Chapter X
Representing Space: The Pictorial Imperative

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ABSTRACT
The chapter is concerned with the relationship between the planar space of graphic representations and the world space that they represent. To achieve some coherence in thinking about the spatiality of different media such as film, television, and videogames, two opposed modes of composition, the configurational and the pictorial, are described, both historically and in current practice. The film theory concepts of diegetic and extra-diegetic are also unified with these two modes of composition. It is argued that the historical, developmental path to the spatiality of modern media suggests an almost irresistible pictorial imperative. So while we may at times regret the dominance of one particular mode of picture-making that, for some purposes, certainly has weaknesses in both informational and affective terms, in the end we must acknowledge its attraction and its power.

INTRODUCTION
This chapter is concerned with the relationship between the planar space of graphic representations and the space that they represent. The aim is to achieve some coherence or unity in thinking about the spatiality of different media such as film, television, and videogames; also, to trace continuities historically. It will be argued that the spatiality of modern media has discernible roots in much older forms of depiction, and that this historical, developmental path suggests an almost irreversible pictorial imperative. Examples are taken from painting, film, television, computer games, and other forms of computer graphics.

TWO GRAPHICAL MODES
There are two ways of organising graphical images of the world (to speak very roughly): the configurational and the pictorial. These two modes can be differentiated as follows. In the configurational mode, the elements are combined in the space
of the composition itself: the meanings of the picture arise from conjunctions in the image. For example, much factual television (especially news television) conveys its meanings by assembling disparate components on the screen, in a “hybrid reality composed of different spaces” (Manovich, 2001, p. 150). In the pictorial mode, by contrast, the elements are combined in a putative world space, real or imaginary, that is then depicted. In this category lie conventional pictures, photographs, virtual worlds, and most computer animation. The backbone of depictions of this kind has, for over 500 years, been the technology of perspective. Gombrich, somewhat tongue-in-cheek, characterised the two approaches as the pictographic and the photographic (Gombrich, 1999, p. 49).

It is assumed, in this chapter, that picture-making is an intentional activity. Whatever mode they adopt, picture-makers are not trying simply to copy the world. They are attempting to achieve certain objectives, objectives that vary by culture, subculture, and individual. Some of these objectives amount to consciously held intentions on the part of the painter, the filmmaker, games designer, and so forth, while others are embedded in the culture to which the picture-maker belongs; an idea pursued below in the context of visual culture. Very rarely, painters may have believed that their goal was simply to depict what they see. Ruskin famously instructed painters to “go to nature … rejecting nothing, selecting nothing” (Ruskin, 1851, p. 418), but this approach is highly unusual. In fact, even Ruskin only recommended simple imitation for young, inexperienced painters. As Gombrich pointed out (1980), the history of representation provides few examples of unselective monitoring of the pattern of light on the retina.

The space of the real world is commonly described as three-dimensional. This way of conceiving space is a culturally specific one, and it has been objected that the Cartesian system little resembles our experience of the world (e.g., Lannon & Lannon, 1989, p. 41). In this view, it might be preferable to use spherical polar coordinates representing how far up or down, right or left, the observer must turn, together with the distance from the observer of the various parts of the environment, in order to see or reach some part of the scene. However, Cartesian three-dimensional space has a good fit with depiction on a two-dimensional surface. Indeed, it is almost certain that the idea that space is naturally measured on three orthogonal axes would not have occurred without the prior achievement of perspectival depiction. Descartes’ model presupposes just those kinds of graphical mapping of world space to picture space with which our culture is familiar: a picture has two dimensions, comprising marks on a plane that is orthogonal to the line of sight, and the world has an additional dimension: that of depth or distance from the observer.

The pictorial surface itself requires consideration. Excepting qualities such as impasto brushwork, or the collage of items onto the surface of a picture, which might offer some slight extension in depth, the third dimension is, by definition, absent in pictures, and only appears through some illusion. The causes of this depth illusion vary. Though the discussion in this chapter is dominated by geometric perspective (such as the diminishing of apparent size with increased distance), it should be noted that there are many forms of depth cue; Gibson suggested that natural vision uses at least 12 (Gibson, 1950, 1979).

It is customary to regard the depth seen in a picture as lying beyond the picture surface, that is, on the other side of the image, away from the observer. From the seminal work of Alberti (1404-1472) in the Italian Renaissance, this notion is often referred to as the “Albertian window” (Elkins, 1994, p. 46-7): the picture surface is equivalent to a windowpane, the depicted world outside.

**FROM WORLD SPACE TO PICTURE SPACE**

It is worth looking briefly at the apparently obvious relationship between the world to be depicted and the depictions that are made of it.
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