Other manifestations of the modern movements in architecture and planning were developing in Russia early in the twentieth century. Early in post-revolution Russia the discipline of architecture was examined to see if it could serve the needs of the proletariat rather than the expensive taste of the aristocracy or wealthy bourgeoisie. Two main groups with conflicting ideas emerged: they were, the 'urbanists' and 'de-urbanists'. The urbanists were advocating high-rise, high-density development: '... a network of enormous communal houses with integrated collective services' (Houghton-Evans, 1975). The de-urbanists, in contrast, suggested communities of houses dispersed throughout the countryside. The aim of the de-urbanist was to end the distinction between town and country: 'The agricultural areas must become centres not only for producing but also for processing raw materials. ... Rural housing ... is a prerequisite of production. ... The transfer of manufacturing industry to the sources of raw materials, the integration of industry and agriculture, is likewise a new condition of residential planning and population distribution. But the new planning raises the problem of cheap housing built of local materials.' The view of the de-urbanist is holistic, the city is seen in its total environment: 'We must stop designing piecemeal and start to plan whole complexes, to organise the distribution of production and the territorial distribution of industry and housing over entire economic regions of the Soviet Union' (Kopp, 1970). Many fine thoughts are contained in the manifesto of the de-urbanists; some no doubt are in tune with the ideas being put forward in the name of sustainability. The developments in what was the Soviet Union did not, however, live up to the high sounding ideals of the 'de-urbanists'. The agenda of the urbanist was politically more acceptable, with state control and planning resulting in a dehumanized urban development. The planned exploitation of the environment to sustain the process of urbanization has also led to environmental degradation on a grand scale: a degradation which equals anything the free market of the West has achieved.

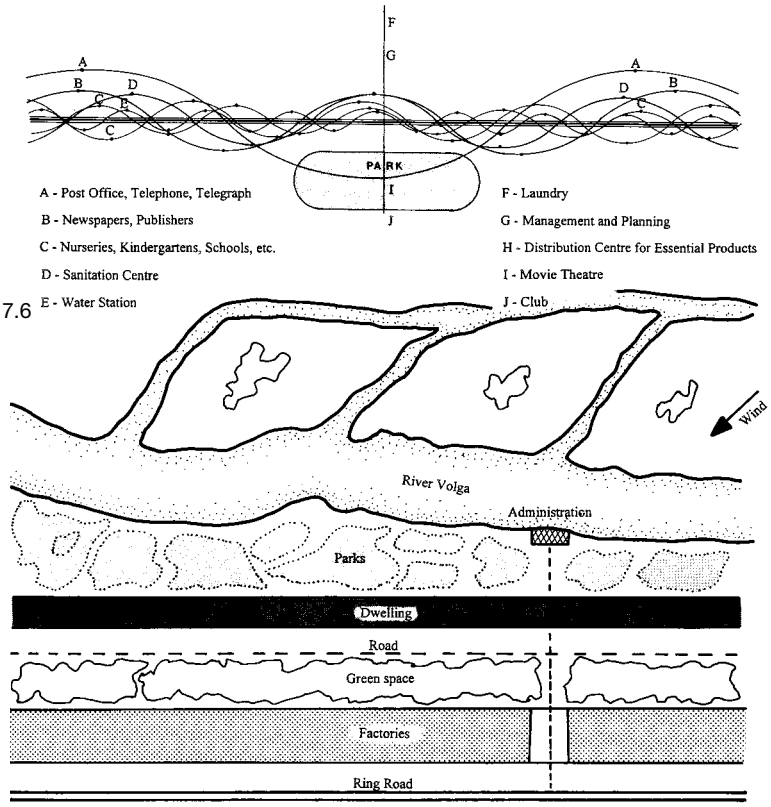
A significant contribution made by the de-urbanist was the development of the idea of the linear city. Miliutin, in his writings and in his inter-war plan for Stalingrad, used the linear concept as a flexible extensible form for the city and its region. According to de-urbanist theory, which Miliutin followed, populated areas were to be associated with a major road; dwellings were to be located in the countryside within easy reach of urban facilities dispersed in a ribbon about 300 metres wide and arranged on either side of the road. Each facility was planned to occur at different frequencies depending on the population required to support the service (Figures 7.6 and 7.7).

MARS PLAN FOR LONDON

The linear city concept has occupied the minds of many urbanists since Miliutin. The Modern Architectural Research Group, who became known as MARS, were interested in applying the ideas of CIAM (*Congrès Internationeaux d'Architecture Moderne*) to conditions in Britain. They produced a master plan for the rebuilding of London after the destruction caused by the Second World War. It became known as the MARS Plan for London. The MARS group saw London as a deteriorating factory which was technically inefficient. MARS proposed a more efficient structure based upon the

analysis of the problems of movement in a great but congested metropolis. They also saw the problem as including the provision of homes, work and the maximum possible number of amenities, including adequate open space for the population. The approach was one of problem-solving, that is, discerning the salient characteristics of the problem, London, then devising: '. . . a master plan, a grid on which the town can be developed' (Korn and Samuelly, 1942). The plan was not based on a 'grid' in the conventional sense in which the word will be used later in the chapter. The MARS Plan for London was based on a series of linear forms arranged around the transport network. Each structural unit, though in practice constrained by existing development, was nevertheless, as a theoretical form, capable of expansion (Figure 7.8).

The MARS concept for the transport grid is deceptively simple. The reality, however, based on the rational movements of people and goods, led to the development of complex systems of interchange between great transport highways. An aim of the plan was to increase the importance of public transport: 'With an excellently organized public transport system, the number of people going to and from town in private cars will be few, being confined to certain professions. Other private cars would serve mainly for pleasure' (Korn and Samuelly, 1942). The group were also advocating the design of highways for use only by public transport. These bus-only highways would be without interruption of crossings, and the service was to be strictly timed by schedule. Here in Britain in 1942 was the origin of the idea for an integrated public transport system of rail and bus. Furthermore, the urban form was designed to give equal importance to 'organized transport', or public vehicles, as was allocated to 'flexible transport', or the private car.



7.6

7.7

Figures 7.6 and 7.7 The linear city of Miliutin (Kopp, 1970)

The MARS plan envisaged residential belts 1.5 miles wide by 8 miles long. The housing density was to be fifty-five persons per acre, which is similar to densities being discussed at the moment. 'Green wedges' extending from the periphery of London to the city centre were to provide sites for recreation, health and education. All inhabitants would be living within walking distance of both borough centre and landscaped areas. The MARS group