

The earliest suggestion on this subject known to the writer is that of my old and dear friend, Professor Asa Gray, in 1867, with reference to the probable northern source of the related floras of North America and Eastern Asia. With the aid of new facts disclosed by Heer and Lesquereux, Gray returned to the subject in 1872, and more fully developed this conclusion with reference to the Tertiary floras,¹ and still later he further discussed these questions in an able lecture on "Forest Geography and Archæology."² In this he puts the case so well and tersely that I may quote the following sentences as a text for what follows:—

"I can only say, at large, that the same species (of Tertiary fossil plants) have been found all round the world; that the richest and most extensive finds are in Greenland; that they comprise most of the sorts which I have spoken of, as American trees which once lived in Europe—Magnolias, Sassafras, Hickories, Gum-trees, our identical Southern Cypress (for all we can see of difference), and especially *Sequoias*, not only the two which obviously answer to the two Big-trees now peculiar to California, but several others; that they equally comprise trees now peculiar to Japan and China—three kinds of Ginkgo-trees, for instance, one of them not evidently distinguishable from the Japan species which alone survives; that we have evidence, not merely of Pines and Maples, Poplars, Birches, Lindens, and whatever else characterize the temperate-zone forests of our era, but also of particular species of these, so like those of our own time and country, that we may fairly reckon them as the ancestors of several of ours. Long genealogies always deal more or less in conjecture; but we appear to be within the limits of scientific inference when we announce that our existing temperate trees came from the north, and within the bounds of high probability when we

¹ Address to American Association.

² *American Journal of Science*, xvi., 1878.