

## Notes and News

### ARCHAEOLOGY IN UZBEKISTAN

These notes were received at Field Museum of Natural History, Chicago, from the Society for the Promotion of Cultural Relations with Foreign Countries (VOKS) in Moscow. The excavations were conducted under the joint auspices of the Historical Institute of Material Culture (IIMK), Leningrad and the Uzbekistan Committee for the Preservation and Study of Monuments of Material Culture (UZKOMSTARIS), Tashkent.

This information supplements recent articles<sup>1</sup> on archaeological discoveries within the confines of the Soviet Union.

1. The most important find<sup>2</sup> during the past few years has been that of a Neanderthal skull associated with Mousterian culture in a large rock-shelter near Tashkent. This is the first discovery of Neanderthal man in Central Asia—a most important link in the chain of distribution of Mousterian sites in Asia, Africa and Europe.

In southwestern Uzbekistan, one of the most arid sections of the Soviet Union, A. P. Okladnikov<sup>3</sup> in cooperation with V. D. Zaporozhskaja excavated Teshik-Tash rock-shelter, which lies in the Zautolosh Darya gorge and at about 5000 feet above the level of the Turgan Darya.

The fragmentary skeleton of a young child, seven or eight years of age, was excavated. After reconstruction at the Anthropological Institute in Moscow the skull presented characteristic Neanderthaloid traits. Associated with the skeleton were stone tools of Upper Mousterian types (FIGS. 1-4). On many bones (FIG. 5) there were cutting marks made by flint tools but no bone implements were found.

Okladnikov states that the closest analogies to the cultural deposits from Teshik-Tash are from the Caucasus, Crimea, southern Kurdistan, and Palestine.

2. The Surkhan Darya Expedition made some preliminary surveys near Baisun. Two corridor-like caves, containing large accumulations of bones of wild and domesticated animals, were excavated at

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<sup>1</sup> See footnote in *ANTIQUITY*, 1940, XIV, 404-26.

<sup>2</sup> See H. Field and E. Prostov, *American Journal of Archaeology*, 1931, XLIII, 331-2; A. P. Okladnikov, *Vestnik Drevnei Istorii*, 1939, no. 7, 256-7, and *Asia*, 1940, XL, 357-61, 427-9; and A. Hrdlička, *Science*, 1939, XC, no. 2335, 290-8.

<sup>3</sup> See *Asia*, 1940, XL, 357-61, 427-9.

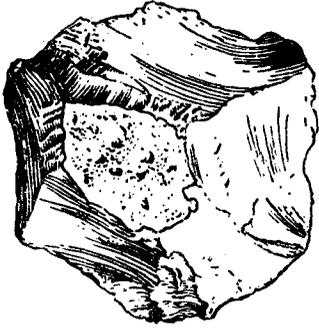


FIG. 1



FIG. 2

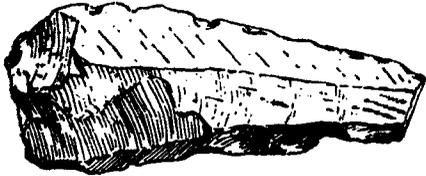
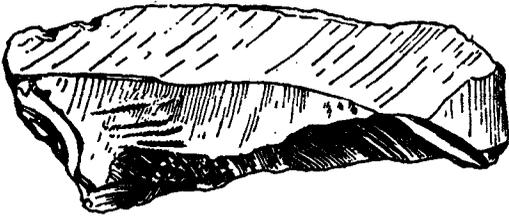


FIG. 3



FIG. 4



FIG. 5

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Kafan Dara and Dulta-Khan. Fragments of ancient vessels were also found. These caves evidently served large beasts of prey as places of refuge and the bones are the remains of their quarry.

In Ob-Angor cave a smelting furnace, in the form of a vessel, two metres in height, with openings in the sides for the draft, was found. Tenth- and eleventh-century sherds were unearthed. Two cultural levels, yielding charcoal, animal bones, and typologically palaeolithic flint implements were found beneath stones in a cave situated in the Kurgan Darya gorge.

Palaeolithic, Neolithic and Iron Age strata were found in excavating caves near Machai in Amir-Temir. In the lowest levels typologically Mousterian implements, including a hand-axe, a discoidal nucleus, and a scraper came to light. These implements resembled those from Teshik-Tash. To the east of Baisun, in the gorge which leads from the Temir-Ulde river, palaeolithic implements and animal bones have been found.

Since Soviet archaeologists are continuing their researches in many areas of Central Asia we can feel assured that new important results may be expected.

HENRY FIELD and EUGENE PROSTOV.

## HORSES, CHARIOTS AND BATTLE-AXES

Dr Clark's timely and convincing refutation of the pan-Germanist theory of the origin of the horse-chariot complex could have been made still more conclusive had not his self-imposed limitation excluded a fuller examination of the evidence from Hither Asia. His admission (ANTIQUITY, xv, p. 56) 'the appearance of light war-chariots, drawn by horses and fitted with spoked wheels for speed came relatively late in the history of the old culture-lands, and it was certainly sudden, is a gratuitous present to his adversaries.

(1) *The antiquity of the horse in Hither Asia* can now be established thanks to Ghirshman's excavations at Tepe Sialk in southwestern Iran.<sup>1</sup> These put into their proper context the famous remains of *Equus caballus Pumpellii* from Anau; for Anau I-II is more or less parallel to Sialk I, and Sialk I is on the most modest estimate early IVth millennium. Moreover, remains of the same horses (albeit only two teeth) have been identified at Sialk II,<sup>2</sup> still in the IVth millennium.

<sup>1</sup> Ghirshman, *Fouilles de Sialk*, 1938, I, 77, 87, 103.

<sup>2</sup> Vaufrey, in Ghirshman, *Fouilles de Sialk*, 1939, II, 196.

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So there were horses in southwestern Iran by that date. The pictogram, 'ass-mountain' in the Jemdet Nasr tablets<sup>3</sup> can therefore be accepted at its face value as meaning what the conventionalized ideogram ANSU.KUR.RA means in later texts, viz. 'horse' and therefore attests at least an acquaintance with horses in Mesopotamia itself by 3000 B.C. Finally the accounts just published by Gadd from Chagar Bazar in North Syria<sup>4</sup> show that yokes of horses were being kept in what was later Mitannian territory by the end of the 19th century B.C.

(2) *The antiquity of the chariot in Hither Asia* is equally attested by tablets and sealings of the Uruk period in Sumer<sup>5</sup> and by models from Gawra VIII in Assyria.<sup>6</sup> These were doubtless the heavy vehicles familiar from graves and monuments of the Early Dynastic age. Whether they were drawn by horses or asses is of course unknown. In either case the transfer of the ox's harness to an equid (it would fit an ass no better than a horse) is thereby referred to the 19th millennium. It is noteworthy that the Sumerians harnessed asses to the plough. The occurrence side by side of sledges and wheeled vehicles in the Uruk tablets, as later in the Royal Tombs of Ur, is likewise significant.

(3) *The descent of the light horse-chariot of the 11th millennium* from the heavier vehicle of the 19th cannot be traced in the archaeological record alone owing to a quite accidental break in that record. It seems to be due to a change of fashion in glyptic and monumental art. Early seals and monuments like the 'standard' from Ur depict chariots in battle scenes. After 2500 B.C. battle scenes were no longer fashionable subjects for seals, and no monuments comparable to the standard happen to have survived. If there be no chariots on the Stele of the Vultures from Lagash, a little later the written record mentions teams of asses for chariots supported by the temples of the same city.<sup>7</sup> The gap of a thousand years that separates representations of chariots in the Orient allows ample time for substantial structural improvements; the written record shows that there are no grounds for assuming any interruption of the tradition.

(4) *A Mitannian centre for chariotry* in the 11th millennium is rightly accepted by Dr Clark. The piedmont-steppe zone of North

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<sup>3</sup> No. 129 in Langdon, *Pictographic tablets from Jemdet Nasr* (Oxford edition of *Cuneiform Texts*, VII).

<sup>4</sup> *Iraq*, 1940, VII, 31.

<sup>5</sup> Falkenstein, *Archaische Texte aus Uruk*, no. 744.

<sup>6</sup> Speiser, *Excavations at Tepe Gawra*, 1935, p. 74.

<sup>7</sup> Deimel, 'Sumerische Tempelwirtschaft zur Zeit Urukaginas' (*Orientalia*, 1931, II), 105.

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Syria, later the centre of the Mitanni State, is well adapted for the use of the chariot in war. It is adjacent to wooded mountains where even birch-trees grow. But there is not a scrap of direct evidence to connect the development of the light war-chariot fitted with spoked wheels and drawn by horses with the Aryan rulers who established themselves there in the 15th century. Chariots had been known in the region from the 14th millennium as the models from Gawra show. They were being used and drawn by horses by 1800 B.C. at Chagar Bazar. By that date the chariot-horses were already under the charge of five grooms with a 'trainer' over them. This 'trainer' must rank, as Gadd\* remarks, as the predecessor of the celebrated Kikkuli of Mitanni whose treatise on horse training contains Aryan numerals. These numerals lose much of their supposed significance now it is known that trainers were training horses in North Syria nearly three and a half centuries before the occurrence of the first Aryan names; in close on four hundred names from Chagar Bazar all are Semitic or Hurrian in the 19th century. That the light chariot was invented here is quite possible—though of course there were chariots in the Indus valley (pre-Aryan!) and elsewhere in the 11th millennium. In any case the advance had been made and had penetrated even to Egypt and Greece before 1500 B.C. The first king of the Aryan dynasty, Shaushshatar, did not ascend the throne before 1450 B.C. Only the improved vehicle 'in which the axle was attached to the rear of the carriage' may on the extant evidence be later than the establishment of Aryan rulers in Mitanni. Only this improvement therefore could possibly be attributed to their patronage of local wheelwrights.

(5) *The possibility of correlating horses and battle-axes* is not, funnily enough, affected by any of these arguments. Dr Clark may indeed be ill advised in accepting the bones assigned by Schliemann to Troy II as supporting the correlation; the far more reliable American excavators<sup>8</sup> have so far reported no horse bones before Troy VI. Nor is it clear that the bad drawing on the celebrated cylinder from Kül-tepe can be accepted as evidence for any particular species of equid. On the other hand in Assyria and Mesopotamia there are some neglected objects which must be accepted as battle-axes, degenerate or undeveloped if you like,<sup>9</sup> dating from Al'Ubaid to Early Dynastic times (i.e. 14th and

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\* *Iraq*, 1940, VII, 31.

<sup>8</sup> *AJA.*, XLI, 595.

<sup>9</sup> I discussed these in my Presidential Address to Section H of the British Association, *AJA.*, XLIII, 16 ff.

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early IIIrd millennia). Moreover there is a very fine copper bipennis from a IVth millennium layer at Susa<sup>10</sup> as well as several shaft-hole axes of stone. So battle-axes do seem more or less contemporary with chariots drawn by equids even in Elam and Mesopotamia, but not further east. The written records, however, do not help to connect either axes or equids with Aryans or other Indo-Europeans from Europe or anywhere else.

V. GORDON CHILDE.

### DEAD-FALL TRAPS

In connexion with the distribution in Europe of the Dead-fall Traps discussed in the December issue of *ANTIQUITY*, it is interesting to note that both Aeschylus and Aristophanes bear witness to the use in classical times of a trap of similar mechanism (*ἵκος*). Thus in the *Prometheus Vinc-tus* (line 365) Prometheus speaks of himself to Oceanus as weighted down as in a trap under the roots of Aetna (*ἰπούμενος ῥίζαισιν Αἰτναίαις ἕπο*).

So too in the *Knights* (line 924) Kleon describes himself as being trapped beneath the weight of Income-tax (*ἰπούμενος ταῖς εἰσφοραῖς*). It is clear from these quotations that the trap was in general use and that it must have worked on the same general principle as that described by Mr Hornell.

G. A. AUDEN.

### IMPRESSIONS OF GRAIN ON POTTERY (PLATE I)

It occasionally happens that impressions of grain or other seeds are observable on the surface of shards of prehistoric pottery. The systematic work of Georg Sarauw, who examined and identified over 1500 such impressions on Danish pottery, has been summarized in a recent paper in *ANTIQUITY*.\* Inasmuch as the impressions may be more commonly met with than the grain itself, they may, when properly examined, provide valuable evidence as to the prevalence of different varieties of cereals and other useful plants at the various periods to which the respective vessels or shards are assignable. If a systematic study of this kind were to be carried out over the whole of Europe as well as over large tracts of the adjacent continents, there seems little doubt that something like the complete history of the early cultivation of corn and other plants would thereby be unfolded.

<sup>10</sup> *Memoires de la Délégation en Perse*, xxv, 181-2, fig. 4; *L'Anthropologie*, xl, 229, fig. 4.

\* *ANTIQUITY*, 1938, xii, 136-41.

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Before the present war put an end to such activities the National Museum of Copenhagen had actually made a start on this Herculean task. In the early summer of 1939 Hans Helbæk, assistant to Professor Gudmund Hatt, came to England to study as much of our dated pottery as possible. He discovered a certain number of impressions of grain that had escaped our scrutiny, but the detailed analysis of his results awaits publication. He found that grain-impressions occur far less frequently on British than on Danish pottery, from which he inferred that domestic pot-making took place under somewhat different circumstances in the two countries, the Danish housewife perhaps mixing her clay in the neighbourhood of the corn-bin. Such impressions are found only on hand-made pottery of the coarser sort; slip-coated vessels are generally sterile and not worth spending time over.

Among Helbæk's discoveries were the impressions of about ten grains of barley on the under-side of the base of a small complete vessel of Iron Age A type, but without history, preserved in the Brighton Museum. PLATE I shows this example, and also a wax positive squeeze taken from it and coloured naturalistically.

Helbæk's identifications were made by pressing a suitable plastic material into all suspected cavities on the surfaces of the vessels or shards that he was examining. The shape of the resulting positive corresponds to that of the seed (or, it may be sometimes, small stone) that made the impression, and in the case of a seed the form and dimensions afford the necessary clue to its identity. E.C.C.

### BURNISHING STONES FOR POTTERY (PLATE II)

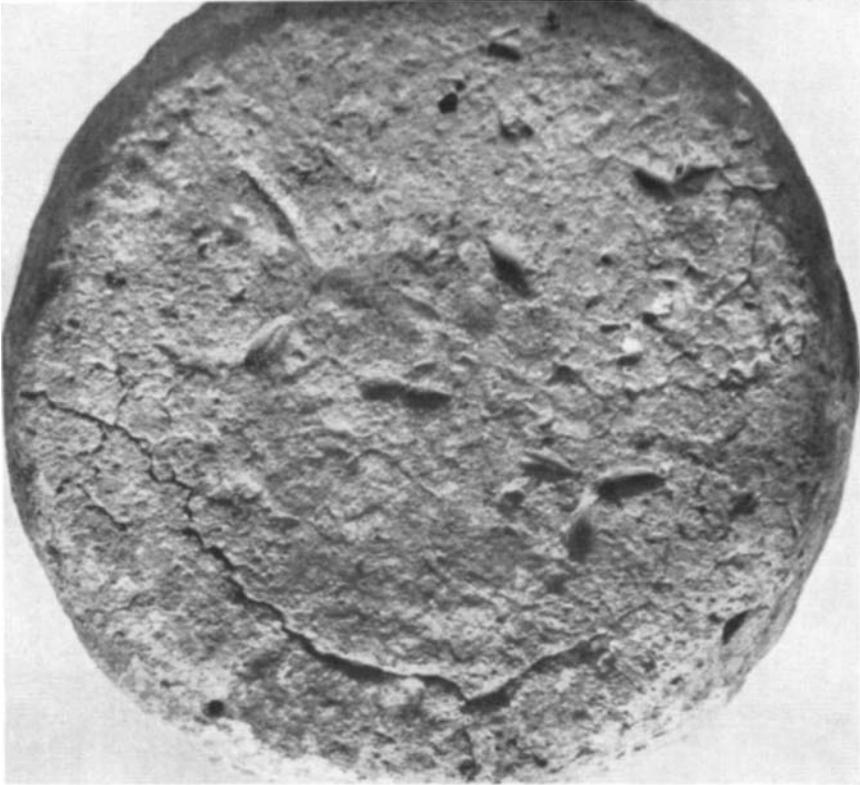
In his recent article describing the modern hand-made pottery of Jutland, Axel Steensberg refers to the use of a flint for smoothing and burnishing the slip, or outer coating of smooth clay.<sup>1</sup> He says that the smooth, round flint which is employed for this purpose only becomes really good after being used for about twenty years, during which time it acquires a lustrous polish as a result of friction with the silica in the clay. At my request Steensberg sent me the accompanying photograph of two such lustrous flints from western Jutland, recently employed for this purpose (PLATE II, *upper*).

For comparison with these the lower figure in the same plate shows two polished triangular pebbles that were found with Iron Age pottery near Horsted Keynes, Sussex.<sup>2</sup> This pottery, which is attributable to

<sup>1</sup> ANTIQUITY, 1940, XIV, 150.

<sup>2</sup> *Sussex Arch. Coll.*, 1937, LXXVIII, 253-65.

PLATE I



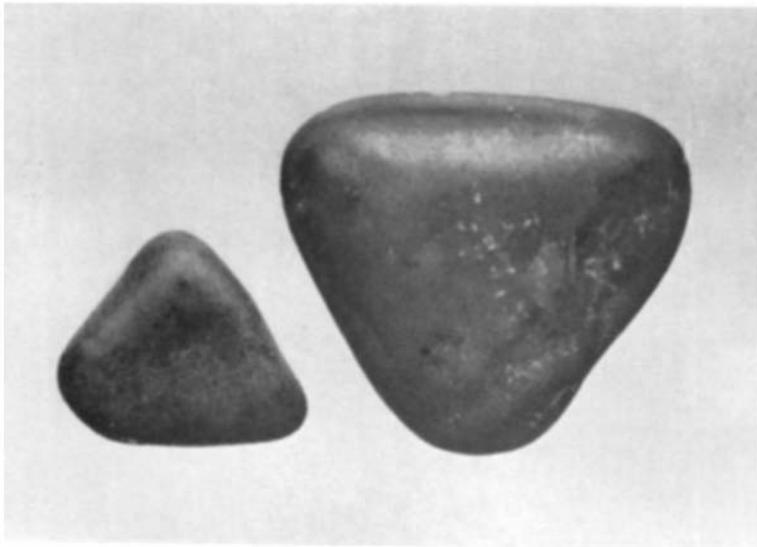
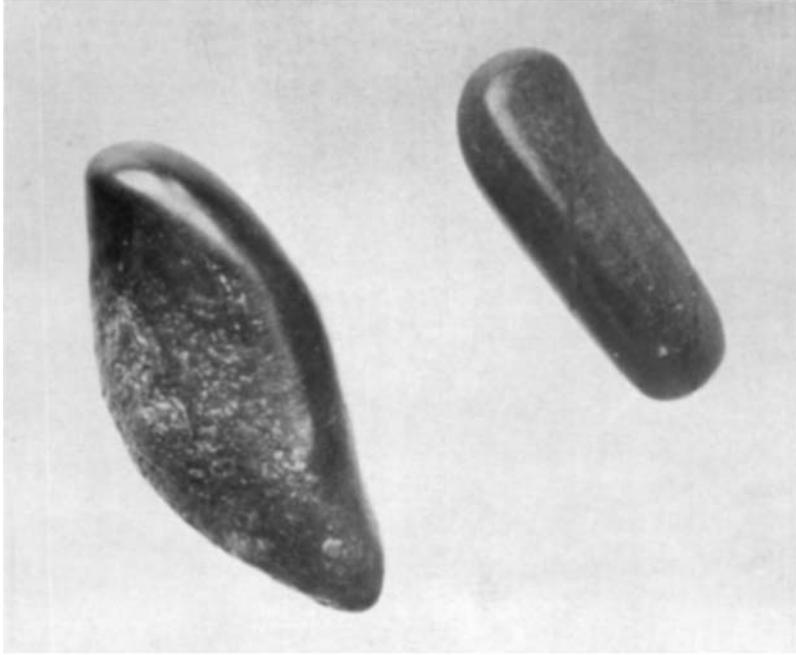
IMPRESSIONS OF GRAIN ON BASE OF POT OF IRON AGE A  
(Brighton Museum)

*Above* : The pot-base from below, showing impressions

*Below* : Wax squeeze (positive), naturalistically coloured  
*Ph.* E.C.C.

*facing p.* 200

PLATE II



BURNISHING-STONES FOR POTTERY

*Above* : Modern Danish from West Jutland, used for burnishing hand-made black pottery  
*Ph.* from Axel Steensberg

*Below* : Polished triangular pebbles from Southeastern ' B ' pottery-site near  
Horsted Keynes, Sussex  
*Ph.* E.C.C.

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the early first century A.D., was found by Mr H. R. Hardy in considerable quantities in a length of ditch that had been cut into clay that is now being dug for brick-making. The predominant features are those of the so-called ' South-eastern B ' ware, viz., eye-brow or swag decoration, impressed circles, omphalos bases, and out-curling lip above high-swelling shoulder or low-swelling belly ; some Belgic influence is also traceable. Some of the vessels have been coloured with haematite, and some have the eye-brow decoration reinforced with black paint. Although actual kilns have not yet been identified, there seems good reason for regarding the site as that of a potter's workshop. None of the vessels showed any sign of having been used for cooking food, as is usually the case in Iron Age habitation sites ; in fact, a considerable proportion of them are only partially baked. Occasional lumps of clay, vitrified on one side, may be fragments of kilns, and at least one piece of impure haematite was found, embedded in a lump of local concretionary ironstone.

It seems most probable, therefore, that the polished triangular pebbles from this site may have been used for burnishing the vessels during manufacture, and, if so, their similarity to their modern Danish counterparts is striking.

E.C.C.

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### *Subscriptions, 1941*

*In view of loss of mails at sea it is possible that some payments for 1941 have failed to reach ANTIQUITY. Reminders were posted in April. Unless acknowledgments have been received (which in their turn may be lost) it can be taken that the subscription has not arrived, and a duplicate remittance will be appreciated. Any subscriber who has not had the March number should notify this at once to 24 Parkend Road, Gloucester.*

*To our subscribers in the British Isles who have not yet sent their subscription may we say that an immediate payment will be a great convenience.*