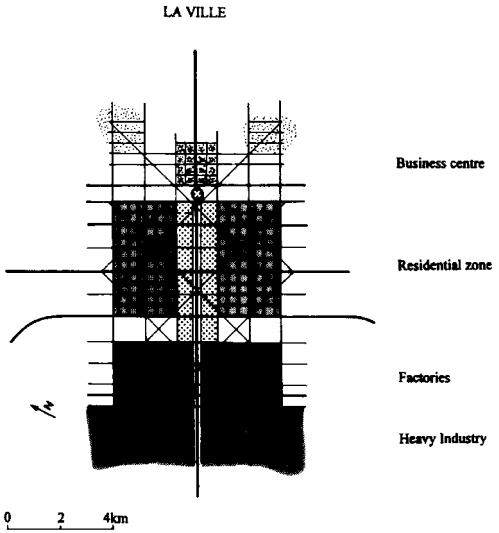

Figure 6.25 The radiant city (Le Corbusier, 1967). © FLC/ADAGP, Paris and DACS, London 1997

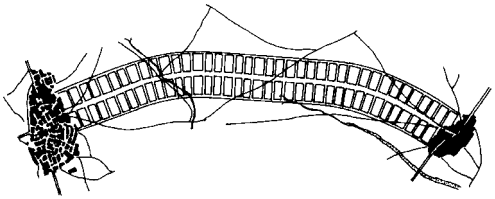

Figure 6.26 Linear city by Soria y Mata (Hugo-Brunt, 1972)

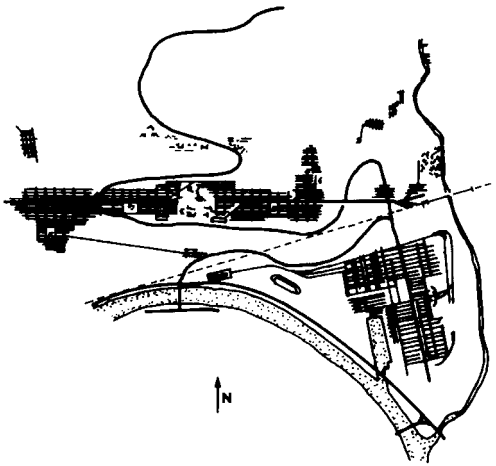

Figure 6.27 Cité Industrielle by Garnier (Wiebenson, undated)

elevated to a predominant position by movements such as Futurism and the writings of Le Corbusier (1946, 1947, 1967, 1971), particularly his project for the radiant city (Figure 6.25). Other landmarks in the development of this theme, the city as machine, are the linear suburbs for Madrid by Arturo Soria y Mata in 1894 and the Cité Industrielle by Tony Garnier (Figures 6.26 and 6.27). The linear suburbs of Soria y Mata ran between two major radials of the city and were intended to encircle the whole of Madrid. They were designed to provide cheap housing for the middle classes. The main feature of the proposal was a tree-lined boulevard along which ran a private streetcar. The streetcar connected the linear arrangement of house plots with transport routes to the city centre. Unlike the later suggestions of Garnier, the Madrid project was built and operated by the designer's family until the 1930s. Garnier's project for the Cité Industrielle was on a much greater scale. The city was to be served by a linear transport route with the land uses segregated and arranged in linear fashion along its length. Both linear urban projects, like the work of Le Corbusier, place great emphasis on the transport system. Le Corbusier's designs were primarily concerned with the glorification of the motorcar while Soria y Mata was developing ideas about mass transport.

The city, when thought of as a machine, is composed of small parts linked like the cogs in a wheel: all the parts have clear functions and separate motions. In its most expressive form it can have the clarity of a crystal or be a daring exhibition of rationality. In this form it is seen in the heroic or early modern work of Le Corbusier both in his architectural forms and monumental city planning projects (Figures 6.28 and 6.29). It

can also appear coldly functional with undertones of social dominance and state control. Miliutin develops the machine theme to an extreme in his ideas for Sotsgorod (Miliutin, 1973). He uses the analogy of the power station or the assembly line for the city. Miliutin also pays great attention to transportation and, like Garnier, separates the city into autonomous parts or separate land uses.

The city as machine is as old as civilization itself. The machine is not only the complex assembly line made famous by Chaplin in *Hard Times*, it also predates the nineteenth century and the industrial revolution. A machine can be as simple as a lever or a pulley or that great invention, the wheel. The concept of the city as machine can be found in the plans for the workers' villages in Pharaonic Egypt (Figure 6.30). The concept is based on the use of the regular grid plan which is used for ease of development. All the parts are repeated in a regular pattern. The Greeks when establishing a colony also used a standard pattern of development in long narrow blocks, per strigas (Figure 6.31). It is an easy and quick method of development. It has often been used throughout history for colonial foundations or the planning of a new city. Another important example is the Roman military camp. The cardo and decumanus, the main streets of the camp, cross at right-angles and connect the main gateways. The layout of the two main axes crossing at right-angles was used by the Romans over large landscapes as a method of land sub-division (Figures 6.32–6.34).

6.28

Figure 6.28 Building by Le Corbusier, Stuttgart
Figure 6.29 Drawing by Le Corbusier (Le Corbusier, 1967). © FLC/ADAGP, Paris and DACS, London 1997
Figure 6.30 Workers' village, Amarna, Egypt (Fairman, 1949)

6.29

6.30