Introduction

This book addresses some central issues in the philosophy of cinema: the role of expression, realism, authorship, theories of interpretation, the nature of narration, character identification and audiences' emotional responses. In developing theories of these phenomena, two broad themes emerge. The first is a concern with cinema as an art. The second is an argument that the cinematic medium plays a role in explaining and evaluating central features of cinematic works. In both respects, the book reveals a strong debt to classical film theory, which was concerned with the question of what makes film an art, and argued that the nature of the film medium plays a central role in understanding and evaluating films. Contemporary film theory lost interest in the question of whether film is an art and in some of its modes was little concerned with the nature of the film medium, assimilating it instead to semiotic phenomena. And some contemporary philosophers of film, notably Noël Carroll, have argued at length both that there is no role for medium-specific explanations in film and also that, partly as a result of this, we should abandon the attempt to construct grand film theory, and instead adopt piecemeal theorising.[1] If the argument of this book is successful, the classical film theorists were much closer to the truth in holding that medium-specific explanations and evaluations, as well as a good degree of systematising theory about cinema, are possible.

The scope of the discussion of cinema in this book is broad. Cinema is the medium of the moving image. In the etymologically rooted sense of the word, 'cinema' is related to the notion of kinematics, the study of things that move. 'Movies' and 'motion pictures' are terms that capture the phenomenon: we are discussing pictures that move. Moving images come in many kinds, a fact of which it has been easy to lose sight until recently, given the dominance of traditional photochemical, celluloid-based film for most of the period in which moving images have been subject to theorising. Indeed,

[1] Noël Carroll, *Theorizing the Moving Image*, especially Part I.

sometimes the word 'film' is used simply to mean photochemical, celluloid-based moving images, a usage I will not respect. When I need to single out photochemical films, i.e., films composed of images made by exposing certain photosensitive chemical salts to light, I will refer to 'traditional' films or cinema. As we shall see, cinema never was confined to photochemical images. The variety of the kinds of cinema has become obvious within the last fifteen years with the rise of digital cinema, both in its non-interactive and interactive forms; the latter encompasses a range of cases from videogames to digital interactive dramas to virtual reality displays.

Since the role of the medium plays a central part in the book's argument, the question arises of what to say about digital cinema, in particular, in relation to the traditional cinematic medium. Digital cinema is in salient ways different from traditional cinema, particularly in its interactive possibilities, so it is important to consider in what ways its differences condition artistic features of cinematic works. So in most chapters a separate section considers how the argument advanced in that chapter applies to digital cinema. The upshot is a systematic investigation of some central features of digital cinema, both interactive and non-interactive, in addition to those of traditional film. Both digital and interactive cinema have earned a great deal of attention from new media theorists and game studies scholars, but these scholars have shown little interest in how classical film theory might be of assistance in understanding them. Philosophers have scarcely even begun to address the issue of digital cinema. This book, I hope, will help remedy this situation and show how questions, concepts and tools partly derived from classical film theory can fruitfully be applied to the wide variety of cinema that is now available to us.

The rest of this Introduction sketches in some necessary background to the argument advanced in this book. The first section adumbrates the development of film theory and the philosophy of film. The second provides an overview of the development of the cinematic medium, including traditional, digital and interactive cinema. Given the importance of the cinematic medium to the argument of this book, it is vital to understand the technical aspects of the medium.

1.1 Film theory and philosophy

Today the philosophy of film is a wide and growing discipline, and exhibits a striking feature that, though not unique amongst the philosophies of the arts, is at least unusual: many philosophers and film theorists are interacting with and learning from each other's work. Much, though certainly not all,

of the work of philosophers has been critical of aspects of film theory, but the interaction has been fruitful for both disciplines. This interplay is witnessed by several anthologies in which both film theorists and philosophers of film are included.[2] And probably the most widely used introductory film anthology includes writings by the philosophers Noël Carroll, Stanley Cavell, Gilles Deleuze, Cynthia Freeland and Jerrold Levinson.[3]

Philosophy of film is almost as old as the medium of photographic film (which was invented around 1890): Hugo Munsterberg, a philosopher and psychologist, wrote a pioneering work on film in 1916.[4] However, film only began to attract wide philosophical attention in the 1970s, which saw seminal books and articles appear by Stanley Cavell, Francis Sparshott, Alexander Sesonske, and Arthur Danto.[5] Since then, writings in the philosophy of film have burgeoned; more recent important philosophical monographs on film include those of Noël Carroll, Gregory Currie and George Wilson.[6] Besides books and articles on the philosophy of film in general, there have also been many studies of individual films by philosophers.

Since film theory has played a central role in setting the agenda for the philosophy of film, it is worth briefly rehearsing film theory's development.[7] Classical film theory began shortly after the invention of film. Its concerns were broadly threefold. First, a new medium had been born: but was it art? Its roots in scientific experiments and its mechanical means of recording seemed to rule out any role for individual expression or for created form, which argued against its artistic status. Classical film theorists such as Rudolf Arnheim (who is a major influence on the present book) were keen to defend film against such charges and show that it was indeed an

[2] David Bordwell and Noël Carroll (eds.), *Post-Theory*; Richard Allen and Murray Smith (eds.), *Film Theory and Philosophy*; Carl Plantinga and Greg M. Smith (eds.), *Passionate Views*; and Paisley Livingston and Carl Plantinga (eds.), *The Routledge Companion to Philosophy and Film*.

[3] Leo Braudy and Marshall Cohen (eds.), *Film Theory and Criticism*.

[4] Hugo Munsterberg, *The Photoplay*.

[5] Stanley Cavell, *The World Viewed* (the first edition was published in 1971); Francis Sparshott, 'Basic Film Aesthetics' (first published in 1971); Alexander Sesonske, 'Cinema Space'; and Arthur Danto, 'Moving Pictures'.

[6] Noël Carroll, *Philosophical Problems of Classical Film Theory*; Noël Carroll, *Theorizing the Moving Image*; Gregory Currie, *Image and Mind*; and George Wilson, *Narration in Light*.

[7] Influenced by film theory, but distinct from it, is the field of game studies, including the study of videogames. The most prominent theoretical division in this field concerns the possibility of interactive narration, an issue that divides narratologists from ludologists, and which I discuss in detail in Section 5.7. Other issues addressed by game studies have direct analogues within traditional film studies, such as the status of videogames as an art, the role of authorship and the nature of audiences' emotional engagement with works. These aspects will also be addressed in the present book, but only insofar as they rest on the interactive element of videogames, rather than on their status as games.

art form.[8] Second, because of its photographic basis film seemed to be in some sense a pre-eminently realist medium and therefore to have new artistic resources distinct from earlier art forms: André Bazin and Siegfried Kracauer investigated the nature of film realism.[9] Third, if film is an art, then it seemed to many that there must be an identifiable artist responsible for each film; hence proponents of the auteur theory, such as Andrew Sarris and Victor Perkins, argued for the existence of a single author of a film, normally identified as the director.[10] As we shall see, all of these issues have been of interest to philosophers. Indeed, in its central concerns, in its clarity of expression and in its precision of argument, classical theory bears some affinity to contemporary philosophy of film.

The second kind of theory, so-called contemporary film theory, came to prominence in the mid-1960s. Its central claim was that film is a kind of language. That idea had been mooted by some classical theorists, such as Sergei Eisenstein.[11] But it received its most sustained defence at the hands of Christian Metz.[12] To this claim was later added the thesis that psychoanalysis, in particular that form represented by the works of Jacques Lacan, is central both to the understanding of the film medium and to understanding viewers' responses to films.[13] Contemporary film theorists also argued for the pervasiveness of ideology in film in virtue of certain features of the medium or of certain major kinds of films, such as realist ones.[14] Several philosophers have been intensely critical of the three claims just outlined.[15] However, though this kind of film theory is still a very influential force in cinema studies, of late the field has grown more pluralistic and somewhat less interested in building grand theory, and has become more attentive to the varieties of ways that individual films and national cinematic traditions represent their subjects.

Within the last twenty years or so, there has grown up a third kind of film theory: cognitive film theory. Its most influential exponent is David Bordwell, who has used findings from cognitive psychology to support a neoformalist aesthetics.[16] Some cognitive theorists, such as Torben Grodal, have also drawn on findings in neural science and others, such as Murray

[8] Rudolf Arnheim, *Film as Art*; the book was first published in German in 1933, the enlarged edition in 1957.
[9] André Bazin, *What is Cinema?*; and Siegfried Kracauer, *Theory of Film* (first published in 1960).
[10] Andrew Sarris, 'Notes on the Auteur Theory in 1962'; and V. F. Perkins, *Film as Film*, chapter 8.
[11] Sergei Eisenstein, 'Beyond the Shot [The Cinematic Principle and the Ideogram]'.
[12] Christian Metz, *Film Language*. [13] Christian Metz, *The Imaginary Signifier*.
[14] James Spellerberg, 'Technology and Ideology in the Cinema'.
[15] For instance, Currie, *Image and Mind*, Preface; and Carroll, *Mystifying Movies*.
[16] David Bordwell, *Narration in the Fiction Film* and *Making Meaning*.

Smith, on work in analytic philosophy to throw light on viewers' emotional responses to films and on how these responses are guided by film genres and narrative patterns.[17] Cognitive film theory is still a minority position within film studies, though its influence is growing and it has benefited the philosophy of film through its receptivity to a dialogue with analytic philosophy. Its interest in how viewers interpret films and emotionally respond to them has also helped shape some of the issues in the philosophy of film.

The contribution of philosophy to our understanding of film so far has not lain chiefly in identifying new issues or puzzles about film, which have been largely set by film theory.[18] Rather, philosophers have chiefly contributed by bringing greater conceptual sophistication to the debate. Notions of realism, language and interpretation are of central concern to philosophy in general, and it is unsurprising if philosophers have succeeded in identifying a great deal of confusion in how they have been handled in film theory. Philosophers have also addressed a wide range of issues that have been identified by film theory. In addition to those discussed in this book, these have included the tenability of the concept of non-fiction cinema and the phenomenology of cinematic space and time.[19]

Perhaps the most salient feature of the philosophy of film at present is that, while most analytic philosophers have rejected the psychoanalytic and 'film as a language' paradigms that are embodied within contemporary film theory, we are still at best in the early stages of laying out a comprehensive alternative theory. Indeed, as noted earlier, some philosophers, most prominently Noël Carroll, have argued against the very possibility of a comprehensive and correct theory of film, defending instead the development of piecemeal accounts of different aspects of film.[20] However, Wilson's *Narration in Light* goes some way to developing a theory of cinematic point of view and narration, and Currie's *Image and Mind* advances a comprehensive theory of cinematic representation. Currie's theory also draws

[17] Torben Grodal, *Moving Pictures*; and Murray Smith, *Engaging Characters*.

[18] An exception is the discussion of whether films can philosophise, a topic largely pioneered by philosophers; see, for instance, Thomas Wartenberg, *Thinking on Screen*.

[19] On non-fiction cinema, see Noël Carroll, 'From Real to Reel: Entangled in Nonfiction Film'; and on the phenomenology of time and space, see Alexander Sesonske, 'Cinema Space' and 'Aesthetics of Film, or A Funny Thing Happened on the Way to the Movies'. Other works by philosophers that adopt a broadly phenomenological approach include Noël Carroll, *Comedy Incarnate*; and Allan Casebier, *Film and Phenomenology*. Film music has also been discussed in some respects which I will not discuss here: see Jerrold Levinson, 'Film Music and Narrative Agency'; and Peter Kivy, 'Music in the Movies: A Philosophical Enquiry'.

[20] Carroll, *Theorizing the Moving Image*.

heavily on cognitive psychology, which has been influential on cognitive film theory. The approach taken in the present book is more systematic than piecemeal and is one which, though influenced by cognitive psychology, is based on an investigation of the role of the medium in conditioning features that cinema shares with other art forms, such as narration, expression and representation. Such a theory both reveals what film has in common with other art forms, and also show what distinguishes it from them, and why.

1.2 MOVING IMAGE TECHNOLOGIES

Cinema comes in many kinds. The oldest kind is object-generated moving images. Within the Hindu religious tradition, shadow plays have existed in Java since at least the tenth century AD, involving flat puppets, manipulated by thin rods, with their shadows projected onto a screen by a light source. Some of these shadow plays have been extremely elaborate, involving staging, for instance, entire scenes taken from the great Hindu epic, the Mahabharata. Object-generated cinema is closely akin to theatre, since it requires the physical presence of the object that is generating the images (the paper cut-out) and of the performers, who manipulate the puppets and speak their parts. It is thus ill suited to mass reproduction: each performance is unique and requires the presence of the performers. Moreover, the motion projected onto the screen is real, and not the apparent motion of rapidly changing still images, since the puppets are really moving.[21]

A more recent kind of cinema is handmade cinema. In 1833 the Zoetrope was invented, a rotating disk inscribed with individual drawings, which were viewed through slots in the circumference of the disk that appeared to make the drawings move. In 1877 Émile Reynaud invented a related device, the Praxinoscope, composed of a revolving drum with drawn images on the inside, viewed through a set of mirrors, so that the drawings seemed to move. From about 1882 Reynaud combined this device with a projector, eventually projecting moving images onto a screen using a long roll of hand-drawn images. From 1892 onwards in Paris he regularly screened these movies. Reynaud's problem was in reproducing them: since they were individually hand painted, they were expensive to replicate, and the paper

[21] Plato's parable of the cave in the *Republic* would also count as a kind of object-generated cinema, albeit one where the audience is suffering from an extreme delusion about the reality of the images projected. Ian Jarvie in *Philosophy of the Film*, p. 46, calls Plato's parable an 'Astounding … anticipation of the cinema'.

rolls on which they were painted were fragile. With the first public screening of a photographic film in December 1895 by the Lumière brothers, the commercial pressures increased on Reynaud and he started using cameras to make films. By 1900 he had exited the business, undermined by competition, and he destroyed his equipment in disillusion.[22]

Reynaud's career, though short, is significant for thinking about the philosophy of cinema. His films strikingly reveal the fact that movies are not necessarily photographic. Indeed, one can construct an alternative hypothetical history of film from Reynaud's brief career. It was bad luck that photographic cinema was invented so close in time to his handmade cinema. The problem of reproducing handmade films was in fact solvable: printing techniques, such as lithography, could have been used to make multiple copies of his films, so that we would have talked of 'film prints' in the sense that we talk of handmade prints, rather than in the sense that we talk of photographic prints. In this alternative history of film, photography would have played no role in cinema, and we would have thought of film as closely akin to handmade visual media. Indeed, digital cinema can be thought of as Reynaud's revenge on photographic film, since digital cinema need not be photographic at all (images can be and sometimes are entirely hand drawn using image editing software). It thus reactivates a possibility that earlier technological history seemed permanently to have obliterated. Reynaud's cinema also shows that certain kinds of cinema need not possess even the possibility of live action – the photographic recording of real people and events – but rather might be essentially animated. In Reynaud's cinema, lacking photography, live action could play no part: all of his films were and had to be animated films. So animation might have played a central part in the history of movies, unlike the relatively peripheral role it actually played, given the dominance of live action films, which were made possible by photographic recording means. (And note too that until the rise of digital cinema, animated films were standardly photographically based, since they were photographs of drawings.)

The remaining kinds of cinema are all mechanically generated. The most familiar is cinema based on traditional photographs, photochemical images. In the latter half of the 1880s and the first half of the 1890s several people had developed this medium – Louis Le Prince, W. K. L. Dickson (working for Thomas Edison) and the Lumière brothers. Its possibility rested on the confluence of several inventions: short enough exposure times to allow multiple exposures per second to be taken (silent films generally were

[22] Kristin Thompson and David Bordwell, *Film History*, p. 16; and Perkins, *Film as Film*, pp. 41–2.

recorded at 14 to 16 frames per second), the invention of a flexible, transparent film base (developed by George Eastman in 1889) and the adaptation of the Maltese cross drive mechanism (as previously used in machine guns and sewing machines) to move forward the film roll and hold it still for a fraction of a second. Most significant for our purposes is the fact that the photographs used were photochemical: they were made by exposing to light silver salts (silver halides), which darken in the presence of light. The salts were then fixed (to stop them further darkening when taken out of the camera) and developed (to enlarge the darkened salts and remove the ones that had not darkened). The resulting negative was then re-photographed to make a positive print. Thus the resulting original print is a second generation photograph – a photograph of a photograph.

Unlike object-generated cinema, but like Reynaud's, this kind of cinema does not require the presence of the depicted people and objects; and the motion shown, being generated by a sequence of still images, is only apparent, not real.[23] The appearance of movement, as with photographic film, was achieved through the psychological mechanisms of critical flicker fusion and apparent motion. The former occurs when lights are rapidly switched on and off, and at about fifty flashes per second the spectator seems to see a continuous beam of light; the latter occurs due to our tendency to see a set of stationary lights as moving when they are illuminated one after another in sequence (as in the display lights sometimes used outside theatres, where we interpret the sequence of flashing lights as moving).

The use of a photochemical process for generating images had important implications for film as an art and for film theory. This imaging process is ineliminably marked by its chemical origins: different film stocks, involving different kinds of chemicals, have different looks that matter aesthetically. For instance, fast film stocks, composed of fewer and larger silver granules, are suitable for shooting in low light and for recording fast-moving objects; since there are fewer granules, these kinds of film stock give a film a 'grainy' look. Given their sensitivity to low light, fast stocks were often used in newsreels, and Italian Neorealist filmmakers in the 1940s used fast stock to give their fiction films a documentary feel. In contrast, slow film stock is composed of many more, smaller film granules, and so can register far more detail in a scene with less grain; it was generally used in classical Hollywood cinema to show off the opulence and beauty of its sets and stars. So different film styles, through the constraints of photochemical processes, had a slightly different granular look. And the development of colour film, with

[23] See Section 2.3.1 for an argument that the motion of cinematic images is not real.

its use of colour dyes in association with silver halides, also produced distinctive aesthetic features: for instance, 1950s Technicolor films, using a dye-transfer process, could produce a deeply saturated yellow that other colour film stocks, such as Eastmancolor, were unable to emulate.

The photochemical process also had important implications for the way that film theory, with its focus until very recently on traditional photographic films, thought about cinematic representation and manipulation. Given the photochemical process, there are very limited possibilities for altering an image once taken: one can hand retouch these images, and use mattes (masks) to screen out part of the image, so that different images can be composited together. But when these kinds of changes are made, the process of photographing the photograph generally has to be repeated, and each new photograph leads to loss of detail and information (generational loss), so that manipulation of the image is generally at the expense of optical sharpness. Thus image manipulation has its limits. In contrast, it is easy to manipulate this sort of film by literally cutting one image from another and then gluing or taping it to another one: so sequence manipulation is simple. Hence film theorists tended to accord both realism to the content of the individual image, since it was relatively resistant to manipulation (a feature noted by realist film theory) and to celebrate the manipulative capacities of the medium in respect of editing (a feature stressed by the Soviet montage school of theorists, such as Kuleshov, Pudovkin and Eisenstein).

The other kind of mechanically generated cinema is electronic cinema, or video. Electronic cinema stores images not by photochemical, but by electronic means. Its roots go back to a patent filed in 1884 by Paul Nipkow, who developed the first prototype of a television, and the first successful television camera was invented by John Logie Baird in 1925. Video systems work by electronic scanning, at first of a set of phosphors on a camera pick-up tube, where the light value of each phosphor is read by an electronic beam. Then in 1969 the charge-coupled device (CCD) was invented at Bell Labs, a device that consists of a set of photosensitive diodes that convert light to an electric pulse, and the resulting array of values is stored in a capacitor. Video can employ analogue or digital images. An analogue image is one that is completely specifiable only by continuously varying values. (Object-generated, handmade and photochemical images are also analogue.) In analogue video, continuously varying signals are produced and recorded on some storage device, such as VHS tape. Its besetting problem is that the only way to edit it with any ease is to employ linear editing: rather than editing involving cutting up the tape, so that the original tape can be employed, it involves recording the tape again, thus making the

generational loss problem worse. Analogue video's great advance was that it allowed live broadcasting, since electronic processing is far more rapid than the slow processing of photochemical film. And its social impact through television was, of course, immense. But I will say little about it here, since its salient new features relative to traditional film are its capacities for live broadcast, for enhanced image manipulation and for a degree of interactivity. Digital cinema also possesses the first of these features, while taking the latter two to wholly new heights. So for the purposes of exploring differences between cinematic media, digital cinema is a more striking and useful contrast with traditional film than is analogue electronic cinema.

My main point of comparison with traditional photographic cinema, then, will be digital cinema. Digital cinema, like analogue electronic cinema, employs a CCD when it is recording real objects, but it *digitises* the output of the CCD, converting it into a stream of integers. Before addressing these technical features of digital cinema, let us look briefly at its history so that we can better understand its significance and range.

In discussing digital cinema, we need to distinguish between full and partial digital cinema. The cinematic process from planning to screening can be divided into five phases: pre-production, production, post-production, distribution and exhibition. Partial digital cinema is digital at one or more of these phases, but not at all of them; full digital cinema is digital at all of these phases.

Digital sound arrived in the 1980s. In respect of the visual dimension, digital cinema began in the post-production arena, where films were digitally processed and manipulated, usually as a way of creating special effects or animation. One of the earliest partially digital films was *TRON* (1982), which employed digital sequences to simulate a kind of computer game. *Jurassic Park* (1993) and *Forrest Gump* (1994) brought digital special effects to popular awareness, and George Lucas' Industrial Light and Magic studio created the effects in these and many other pictures. Digital colour grading or timing (the manipulation of film colour by digital means) was widely employed from the late 1990s in preference to chemical grading and digital editing gradually became standard through the popularity of the Avid editing machine. *Toy Story* (1995) was the first digital animated feature film, created by Pixar Studios (originally Lucasfilm Computer Development Division). In the production process, some of the first widely distributed films to be shot with digital cameras were the two earliest *Dogma 95* films, *The Idiots* (1998) and *The Celebration* (1998), and many independent filmmakers adopted digital shooting thereafter. In distribution and exhibition, 1999 saw four widely publicised digital