standards. It considers some of the roots for the ideas behind both lowering and increasing densities, and the claims made for attempts to implement such standards. Delving into the past gives a perspective on the current debate, and shows that little may have changed. There appear to be clear cultural boundaries in the UK that mitigate any radical shift towards the forms of development that might be needed to assure sustainability. The chapter ends with a short speculation about the concept of density in a wider global context.

High density: overcrowding?

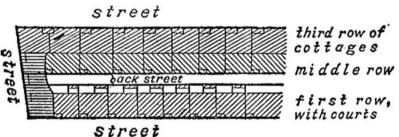
Arguably, there is a point in time when density came into the consciousness of politicians and the public in general. During the 19th century, towns and cities in Britain experienced a process of unprecedented rapid urbanisation. By the 1840s London was a huge city of 2½ million people, and the industrial cities of the North - for example, Birmingham, Leeds, Liverpool and Manchester - were growing with astonishing rapidity. The big issue was a combination of overcrowding, unsanitary conditions and poor health amongst the poor. Engels most vividly portrayed the living conditions of the mass of the population of 19th century cities between 1844 and 1845. In London, quoting a local preacher in Bethnal Green he noted that 'it is nothing unusual to find a man, his wife, four or five children, and, sometimes, both grandparents, all in one single room' (Engels, 1892 (1969 edn.) p. 62). Of particular interest here, he highlighted the built forms that were common, specifically housing courts (Figure 15.1) which were enclosed with buildings backing on to each other, and an emerging form of new development, the 'back-to-back' terraces (op. cit. see Figure 15.2). A similar pattern existed in many industrial towns, for example, areas with courts and back to backs in Liverpool resulted in densities of around 700 persons per acre (1730 persons per hectare) (Muthesius, 1982). Although the term density was not explicitly mentioned, the link between numbers of people living in a given area, and the form of residential development, had been implicitly made.

The problems of health, sanitation, water and slums were subject to legislation to ameliorate some of the worst excesses. However, it was the Public Health Act of 1875 that proved a landmark. It had 'three direct influences on building; it gave power to urban authorities to make building by[e]-laws, it established . . . the principle of building lines, and it required

Figure 15.1
A Victorian housing court.
(Source: Cadbury Schweppes, 2005)



Figure 15.2 The back-to-back terrace: a high-density, overcrowded and unhealthy urban form. (Source: Engels, 1892 (1969 edn.) p. 89.)



every authority to appoint a surveyor' (Edwards, 1981, p. 67). Effectively the bye-laws controlled the width of streets and prevented development from projecting beyond a building line. It led to a form of development that transformed cities throughout the UK into the early part of the 20th century, with straight streets in a grid pattern with uniform terraced housing (Figure 15.3). Bye-law housing spread rapidly to the suburbs, in a similar form, but with wider streets and slightly more spacious terraced houses. The density of this form of