsewhere, Jeremy Blake re-created his own synaesthetic perceptions when he animated images for Paul Thomas Anderson's live-action feature film *Punch*- Drunk Love (2002). That movie's main character, Barry Egan (Adam Sandler), experiences synaesthetic correspondences in brief interludes during the narrative as he listens to music and we see his inner visions. These visions resemble abstract paintings in continual flux, underscored by a dissonant sound montage. Viewers see an array of pulsating, undulating colours in front of a series of amorphous, shimmering landscapes. Computer-generated shapes move with a smooth, wave-like motion. At one point, the visual impression resembles a star field with three bright pulsating stars that grow brighter, overwhelming the screen until it becomes a wall of light.

To offer another example of synaesthetic re-creation, in An Eyeful of Sound (2010) filmmaker Samantha Moore collaborated with three synaesthetes who described their experiences, which the artist then re-created through animation (Figure 5.2). Most of the film gives the impression that the viewer is looking out of the window of a train and sometimes staring up at the sky while experiencing synaesthetic visions. Some of the visions look ornate, like fireworks, while at other times they look appealingly incongruous, like metal bolts placed over a natural landscape. The soundtrack features three synaesthetes describing their experiences in voice-overs, while the imagery re-creates their descriptions. The interviewees recount the sort of images they see and how these always felt natural to them. There is also musical accompaniment with sound effects interspersed and visual impressions evoked by the sounds. The latter images depict the inner visions evoked by the sound of a cello, a harp and even that of passing cars.⁵





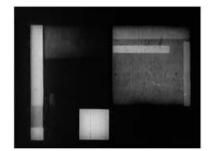


Fig. 5.3

Fig. 5.1

Figures 5.1–5.3. Sensology (2010; 5.1), An Eyeful of Sound (2010; 5.2) and Rhythmus 21 (1921; 5.3) all contain synaesthetic representations of sound in visual form. Screen captures by the author.

Moore comments on her role as animator working with synaesthetes:

In An Eyeful of Sound animation can be said to have been used purely as a visual aid . . . subjectively (using a personal and internal perspective) and performing a mimetic substitution (the synesthetic reactions which cannot be photographed). However subjective the film may be, the filmmaker is not the subject of it and neither is it from their perspective. It can be said to be illustrative, yet it was intended to do more than just record a sound track and illustrate it. The mimetic substitution must be taken on trust, since only the subject of the film can authenticate its accuracy. (2011: 95)

Medium Equivalence

'Medium equivalence', the second subcategory of synaesthetic art that this chapter proposes, applies the concept of synaesthesia in a more metaphorical way. Here, one art form (e.g. music, film, painting) serves as an expressive basis for another. We can only speculate if synaesthesia motivated the Milanese artist Giuseppe Arcimboldo in the late sixteenth century, when he came up with the idea to attach different coloured strips of painted paper to a gravicembalo (a form of keyboard instrument), thus allowing a musician to simultaneously play a note and see a corresponding colour (Gage 1999: 230). Similarly, in the 1740s the Jesuit Bernard Castel constructed an 'ocular harpsichord' that exposed illuminated coloured-glass panes corresponding to individual notes played (Brougher 2005: 97). Other colour organs followed, dispersed both temporally and geographically. These inventions illustrate the concept of medium equivalence art, even if they stop short of providing us with actual documentation of their respective creators' synaesthetic conditions.

In the early twentieth century, attempts to mediate between music and visual art influenced the processes and aesthetics of abstraction. Kandinsky claimed that visual art should aspire to the achievements of music; that is, he sought a 'visual equivalent' to music within contemporary painting. In *Concerning the Spiritual in Art*, he argues,

A painter . . . in his longing to express his inner life cannot but envy the ease with which music, the most non-material of the arts today, achieves this end. He naturally seeks to apply the methods of music to his own art. And from this results that modern desire for rhythm in painting, mathematical, abstract construction, for repeated notes of colour, for setting colour in motion. (2000 [1912]: 27–28)

Medium equivalence is not a documentation in which the artist re-creates his or her own (or another person's) experience of synaesthesia, but rather the use of one medium, such as painting, in an attempt to re-create the expressive power of another. Many of Kandinsky's paintings – *Composition IV* (1911), for instance – aim to capture the expressiveness of music on a paint canvas.

With the advent of film, early twentieth-century ideas of and aspirations towards medium equivalence in art took on a temporal dimension. European abstract animators working in the 1920s, such as Walter Ruttmann, Viking Eggeling and Hans Richter, were concerned with the 'musical organization of film time' (Milicevic 1997). Mladen Milicevic proposes that these artists were devoted 'to the idea of optical music [and] liked using concepts from musical creation: orchestration, symphony, instrument, fugue, counterpoint, and especially too the term *score* – with the distinguishing feature the exact notation of time and the flow of movement' (ibid.).

Each artist found his own way to negotiate the musical organization of film time. In Richter's Rhythmus 21 (1921), visual information behaves musically in a way that strips cinema back to its core elements - motions unfolding in time (Figure 5.3). At the film's beginning, a white wall pulls back to reveal a black screen. A white square shrinks on the screen, giving the loose impression that it is disappearing into the distance. Multiple shapes of varying dimensions move in synchronization. Like musical melodies, squares and rectangles float and drift, rise and descend, push and drag. Some move left, some right, and others up, down and diagonally. As one shape pulls into the frame, another one pulls out. Some shapes move at a moderate speed, while others move rapidly. White shapes on black appear, and vice versa. All of these visual articulations attempt to depict musical expression. Just as two musical melodies can move in counterpoint, so too can two shapes in motion move contrapuntally around one another. Each visual sequence, like a series of musical motifs, repeats and makes variations – visual articulations, like music, can be soft, spritely, fast, slow, aggressive, smooth, graceful and abrasive.

The visual forms in Eggeling's Symphonie Diagonale (1924) are more elaborate than those of Richter's *Rhythmus 21*. Symphonie Diagonale features smooth curves and hard, isometric lines, evocative of guitar bodies and musical notation lines. Complex patterns are formed from separate moving parts, which shift and transform independently in a variety of permutations. Patterns abruptly appear and then disappear, line by line, in swift intermittent movements. Small, independent shapes face together and then turn away, echoing one another in their physical gestures. Over time they combine in more and more complex articulations.

The figures in Ruttmann's medium equivalence film *Opus 1* (1921) are more suggestive of physical scenarios than Richter and Eggeling's geometric abstractions, even though they are still, in essence, non-figurative arrays of colour. Shapes appear to hop across the screen and dodge one another. Creating dramatic tension, sharp triangles jab at yellow blobs. Triangles also appear to saw across the bottom and top of the screen, and searchlights of purple and amber sweep back and forth. Red, yellow and white waves pass across the bottom of the

frame, crashing together and fusing into a single blob, and red balls swing back and forth like pendulums. Patterns of movement repeat one another, moving from right to left and then again from the opposite direction.

The common property shared by conventional music and these three medium equivalence films is that in both we encounter abstract invariants changing over time. Melodies repeat, develop and work in counterpoint to one another, and so do the non-figurative shapes in these films. However, rather than thinking of visual music as a note-for-note equivalent to traditional music, the concept can instead be understood in a looser, conceptual sense. All the variables found in music – such as time signature, key, timbre, volume and pitch – are not ported detail by detail into literally equivalent visual information.⁶ In other words, there are properties of music that remain exclusive to the realm of sound and that cannot be expressed with full adequacy in visual terms.

For Viking Eggeling, the images that he and his contemporaries created during the 1920s were 'music in themselves' (Leslie 2002: 281) and, thus, should not be accompanied by music. Alternatively, for Richter and Ruttmann the absence of music in their early films was tied to the fact that synchronized sound was unavailable for filmmakers at the time such works were made. They therefore welcomed live musical accompaniment during their screenings. In contrast, Fischinger's Radio Dynamics (1942) was purposefully created without sound, beginning with the request, 'No music please - an experiment in color rhythm'. This film challenges our speed of perception, applying flicker effects in which colours and shapes change from one frame to the next. Again, sequential motions are played in repetition. Rectangles expand, a square flickers on and off in the top right of the screen, diamonds and circles of orange, yellow and black expand and contract, sometimes receding into the distance. A series of abstract paintings are used as backdrops. Walls of colour move horizontally, overlapping and combining with one another. Like the earlier films by Richter, Eggeling and Ruttmann discussed above, Radio Dynamics can be understood as a conscious attempt to use musical form as a basis for creative visual expression.

Amodal Invariant Films

Though the condition of synaesthesia is relatively uncommon, most people experience a related phenomenon – the ability to bind sounds and images together according to common properties shared across modalities. This sort of correlation occurs within the third category of synaesthetic moving image work proposed by this section, 'amodal invariant' films. Fischinger's work again comes to mind within this context. Much of his art was concerned with equivalents between modalities, similar to the bi-modal form of expression found in colour organs, as briefly discussed above. The synaesthetic dimension of many of Fischinger's films was based on the correspondence of sounds and images that occurs in synchronization.⁷

The nature of this commonplace form of synaesthesia-related experience can be illustrated by a 1929 experiment conducted in Germany by psychologist Wolfgang Köhler. In this experiment, subjects were shown two shapes, one jagged and one curved, and also given the words 'kiki' and 'bouba' (Figure 5.4). They were asked which word corresponded with which shape. Almost everyone (95% of the participants) considered the jagged shape to correspond with 'kiki', while the rounder shape corresponded with 'bouba'. This was true of adults and children as young as three years of age. Vilayanur Ramachandran explains that most participants gave the same response because the jagged shape has a sharp inflection, and the sound kiki, when represented in the auditory cortex, has a sharp, sudden inflection as well. The brain performs a cross-modal synaesthetic abstraction – it recognizes the common property of jaggedness, extracts it and reaches the conclusion that both the shape and the sound are kiki (Ramachandran 2003: 85).

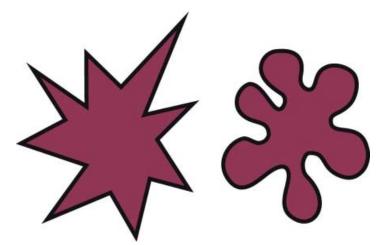


Figure 5.4. Subjects in Köhler's 1929 study demonstrated weak synaesthesia by associating 'kiki' with a jagged shape (*left*) and 'bouba' with a curved one (*right*). Drawn by Sumit Sarkar.

Thus, a characteristic like jaggedness may be considered an amodal invariant (Pinna 2011: 383–422). Jaggedness does not belong to any specific modality, and neither does intensity, abrasiveness or softness. All of these are amodal invariants. One can hear a soft sound, touch a soft object or see a soft image. Köhler's angular shape and word 'kiki' are bound together by the amodal invariant of jaggedness: his experiment demonstrated how our brains perform a cross-modal synaesthetic abstraction and identify their common property when they appear together.⁸ Language itself is full of cross-modal abstractions; they are fundamental to our way of conceptualizing experiences. One might say 'his shirt is loud',

although it does not make a sound, or 'the painting uses warm colours', although it does not emit heat.

In 2001, psychologists Gail Martino and Lawrence Marks made the distinction between the rare condition of synaesthesia and the commonplace facility to make cross-modal abstractions, calling them strong and weak forms of synaesthesia (using both words in a descriptive rather than an evaluative sense) (Martino and Marks 2001: 61–65). Both forms involve corresponding sensory information from two different modalities, and yet there are distinct differences between them.

Characteristic	Strong	Weak
Prevalence	Uncommon	Common
Experience of pairings	One stimulus is presented	Both stimuli presented
Organization of correspondences	Idiosyncratic	Commonly shared
Processing	Unidirectional	Bidirectional
Semantic association	Literal	Metaphorical

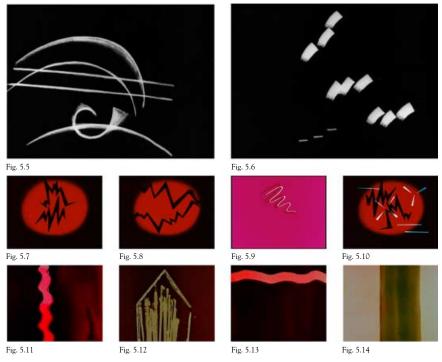
 Table 5.1
 Strong vs. Weak Synaesthesia

To explain briefly, strong synaesthesia is rare and unique to each individual, while weak synaesthesia is widespread and generally consistent. Most people (through weak synaesthesia) are able to discern which shape corresponds with kiki and which corresponds with bouba. For a strong synaesthete, the letter A might automatically trigger an association with the colour red without 'red' being presented. But in weak synaesthesia, both need to be present for the correspondence to be apparent. With strong synaesthesia, correspondences are often idiosyncratic: where one synaesthete might experience a correspondence between the letter A and the colour red, another might instead connect that character with the colour green. With weak synaesthesia, most people agree on what corresponds with what. Strong synaesthesia is also unidirectional – meaning that the letter A might evoke the colour red, but the colour red would not necessarily evoke the letter A. Weak synaesthesia, by contrast, is bidirectional in the sense that the word kiki evokes its corresponding shape and vice versa.

While artists are able to match amodal invariants during the creative process, spectators are able to detect them while viewing the resulting works; weak synaesthetic correspondences thus become an integral part of the aesthetic expression and appeal of amodal invariant films, and the viewer may find aesthetic interest in the work by identifying the common properties between the music and the moving shapes, instead of expecting or searching for a narrative thread. In Fischinger's *Studie Nr. 7* (1931), synchronized shapes emulate the musical notes played in Brahms' 'Hungarian Dance No. 5' (Moritz 2004: 213). The quality of the sounds is mimicked by the character of the moving shapes. For example, long smooth musical notes played on stringed instruments are matched by smooth, flowing lines (Figure 5.5). Brief, spritely sounds are matched with small, quick shapes (Figure 5.6).

Fischinger's use of music is intimately connected to the images that appear onscreen. Bill Alves describes some of this artist's work as 'a kind of supple choreography distilled to abstraction, but relying on an intuitive sense of connection to musical form' (Alves 2005: 45). Mladen Milicevic comments that while Fischinger devoted much of his career to visualized music, he reluctantly agreed to add musical accompaniment to his films in order to allow a broader audience to appreciate their abstractions; Fischinger found it peculiar that viewers struggled with abstract visual imagery, while no one objected to the abstract nature of music (Milicevic 1997).

Mary Ellen Bute's *Tarantella* (1940) provides another example of weak synaesthetic correspondences. In this film, Bute creates visual analogies to accompany a quirky and inharmonious solo piano piece. Free-associative, unpredictable shapes wiggle, crunch and zig-zag across the screen. In tight synchronization, cut-out shapes move in unison across the frame, changing dimensions, blinking,



Figures 5.5–5.14. Amodal invariant correspondences in *Studie Nr. 7* (1931; 5.5, 5.6), *Tarantella* (1940; 5.7–5.10) and *Swinging the Lambeth Walk* (1940; 5.13–5.14). Screen captures by the author.

expanding and contracting. Dissonant chords crunch back and forth (Figures 5.7 and 5.8), a high-pitched trill spirals downwards (Figure 5.9) and disorienting shapes accompany a disorienting melody (Figure 5.10).

Len Lye also produced amodal invariant films. He commented on his creative method in the 1940s, before synaesthesia had been recognized as a legitimate condition, or the distinction between strong and weak synaesthesia had been made:

there might have been a passage that I liked so well in the music I found that I'll start designs very specifically (as in the double bass in *Swinging the Lambeth Walk*, boomp ta da boomp boomp) that looked to me like sound sounded; for instance guitar, where a guitar goes twang twang, I would accompany it with a twangy stringy image. I would get an image which matched the sound. (Lye, quoted in Russett and Starr 1988: 68)

This quotation points to two aspects of his working method: first, cross-modal synaesthetic abstractions are at play; second, the associative dimension of his work – he associates guitar sounds with stringy imagery. *Swinging the Lambeth Walk* (1940) features both of these tendencies, with a wobbly violin trill (Figure 5.11), a sharp organ sound (Figure 5.12), a high pitched guitar (Figure 5.13) and a thick double bass (Figure 5.14).

The 'stringy' imagery that represents stringed instruments is evidently associative, and the thickness of the double bass string might also be associative. The wobbly trills, sharp organ sound and the 'high' note all appear to be based on weak synaesthetic abstractions.

The creation and detection of weak synaesthetic correspondences has presumably been present as a cognitive capacity since the earliest stages of human reliance on symbolic thought. It is a curious twist of fate that the link between the words 'kiki' and 'bouba' and their corresponding shapes were scientifically recognized at about the same time that Fischinger, Lye and Bute had the means to artistically exploit weak synaesthesia through creative means in a temporal, bi-modal art form.

Mechanical Synaesthesia

In mechanical synaesthesia the correspondences are generated by a machine rather than the human mind. Analogue and digital information is ported through a device that outputs sensory information into a modality different from the one that the original data was intended for. For example, in the case of the digitization of sound, the properties of music take the form of binary information, which can be translated into different visual invariants. Friedrich Kittler has argued that 'the general digitization of channels and information erases the differences among individual media . . . inside the computers themselves everything becomes a number: quantity without image, sound, or voice. And once optical fiber networks turn formerly distinct data flows into a standardized series of digitized numbers, any medium can be translated into any other' (Kittler 1999: 1–2).

To give some illustrative instances of what Kittler means, screensaver software developed for home computers translates sound data into ornate and colourful imagery. One example is Whitecap, which visually responds to music being played by the computer in synchronization and is advertised as a dynamic and reactive 'music visualizer'.⁹ Similarly, the graphic equalizer on modern stereo systems also visualizes sound data, where the height of a series of light bars corresponds with the volume of various frequency bands. Alternatively, other modern applications, such as iTunes and Winamp, visualize sound data in unique ways, while programs Jitter and Gem allow deeper programming-level control over the visualization.¹⁰ Reversing the process (transferring the imagery back into sound) is also possible with the latter programs. For reasons such as these, Christoph Cox proposes that 'digital technologies offer, if not a union of the senses, then something akin: the intertranslatability of media, the ability to render sound as image, and vice versa' (Cox 2005: 35).¹¹

We should also note that data can be rechannelled with analogue equipment too, such as a traditional projector and a celluloid film. Fischinger was among the first filmmakers to experiment with a type of medium equivalence known as 'direct sound', in which sound elements are created by passing visual data through the optical sound reader of a film projector. His *Ornament Sound* film from 1932, for example, was created by drawing a series of geometric images on paper and then photographing these in the optical soundtrack part of the negative. This sort of correlation is machine-reliant and falls under the category of mechanical synaesthesia.

Another example is Lis Rhodes's film *Dresden Dynamo* (1972), which features abstract patterns of colour rapidly flashing across the screen; as the filmstrip passes over the projector's optical sound head, corresponding sounds are generated. There are pulsating, jittering and flickering patterns of blue, red and black, and the sonic pitch changes in close synchronization with the imagery, depending on the thickness of the lines and whether they are positioned horizontally or vertically. Flickering circular patterns produce a rattling, popping sound, while multiple rotating lines bend the pitch of a buzzing noise. Plain red and plain blue produce only a light hiss. The more kinetic imagery that is present, the more abrasive and loud the sound becomes. Moving circles, hard lines and curves produce modulations in pitch, volume and frequency. Small circles produce a high pitch, while larger circles produce a lower pitch.

Guy Sherwin's *Railings* (1977) is similar but uses real-world footage to create sounds. In this case, the filmstrip contains images of iron railings shot from different perspectives that are converted into sounds as they pass over the projector's optical sound head. Spectators 'hear' the footage and see the images that created the sound synchronized together. The sound produced is that of a stick clattering along the railings. The more onscreen motion appears, the louder the rattling is. When the film stock is awash with white or black through under- or overexposure, the soundtrack goes quiet. When there is more pavement or more grass behind the railings, or the optic printer distorts or speeds up the imagery, the sound is affected. Again, then, the retinal impression and sound frequencies change together in synchronization through mechanical correspondences.

Synaesthetic Affect

The final category of synaesthetic film identified in this survey, synaesthetic affect, uses the term 'synaesthetic' conceptually, and perhaps in a broader sense than the other categories detailed above. Here, various elements of the same sequence in a film, such as colour, camera movement, music and shape all point towards the same emotion. While the other categories described in this chapter are original, Carl Plantinga first proposed the idea of 'synaesthetic affect' in his monograph Moving Viewers, and explained the concept in the following way: 'spectators often find their response to stimuli in one modality to fit with the responses to stimuli in another. Disruptive editing may fit with chaotic music; conversely, a slow, smooth tracking shot could fit with the elegant movements of a ballet dancer. We might call this synesthetic affect' (Plantinga 2009: 157). Filmmakers commonly coordinate sound design and visual elements to reinforce each other in ways identical - or at very least, highly similar - to that which Plantinga describes. The broad concepts ('chaotic', 'elegant') that he invokes within the quote given above are matched across modalities. In this respect, synaesthetic affect is similar to the phenomenon of weak synaesthesia discussed earlier in this chapter. The difference between weak synaesthesia and synaesthetic affect, however, is that synaesthetic affect is not automatically or characteristically concerned with finding a direct equivalent to every detail from one modality to another. Rather, it is about broad concepts matching one another through filmmakers' careful coordination of a range of different expressive means.

This expressive technique can be found in a wide range of works spanning all eras in film history. For example, in German expressionist films, filmmakers guided controllable elements towards the same affective impression.¹² In *The Cabinet of Dr. Caligari* (1920), visual design elements were stylized to create aesthetic unity. For example, when the central female character, Jane, is either safe or in danger, the set design tells the viewer so through recourse to physical forms that are sharp and threatening (when she is being kidnapped, for instance) or gentle and curvaceous (when she is secure in her 'feminine' home). We see similar formal strategies employed within recent commercial movies, too: Peter Jackson's *The Lord of the Rings: The Return of the King* (2003), for instance, also marshals a variety of aesthetic elements that combine to establish a consistent emotional impression. Late in the film, Frodo (Elijah Wood) passes out in a perilous location that resembles hell, but then awakens in a safe location amongst friends that resembles heaven. The colour scheme takes on a comforting orange and brown hue, faces and objects are bathed in light, and visual forms, like Jane's home in *Dr Caligari*, are curvaceous and unthreatening. All of these elements build towards the same gentle mode of affect. A similar synaesthetic technique is utilized in some examples of visual music.

While synaesthetic affect can suggest a wide variety of emotions, in visual music films it often evokes a state of ambient entrancement.¹³ Examples of this phenomenon can be found in a number of Jordan Belson's films. In *Allures* (1961), for instance, the music is consistent overall with the film's enigmatic imagery, such as a slowly revolving mandala or a 'cosmic eye'; both the imagery and the soundtrack work in conjunction to draw the viewer into a trance-like state, enhanced by the mandala forms that appear in the film. Mandalas are symmetrical images, usually circular, which are components of Hindu and Buddhist religious practices and are used to assist concentration and meditation. Mandalas are usually still, but when used in a film, they often move (as is the case in the Belson work discussed here). As a result, Maureen Furniss writes, the viewer 'can become entranced by the light in combination with the rhythmic, hypnotic imagery projected on the screen. The moving mandala works in time, more like music, to induce a trance-like state' (Furniss 2008: 253).

The opening images in *Allures* create the impression that the spectator is being pulled through a cosmic tunnel. Once the viewer is drawn into this beguiling imaginative space, they are presented with patterns of intersecting dots, flicker effects, distant spirals and revolving mandalas. The viewer's attention is continually drawn back to the centre of the frame. The soundtrack of *Allures* features bells, electronic sounds, a deep humming noise, distorted gongs and rumbling. The work's sonic and visual components are carefully correlated in terms of atmosphere, functioning together to create a single, unified experience of entrancement.

Scott Draves's *Electric Sheep* (2002) evokes an atmosphere similar to *Allures*, featuring ambient buzzing, humming, rumbling, synth pads and distant woodland creatures on its soundtrack. This sound collage is matched by ambient, diffuse imagery resembling fractal patterns, assuming a variety of shapes and combinations. There is too much visual activity to focus on any one object for a sustained period of time. Threads of kaleidoscopic colour spin while rotating around the centre of the frame, like a centrifugal force, evoking the balletic dance of the solar system or teacups in a fairground ride (Figure 5.15). Falling in and out of symmetrical patterns, the viewer's sense of spatial relations is continually pulled between the distant (staring into a cosmos) and the close (staring into an atom).



Figure 5.15. The visual accompaniment of a sound collage in *Electric Sheep* (2002). Screen capture by the author.

The sound creates a comparable impression, from distant echoes to the intimate sound of a whispering voice.

The pioneering computer animator John Whitney imagined a time when 'composers will discover a congruence of aural-visual partnership as productive as that which they found for centuries in writing for combinations of all kinds . . . that partnership will be grounded on valid harmonic interrelationships equally applicable to sound and image' (Whitney 1981: 18). He warns, however, that a direct visual mapping of music's most basic parameters (such as volume, timbre or pitch) fails to capture the full expressive range of music. For Whitney, music is more dependent on the multidimensional interplay of tension and resolution than the visual patterns that artists create (Alves 2005: 45). The reductive form of 'direct mapping' that he cautions against is also criticized by a wide range of other important theorists, including sociologist Theodor Adorno, composer Hanns Eisler and filmmaker Sergei Eisenstein, all of whom argued that there is no benefit in redoubling an effect in two different media simultaneously (Leslie 2002: 184). John Whitney's later work applied the synaesthetic affect form in films like Arabesque (1975), which features mysterious symmetrical patterns built from small dots that rotate and reconfigure into different patterns, accompanied by similarly enigmatic Persian classical music. Instead of attempting to directly synchronize the sound with equivalent moving shapes, however, Whitney creates an expressive interplay between image and sound.

One might suggest that the 'synaesthetic affect' approach provides another way of negotiating the relationship between sound and image without seeking a direct correspondence between them (as the other categories discussed above arguably do) or rejecting music outright. Echoing the sentiments of Whitney, Adorno, Eisler and Eisenstein, Cristoph Cox contends that 'the best sound works neither reject the visual nor succumb to it, but instead amplify differences among media and sensory modalities, drawing attention to sound as a semiautonomous power. They are complex engagements with the visual that intensify the moment of translation and the movement of metaphor' (Cox 2005: 37). Applying synaesthetic affect is another way to negotiate possible correspondences between the audio and the visual without attempting to provide or force a direct equivalence between the two.

Conclusion

Concepts related to synaesthetic art are significant in discussing the aesthetics of motion picture media. Some artworks that form part of this large and diverse field were first referred to as 'synaesthetic', when the condition was considered a Romantic ideal by artists and an oddity by scientists. Today, the condition is understood more clearly, yet the concept of synaesthetic art continues to be applied in romantic or metaphorical ways; in fact, it represents a complex range of aesthetic effects and experiences, and possibilities emerge from different traditions of film practice that explore and exploit correspondences between sound and image in different ways and for different ends. The subcategories proposed in this chapter provide critics, scholars and artists with the initial means of investigating sensory correspondences in moving images; however, there is room for expanding these divisions in order to further define related practices and to understand parallels and distinctions between temporally and geographically dispersed synaesthetic works of art in aesthetic, creative and technological terms.

This chapter demonstrates an element of the creative process related to correspondence-based films. Once again, experimental filmmakers take sense as muse and produce work based on their own cognitive and perceptual capacities. In the case of actual synaesthetes, they draw from a rare and distinctive form of synaesthesia. In contrast, those who draw creatively from the more widespread 'weak' form of synaesthesia (producing medium equivalence films) exploit a commonly shared perceptual capacity that allows spectators to exercise a familiar, yet underrehearsed audiovisual perceptual facility. Medium equivalence films are compelling and easily discernible for the general viewer without specialist knowledge or training.

Though these two concepts are related to synaesthetic practices in particular, one can find in them links to animation more generally, as animators universally relate to their images through strong internal ties – in the creative process of transferring the artist's inner vision and physical energy to his or her animated artwork and environments. The efforts of artists who have developed correspon-

dence-based synaesthetic films have the potential to expand our understanding of animation aesthetics in an even larger sense. More may be done – in both practice and theory – to expand on these developments and how we, as artists, viewers and theorists, experience and interpret them.

Notes

1. For examples of synaesthetic films and their creators, see for example: Kerry Brougher and Olivia Mattis Visual Music: Synesthesia in Art and Music Since 1900 (2005) and Cretien Van Campen The Hidden Sense: Synesthesia in Art and Science (2007).

2. The last category, synaesthetic affect, was developed by film scholar Carl Plantinga in his Moving Viewers: American Films and the Spectator's Experience (2009: 157).

3. Note that this chapter does not outline every possible use of the notion of synaesthetic film. For further examples, consider Eisenstein's discussion, as explored in Robert Robertson's *Eisenstein on the Audiovisual: The Montage of Music, Image and Sound in Cinema* (2010), and also consider Gene Youngblood's concept of synaesthetic film in *Expanded Cinema* (1970).

4. See, for example, Richard Cytowic, Synesthesia: A Union of the Senses (1989); A. Aleman et al. 'Activation of Striate Cortex in the Absence of Visual Stimulation: An fMRI Study of Synesthesia' (2001: 2827–30).

5. Moore discovered with a group of psychologists that non-synaesthete spectators generally preferred synaesthetic audiovisual correspondences in animation over random audiovisual pairings (Ward et al. 2007: 1285–96).

6. To see invariants of sound ported into another medium, think of the grooves on a vinyl record as a synaesthetic sculpture, or imagine the binary code of an mp3 file as a form of synaesthetic literature. Also note, however, that these literal equivalents are unlikely to lead to a vivid aesthetic response, since we are not endowed with the ability to draw meaningful patterns from mp3 code, for example. Sensory information needs to be translated into a modality from which the viewer/listener can discern meaningful patterns.

7. For an extended discussion of Oskar Fischinger, and some discussion of his work as synaesthetic art, see William Moritz, Optical Poetry: The Life and Work of Oskar Fischinger (2004) and also Cindy Keefer, Oskar Fischinger 1900 – 1967: Experiments in Cinematic Abstraction (2013).

8. The relevance of the kiki/bouba experiment to visual music is discussed in Chuck Jones, 'Music and the Animated Cartoon' (1946: 364–70), among other sources; see also, for instance, R. Jones and B. Neville, 'Creating Visual Music in Jitter: Approaches and Techniques' (2005: 55–70).

Anonymous, 'Whitecap', Soundspectrum. Online at http://www.soundspectrum.com/whitecap/.
 For an example of this, see Parag Mital's Polychora (2009). Online at https://vimeo.com/
 9337944.

11. See also Jeremy Strick, 'Visual Music' (2005).

12. For further detail, see the essays collected in Dietrich Scheunemann, Expressionist Film: New Perspectives (2006).

13. For recent examples, see David West's Samadhi (2012), Richard Lainhart's Pneuma (2008), Jean Piché's Oceanes (2011), and Bret Battey's Mercurious (2007), all of which are currently available for online streaming.

CHAPTER 6

THREE DIMENSIONS OF VISUAL MUSIC

The abstract animations of canonical filmmakers such as Oskar Fischinger, Len Lye and Norman McLaren may appear to be forbidding and indecipherable to the average viewer, since they are consistent with most of the characteristics of the avant-garde outlined in this book. Visual music does not feature dramatic action or protagonists, and there is no 'goal' in a dramatic sense. Visual events are sequential rather than consequential, and the surface details are more central to the experience than the semantic content in this category of films. Yet, visual music features some of the most accessible films within the avant-garde. As such, the aim of this chapter is to demonstrate how they become relatable by exploiting familiar, native perceptual capacities.

By way of brief definition, visual music has been defined by Olivia Mattis as a broad range of artistic practices, far-flung temporally and geographically but united by the idea that 'visual art can aspire to the dynamic and nonobjective qualities of music' (Mattis 2005: 211). Referring to this category of films as visual music has become something of a misnomer today, because the methods of generating this type of film have developed over time. While pioneering abstract filmmakers Hans Richter, Viking Eggeling and Walter Ruttmann were inspired by Wassily Kandinsky, who sought a visual equivalent to music, alternative structuring systems have since been developed. These include programmatic randomness, repeated layering, poetic structure (e.g. a visual limerick or haiku), repetition and evolution, stream of consciousness, mathematical formula or algorithm, the imposition of limiting rules (e.g. only using certain shapes or colours) and the 'exquisite corpse' system - collaboration where no participant sees the other participant's work apart from the final frame. Even if film artists do not attempt to produce a visual equivalent to music, then, they nonetheless tend to feature non-figurative imagery, which changes and transforms over time.

Following on from the discussion of synaesthesia in the previous chapter, this brief analysis will consider three additional perceptual phenomena and relate

them back to visual music. The first part will consider cross-modal verification, which is associated with synchronization; the second part will explore the use of hallucinogenic vision; the third part will discuss symmetry. The way in which visual music can appeal to familiar perceptual capacities will be illustrated, allowing the spectator to engage the work without requiring specialist knowledge. The central theme that binds these three topics together is that while visual music does not tell conventional stories, it exercises more primitive parts of the human mind by appealing to basic perceptual capacities.

Not every artist who is considered avant-garde should be understood as making their work intentionally esoteric; pioneering experimental filmmakers such as Oskar Fischinger and Len Lye simply approached film from the tradition of abstract painting – an art form in which narrative played no part. Both filmmakers willingly used their skills to produce commercials while retaining their own creative integrity. Fischinger produced commercials for Oklahoma Gas and Muratti Cigarettes, while Len Lye created adverts for Shell Motor Oil, First Savings Bank and other institutions. In both cases it seems apparent they were willing to reach as broad an audience as possible, in stark contrast with Peter Kubelka's far more esoteric *Schwechater* (1958) beer commercial, which was deemed unusable by his patrons.

In the absence of a pop culture for the majority of their respective careers, both Lye and Fischinger used music with broad appeal to accompany their films; jazz and calypso for Lye and popular classical music for Fischinger. We can assume, then, that their films were to be produced for mass consumption and played alongside commercial news show reels and movies, as well as specialist platforms for artists' films.

Cross-modal Verification

This subsection will illustrate how avant-garde filmmakers exploited the detection of synchronization between sound and image as a native capacity that allowed spectators to engage with visual music, and how this technique was also shared by other commercial forms of animation. By way of brief example, consider Len Lye's *Swinging the Lambeth Walk* (1939), Oskar Fischinger's *Allegretto* (1943), John Whitney's *Celery Stalks at Midnight* (1952) and Norman McLaren's *Blinkity Blank* (1955). All films operate on the same basis in the sense that they take abstract shapes, which move, appear and disappear in synchronization with music.

Testament to the pervasive appeal of synchronized sound and movement, experimental filmmakers shared the technique of tightly synchronized sound-image relations with commercial cartoonists. In 'Music and the Animated Cartoon', cartoonist Chuck Jones protested that 'for some reason, many cartoon musicians are more concerned with exact synchronization or "mickey-mousing" than with the originality of their contribution or the variety of their arrangement' (Jones 1946: 365). Put simply, mickey-mousing refers to the film technique whereby the physical movements of the characters are synchronized with the music – Mickey Mouse was the first character to use synchronous movement in the iconic animation *Steamboat Willie* (1928). With more recent insights provided by cognitive research, the reason as to why animators and audiences were compelled by mickey-mousing, just as they were with synchronization in visual music, might not be as much a mystery as it was in 1946, when Chuck Jones bemoaned the pervasiveness of the technique. The popularity of this technique is due to cross-modal verification.

Psychologist J.J. Gibson stated that when we perceive multi-modally, we seek the invariant properties of an event across sense modalities. If the patterns and rhythms are confirmed across modalities, the information carried by the sound and image is perceived as a single event (Gibson et al. 1969: 113). This is the basis of cross-modal verification. Indeed, the motion picture medium is bimodal – we see and hear the events take place in conjunction with one another. Joseph Anderson comments that the separate streams of images and sounds in motion pictures 'can be so constructed as to meet the criteria of the perceptual systems, thus eliciting confirmation of the unity and veridicality of *filmic* events' (Anderson 1996: 89). Cross-modal verification, then, is a perceptual process employed in everyday life, in which we cross-check the veridicality of our visual experiences with our sonic environment. If a sound and a visual event occur in synchronization, we typically bind both experiences together as part of the same incident.

What is significant about this cognitive skill to a discussion of visual music is that not only do we have the capacity to bridge modalities, but we gravitate towards it. Our sensory systems are compelled to perceive synchronized images and sounds as part of the same event - psychological evolution instructs us to cross-check modalities in order to confirm the veridicality of our perceptions. Lip sync is one such specialized application for us to link sounds and images. For humans - even the very young - we seek speech synchrony, and when we find it we lock our eyes onto the lips of the speaker and our ears onto the sound of their voice, even if we do not know the language they are speaking. The experience of cinema is not something that human evolution could have foreseen - in a movie theatre, however, the desire to bridge modalities between the visual impression of the onscreen speaker and the sound of their voice is compelling enough that we ignore the fact that the sound energy is emanating from a separate source to the mouth of the onscreen figure. In some cases, their voice may be emanating from behind our heads, and this does not seem to undermine the integrity of our experience enough to compromise the experience. Avant-garde filmmakers who produced visual music intuitively understood this, and used audiovisual synchronization as a method to make their abstract films more easily relatable to broad audiences.

Joseph Anderson cites two experiments in which cross-modal verification was tested. In both experiments, infants were used - this is because infants respond with programs for interfacing with the world 'hardwired' by evolution, since they have little time to develop culture-based habits. In the first experiment, a group of four-month-old infants were shown three different video sequences: a game of patty cake, a musical sequence played on a xylophone and a slinky moving between two hands. The films were shown two at a time side by side, out of sync with one another, with the soundtrack for only one of them playing. The young participants spent about two thirds of their time watching the video that had the soundtrack playing (Spelke 1979: 221-35). In the second experiment, lip sync was tested. Ten-week-old infants were shown video footage of an experimenter's face as she recited nursery rhymes. In some trials the experimenter's voice was delayed by as much as ten frames (almost half a second). The participants did not spend as much time looking at the experimenter's face in the out-of-sync condition as they did when watching the films in perfect synchronicity (O'Connor and Hermelin 1981: 315-43).

At their early age, these young spectators had little time to learn about the connections between the mouth and voice, and the link between the movement of objects and the sounds they make. Yet their intuitive reaction was to pay closer attention to the synchronized images. For our purposes, this suggests three things: first of all, cross-modal verification comes hardwired into the human perceptual system rather than something that is developed through culture. Secondly, it suggests that perception is not passive, but rather it is an active information-gathering activity. Finally, as already suggested, it indicates that temporal synchrony is compelling. The infants did not simply revel in the visual and auditory stimulation; they actively sought a connection between the modalities.

In our interaction with the physical world, the seeds of aesthetic experience are always in place – any visual scene can be examined for its abstract quality (e.g. the play of light and colour in a landscape). Our propensity towards crossmodal verification in abstract film, in turn, comes from our interaction with the real world. This may provide an answer to the question that mystified Chuck Jones in 1946 as to why cartoonists were so preoccupied with mickey-mousing – on some level, spectators were (and still are) compelled to bind punctuated moments in the music and the movement of the characters as 'part of the same event'. From here, it is a plausible leap to suggest that the same principle applies to sound in relation to the abstract shapes found in some of the work of Len Lye, Norman McLaren and Oskar Fischinger. Synchronization in abstract animation may be understood as a non-figurative variant of mickey-mousing.

None of the classical artists cited above were rigidly set on synchronization; all have explored alternative image-sound relationships. But they all intuitively understood the appeal of synchronization, and how this would help broaden the appeal of their films in an absence of traditional narrative.

Cross-modal Verification with Oskar Fischinger

The absence of figurative imagery or the most rudimentary of narratives put Oskar Fischinger under pressure to appeal to cross-modal verification as a means of invoking a relatable aesthetic response. He became known for synchronization through the Studie series (1929–1933). William Moritz outlines Fischinger's method for synchronization:

Oskar marked out the synchronization, which he always determined (thanks to his engineering training) by scratching an 'X' across a phonograph record, then calculating the exact time a certain sound occurred by using a slide-rule to compensate for the diminishing size of the grooves toward the centre of the disc! (Moritz 2004: 36)

Consider Fischinger's *Allegretto*, which is comprised entirely of abstract forms shifting and contorting in tight synchronization with an upbeat jazz composition. The imagery is primarily underscored by two sets of circles that expand and contract, reminiscent of pond ripples. The foreground alternates between sharp angular diamonds and softer forms in a variety of primary colours and sweeping lyrical movements. Occasionally a hail of small diamonds drift down the screen, while at other moments thick angular shapes rapidly ascend towards the spectator, shifting in hue and luminance as they progress. Each shape and movement feels bound to a note in the soundtrack; the sound and the imagery are experienced together in synchronization.

Fischinger's tendency towards synchronization may have in part been driven by his own aesthetic interest and in part by external pressures – but it must have been a powerful drive, considering how laborious the process would have been. However, this was not the only sound-image relationship that interested him. In *Radio Dynamics* (1942) he used no sound at all. *Motion Painting No.1* (1947) was accompanied by Bach's 'Brandenburg Concerto No. 3', but the absence of synchronicity reportedly played a major role in Fischinger no longer receiving grant money from the Guggenheim foundation. William Moritz discusses Baroness Hilla Rebay – the Curator of the Guggenheim foundation and Fischinger's source of funding:

the Baroness . . . demanded a very precise coordination between sound and image: she actually expected a film like *Allegretto* in which the layered cels provide a perfect analogy to the music, with background rhythms, harmonic arrangements of various shapes and colours, and bravura melodic solos. (Moritz 2004: 124)

Rebay, reportedly 'outraged' by Fischinger's *Motion Painting No. 1* was evidently unable to engage with the work in the absence of appealing to cross-modal verification and also direct equivalents between sound and image. Yet Moritz reports that elsewhere the film was well received – winning the Grand Prize at the Inter-

national Experimental Film Competition in Brussels in 1949 (ibid.: 134). Those receptive to the film interpreted the music as an exuberant emotional backdrop to the act of creativity, as the painting takes form and transforms onscreen in a stream of consciousness, rather than depicting a note-for-note equivalent to the soundtrack. Yet without Guggenheim funding, Fischinger was unable to produce any more films. Audiences were divided on its charms without synchronization – those more receptive to other methods of engagement, such as appreciating the visual impressions on their own merit without synchronization, and witnessing the evolution of one idea to the next, can enjoy an aesthetic response without depending on cross-modal verification as a source of engagement.

The appeal of cross-modal verification and synchronization is not unique to the avant-garde. Rather, it is a timeless expressive tool that commercial filmmakers from the late 1920s onwards up to the present day continue to exploit. All of them intuitively hit upon the expressive power of tight synchronization. After *Steamboat Willie* premiered in 1928, synchronization quickly became standard fare in commercial cartoons. Unlike the stories used during the late silent-era cartoons, such as those featuring Felix the Cat, the onset of synch-sound initially led to paper-thin plot lines. Up until the late 1930s, cartoon stories were invariably used to initiate a party, or an impromptu song and dance. Animated series were musically based – Disney ran the Silly Symphonies, Warner Bros. ran Merry Melodies and Looney Tunes, and MGM ran Happy Harmonies. In both the commercial world and the avant-garde, synchronization proved to be an effective source of appeal.

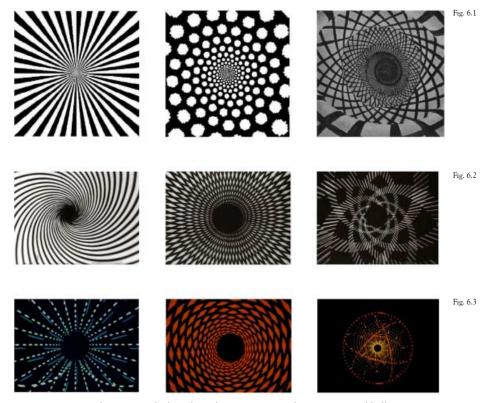
Hallucinatory Vision

The second perceptual capacity visual music sometimes engages with in the absence of traditional stories is that of hallucinatory vision. In Semir Zeki's '*Inner Vision: An Exploration of Art and the Brain*, he suggests that painters experiment on, and unconsciously discover things about the organization of the visual brain with techniques unique to their skill sets. They work and rework a painting until it achieves a desirable effect. If it should please others as well, Zeki proposes 'they have understood something general about the neural organization of the visual pathways that evoke pleasure, without knowing anything about the details of that neural organization or indeed knowing that such pathways exist at all' (Zeki 1999: 3).

By way of example, Zeki observes that Leonardo Da Vinci commented some 500 years ago that the most pleasing colours are the ones which constitute opponents. Without realizing it, Da Vinci identified a physiological phenomenon later explored by psychologists in the twentieth century called opponency. Here, cells in the visual system that are excited by red are inhibited by green; those excited by yellow are inhibited by blue; and those excited by white are inhibited by black.

More recently, years following the death of Piet Mondrian, it was discovered that the cells of the visual brain, which are considered critical for the perception of form, are responsive to straight lines of specific orientations, and the field of view to which they respond is rectangular. This brings Mondrian's trademark grid-like paintings to mind, and Zeki comments 'It is hard to believe that the compelling relationship between Mondrian's work and the brain's physiology is entirely fortuitous' (Zeki, quoted in Henns 2010: 66). Zeki's model of the artist as a 'neurologist' who explores the organization of the visual brain closely resonates with the model of the filmmaker as practical psychologist as advanced in this book.

Perhaps the most striking parallel between imagery produced by perceptual psychologists and experimental filmmakers was that of the study of visual hallucinations (Figure 6.1), and the work of Oskar Fischinger (Figure 6.2) and Jordan Belson (Figure 6.3). In 'What Geometric Visual Hallucinations Tell Us about the Visual Cortex', Bressloff comments that visual hallucinations are experienced after taking hallucinogens such as LSD, cannabis, mescaline or psilocybin, which are created in the visual cortex (Bressloff et al. 2002: 473). The patterns generated, all of which feature repeated geometric orders, are indicative of the



Figures 6.1–6.3. There is a marked similarity between reports of geometric visual hallucinations (6.1) and the imagery in *Spirals* (1926; 6.2) and *Allures* (1961; 6.3). Screen captures by the author.

structure of the visual cortex. These hallucinations, reported by a group of test subjects for Bressloff's study, are re-created in the images in Figure 6.1. The picture on the left depicts a 'funnel image' as reported following ingestion of LSD; the centre picture is a spiral image also reported after ingestion of LSD. The image on the right is a 'lattice tunnel' hallucination following the use of marijuana.

The lines and circles that converge in the centre of the frame in Oskar Fischinger's Spirals (1926) (Figure 6.2) and Jordan Belson's Allures (1961) (Figure 6.3) are similar enough to warrant the speculation that both artists may have intuitively tapped into some fundamental characteristic patterns that the visual cortex responds to. Both film artists practised forms of meditation (see Sitney 2002: 264; Moritz 2004: 132), and this may have informed their creative inspirations for geometric, rotating, mandala-esque imagery, which can appear when in a deep state of intense meditation. Whether or not they took hallucinogens would be a matter of speculation,¹ but they evidently generated geometric shapes that humans are responsive to in a way that relates to the hallucinations discussed by Bressloff et al. As Zeki would comment, both Fischinger and Belson can be considered neurologists who explored the organization of the visual brain.

Belson stated as much quite explicitly, although he frames his films as a visualization of inner consciousness rather than the visual cortex. He has commented:

I've always considered image-producing equipment as extensions of the mind . . . The mind has produced these images and has made the equipment to produce them physically. In a way it's a projection of what's going on inside, phenomena thrown out by the consciousness, which we are then able to look at. (Belson, quoted in Youngblood 1970: 160)

Belson refers to *Allures* in particular as referencing human physical perception more than his other films (ibid.: 162). William Wees has also made the connection between Belson's films and hallucinatory vision in another study, which also featured 'explosive and rotational patterns' (Siegel, quoted in Wees 1992: 131). Again, hallucinatory vision features light moving in web-like structures, forming grids and geometrical shapes. A circle frequently features, with its centre corresponding with the centre of the visual field and 'whose peripheries become concentric rings or spirals of radiating dots and lines' (Wees 1992: 131).

Belson was creatively influenced by Oskar Fischinger films he encountered at the initial Art in Cinema screenings in 1947 in San Francisco. According to Aimee Mollaghan, the influx of the European avant-garde to America in the post-war period along with the establishment of the Art in Cinema screenings, a rise in the practice of Eastern religions, and a rise in the use of perception-altering drugs in search of a transcendental experience, gave way to artists like Belson and also James Whitney. Mollaghan comments that 'The graphic formalism of the German modernist filmmakers [such as Oskar Fischinger] ceded to a more nebulous abstruse spiritualism' that sought to capture and express transcendental experience (Mollaghan 2015: 95).

Taking sense as muse, Belson continued Fischinger's aspiration to simulate and promote states of meditation with images that function as agents for transcendence. The films themselves present the viewer with 'visual, aural and rhythmic equivalents of expanded states of consciousness' (ibid.: 88). However, they take a more immediate, intense form than the 'meditative film' or ecocinematic style as defined in chapter one. They also appeal to inner experience, taking sense as muse in a more literal sense than meditative films, which directly engage the material world rather than re-creating the inner world.

In delving into one's inner-consciousness through intense meditation or perception-altering drugs, bodily sounds and aspects of visual experience become apparent that would otherwise be shut out in normal circumstances. Mollaghan suggests that in *Allures*, a high-pitched electronic sound accompanied by a lower beating rhythm resembles the nervous and circulatory systems. In addition, the film features 'fields of dots and dashes super-imposed over each other [which] reflect the speed and activity of the neural pathways as they enter even deeper into the state of meditation' (ibid.: 89). Of all Belson's films, *Allures* in particular lends itself an expression of the inner world. Simultaneously, Gene Youngblood interprets the film as being themed around the birth of the cosmos (Youngblood 1970: 160). Ying Tan suggests that Belson's films are to be understood as sacred art that express both the micro and the macro; they speak of experience as an earthly human being; they absorb all that have something to contribute to art, such as all religions, cultures, science and technology; they emphasize the intuitive over the intellectual, and despite their calm exterior, they are full of life (Tan 1999: 29).

As an addendum to this discussion of hallucinatory vision through meditation and perception-altering drugs, it should be noted that hallucinations can also be induced through prolonged exposure to stroboscopic lights. This motivated Tony Conrad's *The Flicker* (1966), and Paul Sharits' flicker films such as *T.O.U.C.H.I.N.G* (1968) (Figure 6.4). A similar effect is created in Thorsten Fleisch's more recent *Energie!* (2007) (Figure 6.5). Here, artists do not seek to re-create hallucinogenic vision, but rather invoke actual hallucinations in their audience.



Figures 6.4–6.5. Films such as *T.O.U.C.H.I.N.G* (1968; 6.4) and *Energie!* (2007; 6.5) explicitly seek to create a hallucinatory experience. Screen captures by the author.

Sharits draws inspiration both from esoteric religion and also research on visual perception. He notes that according to the Shvetashvatara Upanishad, during intense sessions of mediation one may see visual forms resembling snow, crystals, smoke, fire, lightning, the sun and the moon. But unlike Belson, he also comments that it is the 'strong, intuitively developed imagistic power' (Sharits, quoted in Russett and Starr 1988: 161) that interests him rather than the mystical symbolism. At the same time, he was also inspired by W. Grey Walter's book *The Living Brain*, in particular a chapter entitled 'Revelation by Flicker' (Walter 1963 [1953]: 83–113). Walter reports that he conducted an experiment to explore epilepsy. He ran a strobe light in front of various participants' eyes, and discovered that in addition to provoking seizures amongst those with epilepsy, he also provoked hallucinations in non-epileptic participants. The visions evoked were comparable to those discussed previously – geometric patterns, either dominated by straight lines (e.g. crosses or diamonds) or curved lines (e.g. circles and vortices).²

The cause of flicker-based hallucinations is still a matter of speculation. Walter suggested that the visual system features a scanning mechanism, and the hallucinations are caused by interference between the flicker and the human visual scanning mechanism. Other theories have been proposed, such as that the images are created by spontaneous activity of neurons in the brain misunderstanding the stimulus they are exposed to and are making 'their own hypotheses' (ter Muelen et al.: 2009). Whatever the cause, Conrad and Sharits' contribution to the art of film (deriving from Walter's experiment) is that they invite viewers not to focus their attentions on the contents of the frame itself, but rather on the impression generated by the visual centre of the brain when engaging with their films.

Symmetry

The final perceptual capacity to be considered that visual music sometimes engages in the absence of a traditional story is symmetry, which is interlinked with the previously discussed topic of recurring geometric patterns. Symmetrical imagery reappears throughout art history, from ancient Islamic art to mandalas, the work of M.C. Escher, and kaleidoscopes. A range of experimental films also feature symmetrical patterning. For instance, Pat O'Neill's 7362 (1967) features moments resembling a moving Rorschach test (Figure 6.6), and Ken Jacobs' *Disorient Express* (1996) contains segments where footage of a 1906 train journey has been mirrored down the centre of the screen (Figure 6.7). John Whitney also explored multiple axes of symmetry to create mandala-esque, kaleidoscopic imagery in his later films such as *Arabesque* (1975).



Fig. 6.6

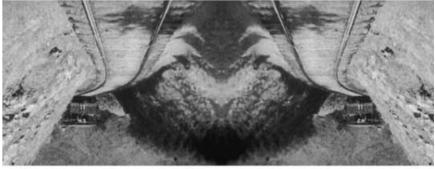


Fig. 6.7





Figures 6.6–6.8. Symmetrical imagery in 7362 (1967; 6.6), Disorient Express (1996; 6.7) and Delicacies of Molten Horror Synapse (1991; 6.8). Screen captures by the author.

Humans begin to discern symmetrical patterns during the early developmental stages of visual processing in human infancy. Symmetry pervades nature – most living organisms are bilaterally symmetrical and flowers often feature multiple symmetry axes. Some evolutionary biologists have attributed our sensitivity to symmetry to evolutionary pressure. For example, mate selection can depend on symmetrical facial features, since parasitic infestation (detrimental to fertility) often produces lopsided, asymmetrical development (Ramachandran and Hirstein 1999: 27). As such, this may account for a built-in aesthetic preference for symmetry.

In addition to an innate preference for symmetry, its detection is also fast and automatic rather than being mediated by cognitive conscious effort (Treder 2010: 1514). It serves as an early warning system to grab our attention to facilitate further processing until the entity has been identified. As well as signifying potential attractiveness, symmetry can also warn us about potential dangers. Michael Bird explains:

we register the presence of symmetrical features in our field of vision before we realise what we're looking at. Since most living organisms and many natural objects are bilaterally symmetrical, symmetry perception probably has an evolutionary basis – you don't want to stare too long or hard to make out the tiger's eyes amid the tousled asymmetry of the foliage around them. (Bird 2004)

Evolutionary psychologists have suggested that prototypical stimuli like symmetrical objects feel familiar, and as such are preferable to unfamiliar stimuli. This feeling of familiarity is associated with positive affect (Halberstadt 2006: 166– 83). When the experience of a film is based on appreciation of surface details above a larger storyline, it perhaps should not be surprising that some filmmakers felt intuitively compelled to explore the expressive potential of symmetrical imagery.

It may also be observed, however, that not all artists value the merit of symmetry. Stan Brakhage has commented that he has an 'abhorrence of symmetry' (Brakhage 2007–8: 121). His film *Delicacies of Molten Horror Synapse* (1991) features symmetrical imagery, and the 'horror' in the title refers to his response to symmetry (Figure 6.8). Why might artists be divided on its aesthetic virtues? One may speculate that the appeal of prototypical, familiar stimuli like symmetrical imagery and also synchronization may broaden the appeal of experimental films by appealing to familiar, native perceptual capacities. Simultaneously, artists within the avant-garde (particularly from the 1950s onwards) actively sought to stretch and expand viewers' range of aesthetic sensitivities by appealing to unfamiliar aesthetic experiences. They offer lessons in perception, to repeat Michael Snow's maxim, which has pervaded this book, rather than retreading the familiar.

Robert Breer, whose film oeuvre began in the 1950s when the avant-garde was becoming more radicalized, commented that while he admired Fischinger in some ways, he also found him 'something of an abomination' (Breer, quoted in MacDonald 1992: 19). Like Brakhage's abhorrence of symmetry, Breer's partial distaste for Fischinger's work may in part stem from his appeal to familiar, 'conservative' perceptual experiences, such as smooth motion, tight synchrony,

graphical formalism, harmonious colour schemes and classical music. The avantgarde, for some, is at its best when it does not appeal to native capacities.

Irrespective of the aesthetic virtues and shortcomings of symmetry in art, its appeal can be placed in the context of native perceptual capacities, alongside the use of synchronization and hallucinatory imagery.

Conclusion

The goal of this chapter was to demonstrate that appreciation of visual music does not always depend on a wholesale rejection of naturalistic perceptions and familiar methods of engagement. In particular, the use of synchronization, weblike geometric patterns and symmetry all appeal to familiar, native capacities. To a general audience these techniques may make the films more appealing, but to those in search of a more radical experience, these techniques may appear banal and unappealing. Either way, their function has been placed in context.

In this instance, a parallel can be drawn between the avant-garde and commercial realms. While the artistic, 'personal' work of Oskar Fischinger and the 'industrial' work of Walt Disney might initially seem to be at opposite ends of a cultural spectrum, their artistic kinship must have been recognized clearly enough to lead to their eventual collaboration on *Fantasia* (1940), which attempted to bridge artisanal and commercial aesthetic traditions. The base appeal of synchronized movement makes a work like the Silly Symphonies cartoon *Skeleton Dance* (1929) closer in spirit to Fischinger's *Studie Nr.* 7 than it may initially seem. Indeed, Disney donated films and production artworks to the Museum of Modern Art and also became a trustee in 1944 (Mikulak 1997: 62).

Some experimental films, then, depend less on the development of new aesthetic sensitivities and more on discarding existing skills that spectators unconsciously learn to depend on, such as narrative comprehension and character engagement. Contrary to the assumption that a spectator does not know enough in order to appreciate an experimental film, in some instances the viewer may in fact know too much, and depend implicitly on habits of engagement routinely activated when experiencing a film. Discarding habits of engagement, in some instances, can serve to liberate the viewer, allowing them to focus on the visceral appeal of visual music.

Notes

1. Note that LSD was not discovered until late in Fischinger's career. It was first synthesized in 1938, and first intentionally ingested in 1943 (four years before his final film). As such, it is doubtful that he would have come into contact with it. However, it became tied to the American counter-

culture (and illegalized) in the 1960s. Belson was based in San Francisco for most of his life – a countercultural hub – and he produced an (uncompleted) film entitled *LSD* in 1962. In Gene Young-blood's *Expanded Cinema*, Belson comments that he experimented with peyote and LSD earlier in life (Youngblood 1970: 174).

2. Brion Gysin's stroboscopic flicker device called the 'Dreamachine' (created in the early 1960s) was also noted for taking inspiration from Walter's 'Revelation by Flicker' chapter in *The Living Brain*.

CONCLUSION

Much of the discussion in this book has revolved around illustrating how experimental filmmakers have a legacy of making intuitions about the mind, and finding aesthetic interest in uncharted places. Maya Deren intuitively understood that an artist can cue narrative expectations for the purpose of generating allegorical inferences without providing full narrative coherence, and this can be compelling in a different way to a well-told tale. Hollis Frampton understood that information can be ordered sequentially instead of narratively for aesthetic purposes, and Peter Hutton understood that viewers can be engaged by his films while operating at an uncommonly low level of arousal. Stan Brakhage understood that imagery that attempts to reintroduce the corporeality of the eye to the cinematic image by approximating entoptic vision and phosphenes can be compelling. Robert Breer recognized that creatively negotiating the threshold between the perception of still imagery and cinematic motion can also be engaging. Oskar Fischinger and Len Lye understood the power and appeal of synaesthetic correspondence and synchronization as techniques to engage aesthetic interest.

These practices characterize a widely dispersed range of experimental filmmakers as practical psychologists who provide mental activities that are not experienced in other cinematic domains. They also, using 'sense as muse' (in Stan Brakhage's words), draw creative inspiration by attending to their own observations about the mind. These intuitions, this book has demonstrated, often converge with research conducted by psychologists in a formalized setting. It is not the artist's job to understand the underpinning mechanisms of the mind; this may even be creatively stifling. Rather, their principal aim is to create aesthetic impact in some form or another, while the psychologist more dispassionately studies psychological mechanisms in order to understand how they operate. Unlike commercial filmmakers, experimental filmmakers do not need to be concerned with the commercial appeal of their work. Rather, their own creative curiosities may be indulged and they may find paths to aesthetic engagement in unexpected places.

Defining Avant-Garde Film (Revisited)

In the introductory chapter, various characteristics of avant-garde film were detailed. This topic will now be revisited and expanded on, in light of themes explored during the course of this book. It will not be outlined as a series of essential characteristics, but rather a series of tendencies that pertain to the avant-garde.

First, the context of distribution and production may be considered:

- Operating in an artisanal mode rather than an industrial mode, the filmmaker will fulfil several roles that are typically assigned to separate people in mainstream film production. It may be created by a single person or a small collective.
- The film will be self-financed or funded by a small grant from an arts institution, without expectation to make a profit.
- Instead of undergoing commercial distribution, avant-garde films are normally distributed independently or through film co-operatives to be exhibited by film societies, universities and museums.

The aesthetics of avant-garde films may be characterized thus:

- Avant-garde films *evoke* more than they *tell*. They do not offer a clear, univalent 'message'.
- The film may possess an oppositional relationship to both the stylistic characteristics and value systems of mass media.
- The materials of cinema may be consciously employed in a way that calls attention to the medium.
- Surface detail typically plays a larger role in the experience of the film than the semantic details.

The respective roles of the artist and spectator may also be commented on:

- The artist will draw principally from their non-rational intuitions when creating the film. They may try to express ideas or feelings that are, in a sense, inexpressible.
- The creative process may put a greater emphasis on the process of discovery than a commercial film, which tends to be pre-planned in more detail before filming begins.
- The spectator might not understand shot-for-shot what the film means, but they cede to the artist's authority, like a guiding light of intent. This becomes part of the experience of the film.

One may comment that avant-garde films do not generally tell traditional stories or conventional narratives. However, this can be explained in more detail:

- The film will not typically be motivated by a disruption and subsequent reinstatement of equilibrium. There will be no clearly defined goal that motivates the onscreen events.
- If agents feature, they may be psychologically opaque with unclear motivations, intentions and thoughts.
- A chain of events may feature, but will not necessarily be linked according to dramatic consequence. They might instead be connected thematically, or according to graphic interest. This makes any chain of events sequential rather than consequential.
- Shot-to-shot relations do not necessarily mark a linear passage of time. Temporal relations between shots may be undefined or immaterial.

Finally, there are also cognitive and perceptual dimensions, which are typical of avant-garde film:

- The mind is exercised in ways that will be unfamiliar in other aesthetic contexts.
- Artists may draw inspiration from their own cognitive and perceptual capacities instead of generating dramatic scenarios.
- The way a film is rendered in the mind may be as important a part of the aesthetic experience as the contents of the film itself. For example, the way it is compressed or embellished as a memory, or the hallucinations generated through flickering imagery.
- The spectator's ability to psychologically elaborate on the events depicted may be more restricted than traditional narrative-dramatic films.

With a clearer definition of experimental film in place that draws together a range of themes explored in this book, the implications of exercising the mind in unique ways when engaging with experimental film will now be considered.

Expansionism and the Artist-as-Prophet

Experimental filmmaker Ken Jacobs has characterized art as a tool that fosters mental development, rather than as a medium intended solely to entertain. He comments:

I basically think that the mind is not complete yet, that we are working on creating the mind. And the highest function of art for me is its contribution to the making of mind.¹

The image of the artist-as-prophet who enlightens the spectator, creating work that elevates and instructs its viewers, pleasing while edifying them, dates back

to late eighteenth-century Romanticism (Ferber 2010: 32) – further substantiating P. Adams Sitney's assertion that American avant-garde film is stationed in Romanticism. While Jacobs' claim is intuitive and somewhat mystical, it chimes with recent cognitive discussions of aesthetics. In 'Empathy, Expansionism and the Extended Mind', Murray Smith divides the mind-building nature of art into two separate components. First, there is extension, in which art is made and understood with the use of commonplace cognitive capacities – engagement skills are applied with little effort that reinforce our native capacities developed to navigate the natural environment. Secondly, there is expansion, in which art stretches our mental capacities, extending them in new directions by calling on unfamiliar processes that are not encountered outside artistic contexts (Smith 2011: 111).

The claim being pitched in relation to expansionism, then, is that expansive aesthetic experiences enhance our ability to notice a wide range of details when engaging with art, and life more generally. This does not mean that our perceptual architecture or physiological hardware is restructured; rather, it means that our perceptual systems become more sensitive and fine-tuned – in much the same way that athletes fine-tune their motor skills when they are training. After viewing a film by Stan Brakhage, Robert Breer or Ken Jacobs (all of whom provide unique perceptual experiences), our hardware remains unchanged, so to speak, yet some of us discover that we have expanded our range of possible routes to aesthetic interest by paying attention to our perceptions in a way that we had not before. Our software (to make a somewhat inadequate analogy) has developed, but the hardware remains the same. Expansion does not necessarily refer to effortful or demanding experiences in art; it can also refer to experiences that are unfamiliar in terms of the way our senses are typically triggered.

Narrative-dramatic cinema can be understood as extensive in the sense that it allows spectators to exercise everyday faculties like narrative comprehension, inference making, engagement with other people, and affective responses. In the artificially constructed environment of commercial cinema, these skills are called upon in a sustained and intensified way – leading to an extensive experience. Smith explains:

We are all limited, to a greater or lesser extent, in the opportunities we have to engage with situations, persons, and cultures different to a greater or lesser extent from our own. For those who want to take it up, fiction – and, once again, public narration more generally – affords a limitless horizon of opportunities for such engagement. (Smith 2011: 111)

Empathy, then, is a psychological mechanism developed for real-world interactions, which is also exploited and rehearsed in narrative-dramatic film. We engage with characters in scenarios we would not have the opportunity to in real life, and so our empathetic skills are 'extended'. The extension of empathy is less of a feature within the avant-garde, however.

When defining expansionism, possible interpretations of its meaning should be locked off so that the term does not become excessively broad. 'Expansion' could be interpreted as simply meaning 'learning a skill' or 'developing a new habit of engagement'. If this were the case, becoming familiar with cinema itself would be an expansive activity, since most of its aesthetic characteristics bear no equivalent in the natural world: learning to comprehend editing patterns, understanding when an ellipsis in time occurs, recognizing when a shift in the viewer's point of view takes place, and identifying non-diegetic sound are all unfamiliar in the natural world. In turn, learning to adjust to their conventional use in narrative-dramatic cinema requires developing new skills of engagement. While this might be considered a form of expansionism, the difference between this and adapting to the viewing habits of many avant-garde films is that one needs very little specialist knowledge in order to comprehend traditional narrative films, since they are designed to interface with existing habits of mind. Even with their shifting points of view, temporal ellipses and complex narrative patterning, they are tailored to be understood as effortlessly as possible.

Beyond the basic groundwork of adapting to cinematic conventions, developing an appreciation for unfamiliar movie genres also requires developing a new set of viewing habits – appreciating silent cinema or horror movies, for example, will require an adaptation of aesthetic expectations for an unaccustomed viewer so that they might engage with the work as it is intended to be appreciated. Outside the realm of art, learning to drive a car or learning to play chess for the first time all require developing new abilities. Again, however, all of these activities are tailored to ergonomically fit with existing human comprehension skills. What makes avant-garde films 'expansive' in the sense defined here, is the way that specialist priming is required to engage with this work, since it does not key in with pre-existing habits of mind. Engaging in a meaningful way with some avant-garde films might not always be possible without specialized knowledge and effort.

In addition to this, avant-garde films may also be notably expansive in the sense that spectators sometimes need to suppress capacities elicited by traditional cinematic engagement that is not narrowly related to a specialised domain, such as narrative comprehension or engaging emotionally with onscreen characters. This is a departure from the received wisdom that viewers who are unreceptive to avant-garde film lack specialist knowledge. It may also be true that they have *excess* knowledge about film engagement, employed so effortlessly and unconsciously in more conventional films that it becomes difficult to suppress. This may seem like a paradox, but the suppression of habitual skills of engagement may be necessary in order to allow other skills to come forward and be the target of expansion. A viewer may, for instance, need to subdue the commonplace habit of seeking semantic salience in their visual field so that they might pay closer attention to the onscreen graphic details. The viewer may also need to suppress

narrative expectations so that they can focus on generating creative allegorical interpretations, infer obscure metaphors, or concentrate on the 'mood' without requiring narrative coherence (discussed in chapter two).

While the contrast so far has been between popular cinema and the avantgarde as opposing poles, there is a continuum between mainstream films and the avant-garde that features puzzle films (see Buckland 2008) and art-house cinema - from Carl Dreyer's relatively linear storytelling, to Luis Buñuel and Alejandro Jodorowsky's more challenging surrealist films. Each filmmaker offers varying degrees of challenges to the spectator's habits of engagement. The closer a film is on the continuum to mainstream narrative-dramatic filmmaking, the more viewers can draw from evolved habits of mind designed to navigate the natural environment, and the generic pool of knowledge that has been instilled from the myriad of other films that they have seen. These are sometimes called extrinsic norms - bodies of conventions and knowledge developed across the history of cinema. Intrinsic norms are conventions developed across a body of work by a single director, or a single film (see Bordwell 1985: 151). Avant-garde filmmakers are less prone to calling upon extrinsic norms, and are more likely to call upon their own set of intrinsic norms (although avant-garde artists certainly imitate one another, and techniques such as scratching directly onto film can become conventionalized). Those interested in avant-garde film may possess a wider array of methods for engaging with work, even though they operate with the same underlying perceptual faculties as those who watch mainstream films exclusively.

It has been proposed, then, that expansive aesthetic experiences may enhance our ability to notice a wide range of details when engaging with art, and life more generally. If avant-garde film does have such an effect on the viewer, some speculative comments can be made about the ways in which expansionism cashes itself out. At the broadest level, the willingness to attempt to understand esoteric films on their own terms may make the spectator more visually perceptive, or capable of finding aesthetic interest in the natural world that would otherwise be ignored. In the case of learning to appreciate the work of Peter Hutton or Nathaniel Dorsky, for instance, one might become more patient and notice hitherto unnoticed beauty in the natural world. Closer attention may be paid to the play of light on a pond ripple, the subtle articulations of leaves trembling in the wind, or the impression of shadows cast on the ground. This is particularly the case if the subject learns to attend to their visual surroundings without being as concerned with its semantic relevance.

In addition to these visual sensitivities, avant-garde films may strengthen a person's skill at generating creative inferences or synthesizing seemingly dissociated concepts, since generating thematic readings of avant-garde films often requires an act of imagination on the part of the viewer. The creation and consumption of such concepts might also be part of a larger process in which a person defines themselves in opposition to broad societal values. In the post-World War II era of experimental filmmakers, social conventions were frequently bucked. Throughout this period, there was a keen interest in esoteric religion and mysticism (Kenneth Anger, Maya Deren, Jordan Belson), resistance to social norms (Jack Smith, James Broughton, Bruce Baillie) and an opposition to conservative politics (Ken Jacobs, Saul Levine). All of these sensitivities and traits can also come about due to personal characteristics and environmental factors, of course. An appreciation of the avant-garde is not a necessary condition for such creative or oppositional thinking, but such an appreciation may help cultivate these qualities further, and they may feed into one another in a cyclical process.

Instead of suggesting that exploring the avant-garde changes a person's nature more broadly, a more modest proposal would be that the expansive nature of avant-garde art does not necessarily stretch beyond the confines of aesthetic experience – it may only expand our skills developed for engaging with art. This should not be understood as a degradation of its effects, however. Expanding our range of aesthetic interests can be understood as a valuable undertaking in its own right, and the appreciation of an ever-widening range of possible aesthetic experiences does not need to stretch outside the realm of art in order to be meaningful or enriching.

The Poetic and Structuralist Artist

In addition to the issues explored in this book, there are more ways in which there is a tendency for experimental filmmakers to be understood as practical psychologists. The remainder of this conclusion, then, will outline two further discussions that this book points towards.

Most of this book has addressed the activity of the spectator rather than the artists themselves. While it may be difficult to reach any definite conclusions on the riddle of creativity and the emergence of personal style, an exploration of this topic within a cognitive framework (see Gardner 1984; Sternberg 1998; Sawyer 2012) may prove illuminating. James Peterson's definition of 'poetic film' dictates that it is to be understood as a product of staunch individualism, and he offers one method of engaging with this work as the 'style-as-consciousness heuristic', in which we are to interpret overt manipulations of film style (particularly camerawork and editing) as evidence of the filmmaker's response to what is shown in the images (Peterson 1994: 40). In a similar spirit, Georges Buffon famously claimed in the mid eighteenth century that 'style is the man himself' (Buffon, quoted in Roger 1997: 432).

At the end of their careers, many auteurs, poetic filmmakers and people engaged in other art forms leave behind a creative legacy in which the emergence of their personal style can be charted from their formative works to the stage when their own 'voice' is more fully realized. An artist typically produces a prolific body of work, sees what tendencies arise that are appealing and unique to them, and then hones in on those details in future work. A painter stakes out their own territory in painting, a comedian develops a unique mode of address that strikes audiences as funny, and an experimental filmmaker develops their own distinctive style. Once an artist finds their voice, they explore the creative potential within it – the internal logic of their editing style, their camera technique, their particular choices of subject matter and the manner in which they are engaged. An internally consistent working method begins to 'ring true' for the artist as they produce their work, and the more fully realized that voice is, the more difficult it is for others to emulate. Sitney comments on this personal mode of filmmaking:

the Romantic film-maker looks on the cinema as an instrument of self-discovery or mythopoeic discovery; the process of making a film becomes a quest for the film's often problematic content. (Sitney 2002: 136)

This trial-and-error process of finding one's voice took a different form amongst the structural filmmakers, however. Structural filmmakers seemingly reversed this staunch individualism by minimizing or eschewing personal aesthetic choices, in a manner comparable to John Cage's chance music, or serial music. While Brakhage's style revealed itself organically over time, Warhol (as an heir to Cage in some senses) approached film more like a conceptual artist. His film *Sleep* (1963), for instance, was not informed by years of experience as a filmmaker. Rather, he had already cultivated a sensibility that allowed him to approach filmmaking from a novel perspective. Personal style still reveals itself for the structural filmmaker, but not through the same path that a poetic filmmaker takes.

'Style' in structural film (at least in terms of editing and camerawork) is largely impersonal. The camera is often static, and the editing is mechanically rhythmical – consider, for example, the shot-per-second editing of Frampton's *Zorns Lemma*, and the regularly intervaled editing patterns of *Critical Mass* (1971) and Ernie Gehr's *Serene Velocity* (1970). Brakhage or Bruce Baillie's editing styles, by contrast, have a syncopation to them that gives their work a tactile, human quality. In *Eyes Upside Down*, P. Adams Sitney plays the structural and poetic creative dichotomy off one another by way of quoting John Cage and Stan Brakhage. Cage claims that he is devoted to the principle of originality, but 'not originality in the egoistic sense' (Cage, quoted in Kostelanetz 2003: 221). Brakhage, by contrast, was not deterred by what Cage referred to as egoism, commenting 'OF NECESSITY I BECOME INSTRUMENT FOR THE PASSAGE OF INNER VISION THRU ALL MY SENSIBILITIES, INTO ITS EXTERNAL FORM' (Brakhage, quoted in Sitney 2008b: 7, capitals in original).

Fig. 7.1

The concept of the filmmaker as a practical psychologist, then, could be productively elaborated on by addressing the question of artistic creativity from a cognitive framework. Within this, the intensely personal style of the poetic filmmakers could be contrasted with the radically impersonal work of the structuralist filmmakers.

The Dreamers

Another aspect of the human mind that has provided creative inspiration for experimental filmmakers is dreaming. Sleeping and awakening occurs across Kenneth Anger's Magick Lantern Cycle, for instance; the events from Fireworks (1947) begin with the central character (known as The Dreamer, played by Anger himself) waking from his dream, only to enter another one (Figure 7.1). Lord Shiva (Samson de Brier) commences Inauguration of the Pleasuredome (1954) by awakening in his chamber. Rabbit's Moon (1950/71) opens with Pierrot (André Soubeyran) reclining on the ground as though he has just been roused by the moonlight, and Yvonne Maquis slumbers in Puce Moment (1949) (Figure 7.2). In Lucifer Rising, we are introduced to the Adept (Haydn Couts) when he awakens, suggesting that the preceding events may have been his dream (Figure 7.3). Lilith (Marianne Faithfull) also first appears awakening inside a stone sarcophagus (Figure 7.4).

Anger's recurrent references to sleep and dream states place him in line with the tradition of artists who formed the basis of non-linear storytelling, entering







Figures 7.1–7.4. Depictions of the dreaming subject in Fireworks (1947; 7.1), Puce Moment (1949; 7.2) and Lucifer Rising (7.3–7.4). Screen captures by the author.

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Fig. 7.3

Fig. 7.4

the realm of the associative rather than causally connected waking logic. Riding on the wave of surrealism and psychoanalysis, avant-garde films had a running affiliation with dream consciousness – from Un Chien Andalou (1929) through to Dreams that Money Can Buy (1947), Jean Cocteau's Orpheus (1949), Bruce Conner's Valse Triste (1979), and Peter Tscherkassky's Dream Work (2001). As discussed in chapter one, P. Adams Sitney coined the term 'psychodrama' as a strand of avant-garde film, pioneered by Maya Deren and explored further by works such as Anger's Fireworks, James Broughton's The Potted Psalm (1946) and Brakhage's The Way to Shadow Garden (1954). Al Rees comments that the psychodrama was in part modelled on dream, alongside lyric verse and contemporary dance (Rees 2011: 58).

Indicative of the pervasiveness of dream states in avant-garde filmmaking around the mid twentieth century, in 1960 Parker Tyler published an essay entitled 'Dream Structure: The Basis of Experimental Film' in which he offered a strategy for engaging with experimental films by suggesting they should be considered analogous to dreams and hallucinations. But the pairing of avant-garde film and dream states seemed to be losing momentum as the decade progressed. Andy Warhol's *Sleep* (1963) can be interpreted as a parody of dream films, consisting of a long take of a man sleeping for 5 hours and 20 minutes, showing the process of sleep from the 'opposite side', so to speak.

The inspiration of dream states leads further back than surrealism, however. Sitney sought a unified view of American avant-garde film by tracing it to the tradition of nineteenth- century Romantic poetics (Sitney 2002: xiii). This was an artistic and intellectual tradition originating in the late eighteenth century that formed, in part, as a reaction against prevailing Enlightenment ideas of the time, such as a respect for scientific method and rationalism. Romantic poetics, like avant-garde filmmakers, also held a fascination with dream states.² Allan Hobson, the psychologist and dream researcher, argues that the interest in dreams stretches back further still and not exclusively within the arts:

Dreaming has fascinated humankind since the dawn of recorded history. As dreaming is so vivid, so complex and so emotional, it has inspired religious movements, artistic representations and introspective scientific theories. All of these premodern expressions have been based on the idea that dreams contain messages that cannot be delivered in any other way. Thus, it was thought by early Judaeo-Christians that God communicated his intentions via certain prophets to his human subjects. [...] Early Western Artists, such as Giotto, used dreaming as a vehicle for the pictorial representation of prophetic inspiration. Sleeping saints and churchmen are shown in the same pictorial frame as the visions that their dreams inspired (Hobson 2005: 1).

More recent theories of dream moved away from the spiritual but continued to assume that they possess a crucial psychological purpose. To Sigmund Freud, dreaming provides a playground for the unconscious mind (Kalat 2007: 538). To Carl Jung, it is a stage where the psyche's archetypes act out primal themes. A more recent theory as posited by Allan Hobson is that the brain is simply 'warming its circuits', anticipating the sights, sounds and emotions of the coming day.

When Hobson describes the character of dreaming, it shares several characteristics with avant-garde films. Some of the cardinal features of dreaming, according to Hobson, include 'loss of awareness of self (self-reflective awareness); loss of orientational stability; loss of directed thought; reduction in logical reasoning; and, last but not least, poor memory both within and after the dream' (Hobson 2005: 5). He also comments that while dreaming, thought is illogical, sensation and perception are almost entirely internally generated, volition is weak and attention is difficult to direct (ibid.: 128). Some of these aspects of dream consciousness are typical of film spectatorship in general, while others are particularly common in the experience of avant-garde film, such as loss of directed thought, loss of orientational stability and impaired memory (see chapter two).

In his article 'Some Things that Narratives Tell Us about the Human Mind', Wallace Chafe comments on the nature of narrative to the dreaming mind, unmediated by the outside world:

the mind can go on creating representations of the world even in the absence of 'real' sensory input; constructing, as it were, its own input, as in dreams. Dreams may be the strongest evidence we have that the mind goes on busily constructing its own representations, regardless of what may be coming in from the outside. The main thing that dreams lack is coherence. When left to its own devices, the mind creates a kaleidoscope of loosely strung together experiences. Sensory input during our waking hours may force these experiences to hang together in terms of spatio-temporal consistencies that are present in, and imposed by, the outside world itself. (Chafe 1990: 80)

In other words, when in a dream state, the mind does not generate spatially and temporally consistent narratives. Rather, the outside world 'keeps it in check'. The filmmaker and the spectator, just like the characters in many avant-garde films, are like dreamers in a certain respect. Further reflection on this subject may prove illuminating.

Conclusion

Although the history of art can be understood as a series of changes and evolutions, the avant-garde is a more recent and distinct development. From one movement to the next through the history of the arts, aesthetic conventions build on each other and change over time. In a sense, there has always been an advance guard, artists who continually sought to push their creative forms in new directions while working in the context of previous generations. Gregorian chants led to Baroque, Classical and Romantic music. By the same token, Byzantine art led to Renaissance, Romantic and Impressionist art. Changes and developments in the history of art and aesthetic experience, then, is nothing new. Those artists who pushed existing forms to the next movement, however, were not avant-garde in the specific, historical sense of that term, which emerged in the second half of the nineteenth century.

In charting new modes of seeing, perceiving and thinking, experimental filmmakers attempt to capture that which cannot be fully expressed. Stan Brakhage comments:

artists are always going to stray into the realm of the inexpressible because really that's their work, . . . to try to push through those boundaries, the same as astronauts do through space, those boundaries of the known kinds of thinking and communicating in the mind. (Brakhage 1982a: 23)

Modernism itself and the avant-garde can be understood as a significant development in the history of art, even if it is only appreciated by a niche audience. While it has provided norms and conventions that have been subsumed into mainstream culture (such as abstract paintings mounted in restaurants and office spaces), this book aims to have illustrated how in some respects it has also provided experiences that stress and stretch our cognitive and perceptual habits in ways that are uniquely challenging and cannot be incorporated into the commercial landscape. The avant-garde led to a sub-community of filmmakers, some of whom have drawn inspiration from their own psychological capacities, who provide unchartered cognitive and perceptual experiences that are unrehearsed in life and commercial art, and invite spectators to reflect on their own mental facilities. In turn, we have been graced with a diverse range of sounds and visions that enrich and delight those who are sensitive to their charms.

Notes

1. Quoted in 'Conversations with History: Ken Jacobs', 42:45. Available online: http://www.you tube.com/watch?v=CEVss-csGF8.

2. Samuel Taylor Coleridge, the poet, philosopher and co-founder of Romanticism is discussed in Jennifer Ford's Coleridge on Dreaming: Romanticism, Dreams and the Medical Imagination (2005).

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