

Size and distance

How do we appreciate distances and size in space? Clearly this is a rather subtle and sometimes unreliable process. As a young architect I learned early on never to let the client visit the building site when only the foundations were dug. It always looks far too small at this stage, and several of my clients when shown the ground slab have panicked and questioned whether the builder has got it right or whether I have grossly underestimated the size of space they need!

In general we are not very good at any form of absolute perception, but we are much better when relying on relative comparisons. Few people have perfect pitch, for example, and most of us cannot, if asked, sing a specified note. However, once we hear that note we can generally make a pretty good stab at singing the major scale based on it. Similarly, we are notoriously bad at absolute perception of colour. How many of us can remember exactly the colour of our living room carpet when trying to choose some curtains to match in a shop? However, many of us do have quite a good sense of which colour curtains to choose if only we have a sample of the carpet with us.

So it is with distance. We estimate the distance of an object in space from several important clues: first, the size it appears to be, and secondly the way it seems to move in space as we move both our head and eyes. Finally our brain is able to perform some astonishingly clever analysis on the information coming from our two eyes, which give slightly different images. Those who have worked on machine recognition of objects have come to realize just how clever we are at this when they have to try to write computer programs to perform similar functions. However, almost all that follows in this book depends upon us performing this miraculous feat on a more or less continuous basis without conscious effort or even being aware that it happens!

Scale

This book will not discuss the detail of size and distance perception, but we introduce the subject in order to discover an even more subtle and important component of the language of space. Of course we know that objects do not actually change size as they move away from us – the people at the far end of a queue are not actually smaller than the people right next to us! (Fig. 3.1). So although the image changes, our perception does not. We hold the concept constant in our minds. Similarly, we learn that as something turns round in front of us it does not actually change shape. These are mental tricks we have had to learn and were unable to perform as very young children. The small child learns to recognize objects such as chairs, but initially may not be able to do so if they are placed in unusual orientations such as on their side or upside down. Even as adults we have all developed our own degree of sophistication at this skill. Matching complex and rotated or