IN DEFENCE OF SPACE

('Too many stairs and back doors make thieves and whores' Sir Balthazar Garbier: 1663)

The reception given to Oscar Newman's book *Defensible space* when it appeared in America last year was the warmest for many years in architectural publishing. In Britain — where it was published by the Architectural Press (£4.95) earlier this year — reviews have been no less enthusiastic. *Defensible space* uses statistical research and 'territorial' theories of behaviour to suggest that architects can provide building layouts which prevent vandalism, assault, and rape and so help the enforcement of 'law and order' in cities. Here, Bill Hillier (RIBA Intelligence Unit) argues that 'territoriality' is an ignorant view of human behaviour which has been largely discredited by anthropological research and that Newman's book is symptomatic of modern architecture's rejection of history in favour of glib second hand theories

Social science and the Oedipus effect

When Oedipus was born, the oracle of Apollo was consulted on the child's future. The oracle replied that he would kill his father and marry his mother. So Oedipus was dispatched to a distant mountainside with a shepherd, whose orders were to abandon the child with his feet pinned together. This was the first link in the chain of events that actually led to Oedipus killing his father and marrying his mother. Without the oracle, Oedipus would have stayed at home, known who his father and mother were, and not killed one and married the other by mistake.

Karl Popper thought this an instructive story for the social sciences, since it appeared to illustrate the influence of a prediction on the occurrence of the event predicted. He called it the 'Oedipus effect', and suggested that everyone concerned with the scientific understanding of society should watch for its insidious presence. Bad theories in the social sciences are more than bad science. We may act on them, and begin, without realising it, to create a world in which the bad theories are more and more true. The world money market is, perhaps, the classic case of the Oedipus effect in action.

In architecture, the situation is one degree worse. The word 'architecture' itself means both the thing that is made, and the making of it. As in any design discipline, ends and means are unified in a single conceptual system. Although architects must learn intellectually to separate the two as far as possible, in action they must be united. As a result, architects inevitably tend to create any reality which, either through imagination or intellectual effort or research, they imagine might be the case. Thus architecture, by definition, seems permanently afflicted by the Oedipus effect. Thinking becomes doing, through the very nature of the activity.

It is undoubtedly this that gives architecture its curious susceptibility to changes in intellectual fashion, while at the same time failing to encourage architecture to create a well formed intellectual basis proper to itself.

In the last decade, the oedipal problems of social science have been married, as incestuously as Oedipus was to Jocasta, to those of architecture. Until now, the brainchildren of this marriage of convenience have been largely confined to the printed word. But in today's atmosphere of crisis, things are different. The deepest assumptions that architects have made for a generation about the relation of built form to social behaviour, and about their activity as designers to society, are under challenge from all sides, including inside. It may be that in the current vacuum, concepts from the social sciences could take root and achieve a pervasive foothold. The chief item in the conceptual dowry that social science brings to architecture is the concept of 'territoriality' as the universal explanation of spatial behaviour.

Nothing, of course, is so convenient for the social scientist as a 'behavioural universal'. If he can work on the assumption that all human beings behave according to some simple underlying principle — except, of course, the deviants, but that is another industry — then his job is much easier. It allows the slide rule to come in, and encourages the scientific imagination to go out. We can count and analyse, rather than think and test.

Such simplifications are almost *de rigeur* for that modern equivalent of the consultation of the oracle, the officially sponsored social research project. The exigencies of the relationship between science and officialdom have given us, in the past, such nonexistent 'universals' as 'rational optimisation', 'maximisation of gratification', 'competitive struggle', 'conformity to norms', and many others. These caricatures have much to do with the layman's frank incredulity in the face of social scientific explanations of everyday behaviour. They evidently have more to do with

this theory has the clear attraction of simplicity. It also has obvious acceptability as a metaphysic for a society where powerful interests would wish to justify and prove the moral value of entrepreneurship, wealth, competitiveness, and the survival of the fittest. Moreover, it clearly makes some sense in terms of most people's everyday experience. These factors combine to make it a very attractive theory from the point of view of our kind of society.

But from a scientific viewpoint, it is a very weak theory when applied to man. It has not stood up to scrutiny. The archaeological and anthropological record almost universally supports the social view of man – that he is man because he is social, not that society is a device to restrain him from his natural excesses. All our basic cultural facts – languages, production systems, cities above all – confirm this interpretation. Even trade did not begin with a primitive capitalist in a loin cloth: it was preceded by extensive and complex systems of ritualistic exchange and gift giving, within which the very notion of profit was anathema.

As far as architecture is concerned, the territoriality concept has been extensively tried by archaeologists as a source of explanation for the form of early and primitive settlement. By and large, it has failed miserably. In a recent paper, the archaeologist Ruth Tringham concluded that the territoriality/aggression argument 'would seem to have no support in either archaeological or ethnographic evidence: it is rather the simplistic ethnocentric concept of sophisticated guilt ridden western investigators'. She added: 'The defence and physical demarcation of territory is by no means universal and is dependent on a large number of interrelated factors.'

In fact, this argument can be taken further, since the wealth of recent anthropological and ethnographic evidence suggests that space is used by 'primitive' peoples as a very complex and beautiful social signification system – the very opposite of what the territorialists would have us believe. And if territorialism as a behavioural universal does not hold true in the archaeological and anthropological record, then where on earth is it expected to apply as a general explanation, and why is it apparently still on the ascendant as an acceptable scientific concept?

The progress of the concept of territoriality seems very similar to that of 'totemism', which, after a lifespan of about half a century as a behavioural universal for primitive peoples, was demolished by Claude Levi–Strauss in 1962. A totem is any natural species used to symbolise a kin group. 'Totemism' is this phenomenon interpreted as a behavioural universal, and expanded to explain religion,

sacrifice, and so on. Levi–Strauss showed that, in spite of the snowball effect within anthropology (the more the concept was used, the more it was taken for granted), the whole thing had been blown up from the beginning, largely as a result of a tendency among anthropologists to make 'primitives' more different from us than they really were.

Levi–Strauss also showed that natural categories were used because natural classification provided a kind of readily available system of concrete logic by which to bring logical order and signification into society. In other words, the explanation of 'totemic' behaviour was precisely the opposite of primitive superstition: it was to do with the human tendency to be logical, and to classify and categorise in an ordered way – in short, to wrest intelligibility from chaos.

As Levi–Strauss elegantly put it: 'Totemism is like hysteria, in that once we are persuaded to doubt that it is possible to arbitrarily isolate certain phenomena and group them together as diagnostic signs of an illness, of an objective institution, the symptoms themselves vanish, or appear refractory to any unifying interpretation.' The same is undoubtedly true of 'territoriality' – barring the Oedipus effect.

Social selection versus physical factors

Nowhere are the offspring of the unholy union of architecture and social science more brazenly paraded for public inspection than in *Defensible space*, a new book by Oscar Newman, professor of architecture and director of the Institute for Planning & Housing in New York University.

Newman believes that architecture has contributed substantially to the breakdown of 'law and order' in American cities, because architects, being middle class liberals, have been too utopian in their search for 'maximum freedom and multiple choice' and have ignored the 'territorial' bases of human spatial behaviour inherited, with modification, from our animal past. Design leads to crime: or, as he inimitably puts it, 'the form of the static components of our living environment, is, in and of itself, a factor which significantly affects crime rates.'

But architects, argues Newman, can begin to make amends for the damage they have unwittingly caused in the pursuit of 'compositional' rather than 'organic' (yes, that again) solutions, by learning to design 'defensible space'. He claims that 'by grouping dwelling units in a particular way, by delimiting paths of movement, by defining areas of activity and their

juxtaposition with other areas, and by providing for visual surveillance, one can create – in inhabitants and strangers – a clear understanding as to the function of space and who are its intended users. This will be found to have led to the adoption by residents, regardless of income level, of extremely potent territorial attitudes and self policing measures.'

Newman also writes the word 'nation' with a capital 'N', believes that police and courts represent the 'corporate wisdom of society', and assumes that everyone has been doing his best in a situation made difficult by criminals who 'victimise society'. 'This book', he says in his opening sentence, 'is based on a study of the forms of our residential areas and how they contribute to our victimisation by criminals.' 'The physical form of the new urban environment', he adds, 'is possibly the most cogent ally the criminal has in his victimisation of society.'

But Newman's naive partisanship for the metaphysic of the law and order school, combined with an inverted participationism in which every man is his own vigilante, should not distract attention from the importance of the issues he is raising, any more than the importance of the issues should lead to an uncritical acceptance of his arguments and conclusions. It is necessary to distinguish the different levels at which he is arguing.

At one level, Newman is saying simply that the New York police records show, when examined statistically, that certain types of design – in particular, high rise double loaded corridor blocks on large estates – attract crime. At a more general level, he is translating some familiar preoccupations about the possibility of designing community control into space into pretentious social–psychological jargon. And, at a third and slightly higher level, he is offering the concept of territoriality as the universal framework for analysing the social use of space. The arguments, assumptions, evidence, and conclusions have to be examined at all levels, without assuming that because one part is nonsense, the rest must also be nonsense.

The first thing that must be said is that Newman's basic argument – the statistical one linking design to crime – appears, on the evidence he gives, to be nonsense. Since, from a scientific point of view, this is the heart of his whole case, and since his alleged findings concerning a statistical relation between physical variables and crime are likely to be widely influential, it is important to be clear why what he says does not hold water. If anything, his statistical evidence tends to refute his major hypothesis that physical design directly influences crime rates. Let me interject here that I personally believe that built form *can* encourage crime and

the social scientist's need to make his field manageable and countable – to introduce mathematical and statistical complexity at the expense of theoretical simplification – than with providing a theory that would be superior to those already embedded in everyday life and language.

The concept of territoriality has been offered as yet another 'behavioural universal'. Summarised roughly, it asserts that social space is the result of 'territorial' behaviour by individuals, groups, and whole societies, originating in the need to define and defend space in much the same way as animals, and to do so competitively in the struggle for survival: of course, in the case of humans, space is heavily symbolic, because humans mark out their territory with symbols to warn others away. The aggregation of individual and group territorial behaviours leads, it is claimed, to a social/spatial situation which can be in balance or out of balance, in much the same way as an economy – which is similarly the result of both individual and corporate action.

Like all universalistic theories – and especially ones as simple as this – the idea has immediate attractions. Territoriality appears to link individual psychology to an emergent social order. Moreover, everyone recognises himself in it, perhaps a little guiltily. Where no alternative theory exists, its attractions are multiplied. We might be tempted to look no further, and so remain ignorant of the fact that human territoriality is largely discredited, and simply fails to explain the historical and ethnographic evidence that has been amassed in the last half century regarding the evolution of human society in new spatial forms, from the beginning of large scale settlement onward.

A little further thought shows that the territorial argument avoids the main issue in the study of the social evolution of space, which is to discover exactly how urban space in its manifold forms transcends territoriality and constructs a functional and semantic field of such great richness and density that it is one of the more pleasurable experiences known to man to walk through it, or to live in it. This has relatively little to do with the appearances of individual buildings, but with how buildings are put together, and how they are allowed to aggregate and form the patterns of urban space that are so familiar to our intuition, yet so difficult to reproduce.

To try to derive that sort of complex understanding from an accumulation of territorial behaviour is as ridiculous as it is uninteresting. It is as silly as arguing that because eating is a basic physiological need, the matter ends there as far as science is concerned. As far as human beings are concerned, the whole point about

eating is that it is a richly varying cultural experience which, despite its diversity, manages to satisfy physiological requirements while also serving as a set of social signifiers which make life more agreeable.

Nonetheless, a vacuum exists in architectural theory, and territoriality has been proffered to architects as a universal explanation. The concept and its scientific record must therefore be examined in greater detail, before it is admitted into architecture as a basic thinking tool for designers.

How territorial theory avoids the issues

The concept of territoriality, in its modern form, originated in the science of ethology. At first, ethology meant the study of character through gesture and overt behaviour: it was adapted from the Greek word *ethos*, meaning 'custom'. The term was adopted in the 1920s by that branch of the study of animal behaviour which was concerned with instinctual, as opposed to learned, behaviour. By then, the excesses of simple behaviourism were already leading to an absurd over emphasis on explanations in terms of conditioning. Instinctual behaviour is more fixed and

unchanging than learned behaviour.

The success of ethology therefore provided a natural starting point for the revival of highly conservative theories of man, which argued that man is not a social being but a brute restrained only by law and self interest, standing in permanent need of strong government, segregation from 'unsympathetic' groups (eg, jews or blacks), and even eugenic control. Konrad Lorenz, the grand old man of ethology, wrote in 1940 approving the steps the nazi state was taking toward the preservation of the species.

The influence of ethology increased as it became clear that in studying animal behaviour, we were learning about ourselves. Not that animal behaviour was 'animal' but that it was damned near human, full of complex patterns of social behaviour. All this was good and to the benefit of the human race, long since lowered from its perch next to the angels. The popularisers of ethology – Robert Ardrey, Desmond Morris, and Lorenz himself, among others – took the opposite view, however, and used ethology to propagate a theory of man that emphasised innate territorial and aggressive drives, the elimination of the unfit, the need for real or surrogate war, and the 'fundamental' nature of private property.

dancing ground

yam house

burial ground

chief's hut

☐ married couples ■ bachelor dwellings
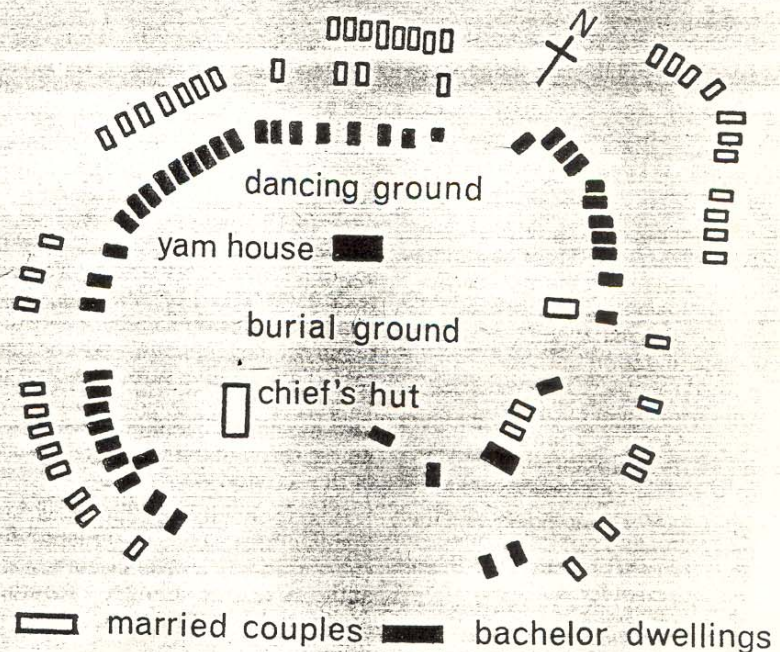
The territorial theory of human spatial behaviour, says Bill Hillier, is obviously acceptable as a metaphysic for our kind of society, 'where powerful interests would wish to justify and prove the moral value of entrepreneurship, wealth, competitiveness, and the survival of the fittest. But from a scientific viewpoint, it is a very weak theory when applied to man. It has not stood up to scrutiny.' Hillier argues that the archaeological and anthropological record 'almost universally supports the social view of man – that he is man because he is social, not that society is a device to restrain him from his natural

excesses. All our basic cultural facts – languages, production systems, cities above all – confirm this interpretation.' This plan (above) of the Omarakana village in the Trobriand Islands might at first glance be thought to have developed from 'territoriality'. But the detailed analyses given by Malinowski and Levi–Strauss have shown that the spatial organisation of the village is a complex metaphor for social relationships, expressing oppositions between sacred and profane, male and female, marriage and bachelorhood, centre and periphery, and society and household

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inculcate fear in residents. My argument is that Newman has said nothing in his book which should materially affect anyone's belief as to whether this is true or not. Indeed, I am more dubious now as a result of reading the book.

It should first be established that to give figures which show higher crime rates when buildings are higher does not directly implicate physical variables in the level of crime rate. For Newman's argument to be right, the relationship must be direct, since his whole argument is centred on the effects of physical design and the usefulness of certain remedial modifications. A much more obvious hypothesis would more convincingly explain a simple numerical relationship: that a society that produces underprivileged groups from which the majority of criminals come, also produces buildings and estates where, whether by invisible selection mechanisms or deliberate policy, the underprivileged groups are concentrated – namely, very large high rise blocks on big estates.

What Newman's figures show is that for estates of less than 1000 people, there is not even a simple relationship between crime rate and building height. Above 1000 units, there appears to be some kind of numerical relationship, but no test is applied which might show whether this is statistically significant or not. But even if it were so (and the fact that no test is reported casts the gravest doubt), it would still not establish a direct correlation, since the alternative hypothesis I have proposed – that height and size are already correlated with crime through social selection prior to the introduction of physical variables – is equally plausible, and much more obvious. Certainly, it is this hypothesis that is believed by the housing managers and social workers on the estates concerned.

Aware of the extreme difficulty of establishing a clear correlation between physical variables and crime rates, Newman embarked on a comparison of two neighbouring estates where the population characteristics were relatively homogeneous, but the physical characteristics were different. The estates he chose were Van Dyke, and Brownsville: both had 288 persons per acre, and both had 6000 residents. It is from this study that some of his more sensational 'findings' have come – which is a pity, because they are equally nonsensical and, if anything, support the rival hypothesis of social selection.

One 'finding' – that the robbery rate in Van Dyke is three and a half times as high as that in Brownsville – appears to be the result of a straight error in transcription or addition, since a rate of 9.66 per thousand for a population of 6000 (see table B1 in Newman's appendix) is computed as 92, which is

TABLE B3
Tenant Statistics for Move-Ins
(A SAMPLE OF ONE-FIFTH OF MOVE-INS, 1967–1969)

Characteristic	Brownsville	Van Dyke
Race		
Negro	51	41
Puerto Rican	7	10
White	0	0
Total	58	51
Source of Income		
Private Employment	34	36
Government Employment	5	1
Own Business	0	1
Department of Welfare	16	9
Social Security	1	1
Disability Insurance	0	1
Military Allotments	2	2
Assets		
None or Unknown	27	51
Less than $1,000	1	0
$1,000–$1,999	3	0
$2,000–$2,999	9	0
$3,000–$3,999	5	0
$4,000–$4,999	8	0
$5,000–$5,999	5	0
Previous Housing		
Own Apartment	43	43
Apartment with Relatives	10	0
Furnished Room	1	7
Hotel	1	1

'Newman's basic argument – the statistical one linking design to crime – appears, on the evidence he gives, to be nonsense', argues Bill Hillier. 'It is clear from the trend of move–ins to the estates that the new tenants moving to Brownsville are from better–off strata than are those moving into Van Dyke. The requirement for the social selection hypothesis, as opposed to Newman's physical factors hypothesis, is that a process of systematic selection from better–off strata should be seen to be working over time. The evidence for precisely such a process is provided in the appendices [eg : above] but nowhere referred to in the text, except in tones of scornful dismissal. That a well heeled, multi disciplinary research team should be responsible for such gross oversights is hard to understand'

the figure obtained when Brownsville is added as well! To be sure, a clear difference in measured crime rates still remains, but the question is whether this can be more easily explained in terms of social variables. According to Newman it cannot, since his table listing 'tenant characteristics' shows the two estates to be broadly comparable as regards average income, race mix, family size, numbers of broken families, and so on.

In the appendices, however, a rather different story emerges – one which confirms the rival hypothesis and the social workers' views. It is clear from the trend of move–ins to the estates that the new tenants moving to Brownsville are from better–off strata than are those moving into Van Dyke. The requirement for the 'social selection' hypothesis, as opposed to Newman's 'physical factors' hypothesis, is that a process of systematic selection from better–off strata should be seen to be working over time. The evidence for precisely

such a process is provided in the appendices but nowhere referred to in the text, except in tones of scornful dismissal. Even worse for Newman is another appendix, giving overall crime figures for the two estates, which shows that drug offences at Van Dyke are four times the rate of Brownsville. Unless Newman can find some way of linking drug taking with physical variables, then he must accept this as powerful evidence against his own hypothesis.

That a well heeled, multi disciplinary research team should be responsible for such gross oversights is hard to understand. It requires us to treat the entire statistical argument with the gravest caution. No statistical case whatever is made in support of Newman's central thesis, which is a pity, since I for one believe that physical factors – but not simply building height or project size – are implicated, and that Newman has described some of them in the purely descriptive and anecdotal parts of his

text. But this is largely speculative ethnography, and no scientific support yet exists for these important issues, one way or the other.

Newman's treatment and presentation of his evidence raises a further important point. If a complex argument based on extensive statistical work is to be presented to an audience who will be predominantly composed of nonspecialists, it is most important to emphasise and carefully describe what the statistical tests actually mean. If, for example, the data are said to have the property of 'multicolinearity', as the book says at one point, how and why does this affect the interpretation of the data? What constitutes a significant relation between variables? What actually does a 'significance level' mean? Although such questions are commonplace to the social statistician, they are not answered here, and architects reading the book will tend to take for granted the authority of Newman's statistical presentation.

From a scientific point of view, Newman's statement and discussion of his 'defensible space hypotheses' are equally vacuous. No connection is made between his 'catalogue of defensible space hypotheses' (they are not even hypotheses but lists of items to look at) and the amassed data, either in terms of how the data suggest the hypotheses, or by testing the hypotheses in relation to the data. In fact, hypotheses and data simply do not connect in any systematic way, though a large number of suggestive possible relationships are initially explored.

But pseudo science reaches a banal crescendo in Newman's discussion of basic theory – namely, the territorial basis of human spatial behaviour. This touches a level of naivete and ignorance of historical evidence that might make even the most resolute ethological populariser blanch. For example, Newman refers to European cities in the 1930s as 'cities where a strongly defined societal structure exists and in which common goals and values are shared'. In view of the somewhat extreme nature of the social turbulence in European cities during that period, this must surely count as one of the greatest gaffes in the history of thought.

CONCLUSIONS

Architecture as a prop to social order

What remains of Newman's book after the 'scientific' content – statistics, hypotheses, and theories – has been debunked is a mishmash of anecdotes, speculations, attempts to verbalise intuitively felt patterns, and a strongly felt concern for the disaster that appears to have overtaken architecture in the past few years. It is this that makes his book, in spite of its weaknesses, errors, and serious misrepresentations, an important and probably influential one in the development of architectural thought.

The book is really about the crisis in our knowledge of the relationships between the forms of artificial space we create and the social behaviour that goes on in it – knowledge that architects have to take for granted, and treat as part of their stock in trade, in order to be able to design anything. In other words, *Defensible space* is a bad book about a very important subject.

Indeed, inside Oscar Newman, pseudo scientist, is an original and passionate architectural scholar trying to get out. The fact that the observations, insights, and speculations of a thinking architect have to be presented through a fog of scientistic rubbish perfectly illustrates the current crisis in architectural scholarship. That crisis is the crisis of the Oedipus effect.

By presenting his investigations into one of the fundamental subjects of architectural research – the study of space in relation to behaviour – through incompetent statistics and discredited theory, Newman has run the risk of either discrediting an important subject, or getting his arguments accepted for the wrong reasons. The latter is most likely, since most reviews so far have praised the book for humanistic reasons, without giving a second glance at the actual figures and alleged relationships.

But worse, by associating the scientific approach with statistical manipulation and reference to borrowed theories, Newman has kept himself in stupendous ignorance of the one area of study that would have lent depth and scientific conviction to his anecdotal evidence: the study of the original social reasoning behind the very built forms he is criticising. He would discover that they originated in precisely the same kind of debate about the use of design to achieve social order and control as he is now repeating, ignorant of the past reasoning on which he is building.

This, in fact, is the heart of the crisis. Architecture in the pursuit of science has rejected history, when the proper study of history was the one thing that could have brought science back into architecture. But the architectural study of the past continues to be the art of forgetting history. It remembers only forms, but forgets the social reasoning behind them. Our problem is not that the history of architecture is the history of styles, but rather that it is continually and conscientiously rewritten as the history of styles.

Meanwhile, the last two decades have seen a flowering of studies of the origins and morphology of built forms in relation to the societies that created them. These have been carried out largely by archaeologists and anthropologists, virtually without the help or even the knowledge of the discipline of architecture and its practitioners. Architecture has sold its birthright for a set of cast–off theories.

But this is not just an academic matter. It affects every architect in his daily work. Ignorance of his location in an historical scheme of things forces him to take current practices as facts of nature in his daily work, while pursuing technological and futuristic fantasies after hours. It creates for him a logical prison in which he continuously imposes socially repressive solutions, of whose origins and nature he remains in ignorance. This ignorance is reinforced by the belief that he is creating built form *de novo* – when, in reality, he faces only marginal aesthetic choices. The current situation in the provision of mass housing sharply dramatises these points.

Today, the 'architectural design system' – architects and the constraints on their designs – considers mass housing solutions under only two headings: permutations on the tenement block (low rise, high rise, slab, or point), and permutations on the pseudo cottage. Both these forms are assumed to be located on an isolated 'estate', and both originated during the last century as part of a debate about the possibility of using space as a means of stabilising social order, either through indirect control (the block system) or moral self improvement (the cottage system).

Exactly the same two alternatives were discussed in relation to the spatial treatment of lunacy, with the tough minded utilitarians taking the side of the block or fortress system, and the tender minded liberals supporting self improvement and the cottage system.

Prior to this, the whole notion of walling up problem people in large fortresslike buildings surrounded by an open space barrier, possibly with a secondary barrier beyond, was rooted in the eighteenth century, when the confinement of deviants became a central theme of social and political thought. It would not be an exaggeration to say that the forms of housing that architecture now aims at the underprivileged are similarly rooted in a nineteenth century attempt to answer the question: is there a spatial cure for being working class?

Putting prominent nineteenth century commentaries on the new block system beside Newman's theorising is almost comic, since both are talking
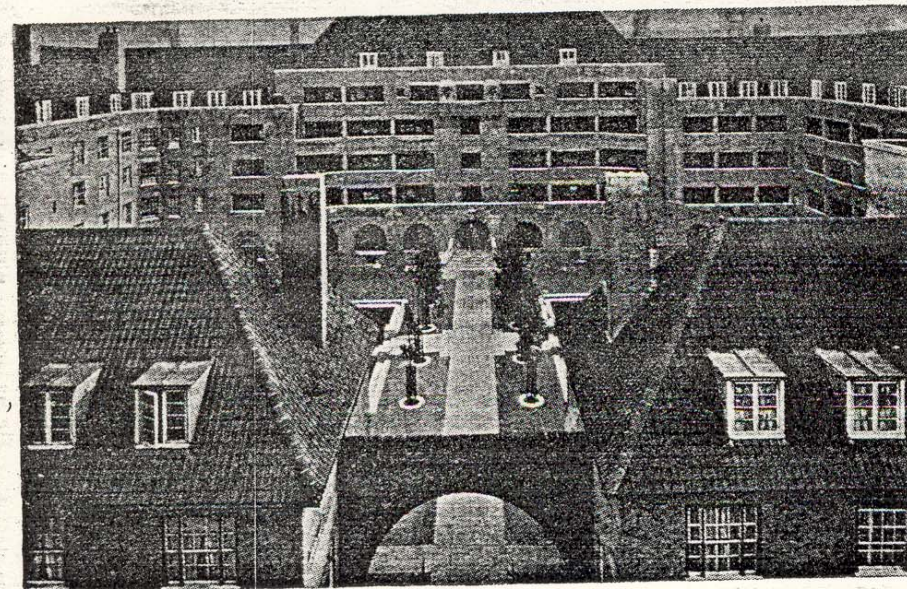
The origins of modern 'institutional' housing – the large complex isolated block surrounded by an open space, and perhaps a secondary barrier beyond – lie in the eighteenth century notion of 'curing' madness, pauperism, criminality, and even laziness by confinement. Bill Hillier argues that the housing forms derived from this way of thinking began to appear in the mid nineteenth century, flourished before the second world war, and have not yet changed. (Two formidable examples – from the top: Powell House, Hackney, 1934, and Ossulston Estate, St Pancras, 1928 – are shown above.) Unlike the old street pattern, the relation between inside and outside was broken. Exits and entrances were few, and tenants had to pass through two to get outside. A double boundary was cast around the individual block and again around the whole estate. The logic of space spoke the new language of an imposed social order, and the moral rules for the regulation of inhabitants merely confirmed this well understood message. Most housing for the working class – even low rise high density solutions – now assumes this logical form, says Hillier, and is the result of a process of social reasoning about which Oscar Newman seems entirely ignorant – with disastrous consequences for his book

about the open space around blocks and the problem of social order, but one is arguing that they lead to the preservation of social order, the other that they lead to its breakdown. For example, George Howell wrote in 1883 that the Peabody blocks were so constructed that supervision was easy and effective: they allowed regulation without direct control. In general, the frontages of the buildings faced into a square rather than outward to the street – 'a prudent provision on the whole' which, Howell claimed, was very beneficial in its general results.

The purpose of these blocks was always well understood by those for whom they were intended: as Gareth Stedman Jones has shown, they were 'variously labelled poor law bastilles, hospitals, barracks, and reformatories. The moral rules were particularly resented.' It is impossible to study the evolution of housing policy, conscious and unconscious, in the nineteenth century without becoming aware that we are seeing the emergence of exactly those ideas which are the formative basis of our current thinking. Architecture fails to flourish in our time because it still inherits this unconscious burden of design for the production of social order by architectural means.

In the nineteenth century, the spaces of the poor were redesigned in order to be vulnerable – vulnerable, that is, to the informal and formal forces of moral pressure and political order. At the same time, the poor were concentrated in specific areas, by being marked out for improvement. Improvement meant ghettoisation of a new, more far reaching kind. Reduction in overall numbers was also brought about by the reduction in density required by the new morphology of built form. The high density argument for the new forms was as false then as it is today.

Le Corbusier merely popularised these forms among fashion conscious architects, by embedding them in a mystique of art, new materials, mass production technology, and a protofascist worldview. His achievement as a theorist was to show how the new forms could be combined in a new landscape of total spatial control, where all boundaries were clear, all activities located, and every ambiguity ruthlessly suppressed. 'The cafes of Paris', he wrote in a little remembered passage, 'are the fungus that eats up the pavement.' He certainly knew the name of the game. The theme of *Vers une architecture* was that – wait for it – social order was breaking down, and that architecture could prevent disaster by learning to design in new ways. The last words of the book are: 'Architecture or revolution! Revolution can be avoided!'

It can easily be seen how deeply we are already caught in the Oedipus effect, and how the trick of rewriting history as styles ensures that architecture always comes back to the same place, believing it to have just been discovered afresh. Newman is not proposing anything new, of course, and it is important that he is not. He is merely proposing a refinement on an old theme, the creation of social order by architecture. Yet it was precisely this kind of thinking – again based, as we have discovered, on a total ignorance of the nature of relationships between space and human behaviour – that has been responsible for the present state of design. What we are being offered is not the antidote, but another dose of the poison in a redesigned bottle.

Selected references: 'Territorial demarcation of prehistoric settlements', Ruth Tringham: see *Man, settlement, and urbanism*, eds P. J. Ucko, R. Tringham, and G. W. Dimbleby: Duckworth, 1972. *Totemism*, Claude Levi-Strauss: Merlin, 1964. *Outcast London*, Gareth Stedman Jones: Oxford University Press, 1971.