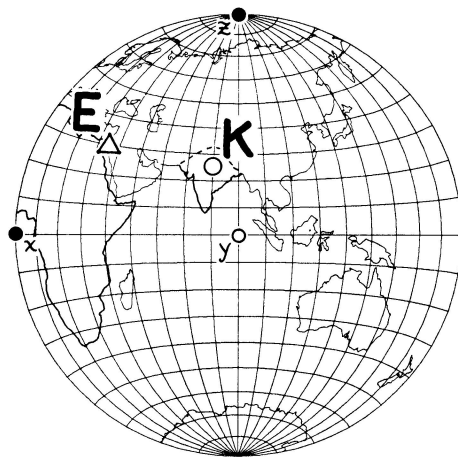


Box 7-1. How to Rotate Graphically.

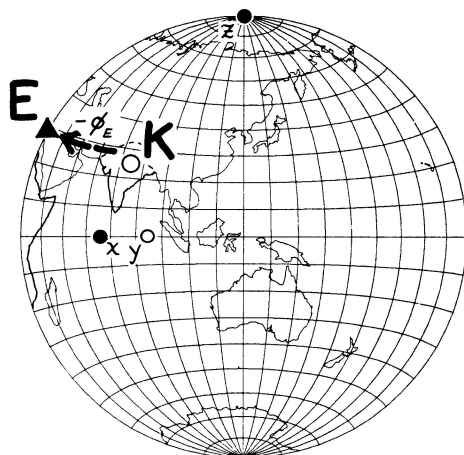
To reconstruct point $\mathbf{K} = (\lambda_K, \phi_K)$ on the India plate using the Euler pole $\mathbf{E} = (\lambda_E, \phi_E)$ and angle Ω that reconstructs India with respect to Africa, recall that one of our favorite tricks is to align the Euler pole with the **3** axis at the top of the projection. This is done because during rotation about the **3** axis, a point simply moves along one of the latitude circles of the projection. These circles are concentric about the **3** axis.

Using a stereographic or an equal area projection, any finite rotation can be accomplished using five successive rotations about the **2** and **3** axes. The first two rotations align the Euler pole \mathbf{E} with **3**, the third rotation is the desired rotation, and the last two rotations return \mathbf{E} (and the globe) to its original position. The position of India is shown before the rotation (with point \mathbf{K}) and after the rotation (with point \mathbf{K}').



- Plot \mathbf{E} , \mathbf{K}

Set up projection.



(continued)