Some of the leaders in current geological thought are what Diener, in the Introduction to his admirable little book on Biostratigraphy, calls devotees of geoposie, geotheosophie, or transcendental geology, and it is for these that the story of Antaeus originated several thousands of years ago, although it contains a moral that all of us can reflect upon with profit.

Let me recall what finally happened to Antaeus. Heracles, discovering the apparently hidden source of his strength, lifted him up and held him away from the earth, and thus was able to crush him to death, and so he perished miserably.

According to their varying temperaments the wisdom of all of the ancients voices the same admonition for geologists. We find in the book of Job the phrase "Speak to the earth and it shall teach thee," and be it remembered that it is only in this way that a geologist may acquire wisdom—it is not obtained by floating above the clouds with Jupiter, nor by projecting oneself in imagination into the realm of his brother Pluto, and I believe that much that passes as science in current geological writings is not science at all, however pleasing it may sound.

The same thought is repeated for us in the words of the saintly flower of medieval monasticism, the abbot of Clairvaux, who says: "Trees and rocks will teach what thou canst not hear from a master." (Bernard, 1090–1153.) It behooves us then, if we are to add a chapel or a pinnacle, or even an additional column, arch or foundation stone to the Temple of Geology, to stop our ears to the lure of the sirens of speculation, and the imaginary spiritualistic voices of arm chair philosophy, and to hie ourselves to the seashore and the rocks.

Otherwise the fate of Antaeus is sure to overtake us, if it has not already done so.

EDWARD W. BERRY
THE JOHNS HOPKINS UNIVERSITY

UPPER PLEISTOCENE OCCURRENCE ALONG THE OAXACA COAST OF MEXICO

THE Oaxaca coast of Mexico is a series of alternating depressions and elevations. In one of the recently elevated areas there are exposed patches of Upper Pleistocene for a distance of some twenty-eight miles. In some places the formation is exposed along the shore and in others a mile and a half inland. It forms a low cliff with an extreme elevation, where observed, of fifty! At other points it is but a few feet high and in still others it is exposed only at low tide.

For the most part the formation is a soft gray or buff sandstone, though locally it is hard and flinty. In one of the exposures there is an abundant fauna that is remarkably preserved. Many of the extremely fragile shells are entirely intact, gastropods with protoconchs are common and in many cases the colors still persist. The preservation of the forms are, almost without exception, better than that of the shells living along the coast. This preservation and the absence of any appreciable cross-bedding are indicative of tranquil shore conditions, which strongly contrasts with the present-day wave-buffeted strand.

A majority of the forms are the same as those now living along the present beach; some are not known to be living and a few show slight though constant differences from their living descendants, suggesting that evolution has been operative since Pleistocene times among the invertebrates as well as among the vertebrates.

Another fact of interest is that among this fauna there are ten or more species that are reported only from Panama and further south. This indicates that the sea was somewhat warmer than at present, which is in accord with the northern migration along the west coast that is known to have occurred during Upper Pleistocene.

R. H. PALMER
STANFORD UNIVERSITY

CONSERVATION OF OUR NATIVE CHESTNUT

IN 1924 the writer published a note[1] concerning the survival of chestnut trees in Pennsylvania, on an area in which the trees were carefully measured for new growth and blighted wood. It was found that the new growth was eighteen times that killed in the same year. Other observers, as Clute,[2] Collins,[3] Gravatt,[4] Graves[5] and Hodson,[6] have noted immunity to some degree, or recovery of portions once blighted. The bark at the base has been demonstrated (Graves, *l. c.*) to be more resistant, apparently because of a larger tannin content.

In the past summer (1925) the same plot was resurveyed and the ratio of new to old growth was

[1] Kelley, A. P., 1924, "Chestnut Trees Surviving Blight," SCIENCE, n.s. 60: 292–293.

[2] Clute, W. N., 1924, "Resistant Chestnuts," *Am. Bot.*, 30: 168–169.

[3] Collins, J. F., 1920, "Note on Resistance of Chestnut to Blight," *Phytopath.*, 10: 368–371.

[4] Gravatt, G. F., 1926, "Scouting for Blight Resistant Chestnuts," *Amer. Nut Journ.*, 24: 8.

[5] Graves, A. H., 1926, "The Present Continued Development of Basal Shoots from Blighted Chestnut Trees," SCIENCE, n.s. 63: 164–165.

[6] Hodson, E. R., 1920, "Is American Chestnut Developing Immunity to the Blight?" *Journ. Forestry*, 18: 693–700.