

Figure 6.38 Derry/
Londonderry, Northern
Ireland

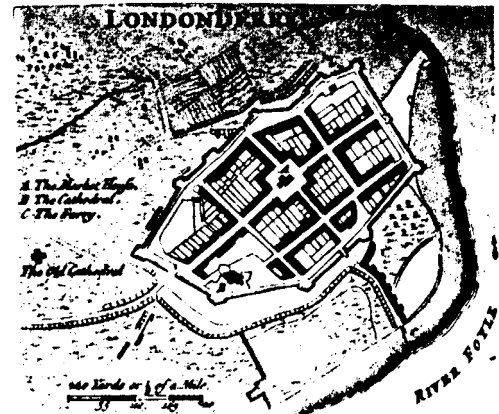


as a machine can be analysed in terms of its parts and therefore it can be structurally improved in sections. The methods employed in the practice of city development include: the techniques of the traffic engineer; the

Figure 6.39 Derry/
Londonderry, The Diamond
(plan from Camblin, 1951)



estate management and land assembly skills of the surveyor; and the technical codes devised, initially for public health purposes, by the sanitary engineer. This model of the city, in practice, results in the mechanical application of building codes and regulations, the enforcement of land use zoning and other planning standards, the uncritical use of mathematical modelling for the solution of transport problems and the advocacy of standardized solutions to building structures. The reasons for city development under the influence of the machine aesthetic, on the surface, appear to be ethically sound. The goals of development would include good access, choice, economic and technical efficiency, quality of life including good health, but above all else the package would emphasize freedom. As motives baldly stated, none could be challenged. Many of the motives which underpin the present mechanistic vision of the city, however, will require to be interpreted and redefined for a world governed by the quite different ethical notions of sustainable development with its emphasis on inter- and intra-generational equity. For example, freedom of the



individual, while still important, will be qualified in the light of commitment to the community, to future generations and to the environment in general. Choice will have to be defined in terms of the limits imposed by the environment, while access will be determined not by the ability of an individual to pay but be more closely related to the needs of the community. The machine model of the city emphasizes the parts rather than the whole, the individual as opposed to the community; it emphasizes the components of urban form rather than the city as a whole. It is for this main reason that the machine is not an appropriate metaphor for the sustainable city. The metaphor for the sustainable city must be holistic; so too must be the methodology for problem identification and the design concepts used to solve the urban problems.

The third metaphor for the city is the analogy of an organism – the city being seen as organic and composed of cells. According to this metaphor the city can grow, decline, and die. This particular way of looking at the city is associated with developments in the biological sciences during the eighteenth and nineteenth centuries. At one level it can be seen as a reaction to the worst features of the industrial revolution and the rapid growth of cities. It is probably this view of the city which has infused the thinking in many planning schools. In contrast, the dominant theme of architectural education has been the machine aesthetic. This, of course, is a great oversimplification but it is true to say that members of the planning profession have been educated in the mould of Howard, Geddes, Mumford and Olmstead with Sitte, Unwin and Perry giving architectural form to those ideas. Architects to some extent have been more influenced by the writings of Le Corbusier, and many of the other great

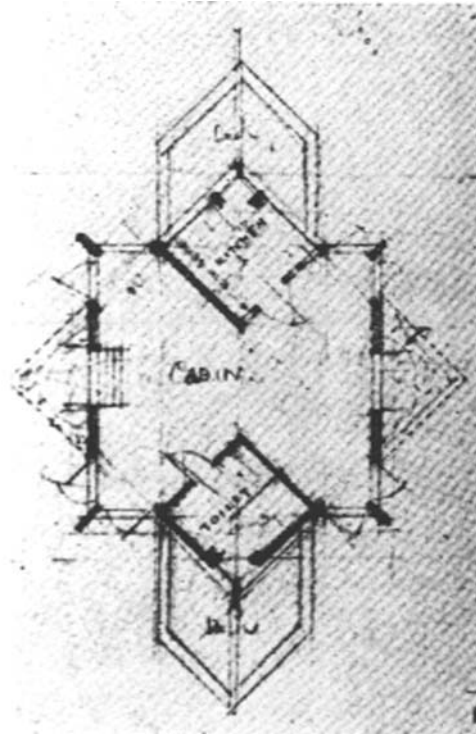


Figure 6.40 House by Frank Lloyd Wright, plan (Lloyd Wright, 1957). © ARS, NY and DACS, London 1997

masters of the Heroic Age of Modernism have also been captivated by the romance of the machine and high-tech solutions to urban problems. Architects also write about organic order, the order of nature as it applies to urban or civic design. A cursory examination of Frank Lloyd Wright's work in the early part of this century sets a pattern for an organic architecture which appears wedded to the landscape (Lloyd Wright, 1957) (Figures 6.40 and 6.41). This particular strand of architectural theory was later taken up by Alexander in *The Oregon Experiment* (1979): '... natural or organic order emerges when there is a perfect balance between the individual parts of the environment and the needs of the whole'. This organic