

some of the copper ores of each region. In time, before the knowledge of tin itself had been acquired, certain ores were found to make better edged implements, and the stage of bronze with low and irregular percentages of tin was inaugurated. Bronze proper, containing a definite percentage of 9 to 10 per cent of tin, presupposes a later-acquired knowledge of tin ores as such and of their treatment. Dr. Gooch's analyses of the copper objects of culture III show not only that the Anau-li of that period were ignorant of tin-bronze, but that the use of typical bronze with a high and relatively regular content of tin had probably not yet become general among the peoples with whom they stood in communication as late as the end of the III millennium B. C., since we should otherwise expect to find edged implements of that kind.

The amount of ground opened in the lowest strata of the South Kurgan by my exploratory shafts was not sufficiently large to throw much light on the question of external relations during the earliest and larger part of the life of this culture—through the first two-thirds of its existence. A beautifully worked flint arrow-point was found on the dump of shaft C in earth that probably came from between 10 and 20 feet above the base of culture. This is the first evidence of any kind of relations with very distant peoples.

But in the deepest of our larger excavations, in terrace B, from the level of 40 feet above the base of culture upward, we found numerous witnesses of various kinds to western connections. Here was found at 48 feet above the base a three-sided seal having on the different faces respectively a lion, a man, and a griffin—in the form of a winged lion with the head of a bird. Photographs of it and of casts from it are shown on plate 45, fig. 8. In the concluding portion of his report Dr. Schmidt discusses at length the possible derivation of this object.

Still lower, at 40 feet above the base, there was extracted an arrow-point of obsidian, which most probably came from the Armenian Highlands. We have thus established a probable connection with a district on the great route of antiquity from the regions east of the Caspian through Armenia to the Mediterranean. The existence of such a line of communication is, I think, again shown by the sickle which was found at a higher level in the upper digging, between 45 and 49 feet above the base of culture (see plate 39, fig. 3). It is of copper with no trace of tin. The point of interest in it from the standpoint of comparative archeology is the bent-back tang, and its identity of form in this respect with several sickles found in the VI city of Troy, and figured in Dr. Schmidt's catalogue of the Schliemann Collection in Berlin. These, like our specimen, also contained no tin. Whether the idea underlying this form originated in Central Asia,\* the primitive home of agriculture, or in the west, there can be little doubt that we have to do, not with a mere coincidence, but with evidence of an intercourse at that period, either direct or indirect, with the Mediterranean. There can, I think, be little doubt that the sickle, in its primitive form of a blade composed of flakes of flint or of rock-crystal, originated on the Central-Asiatic oases, whence it found its way in neolithic time

\* In De Morgan's Collection from Susiana, in the Louvre, a case marked "Epoque Elamite" contains a copper sickle with bent-back tang, identical in character with that from Anau III.