

sixteenth centuries this overflow actually occurred, and it would appear that this was a period of comparatively high rainfall in Eastern Europe and Western Asia. As far as may be judged from the evidence that has been collected, it seems that from about 400 B.C. to 400 A.D. the climate of the Aralo-Caspian basin was damper and cooler than now. From 400 to 800 A.D. there was a transition to a warmer or drier epoch than that of to-day; this was succeeded in the course of the next few centuries by somewhat damper or cooler conditions of the fluvial period, and in turn there has been a change to our modern drier period.

The Caspian Sea and the Aral Sea are salt lakes, which owe their saltiness to their having been originally part of the ocean, from which they were separated, in the opinion of Russian geologists, by underground movements or warping of the earth's crust at a comparatively recent geological period. These movements, according to Helmersen,<sup>1</sup> are still in progress, and this has been given as one reason for the desiccation of the Central Asiatic area. The Tertiary deposits of the north of India show that elevation must have gone on in Central Asia continuously during the Tertiary period, and at the present time the same process is being steadily continued. It is interesting to note in this connection that the western portion of North America has similarly been undergoing a steady elevation, and at the same time a continued desiccation has been in progress.

The molluscs living in the waters of the Caspian Sea are very much like those living in the Black Sea, and banks of similar shells may be traced between the two seas. This and other evidence, together with the fact that many salt lakes and marshes are found in the district, indicate that the Caspian Sea was formerly connected with the Black Sea, and that a great firth running up between Europe and Asia stretched completely across what are now the steppes and plains of the tundras, till it merged into the Arctic Sea.

**Caspian Sea**, the largest inland body of water in the world, is 180,000 square miles in extent, and has a maximum depth of about 3200 feet, which makes it rank as the second deepest lake in the world (a sounding of 5413 feet has been taken in Lake Baikal). Its basin is naturally divided into three portions, of which the northern is the shallowest (maximum depth 120 feet), and is being gradually silted up by the deposits of the Volga, the Ural, and the Terek. A depression, half of which has a depth of more than 300 feet and reaches a maximum depth of 2526 feet, occupies the middle portion of the sea, and is separated from the southern and deepest portion of the Caspian by a submarine ridge, a continuation of the main Caucasus range. The Caspian receives the drainage of the

<sup>1</sup> Cited by Geikie, *Text-book of Geology*, ed. 2, p. 383, London, 1885.