Foreword: ‘Order and structure in urban design: The plans for the rebuilding of London after the Great Fire of 1666’
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When I came across the five surviving plans for the rebuilding of London after the Great Fire of 1666, at the beginning of the 1980s, they seemed like a gift, but at that pre-Internet time, the plans had to be searched out and tracked down. Fortunately, Rasmussen (1960) had published Hooke’s plan in his delightful book *London, The Unique City*, and Hibbert (1980) had reproduced Wren’s and Evelyn’s plans in his fascinating account, *London, The Biography of a City*. The remaining two extant plans, by Valentine Knight and Richard Newcourt, had to be unearthed and photographed from manuscripts stored in the records of London’s Guildhall Library. Thankfully, today research is much easier, and a quick tap of the relevant keywords into a computer’s search engine brings up images of most of the maps. However, even with the power of the Internet, Knight’s plan still cannot easily be found, though background information on the Great Fire and its aftermath is readily accessible on the Museum of London’s micro-site created especially to support their *War, Plague & Fire, 1550s-1660s* gallery, which opened in February 2010.

The first thing that struck me about the plans was their seeming modernity. I could easily have been looking at entries for the design of a new town. These hypothetical designs seemed to offer a lighthearted accompaniment to my more serious historical research into the growth, evolution and transformation of the City of London’s morphology. Furthermore, their regular ‘architectural’ compositions offered an immediate visual contrast with the apparently more ‘organic’ and disorderly plan of the reconstructed City that arose from the ashes of the fire. The contrast between architectural composition and space configuration is a theme that, in company with many historical and contemporary architects, I keep returning to in both research and design, and the inquiry soon led to a first formulation of the distinction between ‘order’ and ‘structure’ that lies at the heart of this paper, and which also gave me the title for my PhD Thesis, *Order and Structure in Urban Space: A Morphological History of the City of London*. The three questions I posed there, about the interplay of structure and order in design, which in turn raises questions about the visual and experiential properties of built form; about the relationship between urban history and urban morphology and what concepts like continuity and change might mean with respect to the urban grid; and about the kinds of affordance that space might offer to society and its institutions, are still pertinent, and up to now have still only been partially answered and understood.

Looking back on this paper, and indeed on the whole of my PhD, I am struck by the progress that has been made, methodologically speaking, over the last thirty years. The open-source geographic information systems that we take for granted today were then in their infancy, so any attempt to capture, describe, analyse, model and present syntactic data had to be done laboriously by hand. First, scale maps were traced to highlight the pattern of open, accessible space shown in the plan and then axial lines or convex spaces were attributed to all of the city’s open space, on a tracing paper overlay. This process took time and required meticulous attention to the fine detail of the map, entailing a ‘virtual tour’ that included every space in the city and paid great attention to how the interface between each building and its adjacent street space was actually constructed. It is fair to say that, especially for an architect who is used to working with maps and plans, it was possible to become completely im-
mersed in the urban environment depicted in the map, and therefore to envisage and understand a great deal about what it might have been like to walk about in the real urban spaces. Put another way, the process of deciphering the cartographic map and translating it into an axial (or convex) map immediately and intuitively accessed the ‘structure’ of the city. I suspect that whilst harnessing the power of GIS to retrieve road centre lines or similar data may provide a powerful shortcut to analytic findings, the speedy route to a solution does not come without a consequent loss, in that the shift potentially weakens the researcher’s grasp of spatial structure and tilts the balance more towards visualising order in a configuration.

This shift is only reinforced by the ease with which today’s GIS tools allow large amounts spatial data to be rapidly processed in a way that distances the researcher from the execution of the programme. I suspect that, for some, the colours on a computer-generated image of a space configuration appear magical and, like the results of any complex computer calculation, it has become far from obvious to explain how the distribution has been arrived at, let alone to spot any mistakes. The paper reproduced here is extremely old-fashioned in this respect, as in order to obtain a result each line on the axial map had to be numbered, a matrix compiled that listed every line and all its connections to other lines, after which the matrix was entered into the computer by hand, which was followed by a long wait for hours and in some cases days, whilst the programme ran to calculate all of the relevant syntactic values. These were printed out as a rank ordered list of axial line numbers from the most integrated to the most segregated, each of which had to be found again on the axial map and its value entered back as a percentage of the total integration. The process yielded 5% or 10% (or any value one wished) integration cores in such a way that it was possible to see how the pattern of integration was constructed with respect the most integrated line (i.e., street) in the city. Here too, the old and the modern processes of obtaining results have both gains and losses. Human error was the bane of the old approach, in which it was all too easy to overlook a link between axial lines or miss a connection, but the gain was in understanding exactly what each line contributed to the whole configuration. Here also, a rapid and accurate but undeniably hands-off approach may loosen the researcher’s grip on understanding spatial structure and strengthen an appreciation of, predominantly visual, order. This is not insurmountable, but it is best to be aware of the problem, especially when ‘reading’ such delightfully well-ordered plans as those generated by this seventeenth century ‘design competition’.

References


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**ABSTRACT**

Whenever we design, whether it be a building, an urban area, or an entire town, we tend to use order concepts to organise the plan: order, in the sense of principles based on some generally accepted notion of sameness, repetition, geometry, grid, rhythm, symmetry, harmony and the like. These concepts speak to us directly without mediation, and can be apprehended at once, almost as a gestalt. Because order concepts are formal, they appear logical, order concepts are one of the principal means by which we recognise the architectural imagination at work.

There is a tendency to assume that order yields Structure in the experiential reality of the buildings and places we create through architectural means: structure, in the sense of making places intelligible through creating local differences which give both a sense of identity and a grasp of the relation between the parts and the whole, such that we are able reliably to infer the global form from any position within it.

But order and structure are not the same thing at all. A plan or a bird’s eye view represents buildings and places with a conceptual unity which cannot be duplicated on the ground because we do not experience architecture this way. Moving about a building or place fragments our experience. We learn to read structure over time. Hence, an apparently disorderly layout may turn out to be well-structured and intelligible to its users, whereas a highly-ordered architectural composition may in fact be unstructured when we experience it as a built form. However much we may appreciate order concepts when criticising architecture on the drawing board, well-structured realities seem to be what matter most on the ground, not least by generating and controlling patterns of everyday use and movement. This view is argued here by looking at an historical example from urban design: the proposals for the redesign of the City of London after the Great Fire of 1666. If order concepts have any place in the architecture of the cities of the future, it is to confirm structure and not to disguise its absence.

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