

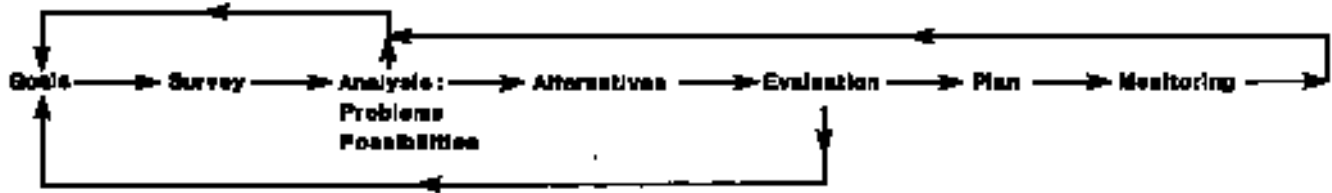
defining the problem which is the art of design. This, however, is not the full explanation of a creative design process. There is a school of thought, not now as popular as it once was, which appears to infer that good design is simply the result of applying the correct method. The 'method school', in its more extreme forms, suggests that the study of the problem, followed by the logical evaluation of all possible solutions, would necessarily result in the best solution being discovered for the problem under investigation. In complex design situations it is not always possible to define the problem from the outset, nor to collect all the relevant facts, nor is it possible to generate all possible solutions. This is to misunderstand the nature of most complex urban design problems and the process by which an attempt is made to change features of the environment. Most urban design problems are explored through an examination of solutions. An application of this style of design method may result in the redefinition of the problem which initiates a whole new round of investigation.

The design process is not linear but dialectical, taking the form of an argument between problem and solution. 'It is clear from our analysis of the nature of design problems that the designer must inevitably expend considerable energy in identifying problems confronting him. It is central to modern thinking that problems and solutions are seen as emerging together rather than one following logically upon the other.'<sup>24</sup> Following this view of design by Lawson it is clear that the nature of the problem becomes clear only as the process develops. Lawson also goes on to state that: 'Since neither finding problems nor producing solutions can be seen as logical activities we must expect the design process to demand the highest levels of creative thinking'.<sup>25</sup> Urban design, like any other design activity, involves creative thinking. It would, however, be misleading to assume that this does not apply equally in the field of scientific investigation. It would also be misleading to think that design

solutions cannot be generated through logical deduction from theory or indeed that problem exploration is not an outcome of standard design procedures. It is, however, reasonable to suggest that an important feature of the design process is the exploration of problem definition through the examination of solutions or partial solutions.

Fundamental to the urban design process is the generation of ideas and design concepts. Theory may be a productive source of ideas but it is by no means the only one. Ideas can be generated in ways which fall outside the scope of inductive or deductive reasoning. Artists and creative designers make use of analogy in their work. Analogy is a most useful tool for the creative designer. The use of analogy can be used to circumvent a mental block; a way of short-circuiting the design process. The alternative of waiting for inspiration to find new ways of seeing an old problem may be unproductive or at best time-consuming. De Bono suggests that: 'The usefulness of analogies is as vehicles for functions, processes and relationships which can then be transferred to the problem under consideration'.<sup>26</sup> Analogy is not the only technique available to the designer seeking ways of seeing problems and their solutions in a new light: ideas may be generated by a process of lateral thinking with its own range of standardized techniques. These techniques, along with the uses of analogy for concept formation, will be discussed in Chapter 5.

Urban design method is an iterative process, cyclical in nature. It has much in common with general planning method which was for some time based on Sir Patrick Geddes's dictum: 'Survey, Analysis and Plan'.<sup>27</sup> Others have since amplified the method outlined by Geddes inserting additional intermediate steps. Figure 1.5 illustrates one such interpretation of the essentially Geddesian method. As with design method the planning process is seen as cyclical having intermediate loops. For example, after an evaluation of alternative plans it may be necessary to redefine goals, or collect additional data, or to analyse the data in a different way. The



**Figure 1.5** The planning process.

urban design method suggested here mirrors the planning process with which it has so much in common. A book, however, is a linear presentation of material. Urban design method is therefore presented here as a simple progression starting with goal formation and ending with techniques of implementation. This ordered and orderly presentation cannot do justice to the richness and complexity of urban design. The linear presentation of the material is adopted for clarity and convenience.

Urban design method like planning method is related to the main theoretical schools of thought which explain the procedures of public action in planning, development and design. According to Hudson there are five major schools of thought within normative planning theory.<sup>28</sup> The five categories are: the synoptic, incremental, transactive, advocacy-orientated and radical traditions. The method advocated here for urban design is very much in the synoptic traditions of planning. It is appropriate at this point to discuss the suitability of this method for the delivery of sustainable development and environmentally sound procedures in urban design.

**Synoptic planning** has its roots in rationalism and utilitarian philosophy. As the method described in this chapter outlines, synoptic planning method proceeds from analysis to target definition followed by a search for alternatives and their comparison. Synoptic planning method in some cases, and followed here, includes the process of implementation with its techniques for the feedback of information. This text adopts a compromise position, following a course described as 'limited rationality' since common sense suggests the impossibility of

elucidating all possible alternative actions in any given situation. It may also be appropriate to follow Lawson's ideas, testing partial answers to the problem in dialectical fashion by confronting problem and answer.

**Incremental planning** has its roots in liberalism and theories about social learning. According to this theory it is not possible to define clear goals based on commonly accepted values. Only a limited number of alternative actions are considered in any development context and these differ little from the *status quo*. A good solution in incremental planning is not defined by the degree of goal achievement, but by how feasible implementation is with the means available and the degree of agreement among key decision makers.

**Transactive planning** places great emphasis on mutual learning and dialogue between those affected by planning. It seeks to build decentralized planning bodies which can give the population more control over the social processes that are affecting their welfare. According to Hudson, transactive planning is just as concerned with planning's effect on people's self esteem, values, behaviour and capacity for growth through co-operation, as with the instrumental consequences of the plan.<sup>29</sup>

**Advocacy planning**, as the name suggests, implies that planners become spokesmen and spokeswoman for various groups. The planner contributes to the development process by creating a situation with many competing plan proposals. The theory postulates that this model of planning provides for minority groups to be heard more clearly and that, as a consequence, the general public receives better information about alternative options.<sup>30</sup>