FIGURE 11.10 The line of intersection of two planes. (a) The overlap after the plot showing the plunge and pitch of the line. (b) The dihedral angle between the two planes.
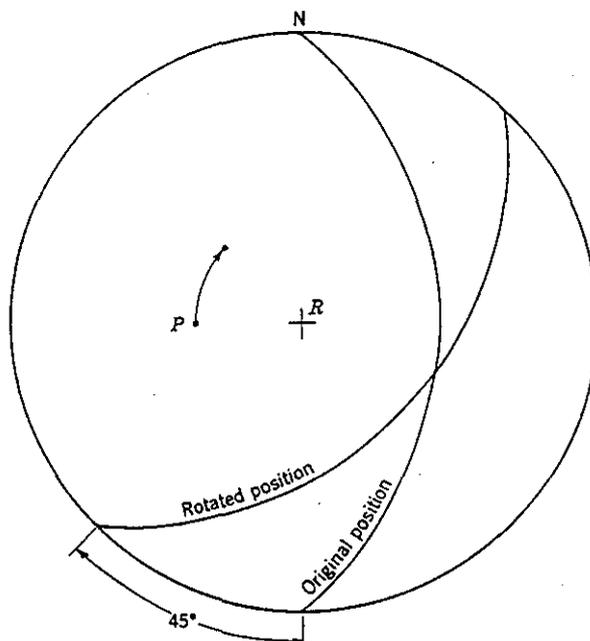

FIGURE 11.11 The rotation of a plane about a vertical axis.

the overlay is revolved so that R coincides with the north-south diameter of the net. In this position, a rotation moves points along the small circle paths. In Fig. 11.12 a plane dipping 60° is rotated anticlockwise as viewed from the south end of R. Although either points or great circles may be rotated, it will be found that working with points is much easier.

It is sometimes necessary to rotate a structural element to horizontal and beyond. Fig. 11.13 illustrates how this is handled. A line (30, N 29 E) is rotated anticlockwise 100°. After just half of this rotation the point lies on the primitive—the line is horizontal. With a further increment of rotation the other end of the line moves into the lower hemisphere at a point diametrically opposite and proceed along the same small circle.

Two methods for rotating about an inclined axis are available. The first depends on previous methods, and consists of rotating R to a horizontal orientation, performing the