and can be used to affect the physical nature of cities has long been of interest to urban designers (see Crane, 1960, for instance). But what is urban design about those decisions? And what do we mean by infrastructure when it comes to urban designing? Do we simply mean the roads and other site services, or does it also include facilities such as retail shops, schools, libraries and information technology networks? There is an increasingly heeded demand by ecologists that the infrastructure of cities include natural corridors of vegetation to decrease the heat-island effect and to increase the biodiversity of cities. Infrastructure in this book refers to: (1) elements such as streets and services that make a development possible, and (2) the investment in certain building types (e.g. museums, parking garages and schools) that are expected to have a multiplier effect on investments in their surroundings.

Plug-in urban design refers to the design and construction of the infrastructure of a development site to bind it into a unit and as an incentive for individual owner-builders or property developers to invest in new buildings. Alternatively, it can mean the plugging in of new infrastructure elements into existing built-up areas in order to bind them into a unit and boost their amenity level and thus competitive advantage. The cost of the new elements may be borne by the overall project developer, public or private, as represented in the master plan for a site or by the developers of individual buildings.

Plug-in urban design product types vary in the extent of the infrastructure provided. In terms of links, is it just the roadway or other means of access that are provided? Those components plus a surrounding fence or wall may do for the most basic of churchyards and cemeteries (see Figure 10.2). The facility needs of the visitors, mourners or tourists, are minimal. What is plugged into the paths of cemeteries by way of grave markers and mausoleums varies from culture to culture and from religious group to religious group. What is symbolically important is that the criteria for what makes an acceptable place to bury one's dead within a culture are met.

In designing the everyday environments for the living the question is: 'What range of products does plug-in urban design cover?' At one end of the financial scale we have publicly funded sites-and-services programmes that have the objective of providing the water supply, drainage, sewerage, latrines and road systems of a development in order to provide low-income residents with an incentive to build or upgrade their residences. Much suburban development for wealthier families is similar but much more generous. Sites may be allocated to other than residential uses through the implementation of a zoning ordinance based on a land-use plan. At another level of complexity we have the system of vertically segregated transportation links, walkways and decks, as in La Défense in Paris. Perhaps most importantly, in terms of this discussion is the idea of plugging in.

### Major references

Grava, Sigurd (2003). *Urban Transportation Systems: Choices for Communities*. New York: McGraw-Hill.