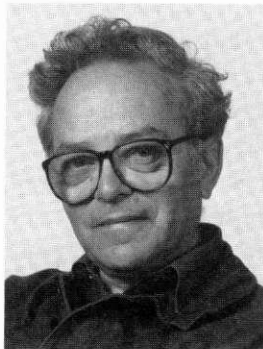


On re-discovering space – a critical editorial summary

by Thomas A. Markus



Thomas A. Markus,
University of Strathclyde,
Glasgow.

The theme editors of this issue has been Terttu Pakarinen, Thomas A. Markus, and Björn Klarqvist. Instead of an editor's preface Professor Markus has made a critical summary of the theme articles. He also outlines a future development of this research field. A few articles have to await till next issue.

IF ARCHITECTS ARE ASKED to name their real expertise they are likely to claim that it is the skill to design space. The irony is that most of their effort goes into designing the elements that *enclose* space, into shaping the physiognomy of the surfaces of those elements. The entire discourse of form is concentrated into this activity. But despite this, space *is* of course created, but as a kind of by-product.

The discourse of form has highly developed analytical and theoretical methods, many derived from art theory and art history. Philosophical developments in semiotics, post-structuralism, post-modernism, deconstruction and critical theory have affected this discourse. Other discourses of architecture, such as those of technology and the resources for building, are derived from engineering science and economics.

The discourse of space, the one which is truly architectural in its practice and should be in its theory, for which no other discipline can be called upon for help, has found no adequate methods either to describe its object or analyse it.

In the last two decades this has begun to change, partly as the result of the creation of the theory and methods of space syntax developed by Professor Bill Hillier and his colleagues at University College London. Their methods have found adherents in various parts of the world including Scandinavia. This issue of the Journal aims to bring before a Scandinavian audience some of the recent developments in space syntax including applications in Scandinavian settings and by Scandinavian workers.

The papers are, on the one hand, theoretical – an exposé of the current state of the theory and

its methods, a discussion of building evaluation using morphological theories of function, and a review of conflicting theories of urban landscape. On the other hand there are applications to specific issues and projects – children’s play spaces, neighbourhood units in Sweden and China, an airline head office building in Stockholm, and the King’s Cross proposals in London.

Common to them all is an approach to both buildings and urban space which sees it as a structure; it is the relation of individual spaces to those immediately round them as well as to a larger pattern which carries meaning, not the formal properties of individual spaces. These relations are ones of *nextness* – that is they are rooted in topology rather than in geometry. They are established by the way spaces are permeable to each other, that is the way one can move through them, and by the way they are intelligible through the sense of sight, that is by the way one can see through them, from them, and make visual connections between them. Movement and seeing are the two ordinary ways in which we experience the spaces of buildings and towns as we use them.

A host of measures have been developed to make the description of permeabilities and visual connections specific and to enable spatial structures to be described, compared and analysed. Elegant as these methods are, the proof of the pudding is in the eating – or, as Hillier says ‘Life is right, of course, and only life can eventually decide’. In other words the theoretical formulations are valid insofar, and only insofar, as they relate to real events in the world. The development of studies in which people’s behaviour in space is related to its syntactical structure, has come relatively late in the day, in part I suspect because of a natural reluctance to become involved in empirical research which has received a bad press in recent decades on account of its association with behaviourism, reductionism and determinism. All these are now dirty words and of course several babies have been thrown out with the bath water. As the

empirical work in space syntax has grown the theory has also grown in stature and become more convincing.

It is not as if the question of the spatiality of society is a marginal issue. Unless people are conceived of as angels, disembodied spirits floating outside space, the reality of bodies in material space is the central phenomenon of human existence. There are no a-spatial societies and, equally, there are no a-social spaces. All human relations, from the most intimate to the most structured and global, occur in space. Spaces are articulated to sustain relations and those, in turn, are shaped by the spaces available for them. If space is so central for the production and reproduction of human relations – that is for the generation of society it is a remarkable void that the tools for its description, analysis and generation have remained so inadequate.

If all relations occur in space, shape space and are shaped by space, there should be no area of human behaviour in which the traces of spatiality are not evident. First and foremost in the ability to learn and speak a language with conscious intent – that social practice which is the defining characteristic of what it means to be human – there should be traces of the spatiality of human beings. If one were to examine the nature of language used about towns and buildings, that is the lexicon of words, the syntax of statements, the voices used, the structure of written texts and of speech, one should expect to find there features that link directly to space. It is true that in developmental psychology Piaget and his followers have shown how the spatial learning of infants and children relates to their use of language. But it is other aspects of language which are of immediate interest, notably the words used to prescribe and describe function, that is those that deal with what goes on in space, what it is for, what is its purpose.

Some work has been done on building type and spatial types. In this issue Peponis tackles the relation between space and its use, meaning performance. He speaks of ‘the design of function’ and illustrates his argument with a dis-

cussion of museum design. This analysis is highly illuminating about the way people interact with each other, with the exhibits and with the museum as an organisation. What is missing, yet, are studies of how people assign meanings to what they see and whom they meet. Only semantic investigations of various kinds, in which people speak, describe, evaluate, interpret and select, can probe these areas. And although they have been relatively successfully used in environmental psychology, little attempt has been made to probe the experience and meaning of space through them.

Hillier, Ye Min and Grajewski, each in a different setting, explore relations between spatial structures and two related aspects of 'life' – the way people choose to move through space, and the way space effects the encounters between people. The movement densities are obtained through random sampling along routes; sometimes additional information is noted and used, such as whether people are alone or in groups, whether they are moving or stationary, and whether they are talking. And all three authors show how movement density and encounters are affected by syntactical properties of space, notably integration and control values.

Of course movement and encounters should affect many features of urban life and life within buildings. In the town, shopping demand, the location and trading success of shops and leisure facilities, and the nature of public political and cultural activity. Within the building, communications, speed of quality of decision making, morale, solidarity, and informal networks. A few of these have indeed been demonstrated by these authors. A surprising, and tentatively explained, finding is Grajewski's that the majority of interactions in an airline head office take place not in communication spaces or formally designated 'encounter' spaces but within the walls of cellular offices; but the syntactical position of these offices within the overall structure does affect the density of interaction. Some of the much older work on institutions such as homes for the elderly come to mind where it was

found that without the privacy offered by individual private rooms for residents (as distinct from, for instance, double rooms with their superficial property of 'friendliness' or at least 'anti-loneliness') friendships did not develop as there was no space which offered the kind of shelter needed to foster their formation.

Ye Min's study will be a surprise to any cultural geographer or anthropologist. For not only does the idea and the design of neighbourhoods emerge as 'universals' – with no systematic spatial differences between cultures as divergent as those of modern China and modern Sweden, but even the relationship between movement density and space syntax is similar across the two cultures. This prompts one to re-examine definitions of 'culture'. What aspects of culture as materialised in space *might* then show systematic differences between cultural settings? Friendship or family formation? Entertainment within the home? Children's play?

This last is the focus for Klarqvist's study. He shows that the use of play spaces by Swedish children of various age groups does relate to space syntactical variables, but not in the way which conventional wisdom might have led us to expect. Particularly striking is the suggestion that density of movement adjacent to play spaces actually discourages their use, and the important finding that connections between front doors of houses and the public spaces adjacent to playgrounds affect the intensity of use of those playgrounds.

Pakarinen contrasts space syntax and Zukin's theories of post-modern urban landscape. She senses an opposition and proposes the liminal spaces of the post-modern city – the no-man's-land of urban shopping malls or Disneyworlds – as those in which the two theories and their analytical methods meet in a synthesis. These spaces are not for 'living' in but, sometimes merely in terms of their imagery, spaces for consumption and entertainment.

So we are presented with an exciting and challenging set of ideas. There is the real smell of intellectual power and success, things which

have been notably absent from architectural theory since the second world war. But to make sure that this energy is not dissipated there is now the urgent need to expand the empirical – observational – studies and, even more importantly, those that deal with language, meaning, and the symbolic value of space. There are dozens of possibilities for examining space syntactical properties against ‘reality’; in cities, crime rates, vandalism, property prices, rents and turnover, occurrence of spontaneous public events, zonal features of class structures, urban ghettos, and use of cultural facilities. Within buildings, the correspondence between spatial structures and those of information networks (it may be found,

for instance, that people with different degrees of access to various levels in an information network, having varying degrees of control over its operation, have systematic variations in their spatial locations); the effect of space on medical, educational and social performance; the relation between space, and the use and meaning of function-language; and the spatial correlates of hierarchical position in an organisation. In other words spatial analysis can knit together many of the research interests of environmental psychology, building science and organisational studies which have remained so disparate in recent decades and, to that extent, have so dissipated their energies.

Thomas A. Markus, University of Strathclyde, Glasgow; Jubilee Professor, School of Architecture, Chalmers University of Technology, Göteborg.