

Figure 11.9b). The design of the Sydney Olympic Games site as a whole was a valiant attempt at creating a 'green' environment. There are now ideas about the whole of Sydney (see Figure 11.9c).

The efforts to reduce energy costs in the Potsdamer Platz development has shown that much can be achieved in dense urban environments. Ken Yeang (2002) is exploring issues of urban design in tropical cities (see Figure 11.9d) and scholars at the University of Waterloo in Canada are amongst those looking at Arctic cities. There has been much interest in vernacular architecture and how it accommodates and is adapted to the climate of different locales. Equally important will be harnessing the powers of nature to heal the environment. Discovering the principles of how to use built environment patterns to channel breezes to flush the pollutants from cities, of how to use vegetation to cool tropical cities and reduce heat-island effects, and of how to recycle materials and wastes will all engage urban designers in the future. The engagement may well result in generic forms of cities that neither the Modernists nor the New Urbanists have considered. They will require cultural changes everywhere.

There are more explorations of ideas than action. Designing for environmental sustainability is not a concern that the marketplace is compelled to address. There are few immediate financial rewards in doing so. The issues will have to become public policy concerns translated into design controls and guidelines before they are seriously addressed by any of the professions in project design. Access to sunlight and daylight will remain important but concerns with how to obtain water and how to recycle waste water require more attention than is being given to them at the moment. Times are, nevertheless, changing. Cities such as Tokyo, Los Angeles, Singapore and Berlin are already creating legislation to encourage designers at both the urban and building level to design 'with nature in mind'. The knowledge of how to do so is becoming available even though the science is still weak.

Water Supply and Waste Disposal

The residents and/or users of all the developments described in this book, directly and indirectly, consume much water and generate much waste. If the entire world consumed as much water per capita as in the United States, there would now be a major supply crisis. The United States and Singapore are amongst the nations that import water. How do we deal with the design of cities so that less water is needed? Few designers seem to be considering the issue directly. All the case studies presented in this book deal with water supply and waste disposal in conventional ways.

There is some concern for how we use trees and other vegetation in landscaping cities in terms of their consumption of water (and the effect of their perspiration on local climates). The broader issues of water consumption have, however, yet to be addressed. No generic urban form or design solutions aimed at reducing water consumption as yet exist. When water becomes critically in short