JOURNAL

OF

THE ROYAL ASIATIC SOCIETY.

ART. XIV.—*Note on Udyāna and Gandhāra.* By H. A. DEANE.

As the Swat valley, and neighbourhood, which constitute the principal portion of the old province of Udyāna, have hitherto been inaccessible for archæological research, the following rough notes (made during the little time at my disposal as Chief Political Officer with the Chitral Relief Force, and lately as Political Officer for Dir and Swat) may induce others better qualified to devote some attention to this interesting neighbourhood. They are principally connected with the travels of the Chinese pilgrim Huan Tsiang, as given in Beal's "Buddhist Records of the Western World."

The Pilgrim says (Beal, ii, 120) that there were 1400 old Sanghārāmas on the banks of the river Su-po-fa-sutu, the present Swat river. This was probably no exaggeration, as ruins are now found all through the country. Unfortunately, however, the majority lie in Upper Swat, which is at present closed to Europeans.

The old capital of the province in the Pilgrim's time was Mungali, or Mung Kie-li. General Sir A. Cunningham, in his "Ancient Geography of India, Buddhist Period,"

p. 82, thought that this place could be identified with Minglaur, a large and important village lying at the foot of one of the north-western spurs of the Dosirri mountain. Dosirri and its neighbouring peak, Ilm, belong to the Dūma range, which here divides Swat from Boner. General Sir A. Cunningham also thought Mingaur, or Mingora of Wilford's Surveyor, to be the same place.

The identity of Minglaur with Mungali is undoubted, though the main site of the old town lay (from the reports of men I have at times despatched to Minglaur) about a mile to the east-south-east of the present village. Mingaur is a separate place, lying some five miles to the west of Minglaur. The ruins about Minglaur are described as very extensive. On cliffs not far from them deeply-cut Sanskrit inscriptions exist. Three of these, impressions of which I obtained last year, have been translated by Professor Bühler, and are now being published in the *Epigraphia Indica*.

The Pilgrim states that to the north-east of Mungali, about 250 or 260 *li*, a great mountain range is entered, and the fountain of Nāga Apalāla is reached, this being the source of the Su-po-fa-sutu river. The distance and direction given by the Pilgrim bring us exactly to Kalām, the point at which the Utrot and Laspur (Ushu in our maps) streams meet. The junction of these is the present head of the Swat river.

South, about 200 *li* from Mungali, the Pilgrim mentions the Mahāvana Sanghārāma. This was apparently on the western, or north-western, slopes of the present Mahaban. Numerous ruins exist on the lower slopes and also on the higher portions of Mahaban. A portion of an inscription which I obtained from this hill recorded the deposit of a relic at some place on the hill, on which there must therefore have been a stūpa or sanghārāma of noted sanctity.

Going west 60 or 70 *li*, he next describes a stūpa built by Aśoka Rāja. The measurements and distance given bring us within the present borders of the Peshawar district. On

this side, hitherto, though many ruins and remains are found, no stūpa has yet been discovered. There are ruins named Chānai on low hills above the present village of Surkhāvi, and in the Narinji valley adjoining these low hills on the south, much sculpture which denoted the previous existence of a sanghārāma; and some which may have belonged to a stūpa, has at various times been found by the natives, and destroyed by them.

From either Chānai or the Narinji valley the Pilgrim's next measurement, 200 *li* north-west, leads to the Adinzai valley, entered from Swat at Chakdara. This may be identified with the Shan-ni-lo-shi valley of the Records.

About three and a half miles north of Chakdara is a site which was plainly at one time occupied by a stūpa. It has not yet, however, been excavated. Not far off, to the north of this, are the remains of a large stūpa. The greatest feature of interest in this stūpa is, that it is still known to some of the people by the name of Sūma, the name mentioned by Huan Tsiang (Beal, ii, 125). It is difficult to fix the site of the convent, but possibly it was on the spur overlooking the passage of the Swat river on which military posts are now being erected. Débris and portions of well-built walls exist on this site to a great depth¹; and though there were defensive towers on the higher points, the few relics found point to former occupation of the spot for other than military purposes. These relics comprise a portion of a head of a very large figure of Buddha, a portion of a finely-carved cover of a small oblong box (in soapstone), and old ornamented "chiraghs."

Adjoining this site is a detached rock close to the river, on which there are remains of old walls. The broken top of a "chaitya" was also found here. Amid the débris on this rock were also found two oval stones, weighing about 5 lbs. each, which appear to have been artificially shaped, and which are suggestive of Alexander's military engines;

¹ Appendix D is a plan of the foundations as far as they can be traced.

also the iron head of an axe—the latter found at a depth of fifteen feet.

As regards the Sūma stūpa, I will refer to the attached plan, Appendix A, which shows measurements. The height of the remains is 35 feet. The centre of the stūpa has not yet been excavated, and I have been loth to open it, as if anything of value were found it would lead to wholesale destruction by the natives of other stūpa remains, many of which exist in the country. The outside of this stūpa was built with carefully-dressed granite, well laid and fitted; on the outside it was covered with lime-plaster, much of which still remains. The interior was carefully laid in horizontal strata. Nothing remains of the chaitya except a small portion of the interior. Possibly portions of it might be found under the large mass of rubbish lying around. To the west are the remains of a platform 90' by 190', to which apparently the steps of the stūpa led down; and on it are mounds which have not been examined, but which are possibly sites of small square vihāras, or of monks' dwelling-places. The platform is slightly raised from the ground to the level of the foundation of the stūpa. Such portion of it as has been preserved owes its existence to a curious custom on the part of the Pathan inhabitants of the country, whose tradition is that a notorious thug was once executed at this spot. It is incumbent on every good Muhammadan, as he passes the place, to support the execution by throwing a stone on to the mound, saying at the same time—"I swear by God he was a thug." The south and west faces are in the best state of preservation.

The stūpa alluded to by the Pilgrim (p. 126) to the north of the valley, by the side of a steep rock, lies slightly north-east from the Sūma stūpa, about two and a half miles distant. The mound is at present known as Badshah Dheri. It has not yet been excavated. Between this and Sūma another site, somewhat to the east, also exists, which appears to have been similarly occupied.

The abundant stream alluded to by the Pilgrim is, I think, to be found in a spring on the south slope of

the Laram to the north of Uch. There is a story current in the valley regarding this spring. After a fight with an invading Muhammadan force, the old inhabitants of the valley, being defeated, concealed the spring with a large cup-shaped stone, and covered it over with earth, completely closing it. Some years ago signs of water being found, the source of the spring was traced; its covering was found and removed, and the water now flows freely. I recovered the stone cover from a Masjid in the village of Gudia Khwar, where the Pathans had placed it. It seems to have been the cupola of a large chaitya. It has a diameter of $2' 6\frac{1}{2}''$ and a height of $1' 1\frac{1}{2}''$. There is no trace of the lake mentioned in the Records, and the stopping up of the spring for many centuries may explain its non-existence.

It is noticeable that all the fortifications in the Shan-ni-lo-shi, and in the neighbouring valley of Talash, are on the south. There is no trace of any on the Laram Hill, nor anywhere to the north, nor on the spurs of the Laram running down to the Panjkora. Near Sado, which was a post held during the Chitral Relief Expedition, there are a few ruins traceable, but these appear to be of ordinary dwellings. From the fortifications on the south, and the absence of any on the Laram range on the north, it may, perhaps, be assumed that the people of the Shan-ni-lo-shi valley were more or less connected with their neighbours to the north in the valley of the Panjkora.

Whether Adinzai, or Adinazai, is connected with Udyāna, I do not presume to say. Adinapur, near Jellalabad, I have seen held to be a corruption of Udyānapur. Old names certainly survive in this country, and in the Adinzai valley: among the most striking are Uch and Uchana, the latter appearing to be the same as Uchanga, an old name of this country generally.

The Pilgrim now starts again from Mungali, and mentions (p. 126) a stūpa 60 or 70 *li* to the south-east, on the east of the river; this river is, of course, the Swat. The measurement brings us to an extensive group of ruins—

Balogram, Odigram, and Panjigram, and a little lower down, Shankardar.

In the neighbourhood of Odigram inscriptions exist. A little further down the river, between Ghaligai and Shankardar, the natives of the country describe the remains of a stūpa as still standing; and this is undoubtedly that referred to by the Pilgrim—for the Pilgrim records next (p. 127) a large rock on the bank of the great river, shaped like an elephant. This rock is a conspicuous landmark existing near the river, about twelve miles from the village of Thana, and near Ghaligai. It is well known to the inhabitants of the valley, the name of which, Hathidarra, was derived from it. The stūpa is described by natives as still standing a few hundred yards distant from this rock; and, from what I can understand from the people, there is also a fine Deva temple near it.

The hill to the south of the present village of Shankardar, a spur of Ilm, is known as Velanai. Extensive ruins on this spur are connected by tradition with an old ruler, Viru, in whom we seem to have Rāja Vara.

Next the Pilgrim takes a measurement of 50 *li* or so west of Mungali, and brings us to a stūpa across the river. This is close to a village now called Hazara, and natives describe the stūpa as still existing. It is also said that the next one he mentions, 30 *li* north-east of Mungali, still exists. In this neighbourhood Sung Yun mentions the temple of Tolu to the north of the city, and says there were sixty full-length golden figures of Buddha in it. A few months ago a golden Buddha was dug up in this region. The people at first asked the fabulous sum of Rs. 4000 for it. It fell, however, into the hands of a jeweller, who found it to be as I suspected, a stone thinly plated with gold, which he has now stripped off it. The practice of plating sculpture with gold was not uncommon in the neighbouring province of Gandhāra.

From the stūpa north-east of Mungali, Huan Tsiang crosses the river, and, going west, arrives at Vihāra (p. 127). In regard to this locality I am unable to say anything at

present; but the point is important, as from it another line of 140 or 150 *li* north-west is given to the mountain Lun-po-lu, on which the Pilgrim (p. 128) describes the Dragon lake.

This measurement brings us exactly to the head of the Aushiri valley, which drains into the Panjkora near Darora. How the Pilgrim got his distance over several valleys and intervening high spurs, it is difficult to conjecture. But on the hill to which it brings us there is found a large lake, more than a mile in length. It is apparently fed by snow. Unfortunately, pressure of work in connection with the retirement of the Chitral Relief Force prevented a survey of the lake from being made.

The lake itself is now known as Saidgai, and the same name is applied to the hill; another point of the hill, not far off, being known as Lālkōh. There are several stories current as to the wonderful sights to be seen at this lake, the most persistent being that of "Jins," who live in and near it. These Jins, with half human forms, are said to be constantly seen on the banks of the lake; and one old gentleman of the country assures me that he lately saw three sitting together, who vanished as he approached them. At other times food and rice are said to be found on the bank of the lake, placed there in some mysterious way. This story of the Jins adds strongly to the probability of the identification of this lake with that mentioned by the Pilgrim as haunted by Nāgas.

Some of the former tribes that inhabited Udyāna and neighbouring countries can be traced in the present day.

Kafiristan undoubtedly is populated by the descendants of those who were driven back from other tracts, mostly from the Afghanistan side: their many Hindu customs, the many Sanskritic words in their language, and their traditions, point clearly to their origin. It is to be hoped that some one with opportunities will deal with that important point, the language of the Kafirs. From the few investigations I have made, I have found many Sanskrit words in use among them.

In Kafiristan the custom of the women wearing horns as head ornaments, mentioned by Sung Yun as prevalent amongst the Ye-tha, still exists. One kind worn is a veritable pair of horns, made of hair and shaped like the short horns of cattle. Another kind is made of manāl feathers, with a tuft at the top arranged and bound round a stick about nine inches in length.

If I remember rightly (I have not Sir G. Robertson's book on the Kafirs to refer to), Sir G. Robertson mentions a custom amongst the Kafirs of banishing a man who has committed murder to the hills; and Sung Yun describes the same custom as belonging to Udyāna, whence it is reasonable to assume the custom was carried to the present Kafiristan.

Another, and distinct, remnant of the old races will undoubtedly be found in the large clan of Gujars, extending from Kunar on the west to Kashmir on the east. A very interesting point is noticeable regarding these Gujars. In the Peshawar district, and on the hills bordering on the Peshawar district, the Gujars all speak Pashtu, and in some ways are more Pathan than the Pathans themselves. In the hills across the Swat valley the Gujars understand and use at times Hindi, though they speak Pashtu. At Dir and on the high ranges beyond, the same clan of Gujars use Hindi entirely in their houses and amongst themselves. The Greek historians describe the cowherds as one of the classes inhabiting this country, and there can be little doubt the clan of Gujars represents the men they wrote about. Those about Dir and the neighbourhood were only converted to Islām between 250 or 300 years ago, some of them even later. Conversion in Bashghar of the Kohistanis, Gurialis, and others, who are undoubtedly a remnant of the former inhabitants of Udyāna, was brought about at this period, according to local history, through Mussamat Ram, daughter of one Barah, who fell in love with an Akhundzada named Salak Baba. Through her and her family, these people are said to have been brought over to Islām.

Lastly may be mentioned the Ghori, a small clan subservient to the Pathans, on the right bank of the Panjkora river.

The extensive manner in which the Udyāna is fortified on the south speaks of anything but the supposed peaceable nature of the people, or their cordial relations with their neighbours in Gandhāra, the present Peshawar district. Appendix B is a plan of the old fortifications on the Malakand Pass.

Beyond the Swat, Adinzai, and Talash valleys, remains of former habitation become more indistinct. Up the valley of the Panjkora there are considerable traces of ruins as far as the Aushiri. At Barikot, near Patrak, distinct ruins are said to be found, and a stūpa is said to have existed there which was overthrown by one Ilias Akhund, about two generations ago.

Throughout the Panjkora valley there are remains of old terraced cultivation, entirely deserted in the present day, and declared by the Muhammadan population not to belong to the Muhammadan period. This points to a different previous condition in the valley: this condition was probably that the land along the banks of the river was during Buddhist occupation swamp, and incapable of cultivation to the same extent as now. The process of the bed of the river deepening, and swampy land being gradually reclaimed and brought under cultivation, goes on now. The people of the valley also talk of a much heavier rainfall in former days, which has doubtless been much reduced by the wholesale destruction of forests.

To the west of the Panjkora, the Jandol valley, occupied during the expedition by our troops, is too thickly populated for many traces of former occupation to remain undisturbed. An old road leads over the Binshi Pass into Asmar from the Jandol valley. The only good site noted was of a city on the hills to the west of Kanbat. Near this I obtained an inscription. I also obtained two inscriptions near Badin, between Munda and Kanbat, in the Jandol valley—one from Tarawar in the Maidan Banda valley, near the

Panjhora; and a Persian one, broken into three pieces, near Sapri Kalan, in the same valley. These have all been sent to the Lahore Museum.

A former Khan of Dir almost ruined an old Deva temple at Gumbat, in the Talash valley, the stone being carried off to Dir. Portions of it, however, in excellent preservation, still remain. Ruins and inscriptions exist on the ranges from the Binshi Pass to the south-west, and near Nawagai are remains of a large city. Unfortunately these are inaccessible for examination.

Such sculptures as have been found have been obtained chiefly from the Swat valley and from Dargai, where also a Buddhist relic in a small gold casket was found. This has been made over to the Imperial Museum, Calcutta.

Considerable damage has been done in places by irresponsible digging, and especially at a place on the north slope of the Morah Pass, called Kafirkot, which must have been a place of much importance. Here there are extensive remains of a large monastery, within which stood a stūpa, the base of which is still *in situ*. The diameter of the inner circle is 24 feet, to which may be added a projecting plinth of 10 inches. The diameter of the outer circle base is $24 + 13 \cdot 10 = 37$ ft. 10 in. Some sculpture obtained from this place has been sent to the Imperial Museum. Near this place I noticed two other stūpas, and in the plain below, a mound, from which Pathans not long ago obtained some gold sword-hilts and other pieces of valuable property which cannot now be traced. These stūpas are all worth proper examination. The sculpture from Dargai is of the Gandhāra type, and that from the Swat valley is of the same type, but in some respects superior, and principally in that the figures are better proportioned.

The country to the south of the Malakand ridge is rich in ruins, and has not been properly worked. There is much to be done in this quarter.

Hitherto not many inscriptions have been found in Swat, and those found are mostly in Sanskrit. Many others undoubtedly exist which we are unable to obtain at present.

I have lately procured one or two small ones in the same unknown character which has been found on small stones in old houses on the slopes of Mahaban. M. Emile Senart lately published several in the *Journal Asiatique*.

In this note on Udyāna I have recorded only what I have been able to ascertain from cursory inquiry and research. There is a large field for anyone who can systematically prosecute research. I offer the opinion that Udyāna was on the north bounded by the high range of hills above Dir and Swat, which would seem to be the Tsungling mountains mentioned by the Pilgrim (p. 119 and elsewhere). These hills now divide Swat and Dir from Gilgit and Chitral territory. On the west I do not think Udyāna extended further than the line of the Panjkora; the Pilgrim's descriptions take us nowhere into Bajaur. On the south, the watershed of the hills bordering the present Peshawar district would appear from the extensive fortifications to have been the boundary. On the side of Boner the watershed would also appear to have been the boundary, as the cave temple on that border on the western watershed is described as being in Gandhāra. Further south on this line we are brought within the present limits of our British border at Surkhāvi and Narinji, and thence, down to the Indus, the lower spur bordering British Yusafzai would appear to have been within Udyāna limits. My opinion on this point is based on small inscriptions being found amongst ruins on these spurs which are not found in Gandhāra.

The Pilgrim, after leaving Udyāna, went up the line of the Sintu or Indus river. But it is said that he went first north-west from Mungali, which would take him on to the line of the Indus *viā* Gilgit. At Mungali he was within fairly easy range of the Indus on the east and north-east; and by going north-west, over a range of hills and through a valley, it would seem probable that he took the route *viā* Kalam and the Laspur Pass to Drasan, from which point he would reach the Indus by the easiest line. It seems not unlikely that Sung Yun also entered Udyāna by this route.

I add here a few notes I have made from time to time regarding the adjoining province of Gandhāra, the British district of Peshawar.

Huan Tsiang, in his *Records* (Beal, ii, 97), first describes Po-lu-sha-pa-lo, which has been identified as the present Peshawar. One of the first points he notices (p. 99) is the large pipal-tree, which is mentioned later by Baber. Peshawar having a considerable Hindu population, it is natural to look for the site of this tree amongst places still, or until lately, held by them in reverence.

A mistake we are apt to be led into in such research is to disregard the fact that the site of the city itself may have been changed. On this point there is ample evidence that within quite recent times a portion of the city, which occupied the site of the present commissariat lines, near the present cantonments, was demolished, and the city perforce extended in the opposite direction. At the corner of what is now known as the Pipal Mandi, is an old pipal-tree. According to Hindu tradition, this tree is at least 500 years old. Until recent years, during which a market has grown up around it, it was the great meeting-place and resting-place for Yogis. There are other places in and near Peshawar which at the present day are regarded as more important than this—notably, a tank and temple known as Panj-tirath, surrounded by large pipal-trees, to the north-east of the city—but those places are all of comparatively recent date. After inquiry, which I have made during the last three years, I have come to the conclusion that the pipal-tree now standing in the Pipal Mandi is on the site of the old one mentioned in history. We may be sure that such a spot would not be lost sight of by the Hindus, though circumstances now render its former use impracticable.

Of the stūpas mentioned by the Pilgrim there are few traces left. The sites of five can be traced at a place about a mile south-east of the present city. The place is known as Shahji-ki-Dheri, and is below Hazar Khani, on the old road to Lahore. I obtained from this place a small figure of

a sitting Buddha, and a very interesting flint cameo—a figure of a man mounted on a horse. These were obtained from a corner where cultivation is commencing to cut into the site, which has not been excavated.

The Peshawar city now covers such an extent of land, and every available piece of land near it is so highly cultivated, that it is hopeless to try and follow the Pilgrim further in his descriptions in detail.

Going north-east from Peshawar, the Pilgrim (Beal, ii, 109) takes us across a great river to Pushkalavati. This has been identified as the Penkelaotis of Arrian and the present Charsadda. It is probable that the main site lay a little lower down, where extensive mounds, wells, etc., mark the old site of a city very distinctly. This place would repay excavation.

If we follow Huan Tsiang's distances carefully from these old mounds, we come eventually to the eastern end of the mass of buried ruins known as Shahr-i-Narparsan, between the present villages of Rajar and Utmanzai. The stone from these has for years been abstracted for building purposes, and it is impossible to trace what existed. I found here portions of the top of a chaitya. Accepting the Pilgrim's measurements and directions to be correct, and assuming that the large stūpas mentioned by him stood at the east end of these extensive ruins, to which point the measurements bring us exactly, we get a point from which the Pilgrim (p. 110) gives a further line to a position 50 *li* north-west. Here he mentions another stūpa. The direction and measurement lead direct to a mound of ruins, hitherto, so far as I know, not excavated, and known as Dheri Kafiran. This stands not far from the village of Sher-pao, in Hashtnagar. There can be little doubt that excavation would show this "Infidel's mound" to have been a stūpa. Judging by the ruins, it must have been a large one.

Again, from this point north 50 *li* the Pilgrim (p. 111) describes another stūpa. This brings us a little north-east of the present village of Gandheri, which may be connected

with the old name Gandhāra. The name Gandheri, however, has a meaning in Pashtu, being the "oleander" which grows in the ravines here. A little north of Gandheri, and not a mile from the village, the site of a stūpa is traceable. A small vihāra, such as is generally found near stūpas, was excavated here; the base was standing, and it has since been built up with other portions excavated near it. The sculpture is very old and good, and much of it shows traces of gilding. It has been made over to the Imperial Museum. The whole site near Gandheri is worth exploration.

These last two measurements and distances being correct, I see no reason for not locating the places mentioned near Pushkalavati by accepting the Pilgrim's measurements exactly.

The point thus fixed at Gandheri is important, for it is from here that the Pilgrim takes his direction and measurement to Po-lu-sha. This has been assumed by General Sir A. Cunningham to be Palo-dheri, a village in the Sadhum valley, mainly on account of the name. North-east of the city was Mount Dantaloka, 20 *li* distant. This is the Sanawar or Paja range, north-east of Palo-dheri, as identified by General Sir A. Cunningham.

The Pilgrim (p. 113) mentions a stone chamber between the crags of this mountain. This may be a small chamber or cell, which still exists, built into the rock, below the cave temple known as Kashmir Smats. This is just above the ravine in which "the trees droop down their branches like curtains," and form a leafy roof over the ravine. Above this woody ravine, but not "by the side of it," as described by the Pilgrim, is the rocky cave known as the Kashmir Smats. The Kashmir Smats is an immense cave piercing the hill at an angle of about 25°. It runs slightly north-west. It is of a limestone formation, and the walls and roof show fringes of stalactite, masses of which have occasionally fallen from the roof or exfoliated from the sides. The entrance to the cave is about 50 feet wide, with about an equal height. At a distance of 38 feet from the entrance, it widens to

84 feet, with a height of about 60 feet. At this point a flight of steps 17 feet wide leads up for another 38 feet to an octagonal vault, the sides of which measure 11 feet, $4\frac{1}{2}$ feet, and 6 feet. Small niches exist in the walls, in which small earthen chiraghs were found. Portions of what appeared to be a sheeshum-wood coffin were some time ago found lying buried in the débris not far from the vault. The conclusion is, that this originally lay in the vault. The lid was highly ornamented, but was ruined by a native who carried it off to convert into a door. On the right of the chamber is a small square masonry room. In 1888, near this I obtained, buried in the guano which lies around, four carved sides of a box, two wooden plaques, and a wooden pilaster about 4 feet in length. I made these over to Dr. Burgess, Director of Archæological Survey in India, who placed them in the British Museum. These are the only carvings in wood found hitherto in Yusafzai. They were in excellent preservation, though blackened with age.

The cave beyond this turns slightly to the west, and at a distance of 95 feet from the vault narrows to 47 feet in width. A flight of winding steps 20 feet wide, and extending for $68\frac{1}{2}$ feet, leads up to the centre of the second chamber. At the top of the flight of steps is a fragment of wall about 10 feet high and 24 feet long, in fair condition, which evidently belonged to some large building. The cave is here 94 feet wide, with a height of over 100 feet. At a distance of $7\frac{1}{2}$ feet beyond the above wall the cave narrows to $51\frac{1}{2}$ feet. At this point another flight of steps is reached. To the left of the foot of these steps is a water-tank, with steps at the lower end leading into it. The tank is lined with cement half an inch thick, and is in excellent preservation.

The flight of steps leading onward into the cave is well made, and in good condition. About 50 feet further a natural gallery, about 30 feet high, leads on to the left. At the entrance to this, on the right-hand side, is a small square masonry vault, in which a year or two ago treasure

is said to have been found by some of the many Gujars, who frequently live in the cave. After 20 feet it takes a sharp turn up a flight of steps, in good order, and enters a narrower gallery, along which for a short way a man can only crawl on hands and knees. At the top of the steps, on the wall of the cave, are a few letters in Pāli; but these have been almost obliterated, and cannot be read.

The main cave from the entrance to the gallery winds through a long vestibule and up a winding flight of steps, protected by a balustrade, the direction being north, to the third chamber. The steps lead up to a square masonry tower, a part of which, to a height of about 10 feet, is in good repair. The measurement of the walls is 7 feet 6 inches, while the thickness of them is over 2 feet. The roof of the cave rounds away upwards to a height of about 100 feet, or may be more, and on the north-west side is a rift from 6 to 10 feet in diameter, which lets in light and air. The guano lying in this chamber is about 7 or 8 feet deep. The whole cave would probably repay careful excavation, but it would be a troublesome undertaking.

Appendix E is a rough plan of the interior, but the bearings are only approximate.

Looking down from the entrance to the cave, is a very fine view of what appears to have been a monastery, and of the gorge leading up to it.

There is another cave in the cliff not far from the Kashmir Smats, and perhaps more likely to be the place that an old Rishi would be credited with having as his abode. It is inaccessible to any but the best of cragmen.

Sung Yun's account of apparently the same cave, and its position, gives us no corroboration of the identification, except in the details that the rock-cave was south-east of the crest of the hill, and that it had two chambers, the second cave leading off from the main one possibly being the second chamber.

Sung Yun calls the hill Shen-shi, and places it 500 *li* to the south-west of the royal city of Udyāna, a direction

and distance that would take us (accepting Mungali as the royal city) into the Khattak hills on the line of the Indus, some distance below Hodi Raja. Sung Yun mentions a great square stone in front of the cave, on which a memorial tower was erected. There is no sign of any such tower. Sung Yun mentions traces of a lion's hair and claws on a stone three *li* to the west of the cave. About half a mile west of the cave is curious ornamentation on the rock by the side of the road. He also writes of wild asses frequenting the neighbourhood, but it seems more likely he meant monkeys, which still frequent it.

In regard to the memorial tower, it seems possible that the tower in the inner chamber of the main cave, and not far from the entrance of the smaller offshoot, may be that alluded to; but this is mere conjecture. A tower would hardly be built at this point for other than memorial purposes.

It is noticeable that Sung Yun places the rock-cave in Udyāna, while Huan Tsiang describes it as being in Gandhāra.

Taking the stone chamber first mentioned as the point from which to measure, and taking the Pilgrim's measurement and direction, we cross a small range and come to the range bounding Swat on the south. It brings us to the foot of the Shakhkot Pass. After working this out on the map, I visited the Shakhkot Pass, and a little to the west of the foot of it found the conspicuous remains of a memorial stūpa. These have not yet been examined.

The Sanghārāma has not yet been found, though proper examination will probably reveal it. The whole site is much overgrown with jungle. This stūpa is close to a curious old road running straight up a spur leading to a point above the Shakhkot Pass, where there are remains of old forts. The road is continued down into the Swat valley. The Pathans have a tradition that the road was made especially for bringing elephants up, and they call it the Hathi-lar, but they apply this name to most of the old roads. On the opposite spur on the east is an old road

with a far better alignment. It appears to be older than the Hathi-lar, and leads straight over the pass and down a well-aligned road on the north side, the making of which through solid rock for considerable stretches must have entailed enormous labour. How this road, and that over the Malakand, were cut through rock too hard to break with picks, is difficult to conjecture: it may have been effected by lighting fires on the rock and pouring water in the heated rock, as I am informed is still done in some parts in Southern India. At one spot only, and that on the Shakhkot Pass, have I noticed any old sign of fire. In this case, about four feet up the hill-side, the rock through which the road had been cut was calcined, and partially converted into lime.

On the top of the Shakhkot Pass is a large stone having foot impressions, shown as Buddha's footmarks. They are two impressions rather of shoes at right angles to each other, with nail-marks in the heel, under the instep, and in the middle of the foot. One impression is eleven inches long and the other about ten inches. They bear no resemblance, so far as I know, to any marks which are really known as Buddha's footmarks. The origin of these marks is not known; they are said to be old, and I heard of them a long time before we came to the country.

To return to the Pilgrim's record, after search extending over a long time no trace of the figure of Bhima Devi (Beal, ii, 113) has been found. I cannot trace any rock-cut figure on the Sanawar range, though possibly such exists. Rock-cut figures exist on Ilm, and there is one on a rock to the south of the Morah; but in the former case the distance is too great when compared with the Pilgrim's measurement, and in the latter case the direction does not coincide, nor does the description of the figure.

From the temple of Bhima, Huan Tsiang (p. 114) mentions distance and direction to U-to-kia-han-cha. This was considered by the late General Sir A. Cunningham as the present Hund. The difficulty is, that we are not certain of the site of Po-lu-sha, and cannot therefore ascertain

where the Bhima temple was. The question where U-to-kia-han-cha was is accordingly open to a certain amount of doubt. The only stūpa so far found near the south-east foot of the Sanawar range, which General Sir A. Cunningham fixes as Mount Danto-loka, is the small one found at Sikri and excavated six years ago, which is now in the Lahore Museum.

The description given of Mount Danto-loka, and the measurement and distance given to the stūpa existing at the foot of the Shahkot Pass, go to support General Sir A. Cunningham's identification of Mount Danto-loka, and consequently that of Palo-dheri with Po-lu-sha, though there can as yet be no certainty as to the exact site of the latter. The above notes, however, tend to prove the general accuracy of the Pilgrim's distances, and one is loth, in the face of general accuracy, to assume that in one particular measurement or direction he has been incorrect.

The correct position of U-to-kia-han-cha depends much on the correct identification of Po-lu-sha. U-to-kia-han-cha was also known as Udakhanda; and if the possible remnant of an old name in a present one be taken as a guide, it might be argued that Khunda, the name (bearing no meaning in Pashtu) of a village about six miles north-west from Hund, is connected with the subject.

The line of the Indus through the Peshawar district has never been thoroughly examined. Beginning at Asgram, there are extensive ruins a little way above where the Indus leaves the hills; there are more on a low hill on the bank of the Indus near Gullai, known as Imran; many more buried near Jalbai; and, again, others near Jehangira and Alladher. None of these have ever been systematically explored.

The following brief note has reference to Aornos, which was situated either in Udyāna or Gandhara.

On Mahaban, at the point known as Shahkot, are the very distinct remains of a large fort, the foundations of which, 360 yards by 180 yards, with twelve bastions on the north and south faces, five bastions on the east face

(outside which was a ditch some 30 feet wide), and four bastions on the west face, can still be traced. The road to the fort winds up the southern face of the hill, and below it on the south is a plateau about a mile long by 600 yards wide. On the north face is a second gate, with a steep path leading to springs a little way below. Below the south-west corner is a large tank protected by three towers. Inside are remains of two temples and a tank about 60 paces in circumference. The fort is situated on a vast rock, and is reported as exceedingly difficult of access.

Close to Panjtār, at the foot of Mahaban, is a group of several old towns, from which I have obtained many inscriptions. Further down, towards where the Indus debouches into the plain, are extensive ruins, to which my attention was first directed by obtaining an inscription from them. These ruins are known as Asgram, already mentioned. The Pathans give this as the name of the ruins, stating that tradition holds them to be of the same period as Bēgram and Naugram (Ranigat). Taking Ptolemy's map and McCrindle as a guide, we find a hitherto unidentified place, Asigramma, close to the bank of the river, bearing the same relative position to Aornos and Pentigramma, as shown on the map, as Asgram bears to Mahaban and Panjtār. Aornos was above Asigramma; and if the identification of Asgram with Asigramma be accepted, the claims of both Hodi Raja and Ranigat are disposed of, and there does not remain much, if any, doubt as to Aornos having been on Mahaban as described above. Another very strong position on Mahaban is a spur running to the Indus known as Mount Banj. A fort also exists here, and is very difficult of access. Built into the foot of the wall, near the entrance to this fort, was a short inscription, which I obtained and sent to the Lahore Museum. It has not yet been published.

The line taken by Alexander's troops from the Kabul to the Indus has as yet by no means been satisfactorily followed out. But anything further connected with that must be the subject of a separate note. I have mentioned

the above point as regards Aornos as being of particular interest.

For further research in Udyāna, an accurate map of the country is required. When one is published, it will be easy to mark on it all the ruins which can be traced. This will show what a field for research still exists, even in the portion only of the country to which we have free access.

Careful inquiry amongst the Gujars will elicit much information as to old names still known to them, but not now in general use. If this be first done, and then photographs and plans made, a useful record will be obtained, and excavation, if properly conducted, will produce much of great interest.

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