up' planning or design style. The dilemma which arises when rational synoptic planning is used for planning a city and a participatory approach is adopted for the design of a neighbourhood in that city is illustrated in the case study of the Markets Area, Belfast, mentioned in Chapter 6 and, in passing, in Chapter 1.[1] There is no easy resolution of this conflict between a synoptic and a participatory process of urban design. This remains an area of potential conflict which is perhaps best resolved pragmatically for individual cases.

The process involved in negotiating the brief is explained in Chapter 2. This is the starting point in the design process for many consultants in the field. A visit to the local authority to assess the potential for development in the area and the requirements placed upon a potential site is, or should be, an early investigation for a developer. For the local authority and its design staff, however, the preparation of advice for developers may be the result of a long process of planning investigations and site analysis. The design brief clarifies the goals and particular objectives for the development, together with a schedule showing the way in which the land will be used in the project. An agreed design brief at an early stage in the planning of a project can remove some of the difficulties associated with development control. An agreed strategy for development between developer and local authority holds out the prospect of reduced conflict and a more effective project implementation.

Chapters 3 and 4 outline the procedures and techniques used in the gathering and analysis of information which is directly relevant for the development project. Chapter 3 deals with site investigation, including the history and development of the site, townscape analysis, urban legibility, permeability studies and visual analysis. The precise nature of the project determines the scope of the survey and the emphasis given to individual aspects of the investigation. Of particular concern for sustainable development is the conservation of the built environment and the creation of a local environment of quality which is largely self-sufficient in terms of energy use and daily requirements. Surveys which explore the possibility of retaining existing structures and those which aim to understand the cultural heritage of the local community are of particular significance. Also important is the perception of the environment held by residents in the area. Attempting to gain an understanding of the image of a place and its legibility is a fundamental investigation for most urban developments. Appropriate development results from an understanding of present conditions, future possibilities, together with a knowledge of constraints which limit the nature and extent of any development. With this in mind the analysis of the problems of an area are sharpened by a study of its strengths, weaknesses, the threats it faces and the opportunities that may unfold for sustainable development.

Chapter 5 discusses the techniques used for generating ideas for alternative design solutions. Foremost amongst these is the art of developing appropriate analogies. The organic metaphor for the city is the most useful generic model for sustainable development. The eco-system is possibly the idea which generates the most practical suggestions for urban design and city planning. A number of case studies are described which illustrate the use of the organic analogy in urban design, including the eco-city in Norway, a landmark for studies in sustainable development. Participation is fundamental for sustainable development. A case study from Newark, Nottinghamshire, is analysed to illustrate the ways in which the public can be involved in the design of the local environment. The generation of design concepts has been the province of the professional designer. The invasion of this, the core of design, by the lay person poses some difficult questions for the professional working in this field. These questions include: whose opinion prevails in case of dispute? What if the popular view excludes from the design process others on grounds of race or religion? Who arbitrates in the case of rival communities with conflicting goals? What is the role of the designer if it is not design?

Some of the techniques used to evaluate plans for urban design projects are outlined in chapter 6. The material in the chapter is limited to those techniques of evaluation normally associated with the social sciences, such as cost–benefit analysis, the planning balance sheet, environmental impact studies and economic input–output analysis. Technical evaluations for urban design normally associated with the architectural and engineering professions, such as daylight, noise and wind studies, though important, cannot be adequately dealt with in this short book.

The physical, social and economic benefits of developments resulting from urban design projects benefit some groups in the community while the costs of that development may be imposed on other groups. Costs of development, often unaccounted and unrecognized, are sometimes imposed upon the environment in the form of pollution, the misuse of non-renewable resources or the destruction of valuable flora and fauna. The equitable distribution of development costs and benefits between generations and within the same generation is a fundamental consideration for those working towards sustainable development. One of the goals of sustainable development is the pursuit of inter- and intra-generational equity. Chapter 6, therefore, ends with a brief account of a case study from southern Italy. The case study assesses the distribution of benefits accruing from the Integrated Mediterranean Programme for Calabria. It showed quite clearly that the income generated by the Programme was far less for the poorer upland areas of the region than for the relatively more prosperous towns along the coast. Since the Programme was widening the income gap between the poor and the better off in the region, then according to this criteria, the Programme did not fulfil a central goal of sustainable development.

The implementation of urban design projects is the theme of Chapters 7 and 8. Chapter 7, a relatively short chapter, deals with communication. Ideas and schemes for development and city improvement remain dreams until they are implemented. Fundamental to the implementation of visions for the future is the ability of the designer to express those ideas with great clarity, imagination and enthusiasm, so that others in key positions in the development industry will give support to the vision. Chapter 7 outlines the tools available for expressing urban design ideas. It discusses, in particular, the style of report writing, effective public speaking, the use of drawings, three-dimensional material and the computer in the presentation of the urban design project.

Chapter 8 is also concerned with implementation and outlines project management techniques. The chapter stresses the need to consider implementation from the start of the project. Thought given to the setting-up of the project greatly facilitates implementation at the construction stage of the process. In some ways, Chapter 8 mirrors the whole process of design method outlined in Chapter 1 and also returns to emphasize the theme of Chapter 2 which considered that the early agreement of a broad development agenda gave a necessary overview of the complete development process which facilitates implementation. This chapter does raise the question about the control of the design process. Should control remain with the designer in the traditional architect–client relationship? Alternatively, is a further layer of management control so vital to achieve cost-effective environmental sustainability that a professional in this field is needed to organize the whole process for the client? The chapter raises this whole question of the composition of the design and development team and the roles adopted by its members.

Project management is goal-directed: it is the aggressive pursuit of the project vision by adopting the most direct strategy. The single-minded dedication of the project manager contrasts with the softer, gentler, non-directive approach out of which visions are born. The aggressive pursuit of ends also contrasts with attitudes more appropriate at other phases of the design process. There are times when