necessary to select and apply judgement as to which patterns are relevant. This is to some extent helped by a Michelin type star system – devised by Alexander – and by the fact that each pattern begins and ends with a list of other patterns to which it relates within the network.

The assumption implicit in the theory is that a design can be created by assembling the 'atoms of the environment' rather than by starting from a view of the whole, as in typology, for instance. Such design by accretion puts a low premium on intuitive leaps.

There are, it would appear, a number of architectural difficulties in these theories in the sense that they make propositions which go counter to the way we believe we design or which, if actually carried out, would produce buildings which are unlikely to solve the problems of creating architecture as we know it. There are additionally very serious logical issues which, for example, Janet Daley – a philosopher – addressed at a symposium in Portsmouth in 1967 (Daley, 1969, pp. 71–76). She aimed her 'most vituperative abuse' (her phrase) at behaviourism and Alexander's *Pattern Language* for their internal contradictions and misuse of language. She particularly castigates behaviourism for its assumption that it is value free, and *Pattern Language* for its belief that it can establish the criterion of rightness. Neither seems a safe theory to follow or to use as an adequate explanation.

The three theories which have been outlined stem initially from outside architecture. Perhaps we should look for theories from within architecture since these might turn out to be more applicable. Arguably there are two theories which need to be considered: that of universal space and that of served and servant space. We associate the first with the work of Mies van der Rohe and the second with Louis Kahn. Both theories, however, suffer from the weakness that they are as much prescriptive as descriptive; they tell us rather more about what we should do than explain what we actually do when we design.

Typology, functionalism and the Pattern Language all have embedded within them as fundamental the idea that precision in knowing what the uses of a building are to be is likely to be highly beneficial in determining a design; may, in fact, be essential before even a start can be made. The theory of universal or anonymous space starts with the opposite assumption, namely that we are unlikely to know all aspects of the uses and that in any case these are going to change over time. What is, therefore, required is undifferentiated space within which a great number of activities can take place with only minimal adjustment. We devise a whole rather than analyse the atoms.

But is there such a thing as undifferentiated space? If we take the open floor of Mies's Crown Hall of 1950–56, the building for the departments of architecture and city and regional planning as well as the Institute of Design on the Illinois Institute of Technology campus in Chicago, it is at once obvious that we are dealing with a very large space. The column free plan measures 220 ft by 120 ft (67 m $\times$ 36.5 m) and is only interrupted by two service cores. Free standing partitions can be placed anywhere. Mies said of Crown Hall. 'I think this is the clearest structure we have done, the best to express our philosophy'. Yet it is hardly undifferentiated space, to be near the glass perimeter is very different to being in the middle.

To overcome this, many buildings and particularly factories, substituted opaque walls for glazing and excluded daylight or only allowed highly controlled light to come through the roof. This may have solved one problem but simply created a host of others: view out, a sense of daylight and sunlight, contact with the outside, were all ruled out. Aldo van Eyck coined the phrase 'the glove that fits every hand, fits no hand' as a way of describing the dilemma, but by no means offering a solution.

The fact that Mies did not fully achieve his aims – in any case a whole array of small and specific rooms is placed in the semi-basement – does not detract from his greatness as an architect or the significance of Crown Hall. It only demonstrates