

GEOLOGIC PAST

Highlighting Articles from *GSA Bulletin*

ANTS MOVE THE EARTH

GSA Bulletin, August 1910

J.C. Branner: *Geologic work of ants*

J.C. Branner presented his paper “Geologic work of ants” to GSA’s Cordilleran Section on 25 March 1910; it was published in *GSA Bulletin* in August that same year (v. 21, p. 449–496). In this paper, Branner exposes the geologic impact of tropical ants, as seen in “their nests, habitations, refuse heaps, or mounds, above ground and their burrows, tunnels, passage-ways, and other excavations beneath the surface, and the opening up of the soil and the subjacent rocks to various atmospheric influences” (p. 450). The study is focused on the ants of South America (especially Brazil and Paraguay), and Branner notes, “Though the ants of Switzerland and of temperate regions generally exhibit the same ingenuity and intelligence as those of tropical countries, as geologic agents they are very tame indeed” (p. 452).

Branner’s article is well illustrated; drawings and descriptions of some mounds constructed by ants in Brazil showed them to be “as much as 5 meters high, with bases 15 or 16

meters in diameter” (p. 465). Extensive tunneling, another ant-impact on geology, is also illustrated and described: “The length of the tunnels has often been demonstrated by forcing smoke through them. I have myself seen fumes blown into one opening and issuing from others as much as 300 meters away” (p. 473).

John Casper Branner (1850–1922) was president of GSA in 1904. He served as assistant geologist to the Geological Survey of Brazil from 1874 to ca. 1884 and was later vice president (1889–1913) and president (1913–1915) of Stanford University. He also served as president of the Seismological Society of America in 1911.

