

architectural history involves identifying the paradigms of the major movements in architecture and the patterns they promoted in response to what their proponents perceived to be contemporary problems. In urban design the twentieth century began with the City Beautiful, a Baroque approach to the geometry of cities, as the predominant paradigm (see Figure 3.7a). Almost all the entries in the competition for the design of Canberra (1911) were City Beautiful schemes. Contemporaneously the Empiricist (the realist) and Rationalist (the idealist) branches of the modern movement developed. The Garden City (see Figure 3.7b) and the neighbourhood unit (see Figure 6.10) exemplify the former; Tony Garnier's *Cité Industrielle* (c. 1910) and the generic urban design models of Le Corbusier (see Figure 3.7c) and the Bauhaus (see Figure 7.18) exemplify the latter. Throughout the twentieth century there were tensions between the two lines of thought that still persist (Buder, 1990; Ellin, 1999). There has also been the urban design of commercial pragmatism (see Figure 3.7e) and explorations with radical geometries (mainly implemented at the building scale: see Figure 3.7f).

The Empiricists tend to rely on precedents and the observation of what works and does not work as the basis for design thinking. There are many pasts that one can look at so there are divergent lines of thinking about the future amongst Empiricists. The small country town was one past; the medieval city was another. Similarly there are divergent lines of thinking about the future amongst Rationalists. Rationalists break away from past ideas (or, at least they claim to do so). Their models are based on various assumptions about imagined future ways of life. Simplistically, the urban design paradigms of the former school of thought are exemplified by organic plans and the latter by rectilinear geometries. The former face streets and the latter turn their backs to the street (see Ellin, 1999, for a fuller analysis of current directions in urban design).

All these paradigms held sway to a greater and lesser extent during the second half of the twentieth century giving way, partially at least, to post-Modernist ideas as the result of the severe criticism that Modernist design ideologies received in the 1960s and 1970s. These ideas are represented in the work of both the Neo-Rationalists and the Neo-Empiricists (see Broadbent, 1990; Lang, 1994; Ellin, 1999). The latter is best represented by the Neo-Traditional approaches to urban design that evolved into the New Urbanist (Katz, 1994) and Smart Growth models. Understanding these paradigms is important because they illustrate what many urban designers considered and consider the contemporary problems of their societies to be.

Each paradigm represents a worldview. Each represents a perception of the best way to go about addressing the urban problems of the world in the public interest. None address the question of how one goes about identifying problems and their potential solutions; they deal with products not procedures. The development of each paradigm, nevertheless, involves considerable creative thought. The difficulty is that each tends to become frozen into a formula of patterns that are applied without much thought because they are perceived to represent the 'best practice' and being 'up-to-date' – modern.