

relative to any other can be calculated, and hence an average depth can be calculated for the whole network. In Figure 5.6, for example, line 6 is the 'deepest' with respect to line 1, and vice versa. The way in which depth is distributed about major streets, which tend to be constituted by the most 'integrated' lines, gives an impression of a 'hierarchy', or distinction between major and minor routes, which may equate with intensity of use.⁷

Space syntax has provided some important insights into the structure of urban street networks. For example, Hillier and associates have contrasted the structural properties of successful traditional settlements with dysfunctional quasi-traditional housing estates, demonstrating how their success or failure is significantly related to their layout structure, rather than their architectural style. This has lessons for neo-traditional urbanism, since it implies the importance of a clear grasp of the spatial structure of development, and not just the form of the buildings.⁸

The focus on linear elements sets space syntax apart from the conventional graph-theoretical treatment of networks discussed earlier. It captures properties of urban street networks that other methods based on links and nodes do not. If we look again at the two small network examples, we see that space syntax successfully distinguishes these as distinct structures (Figure 5.7).

Note, however, that while Figure 5.7(e) reveals the central 'high street' as the least deep line, in Figure 5.7(f) the least deep (most integrated) line is one of the side roads. This may or may not be significant – depending on whether the axial map is going to be used as the basis of predicting movement, as well as describing spatial structure.

Clearly, the structural depiction of any layout will depend on the objective of the depiction, and on the 'object' chosen for selection in the first place – where the boundaries of the plan are drawn, and which spaces within it are selected for representation. In this respect, space syntax is no more subjective than conventional transport network analysis, whose connectivity values will depend on whether the network representation includes, for example, all minor roads and pedestrian links and passageways. Any network representation could be considered subjective; the key point is whether a given representation actually captures what it sets out to capture.

The effectiveness of space syntax for representing movement structure will depend on how strongly axial lines of sight correspond with lines of movement. In the bounded space of a traditional street grid, these typically have a good fit. But in a modern open plan layout, the correspondence is not necessarily reliable. Movement – especially vehicular movement –