

southwest Siberian steppes.⁷⁰ Besides these distinctively steppe animals the loess contains numerous remains of the mammoth and woolly rhinoceros, likewise bones of the musk-sheep, hare, wolf, stoat, etc. It has also yielded flint implements of Palæolithic types. The bones of man himself were claimed many years ago by Ami Boué to have been found in the loess, and his opinion has been in some measure strengthened by more recent observations.

The origin of the loess is a problem which has given rise to much discussion. It has been regarded by some writers as the deposit of a vast series of lakes; by others as the mud left by swollen rivers discharged from melting ice-fields; by others as a sediment washed over the surface of the land by an abundant rainfall. The remarkably unstratified character of the loess as a whole, its uniformity in fineness of grain, the general absence of coarse fragments, except along its margin, where they might be expected, its singular independence of the underlying contour of the ground, and the almost total absence in it of fluviatile or lacustrine shells, seem to prove conclusively that it cannot have been laid down by rivers or lakes. On the other hand, its internal composition, the thoroughly oxidized condition of its ferruginous constituent, its distribution, and the striking character of its inclosed organic remains, point to its having been accumulated in the open air, probably in circumstances similar to those which now prevail in the dry steppe regions of the globe. It appears to mark some arid interval after the height of the Glacial Period had passed away, when, while the climate still remained cold and the Arctic fauna had not entirely retreated

⁷⁰ Nehring, *op. cit.* p. 51, where a reference to this author's numerous memoirs on the subject will be found.