where improvements are possible and provides a basis for discussing the topic with members of the public.

According to Bentley *et al*., 'Both physical and visual permeability depend on how the network of public space divides the environment into blocks: areas of land entirely surrounded by public routes'.[15] Clearly, an area divided into small blocks gives greater choice of routes than one divided into large street blocks. Contrast The Lace Market and The Victoria Centre, both in Nottingham (Figures 3.14 to 3.16 with Figures 3.32 to 3.34). The Victoria Centre, being in private ownership, has a system of internal streets which remain open to the public largely at the discretion of the owners. Access to these internal streets for pedestrians and therefore through the development is limited to four main entrances. The entrances to shopping malls like The Victoria Centre in Nottingham clearly indicate that the citizen is entering private property: these areas are not public streets. One of the problems facing future generations of designers is how to break down the scale of development such as in The Victoria Centre and so increase accessibility in the public realm. A rough guide for an acceptable level of permeability is a street layout with street blocks somewhere between one acre and one hectare in area.[16] Such a layout would mean that street junctions would occur at centres of 70 to 100 m. The pattern of street blocks is therefore one measure of permeability and accessibility; it is also an indication of the degree of flexibility which the user has in moving round the area.

Figure 3.33 Entrance to The Lace Market, Nottingham, past Weekday Cross.

Examining the street layout to determine the level of choice and variety of route for moving from place to place will indicate the degree of permeability in the neighbourhood. Hierarchical layouts, based on cul-de-sac development as opposed to the traditional layout of small street blocks surrounded by public roads, have a tendency to reduce choice of route. 'Hierarchical layouts reduce permeability: in the example below (Figure 3.35) 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 culs-de-sac, dead ends and little choice of routes.'[17] It should be noted, however, that the cul-de-sac development in traditional Muslim cities serves well the cultural norms of privacy and family seclusion which are of paramount importance for that society. Now that there are many Muslim people settling in Western cities this is not a problem peculiar only to distant lands. Cul-de-sac development also provides great security for residents. With cul-de-sac development there are fewer escape routes, that is, less choice for the mugger, rapist or burglar. Designing an environment with a high level of permeability for the law-abiding citizen has to be weighed carefully against the possibility of establishing areas which give freedom of action and a greater sense of security for those breaking the law.

Public safety on streets depends primarily on the intensity of use which, for this purpose, is probably more important than the physical form of the street. Streets are safer if heavily used and if overlooked by

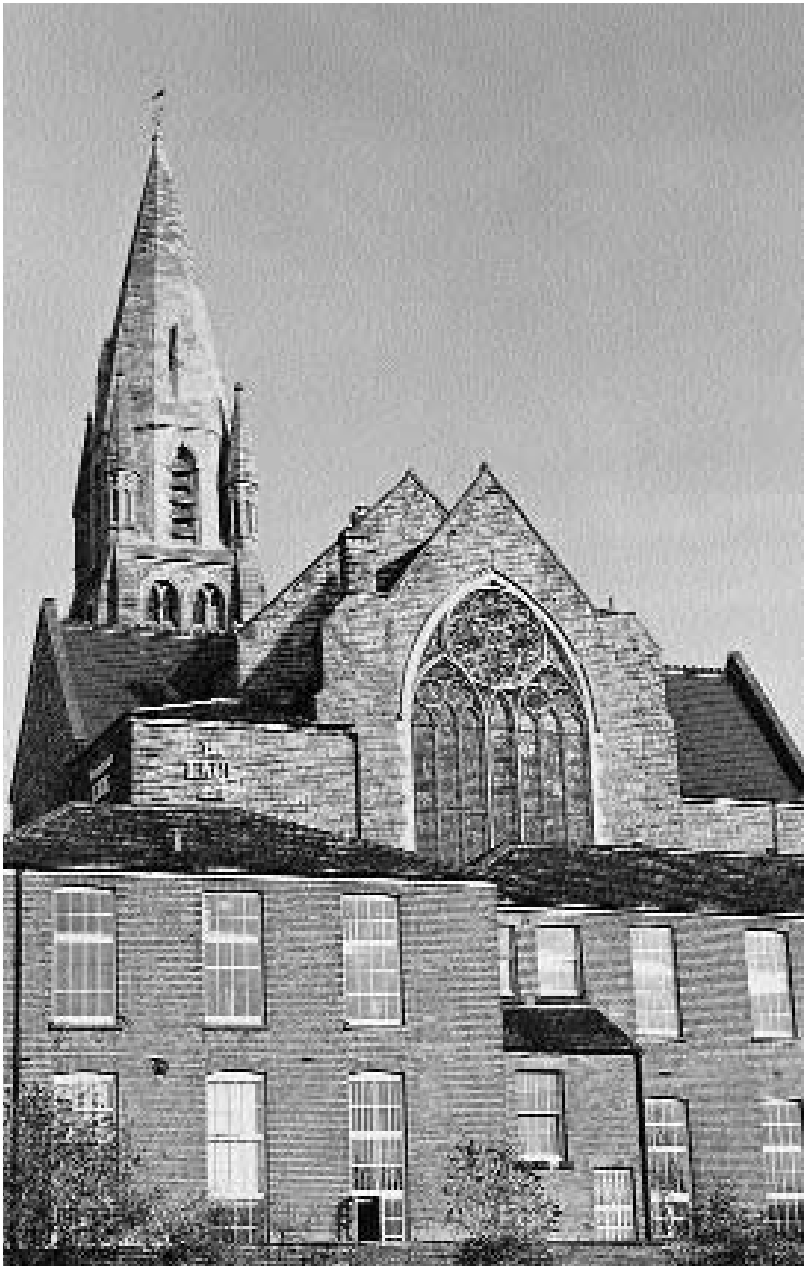

Figure 3.34 The Lace Hall marking the entrance to The Lace Market, Nottingham. Since the writing of the manuscript for this book The Lace Hall has been converted into a fashionable bar and restaurant (Pitcher & Piano), and a visitor centre established near the weekday cross. See also page 75, Figure 4.8.