

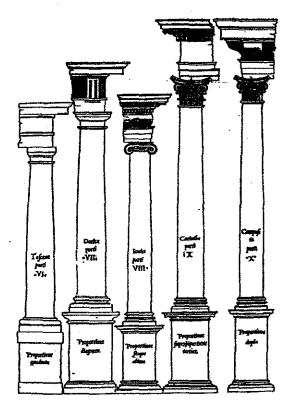
To create architecture is to put in order. Put what in order? Functions and objects. Le Corbusier, *Precisions*, 68

Now architecture consists of Order, which in Greek is called *taxis*. ... Order is the balanced adjustment of the details of the work separately, and, as to the whole, the arrangement of the proportion with a view to a symmetrical result. Vitruvius, *De Architectura*, Book I, chapter 2

The English word 'order' has a superabundance of meanings - the Oxford English Dictionary gives thirtyone for the noun and nine for the verb. Only a couple of these are specific to architecture, but it would be too much to expect that in its architectural currency, 'order' should have resisted promiscuous relations with at least some of the thirty-eight other meanings. The clearest way to understanding 'order' in architecture is to look at the ends to which it has been directed. Until the early 1970s (when the entire significance of order shifted) these were four: 1, the attainment of beauty, through a relationship of parts to the whole; 2. the representation of the ranks (orders) of society; 3. the avoidance of chaos, through architecture's use as model, or instrument, of social and civil order; 4. in an urbanistic sense, to resist the inherent tendency of cities to disorder. These senses are not necessarily always distinct - indeed from their overlapping comes much of the interest of the concept. 'Order' was a property highly valued by the first generation of modernist architects (as the quotation from Le Corbusier suggests), but of all the modernist concepts, it was one of the most susceptible to attack; it was variously criticized from within architecture during the 1960s, and then from without, in a way that altered its entire significance, as will be described.

1. The attainment of beauty, through the relationship of parts to the whole. The passage from Vitruvius quoted above gives the original sense of 'order' as it was understood in architecture in antiquity, a sense which has continued into the present. However, even in antiquity, there was already an ambiguity between this general sense, and the various particular systems of order, the 'Orders', Doric, Ionic, Corinthian etc. Throughout the history of the classical tradition, the overlapping of these two senses, the general and the particular, has been to their mutual advantage, as one may see in a remark by the architect Charles Moore in 1977: 'we'll have to do more than clothe our buildings in the semantically appropriate Orders. We will have to bring comprehensible Order to them'.

Vitruvius, in his choice of the term 'order' to describe the harmonious arrangement of parts, borrowed it - as presumably had Greek architects before him - from Aristotle's notion of taxis. In his Metaphysics, discussing mathematics, Aristotle had stated 'The chief forms of beauty are order and symmetry and definiteness, which the mathematical sciences demonstrate in a special degree' (1078b). Aristotle made use of the same idea, but this time as a biological analogy, in his discussion of plot structure in chapter 7 of the Poetics: 'to be beautiful, a living creature, and every whole made up of parts, must not only present a certain order in its arrangement of parts, but also be of a certain definite magnitude. Beauty is a matter of size and order...'. The meaning of 'order' as the beauty of a mathematical, or biological, relationship of parts to the whole, adopted by Vitruvius, has been used successively from antiquity to the Renaissance, and into our own times, though not, as Rykwert (1996) shows, in a direct continuity. From Alberti to the present there have been repeated attempts to find mathematical, or geometric principles that could supply architecture with a system of 'order'. Le Corbusier's proportional system, the Modulor, and Christopher Alexander's



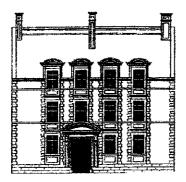
The Orders, from S. Serlio, Dell'Architettura, Book NJ, 1537. The sixteenth-century architect Sebastiano Serlio was the first to systematize the 'orders' as 'five styles of building'; but since antiquity 'order' had been used to signify both the general arrangement of parts in relation to the whole, and a species of column.

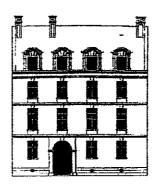
mathematical sets are among the more recent examples.

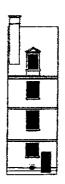
All these various attempts to define the order within architecture present some fairly major epistemological problems. First of all, what exactly is it that architecture orders? Matter? Space? Flows? Perception? Social relations? Until one can say in what the order consists, no scheme of order can be created - but by defining what is to be ordered (always a mental abstraction from reality of the object), the order created is already circumscribed and predetermined after the model of the abstraction. Or, to put this slightly differently, 'order' is invariably about abstractions, rather than things, so that if we find 'order' in architecture, it is, tautologically, the reconstitution as an object of what we first knew as an abstraction. The second problem is where does the order come from? Out of the mind, evidently, but in what form? Mathematics, as we have seen, has been a

popular source for order in architecture, but there have been other models too, principally nature, also suggested by Aristotle, and pursued by Renaissance theorists. When the eighteenth-century French theorist Quatremère de Quincy wrote that architecture's model lay 'in the order of nature', and went on to add that such an order 'exists everywhere without being visible anywhere' ('Architecture', 33), he was in a sense reiterating what was a very old idea. But even during Quatremère's lifetime, developments in scientific thought were to change 'nature' itself from a generalized abstraction into a phenomenon whose inner workings were susceptible to analysis, and so to diversify the possible invisible 'orders' of nature, thereby creating a highly fertile source of new models for architecture. John Ruskin's studies in the nineteenth century of crystal and mineral formations (see ill. p. 129), and the interest among twentieth-century architects in the biologist D'Arcy Thompson's study of the growth patterns of plants and animals in his On Growth and Form (1917), are but two instances of the employment of other notions of 'order' than those deriving from mathematics. In the post-1945 era, interest in 'order' has shifted to the psychology of perception, to the study of human perception as the key to order in the world of artefacts: Christopher Alexander's research on mathematical sets was predicated on the principle that these were the patterns most easily grasped by human perception; and the basis of Kevin Lynch's analysis of the order of cities was not the cities themselves, but the perceptual apparatus through which people knew them.

2. As a representation of the ranks (orders) of society. That architecture both designated, and protected, social rank was understood in antiquity. Vitruvius outlined the variations between the houses of different occupations in Book VI, chapter V of De Architectura, remarking that 'if buildings are planned with a view to the status of the client ... we shall escape censure'. With the craze for domestic building that affected Europe after about 1450, the architectural expression of social distinctions became an important business: a major feature of the post-Renaissance classical tradition was attention to 'decorum' and 'propriety', the signification of social rank. These matters that were just as fundamental a part of the classical system as an understanding of the Orders themselves - and indeed the correct use of the Orders demanded a knowledge of the principles of decorum. The importance of the relationship between social rank and domestic architecture was made clear by Sir Henry Wotton in his Elements of Architecture (1624), where









Houses of different sizes maintained differences of social rank by the decorum of their accessance. From the Mant. Maniere de Bien Bastir. 1647.

he says 'Every Mans proper Mansion House and Home' deserves 'according to the degree of the Master, to be decently and delightfully adorned' (82). What made 'decorum' such an inflammatory issue was the social discourse that had developed in the sixteenth century around the extravagance of domestic building: on the one hand, those who had the means were considered under an obligation to build lavishly, particularly if they held political office; but on the other hand, magnificent building excited the envy of social inferiors, whose tendency to emulate their superiors' extravagance caused the initial distinction of rank to vanish, and so threatened the existence of social hierarchy, and thereby civil order.1 This tension was everywhere felt in sixteenth- and seventeenth-century Europe - a French example of 1515 indicates the kind of argument:

those gentlemen who have no stipend or benefice from the king, or only a little one, want to imitate completely or in part the style of the court. It could not happen otherwise, for never have the remainder of the subjects yearned to do anything other than live according to the example of princes and their courts. By this means the nobility is destroyed for lack of proper ordering... (Seyssel)

It was to regulate these pretensions, and so protect social hierarchy, that the notion of 'decorum', of forms of architectural decoration appropriate to the station of the patron, was developed. After the French Revolution interest in decorum declined, presumably because it had proved worthless in protecting social rank. Whatever sense of it persisted into the twentieth century was subverted finally by architects like Lutyens, whose small houses for bourgeois clients were built with the mannerisms of aristocratic mansions (see ill. p. 54).

3. The avoidance of chaos, through the use of architecture as a model, or instrument, of social order. From the late eighteenth century, there was a perceived connection between architectural 'order' and social 'order' - whether taken in the sense of keeping 'good order', or in a more specific sense of a naturally existing, pre-ordained arrangement of society. The connection was presented both as a loose association, and also as an exact correspondence, capable of regulation. As an example of the loose association, we may take the English architect C. R. Cockerell's Royal Academy lectures in 1841. Cockerell's main interest in 'order' came from his criticisms of the picturesque, whose practitioners had, he felt, gone too far in cultivating variety and irregularity, 'forgetting that the building is to derive its chief effect from the contrast of its regularity and order with the surrounding irregular objects and scenery' (159). However, Cockerell also drew a connection between architectural and social order: 'If we call to mind the fact, that the greatest architectural efforts have usually followed periods of political and moral disorder, we may recognize in such works that natural love of order, which revolutions and tumults have denied' (159).

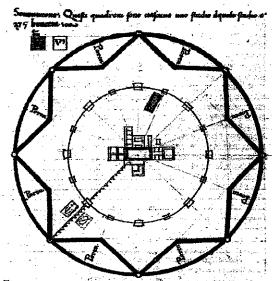
If Cockerell thought that ordered architecture was the natural response to political disorder, the prospect of a precise regulation of the body politic through architectural means was brought to a high degree of perfection in the institutional buildings developed in the late eighteenth and early nineteenth centuries. Undoubtedly the most famous exponent of this theme was the English philosopher Jeremy Bentham, with his Panopticon scheme for a model prison (see ill. p. 191), whose architecture he believed would create within all who entered it 'a sense of clockwork regularity' to the degree that 'action scarcely follows thought'.2 While the Panopticon, developed in the late 1780s, was undoubtedly the clearest instance of a building conceived to restore ordered relationships within a world otherwise chaotic and lacking in order, it is by no means the only example. Indeed, Bentham thought that one of the great merits of the Panopticon was that it was a model capable of being applied to any institution. There had already in the 1780s been built in Britain a series of prisons designed by William Blackburn, under the influence of the prison reformer John Howard, that contrived to restore the inmates to an understanding of a desired model of social relations. Interest in these experiments was stimulated by the events of the French Revolution, an event which seemed to confirm what many had previously suspected, that society was inherently disordered and unstable, and in need of corrective measures if it was to continue. In the first part of the nineteenth century, much attention was given in all European countries to the means of regulating society by, amongst other things, architecture; the considerable interest in not just prisons, but all institutional buildings, hospitals, schools, workhouses, asylums and factories, all derived from a concern to regulate social relations, and curb the entropic tendencies of those at the margins of society, the sick, poor, the insane, and the young.

When Bernard Tschumi, discussing architectural modernism, wrote in 1977 'De Stijl's insistence on elementary form was not only a return to some anachronistic purity but also a deliberate regression to a secure order' (82), the 'order' to which he refers is clearly moral, just as Cockerell's was, but directed not at society at large, but at the psychology of the individual.

4. Counteracting the disorder of cities. There have been complaints about the disorder of cities for as long as there have been cities: indeed, it has been generally supposed that cities are inherently chaotic and need to have imposed upon them some sort of order to make them fit to live in. In the thinking about this subject since the early Renaissance, it has been assumed that a city with clearly defined parts (see ill. p. 244) will be orderly, and moreover that a city whose buildings, streets and squares are arranged to look regular will have order. The seeds of this idea are present in Alberti, who to achieve order

advised attention to the layout and composition of roads and squares, and recommended the segregation of foreigners into zones of their own (191). The supposition that what looks ordered will be orderly, has, it must be said, been one of the great fallacies of the modern era, but it has neverthless been taken for granted by exponents of urban design, from Alberti, to Baron Haussmann, to Daniel Burnham and to the master-planners of the 1950s and 1960s. The history of, say, St Petersburg, or Paris, in the twentieth century, will rapidly confirm that there is no reason to assume that a place with physical order will be politically stable.

What can be seen over the last two hundred and fifty years is a series of attempts to escape from this fallacy, to recognize that the visual appearance of order is a mere phantasm intended to make what is inherently chaotic appear well regulated, and to acknowledge that discord is what makes a city a city. It has not been an easy argument to make, for if one is not to have visual order in a city, is one then to have disorder? And since disorder is what cities produce of their own accord, what need would there then be left for an architect or planner, whose principal skill, as they have frequently reminded us, is in the creation of order? One of the earliest instances of an attempt to break with the baroque illusion occurs in Laugier's Essay on Architecture of 1753, where, after the usual complaints about the disorder of Paris, Laugier made the surprising plea that a city should contain a multitudinous variety in its details, 'so that there is yet order and a sort of confusion' (224). This plea for variety he took up again, reversing the argument, in his Observations sur l'Architecture of 1765: 'Whoever knows how to design a park will have no difficulty in tracing the plan for a city.... It must have regularity and fantasy. relationships and oppositions, accidents which vary the picture, great order in the details, confusion, uproar, tumult in the whole' (312-13). Laugier's successors did not follow his advice – Haussmann's Paris is, if anything, the opposite, ordered in the whole, chaotic in the details. In recent times, there has been a return to an interest in the disorder of cities. Kevin Lynch, in The Image of the City (1960), while concerned that cities should be seen as a coherent pattern, recognized that in many American cities 'areas of formal order have little character' (22). Lynch insisted that 'complete chaos ... is never pleasurable', but at the same time wanted to avoid an environment so ordered as to inhibit future patterns of activity: 'what we seek is not a final but an open-ended order, capable of continuous further development' (6). A growing fascination with urban disorder appears in



I mella testra dorreturar lo so landrassa aspessore el majurale docardemento della percera altre la constanta della percera della praccia estimato della percera della percera tessera della percera della del

Filorete, plan of the ideal city of Sforzinda, c. 1460–64. Perfect form as the imag of perfect society – but history does not show that orderly plans necessarily produce social stability. Venturi and Scott Brown's Learning from Las Vegas of 1972: quoting Henri Bergson's definition of disorder as 'an order we cannot see', they present the environment of Las Vegas's main street, the Strip, as one not readily apparent, but only emergent:

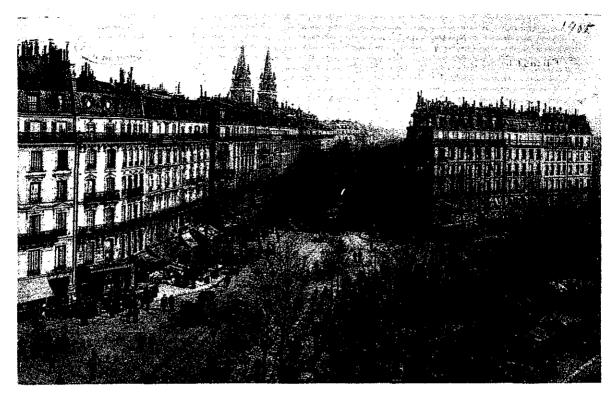
the order of the Strip includes; it includes at all levels, from the mixture of seemingly incongruous land uses to the mixture of seemingly incongruous advertising media plus a system of neo-Organic or neo-Wrightian restaurant motifs in Walnut Formica. It is not an order dominated by the expert and made easy for the eye. (52-53)

Quoting August Heckscher, they say 'Chaos is very near; its nearness, but its avoidance, gives ... force'. But without question, the work which most completely broke apart the old connection between visual order and urban order was Richard Sennett's The Uses of Disorder (1970). Sennett was critical of the purified, seemingly secure world of the white middle-class suburbs of America, and the withdrawal of most aspects of social interaction into the domain of the family. He argued that the problem of American cities lay in urban planning's misguided goal of aiming to reduce or avoid social conflict altogether in the city; instead, argued Sennett,

What should emerge in city life is the occurrence of social relations, and especially relations involving social conflict, through face-to-face encounters. For experiencing the friction of differences and conflicts makes men personally aware of the milieu around their own lives ... To make the experience of conflict a maturing one requires the destruction of an assumption regnant since the work of Baron Haussmann in Paris, an assumption that the planning of cities should be directed to bring order and clarity to the city as a whole. Instead of this idea ... the city must be conceived as a social order of parts without a coherent, controllable whole form. ... Encouraging unzoned urban places, no longer centrally controlled, would thus promote visual and functional disorder in the city. My belief is that this disorder is better than dead, predetermined planning, which restricts effective social exploration. (138-42)

Sennett's call for disorder meant dispensing with city planning as it was known; would the same be true of architecture?

Within modernist architectural circles, from the 1920s



Paris, junction of Boulevard Voltaire and Boulevard Richard-Lenoic, nineteenth-century postcard. 'An assumption that the planning of cities should be directed to bring order and clerity to the city as a whole? Haussmann's Paris was the principal example of an naturities analyst which radical urbanists rebelled in the 1960s.

to the 1960s, 'order' was a strong concept - indeed for many practitioners it was the concept that legitimated their activity and gave them the right to intervene in the social domain. As Le Corbusier's remarks in *Precisions* (quoted at the beginning of this entry) made clear, 'order' was a term that subsumed both compositional and functional considerations - and this was its appeal to the English architects Alison and Peter Smithson, who in the 1950s routinely described what they did as 'ordering', rather than 'designing'. The range of meaning incorporated by 'order' could be bafflingly large, as shown in Mies van der Rohe's inaugural address on his appointment to the Armour Institute (later Illinois Institute of Technology) in 1938. It is worth quoting part of this:

The idealistic principle of order, however, with its over-emphasis on the ideal and the formal, satisfies

neither our interest in truth and simplicity nor our practical sense.

So we shall emphasize the organic principle of order that makes the parts meaningful and measurable while determining their relationship to the whole.

And on this we shall have to make a decision.

The long path from material through purpose to creative work has only a single goal: to create order out of the godforsaken confusion of our time.

But we want an order that gives to each thing its proper place, and we want to give each thing what is suitable to its nature. (Neumeyer, 317)

Mies saw order as a key concept in architecture: what he meant by it includes the first of the senses described above (the relationship of parts to the whole), the third (a remedy for chaos and confusion), and even a hint of

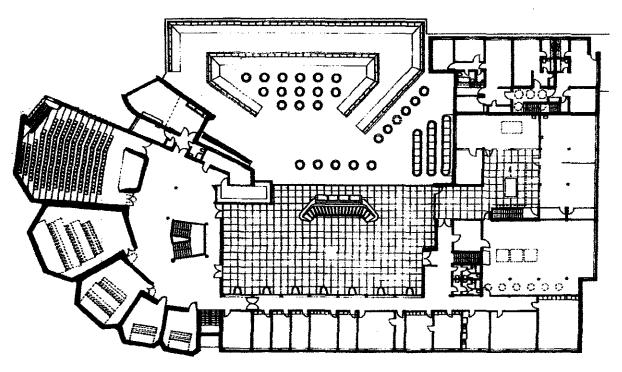


860-880 Lakeshore Drive, Chicago, Mies van der Rohe, 1948-51. 'Uniform and orderly pattern': modern architecture's love of 'order' became a soft target in the 1960s.

the second, in his claim that each thing (rather than person) have its proper place.

In the 1950s. Mies van der Rohe's work was valued by American critics for amongst other things, its order: for example, Peter Blake commented that 860 Lakeshore Drive 'presents a uniform and orderly pattern to the outside world' (194). Architects in the 1960s reacting against orthodox modernism picked on this category in particular as a soft target - soft partly because of the flabbiness it had acquired from overuse in the previous decades, partly because of the paradoxes inherent to it. The first extensive critique of what he called the modernist architects' 'prim dreams of pure order' (104) came from Robert Venturi, in his Complexity and Contradiction in Architecture of 1966. Venturi's book was not an argument against order - on the contrary, it was strongly in favour of it - but suggested that it was to be understood in a different way, and found in different places, to the assumptions made by orthodox modernism. There were two not connected arguments. The first, the book's most explicit theme, proposed that it was possible to have an orderly whole in works of architecture while the relationship of the parts themselves was complex and contradictory; they should be able to accommodate inconsistencies and irregularities demanded by the needs of programme and use without losing their overall coherence. Indeed, for Venturi, what gives architecture its interest is when order is broken by such anomalies. 'A building with no "imperfect" part can have no perfect part, because contrast supports meaning. An artful discord gives vitality to architecture' (41). But, he insists, 'Order must exist before it can be broken', and 'Indeed a propensity to break the order can justify exaggerating it' (41). Venturi's wish was to see buildings whose overall order was sufficiently strong to accommodate unanticipated alterations and additions: 'Our buildings must survive the cigarette machine' (42). The first of Venturi's arguments concerning order was essentially one to do with composition, and while original, still belonged within the original, Vitruvian sense. The second of Venturi's arguments was entirely different, and took issue with the conventional view amongst American architects, critics and urbanists that the landscape of American cities was disordered. Taking his cue from Pop artists, Venturi, discussing photographs of American streets, argued that

in some of these compositions there is an inherent sense of unity not far from the surface. It is not the obvious or easy unity derived from the dominant binder or the motival order of simpler, less



Plan, Cultural Centre, Wolfsburg, A. Aalto, 1958-63. "He does not disperse the parts not make them similar as lities does...": Venturi admired Aalto for refusing to succumb to modernism's compulsion for orderliness.

contradictory compositions, but that derived from a complex and illusive order of the difficult whole. (104)

In other words, Venturi argued that urban scenes which most people had dismissed as chaos, if one chose to look carefully, in fact manifested an order. 'It is perhaps from the everyday landscape, vulgar and disdained, that we can draw the complex and contradictory order that is valid and vital for our architecture as an urbanistic whole' (104). This was the theme pursued in Learning from Las Vegas.

Other architects and critics in the late 1960s also started to take an interest in disorder – Robert Maxwell, quoting Robert Herrick's poem 'A sweet disorder in the dresse', saw the architect's or city planner's problem as 'how to generate a satisfying complexity from a simple and essentially controllable system' (26). While it was one thing to talk of 'disorder', it was another to build it: one work in particular, Alvar Aalto's Wolfsburg

Cultural Centre, had aroused interest as a building which accommodated a number of distinct parts, each with their own separate geometrical system. Venturi had commented on this building, and it was written about at length by Dimitri Porphyrios – though however disparate the various spaces within, the overall form is strongly unified.

The entire re-orientation of the significance of 'order' occurred in the late 1960s through the work of two French philosophers, Michel Foucault and Henri Lefebvre. Neither were concerned directly with 'order' in architecture as such, but rather with 'order' in general, though both were aware of architecture's peculiar concern with 'order'. For both Foucault and Lefebvre, the creation of systems of order had been one of the main features of modern capitalism, and those systems of order pervaded thought, social life, economic relations, time, space, indeed everything. For both thinkers, the propensity to reduce the totality of experience to systems of abstract order was the single most distinctive feature of the modern world. Space is no exception, and according to

Foucault, 'In our era, space presents itself to us in the form of patterns of ordering' (351), that is to say not as direct experience, but in the various abstract schemes of series, trees and networks developed to comprehend it. In so far as architecture manifests 'order', it is merely reproducing more of what is already everywhere present. Within this scheme, the interest shown by architects in 'order' might be seen as a trivial game entirely internal to their own practice, and of no wider concern; but both Foucault, and more particularly Lefebvre, saw architects as carrying a general partial responsibility for the widespread prevalence of abstract models of thought. Lefebvre was critical of the reductivism of all forms of thought as they present themselves in the modern world, the tendency to privilege a single concept, and make everything else fit that concept. The reduced models developed by specialists are particularly dangerous because applied within a particular practice they impose an order, with its own self-fulfilling justification and finality, 'Urbanism and architecture provide good examples of this. The working class, in particular, suffers the effects of such "reduced models", including models of space, of consumption, and of so-called culture' (107).

The effect of Foucault's and Lefebvre's writing was that it was no longer possible to talk about 'order' innocently in architecture: in works of architecture, one was looking at a particular manifestation of the same formations, the same ordering processes that were encountered in all other aspects of life. Probably the first architect to appreciate this, and to try to turn it to advantage, was Bernard Tschumi. For Tschumi, the alliance of modern science and capitalism had resulted in the reduction of the world to models and concepts; his often repeated concern was to resist the dematerialization of architecture into the realm of concepts, making him suspicious of all categories of thought created around architecture, and particularly those which proclaimed architecture as having a 'unity'. The 'unity' of works of architecture was a product of the myth of 'the unified, centered, and self-generative subject, whose own autonomy is reflected in the formal autonomy of the work' ('Disjunctions', 208). Tschumi's aim was to conceive, and present, his work as free of the conceptual models which had allowed modern architecture to become enmeshed with capitalism and modern science. In particular, this meant questioning notions of unity and order. Of two works, one theoretical (Manhattan Transcripts, 1978 - see ill. p. 194), the other built (Parc de la Villette, Paris - see ill. p. 285), Tschumi wrote 'As they are conceived, both works have no beginnings, no

ends. They are operations composed of repetitions, distortions, superpositions, and so forth. Although they have their own internal logic ... The idea of order is constantly questioned, challenged, pushed to the edge' (209). In other words, for Tschumi, to question 'order' was to be concerned neither with the pursuit of beauty, nor with the avoidance of chaos, but rather with defining what an architect could still do in the post-structuralist era without becoming an accomplice in the general reduction of all things to abstract models.

It will be noticed though, that Tschumi did not suggest that 'order' could be dispensed with altogether, simply that it could be questioned. And other architects whose works appear entirely lacking in 'order', Coop Himmelblau, or Morphosis, however chaotic and allinclusive they try to make the process of designing or constructing their buildings, remain surprisingly strongly attached to 'order', albeit open-ended: Thom Mayne of Morphosis, while committed to the ideas that architecture should reflect the flux of modern culture through its incompleteness, nonetheless insists 'Our concern is to establish and work within coherences, or orders, that are general and multivalent' (8). One recent commentator. Paul-Alan Johnson, remarks that 'Order in architecture is undoubtedly considered by many architects to be too well-known to excite interest now' (240). While it may be true that 'order' is less talked about now than it was thirty years ago, this is hardly to do with its becoming 'too well-known'; rather the reason is that it has become too difficult to talk about, for the issues it raises are too large, and too threatening. If architecture does not create 'order', there would be no need to have architecture at all and the processes of environmental change can be left to get on with it on their own; but if architecture is in the business of producing 'order', it is involved in something far bigger than it can possibly handle, the process by which experience is filtered, transformed and fed back to us in reduced form, all in the name of 'culture'. In these circumstances, one can well understand why an architect might choose to remain silent on the question of 'order'.

<sup>1</sup> See Lubbock, The Tyranny of Taste, 1995, and Thomson, Renaissance Architecture, 1993, for rewarding discussions of these issues.

<sup>2</sup> Bentham, 1791, quoted in Evans, Fabrication of Virtue, 215. See chapter 5 of Evans's book for discussion of the Panopticon.