distribution of settlements is a physical manifestation of a particular culture. Culture, as used here, is a broad concept covering the way we conduct our lives: the mores and values that infuse the way we think; the social, economic, political and legal structures that govern the way we behave and connect with group members, strangers and the environment, together with the technology which facilitates our activities. Following on from this premise and definition, the process of city building is a people's use of an accumulated technological knowledge to control a particular environment for its social, economic, political, aesthetic and spiritual purposes. It is the method learned and used by people to solve the total programme of requirements for city building. In summary, the city is an element of people's spiritual and physical culture and, indeed, it can be one of the highest expressions of that culture. Culture, however, is never static; it is in a constant state of flux. The world is becoming smaller, and there is increasing contact between people. Cultures are therefore changing at an increasingly rapid rate. If our actions are, to some extent, culture-bound then the ways in which the organic model is interpreted, developed and translated into the sustainable city will vary from place to place, from time to time, and in different ways in the same place. The remaining chapters of this book will explore some possible interpretations of sustainable city form.

CITY FORM

7

INTRODUCTION

This chapter examines the relationship between urban form and sustainable development. In particular, it outlines a typology of city forms. The three main archetypal urban forms discussed are: the linear city; the city set out in the form of a grid; and the highly centralized or inward-looking city. The form of each archetypal plan may be modified by the prevailing metaphor: the city as a replica or model of the cosmos; the city as a machine; or finally the city as an organism. The grid layout, for example, has been used to express physically both the cosmic and the machine city metaphors (Lynch, 1981). More rarely, as in Gracehill, it has also been used to express the community needs of the settlement built according to the organic metaphor. The Chinese model city uses a grid to relate the city to a cosmic structure (Boyd, 1962; Wheatley, 1971). In Chinese culture the city is designed as a microcosm of the universe, but complete in itself. In contrast, the grid, when used to give form to the city as a machine, emphasizes the autonomous

parts, each having a distinct function. Devices such as size, scale or the imposing axis are used to give emphasis to the dominance of the motor car or the world of business: they are never used in this context to mirror the universe. This difference can be illustrated graphically by the contrast between a Roman encampment or the project for a contemporary city by Le Corbusier with the Mandala, which sets out the Indian ideal pattern for city structure (Figure 7.1; see also Figures 6.25 and 6.32).

Ancient Indian city planning theory is based upon texts, Silpasastras, defining the methods of land sub-division which control the evil forces of chaos (Rowland, 1953; Dutt, 1925; Shukla, 1960). The Mandala, adopted to give form to the city, comprised a set of enclosing rings of development divided into squares, the most powerful point being the centre. Main movements, particularly processions through the enclosures, are clockwise following the apparent direction in which the sun moves in the northern hemisphere. Madurai (Figure 7.2), dating from the sixteenth and seventeenth centuries, follows the idealized pattern of the mandala. There are encircling streets, no radials as