

AMBER AND ITS ORIGIN

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*New York Public Library**(Continued from page 120)*

The microscopical examination of amber shows minute cavities from 1/80 to 1/1000 mm. in diameter, containing either a liquid or a gas, or both in the same cavity. When these cavities are numerous the amber has a cloudy appearance and is then known as "bony amber."

Amber in the form of beads is common in prehistoric burials of the Bronze Age in Great Britain and on the European continent, and hundreds of such beads were found by Schliemann in the tombs excavated by him at Mycenæ (*Mycenæ*, p. 245). In his work on "Tiryns" (p. 372) Schliemann gives an analysis of Mycenaean amber, which shows the following composition:

C, 78.60; H, 10.08; O, 10.98; S, 0.34%

An analysis of Baltic amber by Dr. Otto Helm (*ibid.*) gave:

C, 78.63; H, 10.48; O, 10.47; S, 0.42%.

Dr. Helm has also shown that the amber beads found in prehistoric graves in Upper and Central Italy are of Baltic origin, and not made from the amber found in Sicily and Upper Italy. Sicilian and Apennine amber are devoid of succinic acid.

The name amber comes to us from the Arabic *anbar*, thru the Spanish, but the word referred originally to ambergris, which is an animal substance quite distinct from our amber. True amber in the Orient is sometimes called *karabe*, a Persian word meaning "that which attracts straw." The ancient Greek name, *ἤλεκτρον*, is applied not only to amber but to an amalgam of gold and silver, and is the origin of our word "electricity." By Roman writers, Pliny and others, amber is called *succinum*, from *succus*, "gum." From this is derived the mineralogical name for amber, succinite, as well as the name of the acid. Tacitus, the Roman historian, says the Æstyans, who gathered the resin on the Baltic coast, called it *glæsum* or *glesum*, a name which has been since transferred to "glass." The Germanic languages possess a common name of their own for amber: German *bernstein* (by metathesis from *brennstein*), Dutch *barnsteen*, Danish and Swedish *bernsten*, all meaning "combustible stone." Danish and Swedish also have another name for the

resin, namely Danish *rav*, Swedish *raf*, from the Old Norse name of the substance, *rafr*, a word which stands alone among the older Teutonic languages. Elton, in his *Origins of English history*, p. 61, suggests that this latter name may have some connection with Raunonia, an island mentioned by Timæus (Pliny, *N. H.*, 4, 27) as being one day's journey from the Scythian shore, where the amber was cast up by the waves in the spring season. The Finns and Esthonians call amber *meri-kivi* and *merre-kivi*, both words meaning "sea-stone."

Amber is thrice mentioned by Homer in the *Odyssey* (iv, 73, xv, 460, xviii, 296), and it is interesting to note that the most important reference (*Od.*, xv., 460) mentions it as an article of commerce in the hands of the Phœnicians. In the Authorized Version of the Bible the Hebrew לְשֵׁן has been doubtfully rendered "amber" in the three passages in Ezekiel in which it occurs (i, 4, 27; viii, 2). The meaning of the Hebrew word has puzzled commentators from Talmudic times to the present day. Delitzsch, the Assyrian scholar, has identified it with the Assyrian *ēšmarū*, which was a shining metallic alloy, and this meaning seems best to fit the requirements of the passages in Ezekiel, where something metallic and shining is intended. A high authority, Professor Ridgway, maintains, however, that the word in these passages of Ezekiel really means amber.

NOTES AND NEWS

Professor Alfred C. Lane, of Tufts College, who spent several months teaching mineralogy in the American Expeditionary Forces University at Beaune, France, has returned to the United States.

Professor Lane recently compiled for the publication "Lefax," "Tables for the recognition of minerals" and "Table for determining common rocks." These are printed on sheets about 10 x 17 cm., arranged for filing with other similar data. The information is greatly condensed, beryl for instance being described thus: 8 Beryl 2.7 Be₂ Al₂ Si₆ O₁₈ x sq. ended pr. H. 1.579—0.006 Ass. 21. Light green aquamarine, dark emerald, yellow.

Dr. Austin F. Rogers has been promoted from associate professor to professor of mineralogy and petrography at Stanford University.

Mr. J. C. Hostetter has resigned from the Geophysical Laboratory to carry on research work for the Steuben Glass Works, Corning, New York.

Mr. Harry F. Gardner has been appointed mineralogist in the New York State Museum, Albany.