

4 PATTERN TYPE

Shape has proved one of the most elusive of geometric characteristics to capture in any exact quantitative fashion. Many of the terms in common usage . . . turn out to be arbitrary so that misclassification is common, while some of the more mathematical definitions fail to do justice to our intuitive notions of what constitutes shape.

Haggett and Chorley, *Network Analysis in Geography*¹

Hamlet: Methinks it is like a weasel.

Shakespeare

The complexities of shape and structure set street pattern apart from many other objects of urban or transport analysis. For example, road width is merely a linear quantity and traffic flow is a simple ratio (vehicles per hour). Even the issue of density boils down to a straightforward ratio, however fiercely the significance of different numerators or denominators may be contested. By contrast, there is no straightforward or standard descriptor that is used to capture street pattern. This fuels the profusion of verbal descriptors encountered in Chapter 2.

Yet, unless we have an adequate description of pattern or structure, it will remain difficult to compare structures across cases – identifying patterns that are ‘good’ or ‘bad’ for different purposes – and hence make robust, generalisable recommendations for the design of urban layout.

This chapter explores the nature of pattern through a variety of ways in which *street* pattern may be characterised. The chapter first explores a diverse range of existing characterisations of pattern, before using what has been learned to develop some new qualitative and quantitative