

grassy surface may be slowly and imperceptibly heightened in this way, and a soil may be formed differing considerably in chemical composition from what would result merely from the decay of the subsoil.¹⁵

On the sites of ancient monuments and cities, this reproductive action of the atmosphere can be most impressively seen and most easily measured. In Europe, on sites still inhabited by an abundant population, the deep accumulations beneath which ancient ruins often lie are doubtless mainly to be assigned to the successive destructions and rebuildings of generation after generation of occupants. But at Nineveh, Babylon, and many other Eastern sites, mounds which have been practically untouched by man for many centuries consist of fine dust and sand gradually drifted by the wind round and over abandoned cities, and protected and augmented by the growth of vegetation.¹⁶ In those arid lands, the air is often laden with fine detritus, which drifts like snow round conspicuous objects and tends to bury them up in a dust-drift. In Central Asia, even when there is no wind, the air is often thick with fine dust, and a yellow sediment settles from it over everything. In Khotan an exceedingly fine dust sometimes so obscures the sun that even at midday one cannot read large print without a lamp. This dust, deposited on the soil, heightens and fertilizes it, and is regarded by the inhabitants as a kind of manure, without which the ground would be barren.¹⁷

¹⁵ C. Reid, *Geol. Mag.* 1884, p. 165.

¹⁶ The rubbish which, in the course of many centuries, has accumulated above the foundations of the Assyrian buildings at Kouyunjik was found by Layard to be in some places twenty feet deep. It consisted partly of ruins, but mostly of fine sand and dust blown from off the plains and mixed with decayed vegetable matter. Layard, "Nineveh and its Remains," 3d edit. ii. p. 120. See also Richthofen's "China," i. p. 97.

¹⁷ Johnson's "Journey to Hohi, the capital of Khotan," *Journ. Geog. Soc.* xxxvii. 1867, p. 1. H. B. Guppy, *Nature*, xxiv. (1881), p. 126.