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On designing, inhabitation, and morphology

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The buildings and spaces that we create and maintain are inseparable from human life. We cannot live without some form of shelter and no built form will endure without inhabitation. Looking at built form is looking at a living whole and human action is its animating force. At a small scale it could be someone arranging things on a table or hanging a picture on a wall. At a large scale it could be the construction of regional infrastructure. There is no clear distinction between shaping and inhabiting built form.

As professional designers we place ourselves between form and inhabitant, claiming mediation. This position, as first adopted in the Renaissance, has caused us to see the built environment as a design product first of all. In need of a tool for our mediation we invented the concept of function. Although we all agree that form no longer follows function, we still look for a programme before we design. But Summerson (1960) already noted that there is no way a form can be extracted from a programme. There is always that 'leap of faith', as he terms it, that the designer must make to arrive at a form.

This intrusion of the self-image of the mediator does not work for observation of the built environment either. If we truly want to understand the marriage of inhabitation and physical form, we must step out of the picture, and try to see it as an autonomous phenomenon. Too complex to be considered a human artifact, which we can shape at will, the unity of human life and physical presence has its own laws, or habits, or peculiar properties, which we must accept and respect.

To obtain the distance needed for respectful acceptance, we must set aside our preferences on how we personally would like the built environment to be. This is a difficult thing to do. For professional architects and planners the question as to what is a 'good' built environment is central. We instinctively judge whatever built form we see. After all, we are paid for deciding what is good and what is not, and we have been taught how to make such decisions. Necessary as it is to guide action, the question as to what is a 'good' environment cannot help us learn about environment as such. It only can be posed and addressed after we have learned what we are actually dealing with.

Looking at the built environment as an autonomous entity demands that we find all forms of settlement of interest: the contemporary mega city as well as the humble village; Venice and historic Amsterdam as well as Beijing in the Ming dynasty; and the American suburbs as much as informal settlements like those around Mexico city

and between Cairo and the pyramids. All merit our attention. As observers we should emulate the biologist who studies all plants with equal zeal. If he is biased, it is only because he wants them all to be healthy. As designers, however, we have been trained to be florists who decide what is beautiful and appropriate and arrange the bouquet accordingly.

Although intervention and judgment must be postponed for the sake of observation, what we learn from the built environment can guide our action and make our designing a contribution to its cultivation. It is somewhat like the way in which knowledge of plants and trees guides the cultivation of a garden, or the way knowledge of the human body enables the medical doctor to intervene successfully.

The truly operative force that unites form and inhabitation is control. As inhabitants, we always control *some* physical elements, if only the furniture in the house we have rented. We also control the space we occupy by the right to decide who and what we shall allow inside.

Control causes change and change reveals control. Considering how certain physical entities – like houses and apartment units – may change and in fact *do* change, we can determine the reach of controlling parties and hence the boundaries of their realms. Considering how parties configure the forms they control, helps us find shared preferences and common values. Finally, finding a point where some things and people enter a space while others do not, we find territorial boundaries.

In this way we find out what is constant by observing how things change. This is nothing new: it is the way in which we have always come to know the natural world.

Among such constants we find, for instance, that the physical environment is hierarchically structured. The network of urban spaces is slower to change than the buildings in it, and a configuration of furniture changes faster than the building that contains it. This, in turn, shapes such professions as urban design, architecture, and interior design; each operating on a different level of the physical hierarchy. We also find that control of spaces maintains a territorial structure that is also hierarchical: this time by inclusion; one territory containing another. The two hierarchies are not necessarily congruent, but we can find out how they influence one another. In addition we learn how those who can act on form embrace common styles, types, patterns, and systems by means of which their individual identity fits into a collective coherence, demonstrating that our exercise of control is socially endowed (Habraken, 1998).

We can learn more, in this way, by comparison of fabrics. We may see, for instance, a difference in degrees of control distribution. Where control is dispersed and exercised by many – each at some place and to some extent – environment is fine-grained and hence flexible, and varied. Where control is centralized and exercised by few, change is limited to larger infrequent operations and uniformity appears. These differences invite further study about the relation between control patterns and sustainability.

Comparison also shows how physical hierarchies may be composed differently in different cultures and how this composition may shift over time. Environments may gain a level: for instance, the introduction of a distinct furniture level in contemporary Japanese environment, and of a 'fit-out' level in office buildings, retail centres and other forms of building today. Or they may lose a level: for instance, the disappearance of public space as a framework for building in Modernist urbanism.

Moreover, the study of territorial hierarchies teaches us that terms like 'public' and 'private' space are relative. When entered from a private room, the living space in the house is 'public' space (a boundary is crossed upward in the hierarchy) but the same living space is 'private' space when entered from the street (a downward crossing). Yet territorial depth can be defined by counting crossings of control boundaries, and urban fabrics can be compared in terms of the territorial depth they offer. A deep territorial structure means a fine-grained distribution of control, which invites a closer investigation of the relation between territorial depth and sustainability.

Observation and comparison may produce new concepts. We have already found that the concept of 'function' does not help because it does not state a property of form, but an intention to instruct design. While form cannot follow function, it can allow use, and we can assess the 'capacity' of a form to accommodate use. A couple looking for a house to rent or to buy may enter a room and discuss what could be done in it. They may find it suitable for a guest room, a workspace, or a child's territory, for example. Assessing *capacity* entails consideration of the possible relations between two levels of the physical hierarchy: for instance, a space made on the level of the building, relative to possible arrangements on the level of its furniture. Methods have been developed to compare capacity formally, relating different levels in the physical hierarchy.

To include control in our observation of form inevitably introduces a socio-political implication. That kind of implication also goes for the study of economics, which is about control as well and is not without reason called the 'dismal science'. The link is familiar to practitioners, of course, and perhaps wisely circumvented by them, but must be accepted by researchers of built environments. Yet strictly speaking we do not need to know *who* is in control. We are primarily interested in patterns of control.

More disturbing perhaps is that we learn that an autonomous environment does not sit easily with architectural ideology. The stability implied by deeper control hierarchies of form and space contradicts the belief that good art demands full top-down control. Territorial reality, which in history is a source of architectural elaboration of gates and other forms of transition, is now denied contemporary expression, because we prefer to maintain the illusion of free flowing spaces without boundaries of any kind. Finally, sharing of form among designers, by way of type, pattern or system, was always the source of coherence in the built environment, but now is believed to be detrimental to self-expression and originality.

Note

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The historico-geographical approach to urban form

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Karl Kropf's article in this issue (pp. 105-20) presents an in-depth analysis of different methodological approaches in studies of urban form. His aim is to identify possible common tools of analysis. The part of the article that interested me most was his analysis of studies by British geographers, in particular those by M. R. G. Conzen. Though the work in this field by geographers is not a topic on which I have special knowledge, I took an interest in the Italian translation of Conzen's monograph on the town of Alnwick[1] a few years ago and I was determined at that time to learn more about this important scholar. I was, incidentally, fortunate enough to meet Conzen in Birmingham in 1997. I propose to focus my observations here on the relationship between studies of urban form carried out by English geographers and those carried out by both architects from the Italian typo-morphological school *and* Italian geographers.

In the second chapter of his monograph, Conzen examines closely the methodological principles of urban and territorial analysis. Many statements he makes are in perfect accord with the methods and concepts of the Caniggian school. I should like to begin by commenting on some excerpts from Conzen's text which reveal that he came to the same conclusions, and at the same time, as those of the typological-process-based school in Italy.

'Towns have a life history. Their development, together with the cultural history of the region in which they lie, is written deeply into the outline and fabric of their built-up areas' (p. 6). This affirmation, that the history of the city is written into the fabric and outline of towns as we see them today, constitutes the basis for conducting morphological 'readings' at the scale of buildings for the simple reason that only in this manner can we understand what preceded what we see today. 'Even where plots have been altered….the plot pattern as a whole is full of residual features from earlier periods and may in fact appear unaltered in all its essential characteristics' (p. 7). This standpoint is well founded, for the permanence of ownership divisions is a fundamental element in urban analysis: these are the most difficult outlines to transform and from them, therefore, we can individualize, through a process moving backwards