

## NEWLY DISCOVERED GRAVES IN THE LOP-NOR DESERT.

By *FOLKE BERGMAN.*

When Sven Hedin returned in March 1934 to the Lop-nor region thirtythree years had passed since he last visited this far off stage of his former activities, the exploration of which has always so deeply fascinated him. In February 1928 he received news of the changed course of the lower Tarim, an event predicted by him during previous visits, and then planned personally to investigate the new river and its wandering terminal lake Lop-nor. Various difficulties, however, especially obstructions from the provincial authorities, prevented him for six years to fulfill the plan. When at last he got the opportunity to return and started his work, several of his former native servants at once rallied around him eager to reenter the service of their old much beloved master. Among these there was a Loplik called Ördek, now aged seventytwo, who spoke about a cemetery found by him some 15—20 years ago out in the desert to the south of Yardang bulak and Kum darya, a hill covered with 22 thousand coffins. The locality in question had never been visited by any traveller, and his description, though fantastic, sounded very inviting. Had the interlocutor been anybody else we should hardly have believed the tale; the Turkis, good as they are in many respects, being passionate liars. Now we only doubted his assurance that he

was able to trace the place after so many years. But the last time he served Sven Hedin he had shown a very fine sense of locality, and also played a prominent part in the finding of the ruins of Lou-lan, Sven Hedin's most important archaeological discovery, and thus had experience of ancient remains.

During the two months, April and May 1934, which Sven Hedin spent on exploring the Konche- and Kum darya with canoes, some of the members of his expedition were detached



Fig. 1. Putalik köli, one of the many lakes formed by  
«The Small Rivers».

on various tasks along the new river. The archaeological works was entrusted to me, and Ördek was instructed to trace the burial-place and take me there.

His first attempt was unsuccessful. He was hardly to blame because the country to

the south of Kum darya is all but easy to investigate with its pell-mell of yardangs, sand dunes and tamarisk mounds. But also the following attempts gave a negative result. And now he started to tell one story after the other, how the hill with the graves had disappeared in a newly formed lake or that the place was so infested with *Iblis* (Devils) that he did not dare to take the responsibility of conducting anybody there. I began to doubt that the place existed at all or that he had ever visited it. It would take too long to describe all the time-wasting and disappointing searches, and I was kept in uncertainty until, with the assistance of some other Turkis, the place was at last actually found.

From the head camp of the expedition on the left bank of Kum darya about 10 km. to the west of Yardang bulak, my small caravan of horses and donkeys started on May 30th. I was fortunate enough to have Mr. Georg Söderbom as my companion, and his assistance in arranging all practical matters was as always invaluable. On our journey southwards we reached a small hitherto unknown branch of the Kum darya, flowing towards SSE, which we followed (the guides being ignorant of any name, it is referred to in the following as The Small River). The average width was only 20 m., and the velocity of the current was inconsiderable. But on its winding course through the flat clay and sand desert it forms whole systems of small lakes (Fig. 1) surrounded by reeds and young tamarisks, and thus Kum darya is robbed of a good deal of its water. In other places sand dunes reach the banks. Just as in the case of Kum darya this seems to be a newly revived old river. Neither of these two rivers has so far got any fresh vegetation of Tograks (poplars). On the southern side of the main river there are forests of dead Tograks; along The Small River there are very few dead trees to be seen besides dead tamarisks and dead reeds. The most interesting quality of this river branch is its direction which shows that the present lower Tarim retains an inclination — if very weak — to turn to the south.

For several reasons it became impossible to follow its course further than to a point about 65 km. to the south of the main river, and there it flows at a distance of only 8 km. from the easternmost branch of the old, now dried-up Tarim. I lost sight of it between high dunes in the SSE. The few Turki shepherds grazing their sheep among the reeds did not furnish any concurrent details as to the direction of the lowest part of The Small River, but the total length was said to be some 120 km. which would take the water

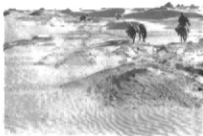


Fig. 2. The caravan on its way from Kum darya to the burial-places.

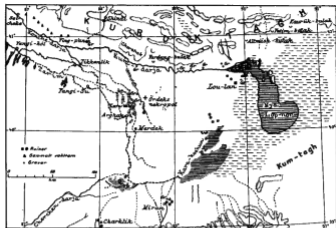


Fig. 3. Map of the Lop-Nor region. (Mainly after A. Herrmann).

down near old Kara koshun (provided it does not turn to the east). During highwater time, in August—September, this may be true — and then it is trafficable with canoes — but in June the water was 80 cm. below highwater level (Fig. 1), and could hardly have reached very far beyond the point where I turned back.

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The following description of the graves discovered along this river branch is only a preliminary one. A more detailed and scientific treatment can be given only when the collections, maps, plans and all the photographs have reached Sweden. Thanks to Mr. Söderbom I can illustrate this paper with some drawings made by him in the field.

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The cemetery sought for was found to be situated to the east of The Small River, 4 km. from its water, on a smoothly rounded hill, rising as a well defined landmark above the otherwise flat desert, the monotony of which is broken only by the crescent-shaped sand dunes, 2 m. high, and a few scattered hillocks with living tamarisks. The ground is completely covered with drift-sand — we could not even find a bare spot to pitch the tent on. As one approaches the hill, the top of it seems to be covered by a whole forest of upright Toghrak trunks but standing too close together to be dead trees. They were

presently found to be erect posts with the tops splintered by the strong winds. On the surface of the hill, particularly on the slopes, there were a lot of strange, curved, heavy planks, and everywhere one stumbled across withered human bones, scattered skeletons, remains of dismembered mummies and rags of thick woven materials. Some of the mum-

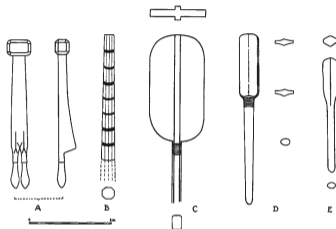


Fig. 4. Wooden monuments from Ordek's necropolis.

mies had long, dark hair and incredibly well preserved faces, even an almost fair complexion. From others a ghastly-looking skull grinned out of a partly preserved blackened skin. I shall never forget the sublime expression on the face of a feminine mummy! On the dark flowing hair, parted in the middle, she wore a yellow pointed felt cap with red cords; her brow was high and noble, her eyes slightly closed, as if she were on the point of falling asleep; she had a fine aquiline nose and thin lips, slightly parted, and showing a glimpse of the teeth in a quiet timeless smile. How long had this Lady of the Inscrutable Smiles defied the roaring sandstorms of the desert, how often had she listened to the whistling of the wind in this Columned Hall of the Dead, how long was it since she closed her eyes forever to the dazzling and burning sunlight?

It was to find the answer of these and other questions I had come here.

The hill consists of drift-sand, probably accumulated around a yardang. It is simply a sand dune that has become stationary, and the sand is still accumulating between the close-standing posts. Its top is now 7 m. above the level of the surrounding ground, its

extension is only 16 m. by 10, and its longer axis lies approximately in E—W. The western extremity of the hill is bordered by a palisade of thin, not very straight poles. From either of the longer sides of the hill, somewhat

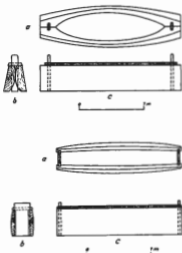


Fig. 5. The coffin in grave D<sub>1</sub> (above) and grave D<sub>2</sub> (below). (a seen from above, the lid removed; b one extremity; c side view, the lid in its place.)

to the east of its crest, there protrudes one of the two ends of another palisade made of thick round posts with their tops on a level. The central part of this palisade is sand-buried. Close to the base these posts are kept together by horizontal bars fixed by means of strong bast ropes. Immediately to the east of the big palisade the free posts stand pretty close together, almost all of them very high (on an average 4.25 m.) and of uniform thickness (about 25 cm.). All of them are polyhedric, with 7—11 surfaces, which is most easily seen, if the sand is removed from their bases; here it is also visible that they have once been painted red. The poles to the west of the big palisade are more irregular as to height, thickness and shape. A few of them have a diameter of up to 50 cm.; the topmost part of some of them is thinner than the lower part, there being a sort of offset between the two parts. A couple of them are pointed or tapering. An interesting feature are the oar-like monuments of which many still stand in their original places (several of them totally buried by the sand), whereas fifteen have been thrown on to the sides of the hill. There are samples with exaggeratedly big oar-blades (Fig. 4 C), and others with more normally proportioned ones (Fig. 4 D—E). Below the blades they usually have an ornamental belt of horizontal lines, which were once painted red. The type is different from the one used by the Lopliks of to-day.

The eastern part of the hill is almost flat with one single post. This post is the only upright one which has horizontal grooves, about 1 cm. wide, cut in at regular intervals (Fig. 4 B). Others of a similar kind have probably been placed there, since four or five are lying below the slope. Ördek told me that when he visited the place the time before, there was a kind of houses on this flat part of the hill. Its walls and roof were made of planks. The latter had been covered with ox-hides and clay. The inner sides of the walls had been painted red. The floor had been covered by the skulls of many oxen and pieces of hides. Digging in the centre of it he found a coffin with a female corpse.

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Of this shrouds, which was probably the most prominent grave of the place, nothing is now left but the scattered, strongly dimensioned planks some of which still bear traces of simple ornaments in red and black painting. A lot of ox-skulls are also scattered around the place, and examining the surface more closely we collected many smaller objects, the better part of them diminutive white stone beads, but also nine larger ones of agate.

Ordek further told me that the more valuable, *i. e.* bronze, objects found by him and his companions, had been carried off, the less valuable ones thrown away. Some of those who formed the party had taken woven cloaks to use them as — horse-cloths. Later on the place had been ransacked twice by bands of treasure-hunting Turks from Charkhlik, sent by the Chinese Amban, who seems to have indulged in some kind of antiquarian interests. That these treasure-hunters had done their work pretty thoroughly was evident from the fact that we, when systematically searching the hill, could find only one grave absolutely intact.

Here follows a description of this untouched grave, called D 1, which seems to be typical of all the rest.

It was found immediately to the east of the big palisade; one end of the coffin very near the surface, the other one covered by a layer of drift-sand, 1 m. deep. The coffin was lying in the direction S 76° W—N 76° E and covered by a couple of ox-hides with the hairs still remaining. The lid consisted of ten boards laid across the coffin, cut to follow its outline and kept in place only by the hides which apparently had been applied in a wet state. The coffin (Fig. 5) was made of two very massive planks, each carved out of half a Toghruk trunk; at both extremities the natural roundness of the trunk had been left intact; the inside shows a distinct concavity, and the outside a corresponding convexity. The planks lean against each other, the ends touching, thus forming a lenticular space between them; they are kept together by two narrow vertical boards, fitted into grooves at the ends of the planks. At the first glance this coffin-type resembles a boat. There is, however, no bottom. The measurements may be seen in Fig. 5.

The hides had protected the wood so perfectly that it looked quite fresh, and not a grain of sand had entered the coffin, where a mummy was resting on its back. The head was at the eastern end, and save the face and the feet the whole corpse was wrapped in a coarse mantle or blanket of once white wool. Near the head the edge of the mantle was tied up into a small bag. So far it has not been opened but the contents of other similar ones have turned out to consist of either grains of wheat or Ephedra-twigs. Outside the mantle and at the outer side of the right thigh a melon-shaped basket was found, neatly plaited of stiff grass, its opening closed with white felt. On the head there was a big round cap of white wool with five small feathered pegs inserted on the left side; it was tied on by means of a string below the chin. (Fig. 173 in Stein's *Innermost Asia* gives a good impression of the aspect of the inside of a similar coffin). At the throat there were found pieces of ears of sheep, and the whole front of the body was strewn with grains of wheat and twigs of Ephedra. Round the hips he wore a loin-cloth, only 5 cm. wide, of the same material as the mantle; it had fringes at both ends and was tied in a knot on top of the erect penis. The feet were dressed in a kind of clumsy shoes or moccasins

of ox-hide with the hair remaining below the soles. They were tied with thick strings around the ankles, and in the knots small feathers were inserted. These shoes had never been used, probably they were made as a kind of sepulchral shoes. The rest of the mummy was naked. Round the right wrist a white cord was tied, kept together on the inside

by a round bead of jade (?), and in the right hand rested a tamarisk twig, 52 cm. long. Under the back, inside the mantle, a bunch of four arrows, about 70 cm. long, was found tied together, and each of them with two tufts of feathers, but without any arrow head. They were apparently no proper arrows but only symbolic ones.<sup>1</sup>

The mummy, 170 cm in length, was very well preserved except on the front of the trunk. The teeth were not much worn showing that he must have died very young. Was the cause of his early death to be connected with the fracture on his forehead? The expression on his face was that of a wild grimace as if he really had suffered a violent death. The blackened skin stuck close to the broad cheek-bones. The long eyelashes and thick eyebrows still remained, and the long dark-brown hair was tied with a red string at the back.

The graves D 2 and D 3 were plundered. The planks of these coffins were less massive, and as may be seen on Fig. 5 the end-boards are much broader than in D 1. Otherwise the construction is according to the same principle, and an exact parallel to Fig. 173 in Innermost Asia. Around these two adjacent coffins the high posts stand close together. Three of them had to be taken down to prevent accidents as they were standing in very shallow pits in spite of

their height, 4.25 m. Near the eastern end of D 2 a small polyhedric red-painted pole was wound spirally with a string of camel wool.

Five more coffins were found *in situ* but all with disturbed contents.

The longitudinal slopes of the hill were covered all over by planks and boards from no less than some 120 disjointed coffins of various sizes, and 75 posts lay prostrate. It is remarkable that all the coffins are of the same construction. Though the treasure-hunters had ravaged terribly they could not possibly be the only cause of the de-

<sup>1</sup> Compare Innermost Asia, Pl. XXV, L. H. 024.

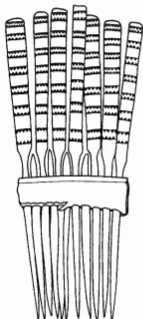


Fig. 6. Bamboo comb. 2/3.

struction, the wood of these planks etc. being as dried-up, sun-bleached and sand-polished as that of the posts still standing, showing that they had been exposed for a considerable time. Because of the loose material forming the hill it cannot have been very long before the ever active wind erosion uncovered some of the shallowly buried coffins, especially on the longitudinal sides of the hill, nearly parallel as they are with the prevailing strong winds from the NE and E.

And among all this *debris* twentyfive dis-interred human corpses are lying, a most macabre spectacle!

No relation could be seen between the arrangement of the high posts and that of the coffins *in situ*. In several cases there was, however, a thin pole or peg standing just in front of one or both ends of a coffin, and in two instances a big *soar* (like Fig. 4 C) was placed at one end of a coffin.

From the beginning the big posts may possibly have surrounded certain graves but as the cemetery grew more crowded successive encroachments were made into the area of the first constructed graves. During an early stage the big palisade might have separated the more aristocratic part from the rest of the burial-ground.

The mummies, partly so startlingly well preserved, have most probably not been subject to any kind of preservation by art, for other easily perishable things, too, have defied destruction in the same marvellous way. The only active agent has been the extraordinary arid climate of the Lop-desert.<sup>1</sup>

On the surface, and nearly in all places where the spade was put into the sand, miscellaneous objects originating from destroyed graves occurred. They were mostly made of wood, as for instance sixty sepulchral arrows the better part of which were decorated in the same way as a lot of smaller pegs, which were also found, with incised triangles, presently to be described. Three different types of objects (Figs. 7—8) have no known parallels from earlier collections. Figs. 8 a and b are made of two similar halves, kept together by strings or woollen thread wound around them. Six samples were found of the former kind, one end of them shaped as a horse's hoof or as a cow's foot. Of the



Fig. 7. Wooden objects of uncertain use.

<sup>1</sup> Rare but really heavy rains do occur in the Lop-desert. Both in April 1928 and now in June 1934 I experienced a torrential downpour.



latter kind four specimens were collected, the inside of the halves being hollowed-out. The wooden objects on Fig. 7, of which seven were found, consist of pegs, 50—60 cm.



long, with a semicircular section at the broader end but with a more fully circular section at the pointed end with its offset. On the flat side of the broader end there are two longitudinal grooves, and, as a rule, behind these a rectangular depression. The sample in Fig. 7 b which is crooked (probably unintentionally) is decorated with a bunch of black horsehair tied with red wool. Others, like Fig. 7 a, are partly wound with strings only, but a fragmentary specimen displays long feathers on the convex side. Since they have been found in graves all these three types most probably have served in the cult, though their function and signification are still to be found out.

Fragments of big mantles or wrappings were common, mostly plain, but some of them decorated with a simple edging of contrasting colour. Ten woollen caps were found, more or less pointed, and as a rule adorned with red or yellow cords, and fastened on their left side were a set of small feathered pegs wound with red wool. Besides the above decoration some caps have a longitudinally divided skin of a weasel fastened round the top, its skull hanging down on the front of the cap.<sup>1</sup> Also very common were the small baskets of cane-like grass with plaited ornaments<sup>2</sup> — fifteen were collected — which once had contained victuals. The only bronze objects found were a child's armet of round wire with thickened ends, and some corroded indeterminate fragments. Single feathers wound with strings, and bunches of Ephedra-twigs, grass, wool or sinews may have served as some kind of amulets. In Fig. 10 some bone objects with incised lines are reproduced together with a small piece of ivory (?). The small axe-shaped object Fig. 10 A might have been used as a pin for fastening a mantle. Two identical samples were found of the object Fig. 10 B, the use of which is uncertain. Fig. 10 C is a thin fragmentary piece, flat underneath and with V-shaped lines on the top side. Figs. 10 D—E are arrow heads, the former a very beautiful one, decorated with six lines organically following the cleft base which has a socket for the shaft; the latter is made out of a tubular bone with seven incised lines round the base.



Fig. 8.  
Wooden objects  
of uncertain use.  
About  $\frac{1}{2}$  r.

The big comb (Fig. 6), consisting of alternately short and long bamboo pegs, nicely polished and inserted in a piece of sinew, shows a rather primitive construction. The broader upper part of the long pegs are decorated with transversal bands, each one made up of two rows of tiny triangles, coloured red, and with the points directed against each other. This ornament occurs on many of the

<sup>1</sup> A cap of this kind is reproduced in *Innermost Asia*, Pl. XXIX, L. F. 04.

<sup>2</sup> Compare *ibid.* Pl. XXVI, L. C. 03 and Pl. XXIX, L. F. 1. 04 and L. F. 05.

small wooden objects. By placing the rows of triangles at different distances from each other, or spirally, variations of this pattern have been obtained. When the triangles are turned in the same direction, another variation originates like those in Innermost Asia, Pl. XXIV, L. F. 05 a; L. Q. iii 04 and L. F. 3. ox.

Another comb had only short pegs hardly visible on the back of the cross-piece of sinew.

Combs are commonly found in graves of the most varying ages and countries. The same is the case with offerings of human hair (also occurring in the Lop-nor region). It is very tempting to suppose that the comb like the hair has some bearing on the fertility cult<sup>1</sup> (which is very commonly associated with the cult of the dead), particularly as the ornamentation of the comb Fig. 6 resembles the «death-patterns» and others patterns with triangles so common as a symbol of fertility on prehistoric mortuary urns from Kansu in the east to northern megalithic tombs in the west. In accordance with this theory the triangular pattern on the other wooden objects could be considered as an expression of the same symbolism, *i. e.* a life-inspiring power for the dead. As seen from the description of grave D 1 the occurrence of many other proofs of a fertility cult is obvious, *inter alia* the grains of wheat and the Ephedra-twigs.<sup>2</sup> According to information acquired by Stein<sup>3</sup> the Parsees in India still use Ephedra-twigs as a substitute for the now unknown plant from which their *Haoma* or *Soma* was produced, the holy beverage which played such an important rôle already in the cult of the ancient Indo-iranians. In our case only the twigs themselves are in question, not a product of theirs, and their quality of being ever-green may have induced their employment in the graves as a symbol of vitality, *i. e.* life-inspiring. The Parsees still regard these twigs as undecayable.<sup>4</sup>

Besides these small objects some larger ones were also discovered: three human figures of wood and one sculpture (Fig. 4 A) with less distinct human features, difficult to classify. The female figure in Fig. 9 is of nearly natural size and very much weather-worn. The other two are a little smaller but better preserved, showing traces of red painting. One is a figure of a woman similar to Fig. 9, the other that of a man which has had a phallus, and moreover is the only one with a really carved face. As the



Fig. 9. Female sculpture in wood. (Height 158 cm.)

<sup>1</sup> As also pointed out by Hanna Rydh in *Symbolism in Mortuary Ceramics*, Bull. No. 1 of The Mus. of Far East. Ant., Stockholm, p. 105 seq.

<sup>2</sup> This Ephedra is a low scrub very common in the desert parts of Sinkiang, in the Gobi and in the drier parts of Tibet and the Himalayas. It is avoided by animals, having some bitter savour.

<sup>3</sup> *Innermost Asia I*, p. XXI seq.

<sup>4</sup> " " " p. XXII.

faces of the female figures are flat, their features have probably been painted. All three of them are rather crude but in a way naturalistic.

Though the circumstances here give no evidence of this, it is highly probable that the figures have stood in some relation to the coffins. Stein has found similar ones when excavating on burial-grounds nearer Lou-lan. At the foot of grave L. Q. 2 he found a 70 cm. high wooden female figure without legs, with a flat face and painted with red ochre.<sup>1</sup> In the burial-place L. T.<sup>2</sup> and in grave L. S. 5 he detected a similar one, and a female figure of stone, only 10 cm. high, in grave L. S. 6.<sup>3</sup>

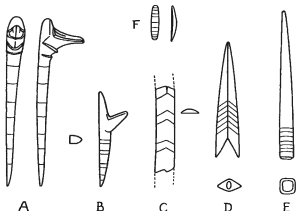


Fig. 10. Objects of bone (A—E) and ivory (?) F.  $\frac{1}{2}$ .

The objects found at Ördek's necropolis are rather plain and include nothing that can be dated with certainty. As not a single trace of Chinese influence has been met with (with reservation for what my predecessors may have removed) this cemetery might date from a time before the Chinese expansion in the Tarim basin which started during the last two decades of the second century B. C. Particularly queer is the absence of silk in this burial-place, situated practically speaking on the very Silk Road. This negative feature either confirms the above chronology or it shows the very low standard of this people. Anyhow the graves must have been constructed before about 330 A. D. since the country became uninhabitable at that time as a consequence of the drying up of the Kum darya.

<sup>1</sup> Innermost Asia, Pl. XV, L. Q. II. 01.

<sup>2</sup> Identical with the one reproduced in fig. facing p. 262 in Huntington: The Pulse of Asia.

<sup>3</sup> Innermost Asia, Pl. XXVI, L. S. 6. 01.

From similar graves nearer Lou-lan Stein has brought back skulls which on anthropometrical examination have turned out to belong to the *Homo alpinus* species, and most of all to resemble now living peoples of Hindukush and Pamir. Even the colour of the hair and the features denote a non-Aryan race; they probably formed a stratum of inferior social rank in the Tarim basin which at that time otherwise had an Aryan population. As Stein has pointed out we probably here have before us the autochthons of the Lou-lan kingdom, a people of half-nomadic shepherds, hunters and fishers, resembling the present Lopliks in their way of living.

Their sepulchral customs include a lot of primitive, animistic features. Besides the presence of Ephedra-twigs there are other things, too, which suggest impulses from the west. The loin-cloths of the mummies *e. g.*, narrow in the case of the men, somewhat broader in that of the women, may be supposed to have something in common with those which were, according to an immemorial, evidently Indo-Iranian custom, still prevalent amongst the Parsees, fastened round the waists of the Believers at the age of about seven when they for the first time were permitted to take part in a religious ceremony, and which they were then not allowed to lay off.

The shoes found in the graves call to mind the low Scythian boots, as far as their shape can be judged from the vase-pictures of the kurghan at Kul-Oba, and the pointed caps, too, remind one a little of those of the Scythians, though the latter evidently had no plume decoration.<sup>1</sup>

As may be seen in Minns' Scythians and Greeks, Figs. 12—14, several Asiatic nomads wore pointed caps, often with flaps to tie below the chin.<sup>2</sup>

The Chinese annals treat the inhabitants of the Lou-lan kingdom rather extensively, for these often did great harm to the Chinese silk trade which passed through Lou-lan on its long way to the Near East and the Roman Empire. In most of the cases they cooperated with the old enemy of the Chinese: the Huns. In the year 77 B. C. a punishing expedition was sent to Lou-lan. The king was murdered, and the capital of the kingdom was removed from the northern side of Lop-nor to the Charkhlik of to-day and was called Shan-shan. The northern side consequently lost in importance, and when the Chinese during the later Han-dynasty, as emphasized by Albert Herrmann,<sup>3</sup> after an interregnum of fifty years reconquered the Tarim basin, they used the route via Charkhlik, Merdek and Ying-p'an, and not the short-cut to the north of Lop-nor and along Kum darya. From Merdek to Ying-p'an the route most probably followed The Small River up to Kum darya. As may be seen from the map there is a ruined watch-tower about 17 km. SSW of Ördök's necropolis between The Small River and the old course of the lower Tarim river. Only fragments of pottery, proximately of the Han-dynasty, and a degenerated *Wu-c'hu* coin were found there. This tower must have served as an outpost to the fort of Merdek, erected to protect the road from Merdek to Ying-p'an.

<sup>1</sup> The Kul-Oba *e. g.* in Ebert's *Reallexikon d. Vorgeschichte*, VII, Pl. 90 A and III, Pl. 134.

<sup>2</sup> Also a Saksian dress on a relief from Persepolis. Von le Coq: *Bilderatlas*, Fig. 127.

<sup>3</sup> Lou-lan, China, Indien und Rom im Lichte der Ausgrabungen am Lopnor, p. 92. This is a most excellent work.

More towers may exist both to the north and south of the one discovered, though I had not the means to look for any.

Later on when the Chinese found it necessary to station a military garrison on the northern side of Lop-nor, the old name of Lou-lan was revived for its nomination, and this is the Lou-lan discovered by Sven Hedin.

After having completed the excavations and other surveys of Ördek's necropolis we left this glowing hot place and turned our interest towards the other side of The Small River. There we discovered three minor burial-places practically on the same latitude as the big place.

In the southernmost place three or four graves were situated on the edge of a flat hillock with dead tamarisks, entirely surrounded by sand dunes. The opened coffin in

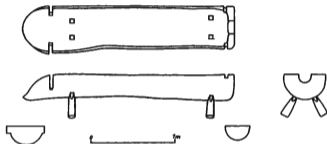


Fig. 11. The coffin, grave E 1.

grave E 1 was made of half a hollowed-out Toghruk trunk (Fig. 11). A semicircular board had closed each one of the open ends, and two longitudinal boards had formed the lid. On the top of this there was a layer of brushwood, kept together by twisted ropes of the same material. Among this brushwood we found the skull of a sheep. The four stout legs, inserted in the bottom of the coffin, gave it a curious appearance. One really gets the impression that this coffin was never meant to be put underground. The mummy was the most perfectly preserved one I ever saw. It was that of an elderly, stately gentleman with a small white beard, a typical dolichocephalous with a narrow face. The parched skin was of a uniform yellow-brown colour all over the body, nearly resembling dark sunburn. He had been dressed in a long coat of thin yellow silk-gauze, fragments of which remained together with its edging of bright red silk. Round the neck it had a broader edging made up of several pieces of patterned Chinese brocade with boldly conventionalized animals in wonderfully bright colours. The feet were put into low boots of the same style as those in grave D 1, but more elegant and made of red leather.

The coffin in grave E 2 was half destroyed. It had also been covered with brushwood, and contained a skeleton (dolichocephalic) with fragments of white and red silk. The

coat had been a woollen one, and had had a narrow edging of red brocade, unfortunately badly preserved. The trousers were of plain cotton material. As in the case of the mummy in grave E 1 the nostrils of this skull were shut by means of two small stoppers of red silk.

In China the custom of closing the nine apertures of the corpse by inserting specially formed objects of jade was developed during the Han-dynasty, jade being used to immortalize the body by preventing its putrefaction. According to the vedic ritual the seven apertures of the corpse had to be covered by pieces of gold. Similar customs, though much simplified, are still prevailing amongst certain primitive races.<sup>1</sup>

On top of the hillock there was an irregular circle of a few low poles, possibly marking the extension of a hut. When digging there the upper part of a small red jug of earthenware was detected.

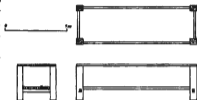


Fig. 12. The coffin, grave C 2.

Only 2 km. from this place there is another cemetery with four graves, all badly preserved.

Grave C 1 was the irrefutably richest one of all graves examined. The coffin, half a hollowed-out Toghruk trunk 2.1 m. long, with oval end-boards and a lid of two long boards covered with brushwood, was split open. It contained a skeleton of a woman dressed in a long silk coat, the lower edge of which was adorned with strips of dark-brown, red and green material. The sleeves reached below the hands, and sewn on to them were some pieces of red patterned silk and other materials of various colours. Several small objects were deposited in the coffin, e.g. an iron mirror with a red silk cover, a spinning whirl on its peg, and a diminutive bag of leather and one of silk. From the waist a pair of iron scissors were hanging. Several pairs of miniature trousers and shirts of plain silk, suitable for a doll, were recovered besides a bronze button and pieces of Chinese brocade. Round her neck she wore a cord with a few small white beads and two of gilt glass.

Fragments of a similar dress were saved from grave C 3.

Grave C 2 shows a more elaborate type of coffin (Fig. 12).<sup>2</sup> Each of the four corners consists of a square post in which the boards forming the sides and the ends are inserted with tenons. The board forming the bottom is resting on a special cross-bar between the corner-posts, and the lid is made of two long boards. The corner-posts form real legs, 18 cm. high, giving the coffin the appearance of a bedstead. It had been lined with white felt. Only fragments of the skeleton remained besides rags of a wrapping-mantle and a little yellowish brown silk from the coat. A small piece of multicoloured brocade, a bone handle of a knife, a trefoiled bronze ornament for the dress, human hair and an arrowshaft complete the sepulchral deposit.

<sup>1</sup> E.g. in Baessler Archiv XIII, p. 64.

<sup>2</sup> Also represented amongst the graves E and B.

This type of coffin resembles in a way a Greek coffin (or maybe a chest) from Olbia,<sup>1</sup> though the manufacture, of course, is far inferior. Corner-posts forming legs are to be found on the one from Olbia as well as on other Greek wooden sarcophagi, but these have the lids shaped like a saddlebacked roof.<sup>2</sup>

About 25 m. to the north of grave C 2 we found remains of a small hut marked by posts, less than 1 m. long, lying in rows, once having formed the lower part of the walls.



Fig. 13. Doll of felt, grave A. 1/2.

The plan was rectangular, 6 by 7.5 m. When removing the sand we recovered fragments of four round wooden jugs with handles, resembling the type reproduced in Innermost Asia, Pl. XXIX, L.H. or.

A third burial-place is situated about 10 km. to the north of the one just described. There were only fragments left of 5—6 coffins lying on the ground, representing two or three different types, both hollowed-out trunks and of the type reproduced in Fig. 12. Some pieces of red silk, plain white material and bunches of human hair (offerings) were found.

Finally, the single grave A is situated near the southern bank of Kum darya and about 12 km. to the west of Yardang bulak. The coffin had fallen out of a yardang, and consisted simply of a hollow Toghruk trunk, 2 m. long. The open ends had been closed by circular lids fastened by converging small dowels. All knotholes were filled with plugs. The inside of the coffin was lined with thick woollen felt enveloping the mummified corpse of a man, 148 cm. in length. He was dressed in a long very well preserved coat of yellow silk, lined with a coarse cotton material. He wore high boots with felt socks and sheepskin trousers with the wool turned inside. They

reached a little below the knees and had a string running through straps round the waist. He wore no shirt. On the left side of the back of the skull a tuft of grey hair was twisted into a knot behind the ear. The incisors were much worn, the lower molars were missing, and in the upper jaw there were thirteen teeth in all. The skull seemed to be dolichocephalic.

Near the left knee a triangular piece of felt was placed, on one side of which were fastened the bones of a sheep's foreleg, apparently a little burnt. The felt imitates the flesh of the foreleg: the provisions of the dead man. A vertebra of a fish was also found.

<sup>1</sup> Minns, *Scythians and Greeks*, Fig. 232.

<sup>2</sup> Watzinger: *Griechische Holzsarkophage aus d. Zeit Alexanders d. Grossen*. In *Wissenschaftl. Veröffentl. d. Deutsch. Orient-Gesellsch.* Heft 6.

Immediately below the right hip and under the coat he had a most interesting object: a doll made of felt, 17 cm. high (Fig. 13). It represents no doubt a woman, *i. e.* a feminine companion for the buried man.<sup>1</sup>

Like the coats of present day Turkis this one is collarless, leaving the throat bare. The overlapping part is made to be fastened with a ribbon on the left side. The high boots, heelless and with the legs higher in front than at the back have a vertical seam (on both sides) running from top to sole (Fig. 14), absolutely differing from the seams of modern boots. The foot is pointed, and the toe turned slightly upwards; they are made to fit either foot.

The primitive coffin-type has a parallel in one of the four graves from the Han-dynasty excavated by me in 1928 at Miran.

\* \* \*

If a comparison is made between »Ördek's necropolis» and the other smaller cemeteries just described, it is remarkable that the former is beautified with impressive wooden monuments, has an altogether uniform coffin-type, the dead practically naked under their wrapping-mantles, and the grave deposits show no traces of Chinese influence.

The minor places have no wooden monuments, there are several types of coffins all different from those of the first mentioned place, and the dead have been buried fully dressed, usually in Chinese silk. Particularly in the graves called E the skulls are more decidedly dolichocephalic than is the case at »Ördek's necropolis». An anthropological difference might be proved by a future examination of the collected skulls.

These minor burial-places according to their Chinese goods, must be later than 100 B. C., their *terminus ad quem* being contemporaneous with that of »Ördek's necropolis», *i. e.* about 330 A. D.

No definite traces of dwelling sites corresponding to the graves could be found — except perhaps the huts mentioned above in connection with graves C and D. At least in the case of »Ördek's necropolis» one would expect to find a similar gathering of huts, a village, which ought to have been situated in the neighbourhood along The Small River. If a village has existed it is certainly by now completely buried by the sand. On the other hand fragments of pottery and other *debris* were abundant on many bare surfaces between the dunes both to the south and north of »Ördek's necropolis» as is the case nearly everywhere in the Lop desert to the west of new Lop-nor, relics which indicate a mobile population.

The first one to observe the presence of graves in the Lop-desert was Ellsworth Hun-



Fig. 14. High boot, grave A.

<sup>1</sup> This may also be compared with the wooden figures mentioned above.



tington in 1906. But he made no excavations. Through Aurel Stein's extensive investigations in this region in 1914 a great many cemeteries — both of the autochton and the Chinese population — have been discovered and examined, yielding most excellent textiles. The Chinese archaeologist Huang Wen-pi in 1928 (and 1934?) probably examined some graves on the northern side of Kum darya's delta, and I myself found the above mentioned graves at Miran in 1928. When Nils G. Hörner and Parker Chen in 1930—31 made their famous dash from the east to distant new Lop-nor, they saw a couple of previously unknown graves around the delta of Kum darya. In the same region Sven Hedin and Parker Chen in 1934 excavated two mass-graves and two single ones, the former yielding a most interesting material which will be published when the collections have become accessible.<sup>1</sup>

But at none of the enumerated localities have the graves had such an impressive exterior, such a whole forest of high posts and other wooden monuments, as at «Ördek's necropolis». So far, in this respect, it is unique.

<sup>1</sup> Of the above mentioned graves only those discovered by Stein and myself have been marked on the map. Fig. 3.



Fig. 15. The central part of «Ördek's necropolis» seen from N 30° W, showing planks from disjointed coffins, tumbled down posts and soars on the slope of the hill.

## NYUPPTÄCKTA GRAVAR I LOP-NORÖKNEN.

Under försommaren 1934 erhöles genom en loplik vid namn Ördek, som för mer än 30 år sedan varit i Sven Hedins tjänst och då bidragit till upptäckten av ruinstaden Lou-lan, upplysning om några gravfält i öknens söder om Kum darya (nedre Tarim). Det största av dessa kallas också i denna preliminära beskrivning för »Ördeks nekropolis». Det låg på en liten sandtäckt kulle, som pryddes av en hel skog av 4 m höga stolpar samt år-formade monument (fig. 15). Genom erosion samt genom plundringar av skattgrävande turkar har gravfältet lidit stor skada. Kistorna bestå av kraftiga, svängda plankor (Fig. 5) inneslutande mycket välbevarade mumier, insvepta i grova mantlar men f. ö. blott iförda mössor, smala gördlar och skor. Till gravinventariet höra korgar flätade av styvt gräs, symboliska pilar, föremål som fig. 7—8 (troligen använda i kulten), kammar (fig. 6) och div. småsaker av trä och ben (fig. 10) samt stenpärlor. Gravskicket visar många spår av fruktbarketskult, t. ex. vetekorn och kvistar av en ständigt grön Ephedra-buske, strödda över mumierna. En phallisk träskulptur samt två kvinnliga figurer (fig. 9) anträffades. Kinesiska föremål saknas.

På västra sidan av den lilla flodarm från Kum darya, som möjliggjort en bebyggelse i dessa ökenstrakter, anträffades tre smärre gravfält (B, C och E) samt nära Kum darya en enkelgrav (A). Dessa ha flera olika kistformer (fig. 11—12) alla avvikande från dem på »Ördeks nekropolis». De döda voro här iförda sidendrakter. Som den kinesiska sidenhandeln ej berörde dessa trakter förrän i slutet av 200-talet f. Kr. fås en bakre tidgräns för dessa gravar, och den främre gränsen ligger omkr. 330 e. Kr., då landet blev obeboeligt till följd av Kum daryas uttorkning. »Ördeks nekropolis» skulle kunna vara äldre än de smärre gravfälten, men differenserna i gravskick kunna även bero på en etnologisk eller antropologisk skillnad mellan de folk, som anlade gravarna.

Liknande gravar äro förut kända från Lop-nor området framför allt genom Aurel Steins undersökningar 1914. Men tills vidare är »Ördeks nekropolis» unik ifråga om den ståtliga utsmyckningen av gravplatsen med stolpar etc. Gravarna, åtminstone i »Ördeks nekropolis», ha anlagts av den autoktona befolkningen i konungariket Lou-lan, som kuvades av kineserna 77 f. Kr. Den har bildat ett troligen icke-ariskt grundskikt i den vid denna tid eljest ariskt befolkade Tarim-bassängen.