

CHAPTER XXIII.

THE REMAINS OF PLANTS FROM THE NORTH KURGAN, ANAU.

My colleague, Dr. Duerst, has sent me for examination some pieces of burnt clay and charcoal which he found among the great quantity of bones from the excavations of the Pumpelly Expedition, in the North Kurgan at Anau. They are: Charcoal from Culture I; charcoal from Culture II; brick from Culture (?).

CHARCOAL.

Two different kinds of wood are recognizable among the different small pieces of charcoal. Both are dicotyledonous woods; it is, however, not possible to say to what particular plants they should be referred.

Charcoal from Culture I.—A piece of charcoal derived from a branch 4 cm. thick shows 5 annual rings. The pith is slender, 2 mm., the separate rings 4 mm., thick. The medullary rays are wide, up to 0.2 mm., and all nearly equally thick. In the wood, the vessels are distributed evenly through the whole width of the annual ring. They attain a diameter of 150 μ , while they show a mean value of 120 to 140 μ . The boundary of the annual ring is produced by slightly thickened cells and is very uniform. This wood must be referred to one of the softer kinds. The broad and abundant large vessels recall the structure of the wood of creeping and climbing plants. The four pieces of this kind of coal are alike throughout.

Charcoal from Culture II.—Of this there are six different pieces, all alike in structure. The largest piece comes from a branch 3.5 cm. thick, having 6 annual rings, each 3 mm. wide. The boundary of the rings is very indistinct. The pith is very small; the medullary rays are very delicate and all of equal thickness, consisting of 3 to 6 cell-layers, closely placed and 40 to 60 μ wide. In the width of the annual ring the vessels are abundantly and uniformly distributed in the vernal and autumnal wood. They are small, 60 to 90 μ in diameter, often two or three in a row. The libriform fibers are strongly developed, with strong thickening of the walls; in longitudinal section the libriform fibers show small inclosed pores. Plicated libriform occurs also.

The wood was therefore of a hard variety and belonged probably to a shrub-like plant. The occurrence of the inclosed pores in libriform and the plication of the libriform indicates that the plant is related to the Rosaceæ or Leguminosæ.

CRUDE BRICK.*

We have only one piece of a crude brick 8 cm. long by 6 cm. wide. This contains a great quantity of the husks and beards of grain and remains of straw. The present condition of the glumes is not favorable for study, since we have

*Bricks were not burned in Transcaspia before a much later time; this was probably a piece of a pot. See appendix to Professor Schellenberg's report.—R. P.