The explanation also needs to be sufficiently general to embrace a significant number of examples and to be seen to correspond reasonably well to the way in which we actually design or, at least, to the way we think we design.

The test may, what is more, be influenced by our views on innovation and continuity. We may, if we are traditionalists for instance, favour one explanatory theory because it strongly supports continuity at the expense of innovation. Our test is therefore unlikely to be value free.

The architects of the temples erected throughout the Roman Empire over several centuries worked, it would seem, on the basis of accepting a form as a *type* which is only to be varied within narrow limits. The idea was very much later given some formal underpinning when in 1800 J.N.L. Durand published a volume called a *Compendium & Parallel of Ancient & Modern Buildings*, the *Recueil,* and between 1802 and 1805 his '*Précis des leçons d'architecture données à l'École Polytechnique*'. Both are predicated on the idea that there are building types and that these have a discoverable morphology. The volumes illustrate these types under various headings – towns halls, abattoirs, theatres – and the designs are now most notable for their uniform symmetrical neo-classical appearance. The architectural categorisation is seen as a rational parallel to the classification of plants and animals which had taken place in the 18th century and which had proved so scientifically fruitful.

In Sweden, for example, Linaeus (Carl Linné 1707–78) devised a botanical taxonomy which was the first major attempt to bring some systematic order to a part of the natural world. Such a system of classification proved extremely useful and is still applied today. If such an immense and varied area of study as that of plants can be ordered according to a comprehensible system, cannot a similar system be achieved for architecture? Linaeus based his classification on the form of the plant's flower; Durand's published volumes categorise buildings by their function. However, this biological analogy – like many

other analogies applied to architecture – has its dangers. The existence of species and their acceptance as distinct recognisable entities depends on the fact that they copy themselves; that there is a process of 'invariant reproduction'. We know swans from geese because each species reproduces its particular characteristics sufficiently faithfully. Arguably Roman temples are equally recognisable as such and can be distinguished from other building types. Buildings for the performing arts may also display morphological similarities in plan and section that make them readily recognisable. It is unlikely, however, that the theory of types, of typology, can be applied to most buildings. The theory is, it would seem, of limited utility, although in the last fifty years typology has found serious support in the writings of Aldo Rossi and Rob Krier. Both base their views on their understanding of the traditional (i.e. pre-20th century) European city centre and the kind of spaces and buildings which it created rather than on function. Its limited application does not, it must be emphasised, make it invalid; it only means that we are justified in looking for other theories that might have greater application.

The fact that Durand used the function of a building as the significant characteristic is probably not fortuitous. We recognise that buildings vary according to their purpose and daily see the difference between them. It is the most obvious categorisation. What is, however, also assumed is that such systematic ordering will enable us to design future solutions on the basis of the discovered type; that success depends on the repetition of the significant characteristics.

The idea that form arises from the functions to be performed in a building and that these can be specified is, ultimately, underpinned by the notion of determinism. In its functionalist guise, however, determinism has a number of logical problems. The first is that any set of functional criteria – verbal or numerical – have to be expressed without simply being a description of the solution. If the solution is already present,