theory, particularly in organizational design and team building. Quantum leaps in computer technology and the simplification of its use for all professions have also benefited the general running of projects. Notwithstanding these great advances, the concepts and techniques of project management described in this chapter are often not sufficient for the overall task of managing projects successfully. The successful accomplishment of projects may well require detailed attention to other factors not addressed by the traditional project management approach.[7] The management of political forces; the timing of decisions, which is something quite different from the theory and practice of project scheduling; the role of effective negotiation; consultation processes, environmental issues; sustainability strategies are subjects frequently ignored by some pragmatic project management professionals. The new model currently emerging for the successful management of projects which may be more appropriate for urban design, focuses on broader areas which go beyond the more narrowly defined areas of 'project management'. The change of emphasis from 'project management' towards 'management of projects' requires this emergent professional discipline to address not only the traditional core project management topics such as scheduling, cost control, work breakdown structures and team building, but also the new dimensions of the subject such as strategy, politics, ethics, standards and the environment. Ultimately, these are the variables which enable a project to happen.

CONCLUSION

This chapter has examined some of the issues involved in the implementation of projects. Project management methods and techniques can complement the gentler aspects of design method discussed in this book, such as generating ideas, co-operation, participation, environmental protection and conservation in general. Implementation, of its nature, often requires a brusque approach overriding objections once goals have been agreed. This rather aggressive manner of working originated from war-time experiences. Martial terminology, reflecting a military origin, was transposed into business management culture which appears as: attacking the problem, the thrust of strategy, marshalling resources, the target, aim and even bullet points. Implementation cannot be neatly separated from the stages prior to the construction gangs entering the site. This chapter accepts this wider view of implementation and has therefore examined the subject through the eyes of the project manager. The dilemma facing the urban designer is how to achieve a productive marriage between the creative nature of the design process and the harsher realities of making a project happen within the constraints of market value, profit margin and value for money. Aiming at the right target, which in this book is defined as sustainable development, is more sensible than pursuing a misguided objective, however effective the strategy. Nevertheless, the hard-headed techniques of the project manager are needed to ensure delivery of the community's environmental objectives.

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CONCLUSION

9

This book is a discourse on the process of urban design for sustainable development and its method. It is not an exhaustive account of the techniques used in urban design. Where techniques have been included in the text they are used to illuminate the process and method. A short book of this type, inevitably, raises more questions than it answers. Readers are invited to consider for themselves some of the apparent contradictions and paradoxes raised by this text. The book makes no claim to be the definitive study of urban design method. It is an introduction to the subject and therefore requires the reader to consider, for himself or herself, the role and scope of method in urban design.

The terms method and technique were defined in Chapter 1. Urban design method was then set within a theoretical framework. The method advocated in this book assumes a synoptic approach to planning and urban design which presupposes a rationalist view of problem solving where alternative solutions are assessed against a set of criteria derived from the project goals and objectives. The method outlined in this book has its origins in rationalism and utilitarian philosophy; nevertheless, the process has been adapted to take account of the difficulty of seeking solutions to ill-defined design problems. Solving such problems involves a dialectical process of confronting problem and solution in a dialogue. In this iterative process problem definition is refined by posing part solutions. The method outlined in the book is based on a process which includes: the definition of goals and objectives; a survey and its analysis; a synthesis or the generation of alternative solutions; evaluation of alternatives; the process of implementation. It is recognized, however, that when dealing with design, this process is not linear, it is cyclical, possibly requiring several return loops to reassess the validity of design objectives, gather additional information, carry out further analyses and adjust the direction of the search for a solution.

The synoptic approach to planning and urban design is a 'top-down' process where goals and objectives are derived from a higher tier of authority, whether it is from the Government, a regional authority or a city council. The design or plan is organized so that it conforms with these larger-scale requirements. Public participation is central to sustainable development, which is a goal of urban design. Public participation, particularly where a degree of power has been delegated to the public, implies a decentralized administration and a 'bottom-