

A dialectic can be defined as the meeting of elements or processes (in our case, traditional forms of visual representation and new technological possibilities), the contradictions and tensions which arise, and then the possible outcomes or resolutions of those contradictions

Although one of these developments (immersive VR) is a relatively rare phenomenon and a largely experimental practice, while digital cinema is an increasingly familiar and popular form, they are related in a number of ways. Further, in concentrating on these two topics we are able to consider in more detail the dialectic between established traditions in vision and representation and new technological possibilities. However, before we do this it will be useful to remind ourselves of what the concept of a 'visual culture' holds and the role that media technologies, new or old, play in it.

## 2.2 VISUAL CULTURE

The term 'visual culture' invites us to take account of the specific roles that visual images, and visual experience more generally, play within a particular society or community, rather than considering only the content of images or their referentiality.

The study of visual culture also draws attention to the cultural, economic, technical and political institutions within which visual things are produced and circulated. To sum up, the study of visual culture includes paying attention to:

- 1 the signifying systems, the 'languages', skills and techniques that a culture employs in producing the visual, and its members' ability to read, decode or otherwise make sense of these signs;
- 2 the uses and values accorded to vision in a particular culture – consider how, in the West, to see something clearly is often thought to be a guarantee of the truth of a situation, while in traditional Islamic cultures, and at periods in Christian cultures, images and visions are seen to be seductive and unreliable illusions which mask the truth;
- 3 the power that the ability to see (in a way that is historically and culturally particular) confers upon the seer over the seen; this has been particularly noted in connection with the exercise of power by one social class, ethnic group, or gender over others;
- 4 the manner in which technologies (a telescope or microscope), media (a camera or a DVD player), and ideas or ideologies (that alert us to look for certain things rather than others) extend, amplify or selectively restrict the realm of the visual.

Some examples will be useful. First, by attending to the particular 'signifying systems, the "languages", skills and techniques' employed in producing images, we are led to see that the meaning or interest that a historically specific set of images has depends upon the kind of skills and expectations possessed by the viewer (their 'visual literacy'). Consider, for example, the use of mathematical techniques such as perspective and proportion (as discussed in 2.7) in the kind of painting that was new in fifteenth-century Italy. On the one hand, the development and use of such techniques could be said to reflect that period's new faith in human powers and capacities, and the challenge to mystical, religious or god-centred explanations of things. This tells us a great deal about the intellectual history of the period, and, in turn, it helps explain the production of such works. However, it does not explain their consumption. While some highly informed viewers and patrons of such art may well have understood, and therefore appreciated, the artists' use of such mathematical techniques in themselves, this does not adequately explain their broader legibility and interest to their contemporary viewers. A second argument, therefore, concerning the

legibility of these new mathematised images is that their construction reflected a more widely distributed social skill, amongst significant groups of fifteenth-century Italians, in judging proportions and volumes. This was a skill that was especially used in trading circles – a literacy in judging volumes and proportion that stemmed from the measuring of goods for sale and consumption in barrels, flasks and bales, and would therefore be familiar to anyone buying or selling grain, for example (Baxandall 1972: 86–94).

Second, the study of visual culture concerns itself with the distribution of powers of seeing. While clearly not a biological difference, nor even an absolute cultural difference, John Berger (1972) and Laura Mulvey (1973) after him, advanced arguments in the 1970s concerning the gendered distribution of vision: men look, women are looked at. Such conventional practices are reinforced through cinema and advertising, for example, and spill over into general cultural attitudes and debates concerning pornography, 'objectification' and the 'male gaze'. But such imbalances of power centred upon vision are by no means confined to the use of media. They are also found in the arrangements and institutions of everyday life. Michel Foucault's famous account of Jeremy Bentham's panoptic (wide – or all seeing) prison designs of the eighteenth century, for instance, led him to see them as apparatuses of surveillance and to conclude that 'visibility is a trap' (Foucault 1977: 200). In such prisons the inmates were always conscious that they could be seen by a centrally positioned guard whom they could not see; indeed, whom they could not always be sure was occupying their central surveillance point. However, the uneven distribution of the power of vision that was designed into this building conferred control upon the seer over the seen.

We might also consider the legal status that is accorded to certain types of image. Being 'caught in the act' by other persons, at the site of a crime, differs greatly from being caught on film or video, as the episode of Rodney King's assault by the LAPD makes abundantly clear (Nichols: 1994). As this case demonstrated, between the actual event on site and seeing it remotely, there is room for a whole world of plausible denial based on the technical capacities of image manipulation technologies. While the popular saying urges us to accept that 'the camera does not lie', we now have to deal with seeing the image of a deceased Richard Nixon seamlessly interact with Tom Hanks on film, Steve McQueen coming back from the dead to advertise cars, and digital image-processing extending the image-making possibilities of photography beyond the recording of an event to its very construction (Mitchell 1992: 23–57).

Finally, we can consider the role played by instruments of visualisation. Scientific visualisation, for example, depends on codes of visual literacy that are highly specialist and restrictive and yet embody considerable power and authority. How do you read an X-ray? Medicine now relies increasingly on a number of technical visual regimes (apart from the X-ray): CAT scans, PET scans, heart and respiration monitors, and so on. The employment of such techniques emphasises the distance between patient and agent in medical transactions (Kember 1995). Recently, given the advent of the human genome, scientific visual artefacts have acquired ever greater status as arbiters, not only of health but also of what is 'normal' in human forms, as they become new devices for locating genetic deviancy. The complex imaging techniques involved in such practices lend the scientific image an extraordinary currency and authority. Meanwhile, in training, education and public relations exercises, computer-generated diagrams and 'presentations' are increasingly used to lend weight and convey (but also to reduce and simplify) what it is 'essential' to see or know.

Clearly then, the study of visual culture is a broader field of enquiry than traditional art

For a discussion of Foucault's theory of panopticism see N. Mitchell, *An Introduction to Visual Culture*, London and New York: Routledge, 1999, pp. 50–51

By 'referentiality' we mean to the manner in which images refer to things in the world outside them (and the very idea that they do) – how, in other terms, an image depicts or re-presents an object or event existing in the physical world (including, of course, the manner in which such depictions may be combined by the image-maker to represent an imagined event)

2.7 VR as a medium of art: a quantum leap forward?

history, as it does not confine itself to the special range of images, historical and contemporary, that are produced and placed by a society as 'Art'. The proponents of this field of study find the conditions which led to the intellectual project to study a wider visual culture than the history of art in the mid-nineteenth-century. For it was from that time on that the mechanical production and reproduction of images and visual entertainments filled the Western world with images, visually symbolic objects, spectacles and sights on a wholly new scale. Alongside the use of photography (still and moving) we also have to take account of the advent of electricity and image projection, illustrated newspapers and magazines, advertising, design and packaging, increased leisure time, the growth of commodity consumption and display, public museums, artificial lighting, and the construction of new urban spaces and vistas. In such a world the unique and handmade images of art and craft were sucked into a 'frenzy of the visual'.

The images produced by the traditional technologies of painting and other autographic processes (drawing, manual and mechanical printing) of artists could no longer stand alone as discrete objects of attention for a minority of educated people. For the majority of people in Western industrialised countries, ideas and information came to be mediated through this fabricated, sensory environment of images, displays and sights. In such an environment any one medium or mode of visual representation no longer stood alone, feeding only on its own traditions. In such a situation, 'The meanings and effects of any single image are always adjacent to this overloaded and plural sensory environment and to the observer who inhabited it' (Crary 1993: 23).

Scenes of such visual overload, at least partly based in some of our everyday realities, are frequently presented in films such as *Bladerunner* (Ridley Scott, 1982). They are there equally a part of the experience of our cityscapes filled with revolving supersite hoardings, video walls, screens, neon, and traffic signs. In such environments, we must all of necessity become editors, jump-cutting from one piece of visual input to another, and becoming incapable of action if we step back to gaze upon the bewildering whole. In this sense, visual culture becomes a term to describe a modern social world in which the whole history of images is stored, reproduced and re-presented, while new image commodities are rapidly and continuously produced, circulated and consumed via sophisticated visual technologies. They mediate our experience and condition our ideas, relationships, and social lives at every turn.

However, the study of visual culture is similar to the history of art in at least one important respect. This is that it recognises that the effort to understand visual phenomena and artefacts requires special procedures and conceptual frameworks. We do not make, receive, or otherwise experience visual images, nor perceive the physical world, in the same ways as we experience writing or speech or that we read and listen. The visual has a different kind of power, and it engages our senses in different ways, than does the written word. Put simply, the visual has another 'language'.

With an explosion of imaging and visualising technologies in the early twentieth century (the industrialisation and penetration of photography and film into many areas of social life), the coming of TV and video, and another at the end of the century (digitisation, satellite imaging, new forms of medical imaging, multi-media, virtual reality, etc.), it has been suggested that visual culture is not just a part of everyday life but 'is everyday life' (Mirzoeff 1998: 3).

If we take this suggestion seriously, we encounter the question as to whether visual culture may no longer be just one aspect of culture but is, instead, the dominant or overwhelming form that culture now takes. If we consider the history sketched above,

which is seen to lead to this state (a history of image media and technologies coming to increasingly pervade culture and everyday life, from the mid-nineteenth century onwards), we are returned to the wider question about what causal relationship technology has to cultural change, visual or otherwise (Part 5) – a question that lies at the heart of current debates about new media.

### 2.3 VISUALITY

The study of visual culture includes, then, more than the study of images, however widely that category is cast; it also studies their meanings, pleasures, and our modes of consumption. Such consumption (literally 'taking into oneself'), and finding meaning and pleasure in that act, is precisely the act of seeing, the operation of vision. Within visual cultural studies, the term 'visuality' stands for the way that vision and the various modes of attention that we commonly identify – seeing, looking, gazing, spectating and observing – are historically variable. It reminds us that 'vision is an active, interpretative process strongly governed by communities and institutions, rather than an innocent openness to natural stimuli' (Wood 1996: 68). So, while the human eye, as an organ, may have changed little if at all, over millennia, there is evidence that the complex psychological and intellectual processes involved in experiencing the world through the sense of sight do change. We may say that the biologically healthy eye as a mere organ is 'innocent' and 'open' to natural stimuli, but the eye as one element in the complex process of visual perception, and all of the tasks given it, is far from innocently open. The capacity to see is educated and disciplined, habituated and interested, and primed to be alert or dormant in one way or another; ways that are specific to culture and history. Broadly speaking, there are different 'ways of seeing' (Berger 1972) at different historical times and within different cultures that are shaped by the ideas, interests, social institutions and technologies of an era or culture. From this perspective it is argued that the study of visual culture cannot be confined to the study of images, but should also take account of the centrality of the active practice of vision in everyday experience. As Irit Rogoff puts it:

In the arena of visual culture the scrap of an image connects with a sequence of film and with the corner of a billboard or the window display of a shop we have passed by, to produce a new narrative formed out of both our experienced journey and our unconscious. Images do not stay within discrete disciplinary fields such as 'documentary film' or 'Renaissance painting', since neither the eye nor the psyche operates along or recognises such divisions.

(Rogoff 1998: 16)

It is not hard to see that the flow and complex relations between kinds of images which Rogoff points to is likely to be accelerated and thickened in an image-biased world of networked and converging new media. Further, her examples of how the active, connecting, narrativising, remembering, and sometimes unconscious, 'cultural' eye all refer to material or fixed images (a film, a billboard, a window display). How much farther might the subversion of academic categories and divisions between kinds of image (a documentary, a renaissance painting) be carried within the contemporary environment and networked flows of digital images? To what extent, indeed, is digital culture the domain of the image in general; a predominantly visual culture?

Some theorists of visual culture are worried by the repetitive nature of this history. They worry that the study of contemporary visual culture is being 'subsumed under often unsubstantiated and metaphysical claims about contemporary cultural developments, operating under the banner of "postmodern", "stimulation", and even more recently, "prosthetic" culture'. While, at the same time, these current preoccupations look like a recycling, 'one time too many', of an older history; a history of the explosion of images, spectacles, displays and 'phantasmagoria' brought about by the new image technologies, entertainments, and consumer markets of the nineteenth century and the early twentieth (Evans and Hall 1990: 5)

These are the developments discussed in a celebrated essay by Walter Benjamin, 'The work of art in the age of mechanical reproduction' [1935] 1970

It has been argued that this new 'visuality' of culture calls for its own, new, field of study concerned with all kinds of visual information and its meanings, pleasures, and consumption, including the study of all visual technologies, from 'oil painting to the internet' (Mirzoeff 1998: 3)