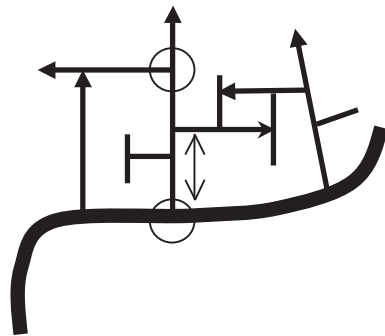


9.1 • 'Bad' and 'good' pattern replication. Layout design considered as if whole pattern template 'copied and pasted' on to site. (a) Stereotype of 'standardised tree-like' pattern. (b) Neo-traditional grid.



9.2 • A constitutional approach only specifies elements and connections, not final patterns. A dendritic constitution need not result in a tree-like configuration.

Design debate revisited

At the outset of the book, the design debate was considered in terms of the contrasting approaches of conventional highway engineering and neo-traditional urbanism. Figure 9.1 shows how these approaches may often appear to manifest themselves in resultant patterns.

Case (a) represents the 'problem': this is the kind of layout for which engineers are blamed, and which neo-traditional urbanists would like to replace. Their solution is often something like case (b), in which conventional road hierarchy is rejected, to be replaced by a 'best practice pattern' based approach, with grid-like configurational or compositional exemplars (for example, Poundbury, or 'preferred' and 'discouraged' exemplars: Figures 2.7 and 2.8).

However, when looking more closely at the generation of urban structure, things are not what they might appear at first sight. The highway engineers' actual rules relate only to local connections, and therefore allow a local, incremental approach where no single configurational outcome is prescribed (Figure 9.2).

This approach also allows flexibility of application by individual designers and allows emergent forms. In principle, the rules of hierarchy can be used to synthesise structure without specifying any overall pattern. This is a constitutional, rather than a configurational approach. Seen this way, the apparent lack of design guidance for overall pattern, encountered in Chapter 2, is perhaps better interpreted simply as an *absence*.

The case shown in Figure 9.1(a) is more of an impression of the *perception* of replicating 'standardised' loop-and-cul-de-sac layouts, in which hierarchy (dendritic constitution) is perceived to be inevitably entwined with tree-like configurations. While these may often have been associated in practice, it is not an inevitable outcome in principle.

As seen in Chapter 7, Colin Buchanan explicitly rejected the notion of road types such as 'ring roads' which presupposed the final layout of a road with respect to overall network structure. Instead, he opted for route types defined only by their immediate rules of relation. In this sense, Buchanan's system was a flexible mode of pattern generation. It is tempting to suggest that this is part of the reason why Buchanan's 'code' has been so resilient, and its descendants live on today, albeit in an adapted form, almost four decades later (while *Traffic in Towns'* physical planning and urban design solutions have fallen out of favour).

In other words, it is not the constitutional (hierarchy-driven) approach of highway engineering that is at fault, but the rigid application of the hierarchical structures conventionally employed. In principle, a constitutional