There is also a simple and unavoidable reason why the photograph or any other two-dimensional representation is unable to replicate our normal view of a three-dimensional object. Leonardo was aware that looking at a sphere the left eye sees slightly further round the left and the right eye further round on the right. Stereo vision was not defined until 1838 by Charles Wheatstone, a physicist, who wrote:

> 'It will now be obvious why it is impossible for the artist to give a faithful representation of any near solid object, that is, to produce a painting which shall not be distinguished in the mind from the object itself. When the painting and the object are seen with both eyes, in the case of the painting two *similar* pictures are projected on the retinae, in the case of the solid object the two pictures are *dissimilar*; there is therefore an essential difference between the impressions on the organ of sensation in the two cases, and consequently between the perceptions formed in the mind; the painting therefore cannot be confounded with the solid object.'

The great number of books published on architecture are highly dependent on photography. The reputation of a considerable number of architects is based on our appreciation of their work as published in journals and books. Personal verification is sometimes a shock; the spaces in Frank Lloyd Wright's Taliesin West, for instance, seem much smaller than one would infer from photographs. Books are, nevertheless, powerful transmitters of precedent and influence model choice.

The most influential book in the history of western architecture is probably Palladio's *Quatro Libri*. A style that dominated Britain for much of the 17th and 18th century, was prevalent on the east coast of America and had its effect on building in other colonies during the 18th century and the beginning of the 19th, can be traced back to Palladio's illustrations. Just how important the several translations and editions of Palladio's 'Four

Books' were can perhaps be judged by the fact that Thomas Jefferson (1743–1826) – president and architect – travelled to Italy to study rice cultivation but never saw a building by Palladio. He did, however, own a copy of the 'Four Books' in Giacomo Leoni's translation published in 1715. Although Jefferson was, later in his life, to admire and be influenced by French neo-classical architecture, the work of Palladio remained both fountainhead and touchstone. Jefferson's Palladian 'The Lawn' at the University of Virginia is among the most significant buildings of the early days of the new republic (Brawne, 1994).

The value of books may lie in their wide distribution facilitating the establishment of a style, of a sufficiently generally accepted vocabulary of characteristic forms. The significance may also be due – perhaps paradoxically – to the fact that they are less defining than actual buildings. Because illustrations convey less information than the building itself, we are free to add to that information and to use it more selectively. Or to put it another way, we are left with a greater opportunity to innovate. What is true for book illustrations holds equally for images seen on screen produced by a disk.

Buildings in our immediate surroundings or those seen while travelling, together with illustrations and computer images, are all stored in our visual memory to emerge when relevant, as part of our non-verbal thinking during the tentative solution stage of the design sequence. Our memory is also part of that awareness which influences our first selection of the initial problem; we impose a problem on ourselves, for instance, because the current visual expression appears unsatisfactory but something seen elsewhere or in books seems more appropriate, more acceptable, thus affecting both problem recognition and the tentative solution. Memory plays a huge and vital role in all visual thinking.