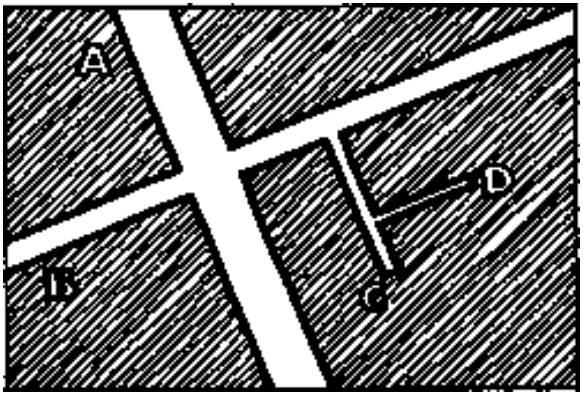

Figure 3.35
Hierarchical layouts reduce permeability: here there is only one way from A to D and you *have* to go along B and C, never A–D directly, or ADCABCD, but *always* ABCD. Hierarchical layouts generate a world of cul-de-sacs, dead ends and little choice of routes.

occupants of surrounding buildings. Such streets in the terms used by Jacobs are 'self-policing'.[18] Complete segregation of pedestrians and motor vehicles, when carried to extremes, can in some circumstances dramatically reduce the activity on streets and, by default, can place control of the environment in the hands of the unlawful. Some streets which are heavily trafficked by pedestrians throughout the day are clearly a sound proposition for pedestrianization. At the other extreme are the urban motorways which are not the place for pedestrians. There are, however, a whole range of city streets which fall into neither of these categories. The tree-lined boulevard is an elegant way in which road planners in the past have arranged for pedestrians and vehicles to use the same street. The *woonerf* pioneered in Holland aims to combine pedestrian and vehicular movements in the same neighbourhood street. In the case of the *woonerf*, vehicles move at speeds which are compatible with walking and cycling. A permeability study includes some estimate of current pedestrian, cycling and vehicular movements, noting blind or dead spots with little activity and points of pedestrian–vehicular conflict. Residents can provide invaluable information about trouble spots and 'no-go' areas where violence is likely to erupt.

The frontage between public and private space is the mechanism for ensuring privacy while maintaining a friendly and safe environment on the public street. The building frontage performs this function using both visual and physical means. In most places in the city there is a gradation between public, semi-public, semi-private and private space. The interface between the privacy of the inner home and the public space of the street is the building frontage which contains the semi-public and semi-private spaces. Security along the street is maintained by views from the front garden, balcony, lace-covered bay window and porch. Many access points along the street frontage increases activity and, together with the visual links, enrich the public scene. The permeability study concludes with an analysis of street frontage, noting those areas where there is little or no visual or physical contact across the building frontage and also noting places where it may be possible to enrich the street scene and increase levels of permeability between the private domain and public realm.

VISUAL ANALYSIS

The visual analysis has three main parts: a study of three-dimensional public space, a study of the two-dimensional surfaces which enclose public space and a study of the architectural details which give to an area much of its special character.

There are many books dealing with the delights and composition of public space, the classic being the seminal work of Sitte.[19] It is not the intention to repeat this well-worked subject matter but to outline the main techniques used in the survey and analysis of external public space. Urban space is appreciated in serial vision as the observer moves around the city.[20] The most common tools for recording spatial composition are the camera and the three-dimensional perspective drawn from normal eye level (Figures 3.36 and 3.37). For this form of analysis to be useful, the viewpoints must

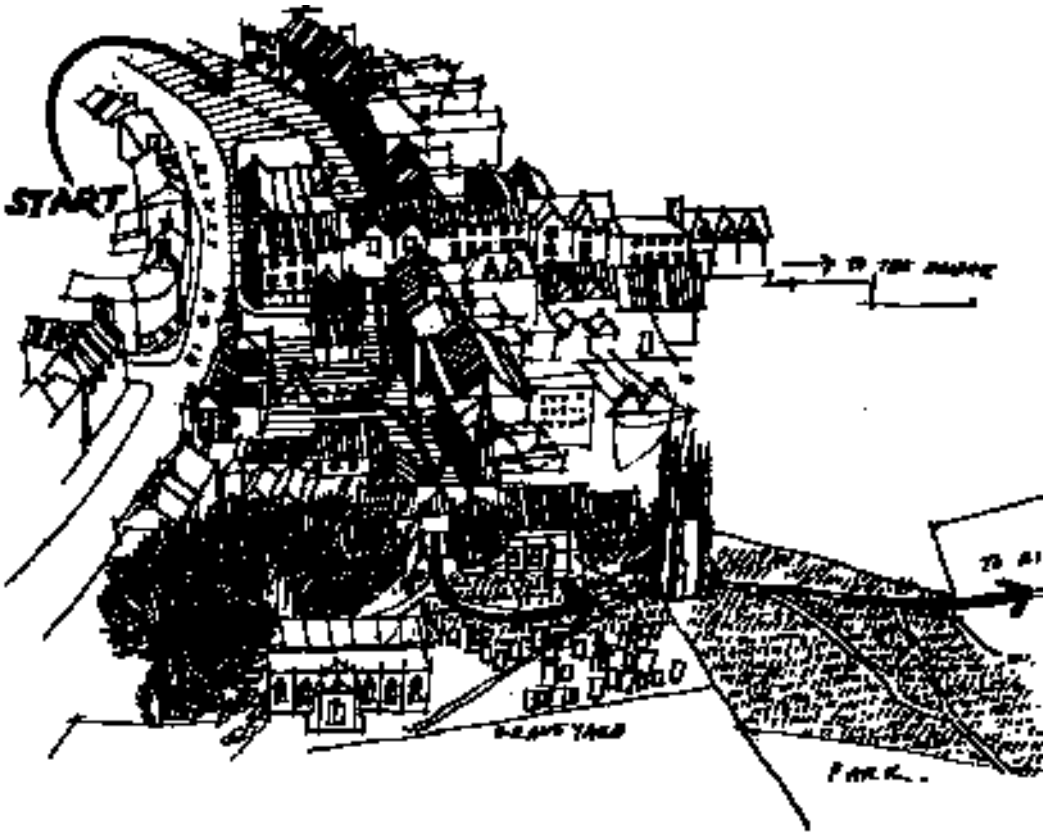

Figure 3.36 Townscape sketch by Cullen.

be carefully chosen along pathways through the area. Particular views are chosen to illustrate dramatic changes in composition, such as the point of emergence from a narrow passage into a bright and expansive public square. It is argued that it is a series of such dramatic pictures as they register on the mind which makes a pathway memorable. This technique because of the compositional nature of each view which is chosen for the record is, of necessity, picturesque, exaggerating the charming aspects of the study area.

The two-dimensional map has long been used to show the form and distribution of public space. Of particular interest for urban design is the map of Rome by Nolli in 1748 (Figure 3.38). On this map the streets and squares are voids and the buildings solid black, with the exception of the main public spaces or semi-public spaces within buildings which are also depicted as voids. Nolli's map, therefore, shows the external public spaces and their connection with the main internal spaces of churches and other buildings used by the public. This is a most useful technique for recording public space in the city then analysing its distribution and connection. When reading maps the eye is accustomed to seeing the spaces between buildings as voids and the