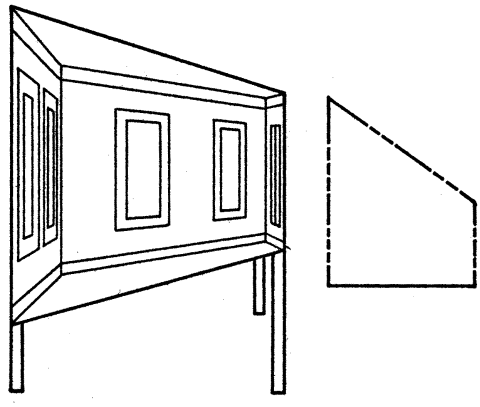

Right
Ames Experiment; seen with one eye the room with sloped floor, end wall and ceiling is perceived as a rectangular room in perspective

move in order to keep the object of interest at the centre of the retina.

The problem is, paradoxically, that the photographic representation shows us too much. The whole picture is in focus while in reality we see images clearly at the centre of our cone of vision but less so at the periphery. That cone of central vision has an angle of only about 2°; less precise peripheral vision gives us the context for the small-scale detailed information. As a result we are continually moving our eyeballs and, if necessary, our head in order to maintain images in clear vision. Use of the wide-angle lens only compounds the unreality of the photograph.

What information we do absorb from photographs, film or computer images is of course very largely dependent on our visual memory. The expectant eye is at work as has been demonstrated by the Ames experiments, for instance. We refuse to see a rotating trapezoidal window as anything but a normal oscillating rectangular window frame where perspective distorts the 90° angles. Further research also showed that African boys from rural areas, where rectangular windows are rarer, were less susceptible to this illusion than those from urban areas or European boys (Vernon, 1962, pp.149–50). This is not to suggest that such perceptual fallacies are a continuous occurrence, but only that we are heavily reliant on visual memory.

Below
Henry Parker, Student measuring the Temple of Castor & Pollux in Rome; watercolour made to illustrate the Corinthian order for Soane's Royal Academy lectures 1819; the Soane Museum London