

COMMUNITY SCALE		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII		
EXISTIC UNITS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	MAN	ROOM	DWELLING	DWELLING GROUP	SMALL NEIGHBOOD	NEIGHBOURHOOD	SMALL TOWN	TOWN	LARGE CITY	METROPOLIS	CONURBATION	MEGALOPOLIS	URBAN REGION	URBANIZED CONTINENT	ECUMENOPOLIS
SCALE	NATURE														
	MAN														
	SOCIETY														
	SHELLS							4		1/5					
	NETWORKS							4		2					
SYNTHESIS															

DENSITY, INTERVAL AND MEASURE

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Most people in industrialized Europe now possess, or expect to possess, a good deal of domestic equipment—hot water and some central heating, a clothes washing machine, a refrigerator, and one and a bit motor cars per family. The ownership and availability of such mechanical equipment and personal transportation, after rising steadily for many years, is now beginning to level off into something approaching stability. So too the newer spatial patterns resulting from the use of such equipment are now beginning to approach a recognizable equilibrium.

Fig. 1. Roehampton Estates before.



People owning motor cars, for example, expect to use them and store them at their convenience. In certain places—office, shopping, high density industrial, educational and entertainment areas—this is, of course, extremely difficult. But the people living in the rooms and apartments common in such areas are people of a specialized life pattern (e.g., actors, businessmen, gallery directors, prostitutes, students, etc.) or are perhaps essential servicing personnel with odd hours of work. They accept annoyances such as restricted vehicle use, less privacy, more noise and stress, and so on. Everywhere else, however, even immediately adjacent to those specialized areas, people demand more. They expect not only to be able to use and store their cars at will; they expect to lead a decent *family* life as well.

This recently achieved high level of domestic equipment and consumption has produced radical changes in the traditional domestic scale. The private motor car is not the only disrupting factor. The new level of living means more waste materials, particularly packaging. Refuse disposal vehicles must have near universal access, as must the usual delivery and service vehicles. This means that the human animal is now called upon to share his territory: share it with a multitude of much larger metal animals—cars, delivery vehicles, service trucks, and so on. Because these metal animals require a larger scale of operation, suddenly *the territory seems over-occupied*. This sudden unexpected over-occupancy is obvious when one compares current views of the Roehampton Estate with the dreamy empty look of the just-occupied photographs in all the books. Then too, the metal animals are not only bigger, but a good deal noisier and more violent. In effect, the “tail” of the human family has gotten larger; as a result *the family must have more territory*. (Fig. 1, 2).

High density propagandists have long said that only densities of upwards of 300 persons per acre can support certain desirable things such as play decks, local shops, and fully segregated movement.

This may be true, but the human animal knows what happens when it is surrounded by a thousand snoring heads. The air is somehow used up, the circulation spaces are over-used and under-cared-for, and plants renew themselves less actively. The environment gets exhausted. The human animal cannot be kidded by clever arrangement into believing that it has enough space when it has not.

The sense of having enough space can be reasonably maintained not in the 200-300 p.p.a. range (as we once claimed in our Golden Lane studies) but more likely only in the 100-150 p.p.a. range, i.e. half the old assumed "good" city density.

"Having enough space" means dwellings arranged with substantial vehicle-free open space "belonging" to each dwelling; space usable for children's play and private gatherings, as in a conventional "garden." It means vehicular servicing and parking taking place in an unsqualid place, and without the large animals intruding upon the people's space. If the vehicle space is not to become squalid, it demands adequate turning space, good air and good natural "social supervision." Only these elements will insure a reasonable standard of cleanliness and day to day maintenance. In practical terms, this means a goodly amount of open-to-the-sky space.

The fashionable high density "megastructure" (a complex of houses, shops, roads, parking, public transport inside one "big building" has an in-built squalor in its servicing areas because *there simply cannot be enough supervision and cleaning to go round*. Rain, sun and wind, on the other hand, are free and fairly regular. A high density "megastructure" builds in inflexibility, for the building volumes are locked in with the circulation and servicing systems. This is at odds with common sense. More separation of activities, lower density, and more independence for vehicular movement and services would allow easier articulation of function and easier, sweeter change. We have long regarded the contemporary Ideal City as relatively loose, with an infra-structure of urban motor-ways, and with points of intensity scattered throughout the urban area. The road system, because of its scale and permanence, becomes the "fix"—the identifying, cohesion-creating thing structuring the urban region, functioning as the Seine once functioned when Paris was smaller, as the Acropolis in ancient Athens and the canals in old Amsterdam once functioned. What remains to be done is to establish the interval of these "points of intensity," the locations of the major stations and interchanges for the "heavy" public transport systems (rail, monorail, trailer-bus, trailer-tram, etc.) and the start points for the mini-systems (telecanape, mini-bus, mini-rail, etc.).

In a city of 10,000,000 an appropriate measure

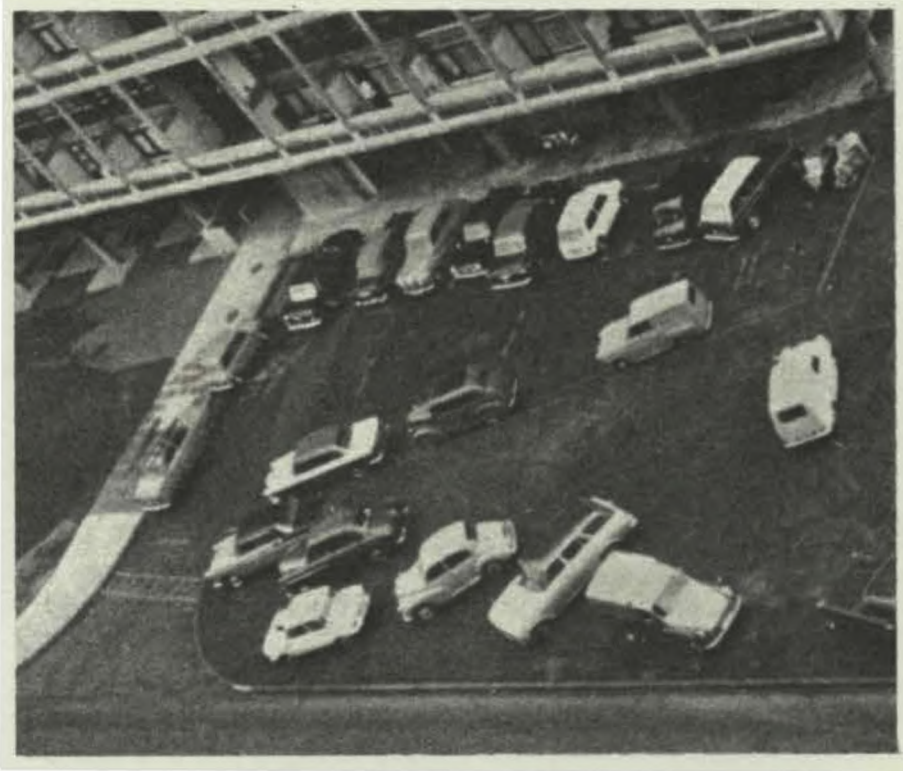


Fig. 2. Roehampton Estate after, showing increase in parked automobiles.

would be three miles apart, giving intervals as follows:

Intensity point (I.P.) to intensity point on minirail, 50 m.p.h., about 3½ minutes.

Passing on urban motor-way, 40 m.p.h., about 5 minutes.

I.P. to I.P. on stopping railway, 25 m.p.h., about 7 minutes. (Fig. 3).

The major events of the city could be distanced out on this three mile measure. This distancing would maintain flexibility and sustain legibility of the urban structure—"things could become themselves without artifice and struggle." It would also allow the survival of quite low residential densities close in to the point of intensity.

Such very low density is both appropriate and desirable, though it does raise its own peculiar problems. Absorbing the metal animals is not difficult, but it does require proper site design. The usual Levittown or New Town site patterns are clearly inadequate in this respect. There are no clear boundaries between human and vehicle territories, no clear boundaries between individual human family territories. Noise intrusion—road to house and house to house—is only one of the resultant problems. But the problems are caused not by the overall density per se (30-40 p.p.a.) but by poor design of local density and interval within the overall limits. Increasing the net density within the actual residential area, for example, would result in more usable open space and better people-vehicle separation.

Getting the proper "feel" of density is another matter. This "feel" is intimately connected with the design of the buildings themselves. Self assertive buildings, buildings full of rhetoric and gesture, seem to occupy more space and lessen the absorbency of the remaining space. They



Fig. 3. The Three Mile Measures.

leave, in effect, less room for people. Buildings of less assertive, more modest design can make the density seem lower, can make the space more useful to people. This latter concern can be seen in the European Avant Garde's obsession with "building toward the community structure," with changing the post-Renaissance notion of architecture. For we have, in fact, less space and more need for restraint than in the New World.

Returning to the problems of the overall city scale, our thoughts on distancing can be useful now, immediately—for there are cities into which transit systems are being inserted, cities where urban motorway nets are being constructed and where intense activities are being added. This goes on with no thought of radical change in the

existing intensity of use pattern. But the money and energy could serve an emergent new intensity-density structuring. Were the three mile measure of points of intensity built into the motorway and public transport design for old cities, it might reduce the intensity of use of the old central areas and allow a "natural" survival of their historic quarters. Certainly it would prevent the costly and inelegant addition of new roads and transport lines into areas already overloaded.

And because development tends to take place where access is easy, the use of points of intensity in the new scattered cities might result in the emergence of really urban "places to go to." Not every place has beaches and mountains, and not everyone wants *only* them. Cities should mean options and choice.