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## IRON WORK.

From Objects and Drawings ir ir the South Kensington Museum. In 28 Pai ts, price $28 \%$.

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## W. GRIGGS,

Hanover Street, Peckham, London, S.E.

# Che gournal of gindian Art and Indusfro. 

## ANCIENT INDIAN BEADS.

By Mrs. J. H. RIvett-Carnac.

HE idea of the number and variety of ancient beads that might be collected in India, and of their possible antiquarian and scientific value, was suggested to me many years ago by a conversation with Mr. George C. Ricketts, C.B., of the Indian Civil Service, whose sympathetic interest in all connected with the people of India had enabled him to lay up a valuable store of information which was always generously placed at the sal of his correspondents and friends. Speaking of women's ornaments, of which he had assisted me in ting a large number of specimens, he said that in the North-West Provinces and elsewhere, the Sulaimani es or Solomon's beads, which one often saw, were never shaped or bored by native lapidaries of the present out were found ready-made on many of the old sites. This view was fully confirmed later when I commenced ng a collection of ancient beads of every description, to the significance of which amid the luxuriance of cts of interest which surround one during a residence in India, sufficient importance did not appear to have 1 attached. I had gathered many specimens together, and a certain amount of notes and information, but the remained unfinished and was laid aside. A visit lately of my cousin, Colonel R. Temple, C.I.E., revived the rest, as he suggested a paper on the subject illustrated with photographs might prove of some use for comison, and perhaps draw the attention of those interested in these ancient finds, of which many specimens exist ur European museums.
Every collector probably remembers with something akin to affection his first opportunity. Mine came to me morning in camp, during a march through the Mainpuri district. I so well remember the hot and somenat dusty road along which we had walked and driven, and the pleasure of a halt in a mango grove, near an old Ample, beneath the grateful shade of some fine trees. A fakir, or religious mendicant, passed us on his way to re village, wearing a quaint string of beads of all kinds round his neck. The variety and large size of some of ne onyxes led to a talk with the old man, who shook his head when asked if he would part with his necklace, but eemed amused at the interest it excited. When asked where he got the beads, he replied they were given to him y the village children who picked them up during the rainy season. These casual words recalled my conversation yith Mr. Ricketts and the story of Solomon's beads, and suggested the idea of offering a small reward to the village urchins at our next camping ground, near which, as often during the march, a dih or ancient site lay close to our tents. Thus began a system which afforded us much amusement, and which opened out for us many an interest. The servants soon entered into the spirit of the chase, for it had much of that element in it. The word would go forth, at our camping grounds, that a small reward would be given for coins or for finds; the news spread, and usually by the evening a perfect brigade of urchins, big and little, intent on barter, all anxious to produce their wares, would present themselves at the camp. Coins would be warily produced tied up in the corner of a somewhat grimy head-cloth; or a handful of beads would be held out by some tiny mite, who was evjdently thrust to the front as being likely to attract more favour. It was often a very curious medley of finds thus brought to view. I have seen one of the oldest Buddhist coins-a copper square coin with the elephant and chaitya, a beautiful and rare gold Gupta, belonging to the great dynasty that reigned as far as Patna, a copper coin of Constantine the Great, struck when he took the phoenix as his emblem, and some mud-encrusted beads, all offered at the same moment, on an outstretched palm, and found at Bhitri in the Ghazipur district, the site of the celebrated inscribed Buddhist pillar. Year by year accompanying my husband on his cold-weather tours through the N.W. Provinces and Oudh, my collection increased, friends interested themselves in the subject, sending me many contributions and much interesting information. Thus was formed a somewhat quaint assortment of ancient beads, which became a source of interest and amusement, besides promising to shed some light on what may be called the antiquarian as well as the ornamental side of this class of relics. Seventy-eight strings, amounting to some hundreds of beads was the result ; of these sixty-one have been chosen and arranged to be figured in 12 plates, which accompany this paper, the remainder being distributed among various collectors, and museums.

## FIND-SPOTS

The find-spots and localities from which specimens were produced may first be noticed. Speaking generally, our winter tours during a series of years took us through all the districts of the North-West Provinces and Oudh. It was thus our good fortune to pass through much interesting country. Along the line of the Gogra, the

Gangetic valley and the Jumna, were the traces of the early Aryan advance and civilisation, with its super-imposed Buddhist faith. Here the local names of Dih, Khera, Kot and Vihara (monastery), applied to ruined mounds of vast extent, near which nestled or on which were built modern hamlets or villages, brought home to the the history of the past; while in the hilly country of Mirzapur, kistvaens and tumuli, with their contents--stone implements, and earthenware vases as also the stone implements in the Banda district, bore evidence to the sweeping back of the aborigines into hilly fastnesses before the Aryan wave of invasion. The Gorakhpylu and Basti districts, in which the ruined mounds of Rudrapur, Khukhundu and Sohan Kot in the neighbourh the sacred ground where Buddha was born, lived and died, yielded their quota of interest. Ghazipur, 40
6 ANCIENT INDIAN BEADS. from Benares, the great sacred city of the Hindus, lies in the midst of country once ruled over by the dynasty, which stretched its power as far as Patna, and the famed Buddhist monarch Aśoka had many an inst rribed pillar or lat scattered through this district. Here we first began a collection of coins, which in gold Gupt were fortunate enough to make almost complete, and which is now in the India Museum as the RivettCollection, and there also was opened up a field followed up through Oudh and the North-West generally spots for coins belonging to old and almost unknown Hindu dynasties, besides early Buddhist, Greek and Bactrian varieties. As will be seen, Ranki to the north of the Sai river, near the border of the Rai Bareilly di abounding in ruins of an ancient Bharodhi town, and Karauli on the banks of the Ganges, almost opposit town of Shahzadpur in the Allahabad district, furnished me with many specimens of beads. Kanauj, onc capital city of another great Hindu dynasty not far from Cawnpore, around which spread débris and mounc considerable extent, was a most favourite hunting ground for curios of all sorts. But some of the best specir came from Sankisa, Sarai Aghat and Behar Khas, all ancient sites in the Farrukhabad and Mainpuri dist further north. Sankisa was most holy ground to Buddhist worshippers, for it was there Buddha descended 1 heaven after his ascent, to instruct his mother in the teachings of the Law ; and tradition still tells of the cry: golden and silver stairways by which he returned to earth. Behar Khas bears in its name alone evidence of Buddhist origin, as Behar is but a variant of Vihara, or monastery. From Akbarpur, Tikrí, Faizabad, Ajud (where once reigned Rama), in fact, wherever our camp was pitched and wherever friends could help, came sometimes by two and threes, sometimes in rich batches of twenty or thirty at a time, these waifs and strays the past. Much importance cannot be attached to the mere find-spots, as beads might be carried far and by means belong to the localities indicated; but on one or two occasions undrilled specimens were brought i suggesting that possibly there had been a local industry.

## MATERIAL AND WORKMANSHIP.

It may be roughly said that crystal, onyx and cornelian are chiefly represented in this collection; bu amethyst, topaz, garnet, glass of almost every hue, clay, agate, shell, lapis lazuli, and what to an unscientific eye might be classed as pebbles, are all placed under contribution. It may, perhaps, be of some interest if this collection in its variety were to be examined by an expert. There might be stones unidentified which belong to certain areas or geological formations, showing whence they were derived. The peculiarity of the drilling of these ancient beads was pointed out to me by Mr. W. Cockburn, who kindly helped me in the Gorakhpur district. He drew attention to the fact that corundum must have been used, and from the formation of the holes, he inferred a soft drill must have been worked with some hard powder, as the bases of many unfinished holes are flat, not pointed. He inferred from this that the process must have been long and tedious, and have rendered the beads when finished valuable. The high polish on some of the crystal and cornelian specimens, he believed, could only have been produced by a substance known to lapidaries as "tin putty." I had early remarked myself that, in endeavouring to re-string many of the specimens, the borings had been pierced from either end, and the junction was not exact. The only way to succeed was I found to hold the bead up to the light and work the thread up or down according to the lie of the light. An inspection of some of the crystals will show plainly this peculiarity in the drilling. That there was an ancient trade in onyxes, Ball, in his Economic Geology of India, brings out. He writes: "As far back as the first century the author of the Periplus of the Red Sea mentions the onyx among the products of Plythanx, a locality which may probably be identified with Paithon on the Godaveri, where agates are obtained even at the present day. He further states that the onyxes were taken down to Barygaza, the modern Broach, where a great trade in agates is still carried on. It appears that the lapidaries of Broach and Cambay are now supplied with raw stones chiefly from Rautanpur, in the territory of the Rajah of Rajpipla, where the gravels are systematically, worked for the sake of their agates, jasper, onyx and other silicious stones." It would thus appear that from very early days onyxes were regarded as valuable, and the fact that the Indian lapidaries in past ages were famous for them, helps to account for the vast supply of these beads found on all the old village sites. The Sulaimanis are well known everywhere, and the Delhi jewellers always say they collect them from the villagers and never buy the rough onyx. They have often for sale superb
necklaces of these stones. One sold some years ago at Simla, of well-matched beads, cost over F .300 ; each bead was fluted, and this, I well remember, the jewellers owned was done by themselves, but they maintained they had collected the onyxes ready drilled from the old village sites. A well-known European merchant at Simla, who deals largely in curios, and who was discussing this fact some years afterwards, corroborated this statement of the Delhi jewellers in regard to the find-spots of these onyx beads, and added the quaint information as to the reason for the name "Sulaimani," or Solomon's beads. In the days of King Solomon, so runs the legend, the genii presented him with a fresh rosary every day, to tell his prayers by ; hence the vast quantity of them scattered over the country.

## SHAPES AND ORNAMENTATION.

The variety of shapes is great, and difficult to explain without illustration. It would appear as if the material used decided in some measure the form. It may be briefly noted here that the types are the ordinary polished and unpolished round beads, varying in size from large marbles to pins' heads ; oval-shaped ones, long and short, both dull and polished, from the size of a pigeon's egg to that of a bean-many of these being hexagonal, rough prisms pierced lengthwise; cylinder-shaped, round facetted, cubes, fluted, cushion-shaped, pear-shaped pendants, wheel-shaped, discs-an infinite variety of forms found in an infinite variety of material. Besides these are a few beads, about 35 in number, of an entirely different type. These are the enamel specimens, to which Prinsep, in his Indian Antiquities, first drew attention (pls. 4 to $I_{3}$ ), and will also be found figured and deseribed in "Finds at Sankissa" (Rivett-Carnac), Joumnat A. S. B., Part I, I880. This enamel class is said to be amongst the most ancient form of ornament, and their rarity in comparison to all other types is remarkable. They may be divided into two classes-the white enamel on a black or carnelian ground, and black enamel on grey or white agate ground, and into three types - the long oval shape, the round, and the disc. The enamel patterns are chiefly pentagonal, hexagonal, circles with dots in the centre, or else five rows of tiny spots, or bands two or three in number running round the beads. The reiteration of these forms is curious; the circle and dot pattern is so arranged on the round beads as to form the triad symbol, to which attention will be drawn later. Most of these enamel specimens, as will be seen by a reference to the plates, come from the Buddhist sites. My brother, Colonel Algernon Durand, in describing the women's ornaments in his book, The Making of a Frontier (p. 208, with plate), remarks:- "The beads, more especially the long ones, are practically replicas in metal work of beads dug up on the sites of ruined Buddhist cities in India. So marked a persistence in design would go to prove a connection between races employing them in the common objects of everyday use." The silver long-shaped bead here alluded to has its exact counterpart in the black oval specimen with white enamel design figured on Pl. 25, fig. 9 of this collection. The one carnelian disc ornamented with a white enamel design quite peculiar to itself requires some little explanation. It was brought to us at Kanauj, and is figured at Pl .25 , fig. 7. The central ornament is a cross with a dot between each arm ; the pattern round the edge consists of seven half-circles with a dot in the centre. The design is the same on both sides of the disc. No similarly ornamented specimen was ever brought to us from the many find-spots in India, but Colonel, Sir Edward Durand, while on the Afghan Boundary Commission in 1884 , sent me an almost identical carnelian disc ornamented in white enamel from Kuhsan. The design was slightly different, consisting of a central white dot surrounded by a circle of eleven dots; outside these again a circle of eight crosses and a border ornament, which might represent ten ill-formed crescents. Of enamel pear-shaped pendants only one was brought to us-a carnelian or agate of a yellowish hue (Pl. 32, fig. 47). The white enamel pattern on this consists of three triangles point downwards, which will be noticed later as having some significance. The more one examines these enamel beads, one is struck with the delicacy and accuracy of the workmanship; both in the geometrical designs and in the very graceful curves of the white bands, on one or two specimens, daintiness of treatment is manifest. It would seem as if there had been some strong incentive to cause small pieces of carnelian and agate, or whatever the black material may be, to be thus chosen out for what must have been a laborious if not costly method of ornamentation.

There is yet another class of enamelled or marked types to be noticed, and these also seem rare. They are the round black or blue-black specimens. Of these, about eight in all appear to be black glass, grooved, and the lines are generally spiral. In one bead, the remains of red enamel can be seen (Pl. 24, fig. 1). Two others of this class are, however, different in treatment ; the one, apparently black glass, has white circles with black centres standing out in relief on the bead, the circles being arranged triad fashion (Pl. 31, fig. 44). The other is equally striking ; the blue-black material at first sight looks like some dull black stone, but on closer examination the red of a hardened and coloured clay shows through. The design is the same white circles with a central black spot. The pattern is, however, not in relief. Again the disposition of the circles appears to take the triad form ( P ) 30 , fig. 39).

Besides the enamelled and circle-and-dot marked types, two curious specimens remain. In these the regularity of the pattern is puzzling. The one, a long oval brown agate, about $1 \frac{1}{4} \mathrm{in}$. in length, has what is known as the key or Greek pattern in a white band running round the cylinder, with a white square and dark central dot in each curve. It looks as if advantage had been taken of the white and dark lines of the original stome, but the design if natural is peculian (P1. 30, fig. 39). The pattern on the second, a brown agate also, is even more regular, a curved brown band in the centre being picked out with white at either end. The effect of this band is to convert the white ornamentation at either end into three white cones rising out of a similar circle. It would seem as if some artificial means had been taken to work out this pattern. In Europe it is said the regularity in the white and black onyx beads is secured by some artificial process, and this would seem to have been done here.

The carnelian pendants shaped like arrow-heads, of which there are four specimens only, next attract attention, as they have been carefully worked and polished. Further, anyone looking through the plates will be able to see that both in shape and in treatment there is a good deal of variety-some speeimens being very roughly hewn, dull and unpolished, and others bearing traces of caréful manipulation.

## SUPERSTITIONS AND RELIGIOUS SIGNIFICANCE.

There remain now to be noticed the superstitious and religious significance attached to these bead finds in India. Mr. Crooke, of the Indian Civil Service, who is well known as an authority on Indian folklore and cognate subjects on which he has written several interesting works, mpost kindly helped me in my quest, and an extract from a letter of his on the subject, written in 1885 , sums up the chief points. He said: "As to the popular idea about beads, I believe they may be divided into two classes-those merely made for personal ornament in which the intrinsic beauty is the sole element, and those used with some underlying religious idea. I believe those 'religious' beads may be roughly divided into two classes. First, those in which the shape or colour of the bead has some significance; and secondly, those used as talismans. We know that the Hindus connect certain precious stones with certain gods, planets, astrological signs, \&c. It is in the intense belief of Hindus in the power' of the 'evil eye' that we must look for the reason why most beads are worn. The idea is, of course, that if a child or person wears some conspicuous ornament on its body, the eye of an unlucky person is likely to fall on that first. The beads worn by children are always, I suspect, worn with this motive. In this case the chief point is that it should be of conspicuous colour or shape, and I believe that in most cases this is considered enough, and that minute shades of colour or varieties of form are not so much attended to. But at the same time there may be some vague idea that the bead should at least in colour approximate to that of the stone sacred to the particular god, planet, \&c., whose evil influence the wearer hopes to avert."

Perhaps before endeavouring to separate the specimens under the headings given by Mr. Crooke, it may be advisable to notiee the class by whom these beads are chiefly worn. Mr. Coekburn, who assisted me and took much interest in the subject, informed me that the country people themselves regarded these beads found on the old sites as uncanny, and never wore them as ornaments, only as talismans. Evidently the fakir, to their minds, being a past-master in mystery, could ascribe to the beads their proper occult virtues. They were taken to him when found, worn by him, and rendered serviceable through his agency. Mr. Cockburn held that the Muhammadan fakirs alone wore this class of ornament, in imitation, he believed, of the Hindu mendicants, who wore rudrakhsha or tulsi necklaces, or those made from other sacred plants, trees, berries, or grasses. The Hindus wore these natural products of the forest, and used them as rosaries. The Muhammadan fakir, equally living on the credulity of the people, and anxious to impress, but not being restricted like the Hindu to certain materials, found the ancient beads useful as rosaries and still more useful as enabling him to attribute to them occult powers. The legend of Solomon's rosaries applied to onyxes, seems to give colour to this view. For Solomon to the Muhammadan is a master of wisdom and necromancy. The Muhammadans, as is known, borrowed from pagan sources. The Kaaba stone, so sacred in their eyes, is said to be but a survival from a more ancient cult, and the so-called Solomon's 51 symbol is one used in Surya worship by the Hindus in the present day.

That some of the beads, boul in shape, colour and ornamentation, may have had, as Mr. Crooke expressed it "some underlying religious idea," seems probable. Several of the round enamel specimens and two black ones bear the circle-and-dot pattern. This symbol is recognised at the present day in India as the sign of Mahadeo, the Great God-the name by which Siva is best known amongst the people. Moor, in his Hindu Pantheon (p. 405), dealing with sectarial marks or symbols, says of the circle and dot: "My pundit fancied this circle and dot to have very profound relations: he called the dot 'purma,' a point, typical of the Deity; having neither length nor breadth; selfexisting-containing nothing; the circle, he said similarly, was Brahm-without beginning or end-unity - perfection." This symbol again, three circles and dots placed triad fashion, is said to represent the Trimurti, or Hindu triad-Brahma, Vishnu and Siva. And it will be seen that this circle-and-dot
pattern has been carefully adjusted on the specimens alluded to, both in the delicate enamel, and in the black and coarser designs, so as to present the triad symbol whichever way the bead lies. The triangle, again, is the recognised emblem of the Trimurti, and the quaint carnelian pyramid-shaped beads scattered through the collection may have been worn with some religious motive. Mr. W. Cockburn, referring to one of these, remarks that it represents the Trimurti, and is always used as a charm against nazar, or evil eye ; and that cloth bags of this form are hung round the necks of children. On an old vase found in Lahore in 1857, and described in the Asiatic Society's Journal (Part II), Buddha, who is supposed to be represented seated in a chariot, it is noticed, wears "a mata on necklace of gems, probably of amber or turquoise, of the shape of truncated cones, strung transversely through the thick end." This form of ornament is therefore, at any rate, sufficiently ancient. In Hindu symbolism, the triangle, apex upwards, represents Siva, downwards Vishnu.

The discs large and small, and some beautifully polished, have also to be noticed. Their shape is peculiar, and there is a considerable variety of material employed-crystal, onyx, bloodstone and carnelian. These chiefly came from old Buddhist sites, and at Sankisa especially were associated with quantities of clay discs, brought to us there, of the same types exactly as the "spindle-whorls," or ex-votos, described by Schlieman as found at Troy. This suggests that they may have been used as ex-votos. ${ }^{1}$

In regard to crystal specimens, the religious attributes of crystal are twofold. Crystal is alluded to by H. H. Wilson as "The moon-gem, which is supposed to absorb the rays of the moon and to remit them again in the form of pure and cool moisture." It is therefore sacred to the moon, but is also sacred to the sun and used in Surya worship. The crystal beads used in Surya worship ought each to be a burning-glass ; these, however, as may be imagined, are extremely rare, so worshippers have perforce to be content with ordinary specimens. Crystal is also held sacred by the Buddhists and noted amongst the "Seven Jewels." In the famous Sopara Tope near Bassein, where relics of Buddha were discovered, Mr. Campbell mentions in his report that forty-four beads were found, three of which were crystal ; and Rajendra Lalla Mitra (Indo-Aryans, Vol. I., p. 253), alluding to materials to be used as auspicious for seals, whether "metal, stone or wood," dwells on the necessity of using the material sacred to the planet which presides over the destiny of the person concerned; but adds, "Crystal forms an exception to this rule, and is reckoned fit for use at all times." Thus the sacredness of crystal in the eyes of Indo-Aryans, Buddhists or Hindus may perhaps account for the large number of beads of this class found on old sites.

The stones and colours sacred to the different planets are:-

| Sani. | Saturn. | Sapphire. | blue. |
| :--- | :--- | :--- | :--- |
| Sukra. | Venus. | Ameethyst, Jacinth. | red. |
| Vrihaspati. | Jupiter. | Carnelian. | grey. |
| Buddha | Mercury. | Touchstone. | black. |
| Mangala. | Mars. | Bloodstone. | green. |
| Chandra. | Moon. | Crystal. | white. |
| Surya. | Sun. | Topaz, Diamond. | yellow. |

The connection with the god-planets invests these materials not only with a sacred significance but with talismanic virtues. This brings one to the talisman type of ornament, and the dread of the "evil eye." In this evil eye superstition there seem to be two counter-currents-one the dread of an active maleficent influence, the other the fear that perfection brings with it ill-luck. It was mentioned to me as a curious custom, that no native scribe would ever send in a piece of writing without a blot, or deliberate imperfection introduced somewhere, as, If the writing were perfect, bad luck would follow. Similarly, in all embroidery or ornament, some fault is purposely introduced to ward off ill-luck. Those who have bought Indian phulkaris or worked cloths may have noticed how a portion of the pattern is left unfinished with the same object. Mr. Crooke, in his letter quoted above, has alluded to the intense belief in the power of the evil eye amongst Hindus as one of the reasons for the wearing of beads. Mr. W. Cockburn, when sending me the six ancient beads (Pl. 28, fig. 27), wrote : "They are used to tie round the ankle in certain diseases, also to keep off ' Nazar,' are regularly worn by fakirs, and 1 conclude are thought something of. The man who brought me the long bead had it carefully wrapped up in a piece of cloth, and made me a present of it with" great form." Mr. Cockburn further informed me that blue was the chief colour antidote to the evil eye ; that anything from the sea was considered sacred and pure, and thus shells especially could be worn by everyone as a protection against this danger. Blue being a sacred colour would also seem to account for the value set on lapis lazuli, of which many finely polished and unpolished pieces occur in this collection. The necklace of over forty pieces (Pl. 34, fig. 56 ) was sent me from Sohan Kot by Mr. Cockburn, who said that there must have been an extensive local manufacture, he thought, in this place, as he found a good quantity of broken pieces of this stone. A pundit whom he consulted told him the native name for lapis lazuli

[^0]was "Nau-i-lam," which was translated as "a master of nine," not "Nilam," sapphire. Its influence, as explained by the pundit, was above that of the nine gems, and wearing it alone was as good as wearing the nine gems. It is the great protector of women with child. Natives value it greatly and wear pieces around their waists as protection against all forms of evil. Mr. Cockburn procured a piece thus worn round the waist from a Bhar, one of the aboriginal tribes. The legend connected with this stone, told by the pundit, was that a certain raja had two wives. The one that was not with child endeavoured to destroy the unborn child of the other by means of spells, but the husband managed to steal a "Nau-i-lam" (lapis lazuli) bead from the neck of the goddess Parbati to counteract the spells. The wicked wife managed to get possession of this bead, broke it into pieces and threw it into the river: but the atom split into myriads of fragments, and mixing with the sand formed a rampart of mountains to defend mother and child. To corroborate the truth of the legend, the pundit drew attention to the particles of sand shimmering in the lapis stone. Apparently, besides this belief in lapis lazuli, blue beads are much in demand in the bazaars, and large blue glass ones are specially sold to be worn by horses. The superstitions in regard to horses and their markings are innumerable, and they are supposed to be susceptible like human beings to the influence of being "over-looked," as it is called in Europe. A curious proof of this came under our own notice, in the case of a favourite horse. He had been left behind ill; on his recovery he was marched in one terribly hot morning when the much-dreaded lu (a severe form of the ordinary west wind) was blowing. Noticing three white beads round his neck, the groom explained they were the cores of onions strung and put round the horse's neck to save him from the pernicious effects of the $l_{u}$. White beads not being handy it was considered the cores of onions were as efficacious.

White beads made from the bones of the gadur, or flying-fox, are also worn. Their efficacy against rheumatism and aches and pains of the joints are firmly believed in. An old woman-servant of mine always wore a string of them. Having lost her gadur beads whilst with me in the Himalayas, she sent down to the plains for others, as they could not be procured in the Hills. She declared her aches and pains returned directly her beads were lost, and vanished when she was able to wear them again. One of these gadur beads is figured on Pl. 26, fig. 16.

Carnelian, of which a good many specimens have been gathered together, are worn, amongst other reasons, to ensure wakefulness. Some of the carnelian hexagons sent me from Karauli were specially mentioned as having the value of securing immunity from fatigue, and wakefulness to anyone forced to sit up at night. These carnelian beads are also supposed to have curative qualities in regard to dysentery and hemorrhoidal diseases.

The most striking, however, of these talismans are the large oval ones. They were brought to my notice for the first time when we made the purchase of the dark green specimen (Pl. 27, fig. 22). Immediately this was shewn to a native ayah (or maid-servant) she called it a Khas muhr, a bead used in childbirth to ensure the mother's safety and to allay suffering. She said that such beads were lent out by fakirs, who were always the possessors of them, and who never accepted money for the loan; and she further pointed out that the bead in question was worn and flattened by constant use. She added that before the birth of a child she had worn a similar bead, that it had allayed her pains and facilitated the child's arrival. Another native woman, to whom some of the large oval onyxes were shewn, called them Jehur muhr, and said they were tied on the parts affected as cures for abscesses and boils ; that not long before she had herself worn one for an abscess on her thigh, and had received great relief from wearing it. She also recognised the value of this type of bead and their use in expediting delivery in childbirth. Jehur muhr may possibly be a corruption of $Z a h r$ (poison) muhr (rubber), a porous grey stone said to be an antidote for snake-bite, and which is known as the besoar. Of these large oval beads there are fourteen specimens, and they are mostly of onyx or agate. They may be easily recognised by their shape, and by one side being usually much worn down. This has probably been caused by their having been used to rub affected parts. One of these, a beautiful specimen (Pl. 27, fig. 19), has three curious circular markings lying along the oval triad-fashion. Another has the crescent with a circle and dot incised on it-a Shivite symbol. Egg-shaped agates and marbles undrilled, many about the size of these drilled specimens, are exposed for sale on stalls in Benares and elsewhere near the temples, and are used as Mahadeos, to be placed in the brass lotus shrines so common in Benares, and in other receptacles used in Mahadeo worship. Besides the large oval onyx beads, three round ones (P1.27, fig. 22) marked with pieces of red cloth and numbered $1,2,3$, were picked out as being (Nos, 1, 3) good for ophthalmia, while the grey agate or onyx (No. 2) with delicate markings was called Kunja and declared to be good against the worst form of itch-not the dry itch, it was carefully explained, but the form that runs into sores.

The strings described above were all found in the Gangetic valley. The collection which has been figured, however, contains five other necklaces brought, four of them from other parts of India, viz., Gilgit and Kumaon, and one from Egypt, and this brings the subject to the similarity between the beads found in India and those of
other parts of the world, not only the similarity in material, shape and ornamentation, but also in the superstitions relating to these talismans. The rough amber necklace (Pl. 34, fig. 58) was bought from a hill-woman in Kumaon (Himalayas), and was strung exactly as it is now, the only additions to it being three gold fluted beads bought subsequently. It was not till many years later that facsimiles were seen in Brittany, one in the possession of M. le Comte de Limur and one owned by Comtesse Dillon. These necklaces, we were told by their owners, are heirlooms amongst the Breton peasants and are lent out from house to house in cases of sickness and imbecility, both for adults but more especially for children; and money is never taken in exchange for the loan of them. Amber from earliest ages has been held in great esteem, and lately the Zurich Museum has become possessed of some magnificent amber necklaces found in ancient graves.

The lapis lazuli necklace from Egypt has been introduced to show the similarity in treatment of the long polished beads with some of those found on the old sites in India. The three strings of more modern-looking beads from Gilgit have been chosen, the one on aceount of the curious shape of the seeds or clay beads employed, the other because of the large white bone or shell plaques, and the third because of the jade central ornament. Jade is sold at the present day in the Indian bazaars as a specific against kidney disease. Muhammadans wear it as pendants or amulets inscribed with passages of the Koran. Miniature jade hatchets are sold in Burmah as charms and talismans. And in the Auray Museum in Brittany, a necklace of beads found in one of the tumuli in the neighbourhood has a miniature jade hatchet as a central pendant. In Peru, far removed from India and Burma, jade was highly prized.

But what is yet more remarkable is the curious similarity in the beads found in the grave mounds in Europe, the British Isles, and America with those found on ancient sites in India. At Auray, near Carnac in Brittany, myy attention was first attracted to this similarity, and I noted that there were the old melon-shaped fluted glass beads, which looked dimmed as if rolled in the sea, the clay, crystal, carnelian, oldest of all, enamel beads, and quaintest of all the miniature jade axes pierced as pendants. In Grave Mounds and their Contents, by Llewellyn Jewitt, occurs a passage concerning Anglo-Saxon finds whieh might easily apply to those found in India on these old sites. He says: "Amongst the most profuse of Anglo-Saxon remains are the beads and necklaces of glass, amber, and of other materials, many of which are of extreme beauty. The greater part of the beads which are found are composed of glass, transparent and opaque ; variegated clays of different colours ; and of amber. Less frequently beads of amethystine quartz, of crystal, and of other rare natural substances are found."

In Remains of Ancient Saxondom, by Akerman (PI. XII.) is figured a string of coloured beads from a grave near Stamford in Lincolnshire, one of which, the eighth from the left, a dark blue with a dull white circle, closely resembles the dark blue clay bead referred to as bearing the triad sign (P1. 31, fig. 39), and of this type I have seen a similar one in a book on Russian antiquities. The uncoloured string of beads at page 28 of the same work, found at Welton, Northamptonshire, closely resembles those found in India. Maurice, in his Indian Antiquities, Vol. VI. p. 16I, draws attention to the fabulous stone of the Druids. The chapter is headed "The Anguinum or Serpent Egg of the Druids." Reference is made to the serpent being a symbol in "the mysterious rites of Druidism." "The anguinum was a charm of wonderful power, and constantly carried suspended from the neck or the bosom of the Druid." Pliny has described its formation from the saliva and sweat of an infinite number of serpents intertwined, and Toland says "that it was called in British 'Glain-neidr,' or serpent of glass." Mr. Toland, in addition, says "that they were worn about the Druid, as a species of magical gem ; that they were in fashion etther perfectly spherical or in the figure of a lentil, and were generally made of crystal or agate." Maurice also draws attention, at p. 166, to "the practice as common to Brahmins and Druids of using consecrated beads in their worship of the Deity."

A reference has been made to the shrine and egg used in Mahadeo worship in the present day in India. At p. 147 of Grave Mounds and their Contents is described, amongst other things found at Avisford, "an oval dish with handle containing a fine agate." The sketch of the oval dish has some resemblance to the oval stands made of brass, to be seen any day in Benares. The Zahr muhr or Bezoar stone, which has already been mentioned as regarded with some reverence in India, is referred to in Squier's Peru, p. 91. He says that the Bezoar stone (quicu) along with quartz crystals (guispi) are amongst "the most esteemed household deities of the ancients."

The Japanese have also their peculiar charms or ornaments called "Magatama" and "Kudatama." In an article on "Stone Implements of Asia," by Prof. P. H. Fischer of Frieburg in Baden, published in the American Antiquary (pp. 27, 28), he thus describes them:- "The Magatama are semi-lance shaped beads and are usually of nephrite, crystal, agate, serpentine, amethyst, jasper, or sometimes soapstone and clay The Magatama is one of the three insignia of the Japanese Emperor. The Kudatama are jewels of a cylindrical form, and both are put into earthen vessels and placed in the grave of the dead."

When to these similarities is added that the Lenape Indians of North America recognise a circle and a dot in the centre as the sign for "spirit," or, according to its size, "the Great Spirit," we have yet another curious link with India and the Mahadeo symbol. This is referred to in Brenton's Watum Olum, Vol. V. I19, p. 408 ; and Science, May 15,1885 . Enough has perhaps been said to draw attention to this interesting subject of bead finds. Could some of these beads speak, a strange chorus of hopes, fears and thanksgivings might rise from these far-scattered emblems common to so many races of the earth. As Frederic Robertson feelingly puts it, "Superstition is the refuge of a sceptical spirit which has a heart too devout to be sceptical." If to this are added the wise words of Sir Henry Holland regarding collecting, some excuse may perhaps be made for this somewhat lengthy paper. "The interest," he said, "is one which augments with its gratification, is never exhausted by completion, and often survives when the more tumultuous business or enjoyments of life have passed away.'

MARION RIVETT-CARNAC.

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[^0]:    ${ }^{1}$ See Memorandum on cley discs called Spindle Whorls, Rivett-Carnac, Journal of Asiatic Society Bengal, Vol. XIIX., Part I., 1880.

