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ART. II.—*Some Suggestions of Origin in Indian Architecture.*

By WILLIAM SIMPSON, M.R.A.S.

WHEN Mr. Fergusson commenced the study of Indian Architecture, nothing was really known on the subject. He had first to collect the materials, and after years of work he was able at last to leave the Architecture of India in a classified form. This was in itself a great achievement for one man to do. But he did more than this. He traced back the developments of form and construction in many cases to their early beginnings, and thus gave us their origin. It is only when this has been accomplished that we can truly say "we know" any particular style of architecture. We have still some very interesting problems of this kind to work out in regard to India; and suggestions regarding them, even although they should ultimately be found to have pointed in the wrong direction, may yet be useful in many ways; such speculations may call the attention of men in India to the information that is required, and by this means we have the chance of receiving knowledge. I have often discussed some of these questions of origin with Mr. Fergusson, and he used to refer to some of the unexplored parts of India, where he thought some remains of the older forms of Architecture might yet be found, which would throw light on what we wanted. His mode of expressing himself was, "If some man, with the necessary knowledge, and with an eye in his head, could be sent," he felt certain that there are old temples in many parts not yet discovered that would clear up most of the doubtful points.

Besides what may be classed as Architectural remains, Mr. Fergusson attached great importance to the primitive forms of constructing dwellings such as are known to exist

in out-of-the-way parts, and more particularly among the non-Aryan races of India. Many of these forms have continued from the earliest times to the present day. I can refer to an instance in my own experience. In this case I found in the Himalayas the main features of the style of construction, and still with wood as the material, which we know was commonly followed two thousand years ago on the plains of India.¹ Things have remained very much unchanged in the Himalayas, and if they were properly explored, that is, with "the necessary knowledge," and with the equally necessary "eye" in the head of the explorer, a good deal might be expected that would help us in our search for some of the starting-points of Indian Architecture.

The first suggestion I propose dealing with is that of a peculiar form of construction which seems to have prevailed over a large portion of India at the time of Asoka. We may assume that it had a long existence before his date—250 B.C.—and it may have been in use for some centuries afterwards. By looking over the sculptures of the Sanchi Tope, given in Fergusson's *Tree and Serpent Worship*, it will be seen that the upper parts of the houses are formed of wood, and that the roofs are not flat, as is the case with most of the houses in India at present, but they are barrel-shaped, they are round externally and internally, producing a gable which is circular in shape. We have every reason to suppose that the Buddhists erected large wooden halls of assembly with roofs of this kind. In the Chaitya Caves it is assumed that we have exact copies of these halls, and in them we can see the interior details most faithfully preserved to us. The roof is formed with ribs covered with planking, and the whole has very much the appearance as if the hull of a ship were inverted. The end externally where the entrance was, is also represented in the caves; and here we have the circular form of the gable which resulted from the shape of the roof. It is this round arch which is referred to in my paper on the *Caves of the Jellalabad Valley*, and led me to suppose that the

¹ See *Architecture of the Himalayas*, by Wm. Simpson, Transactions of the Roy. Inst. of Brit. Architects, 1882-83.

Afghanistan caves were copied from those of India. In the Indian caves we find that this form began to be used as a decoration; the same as that which took place in Europe with the Greek pediment, which was also a gable, and has been largely applied for merely ornamental purposes. The Hindus adopted the circular gable as an ornament: in their hands it became decorative, and was made more ornamental, and you will scarcely find a temple in India where this form cannot be traced somewhere in its ornamentation. In the Dravidian, or Southern Indian, style it is to this day the predominating characteristic of the decoration, and it even yet affects some of the constructive details. I sketched this easily-recognized shape on the old topes of the Jelalabad Valley, where it had been carried and there applied as an architectural ornamentation. This form can be traced from Ceylon to the Hindu Kush—a wide space—over which it has spread, and to the inquiring mind, it calls for some explanation of its first origin. The oft-recurring question was, why did the early people of India construct this peculiar kind of roof? We know that all architectural forms had at first a reason for their existence, but in seeking for the source in this case no answer has yet been found.

While in Persia and the Afghan Frontier lately, I took much interest in the facility with which roofs, where wood is scarce, were there produced by means of sun-dried bricks. The dome is the usual method, but it was very common to find oblong houses covered with barrel roofs. Some of these had a semi-dome at one end, with the circular arch as the gable at the other. Now we know that the Chaitya halls had this semi-dome at the further end;—this, I confess, struck me very forcibly, for the one form is an exact repetition of the other; and I speculated on the possibility that I had found the origin of the Chaitya circular roof. There are certainly probabilities in favour of the theory: we know that there are forms common to both Indian and the Ancient Persian Architecture; mud-bricks were as common on the one side of the Indus as on the other, and barrel-roofs may have been the same. If such were the case, it might be possible

that this form had been copied in wood, where that material may have chanced to be more easily procured than bricks.

The suggestion produced by this Persian roof, although it is a very remarkable coincidence, I have entirely rejected, my reason being that I have what I consider to be now a better theory to offer.

Not long ago I chanced to pick up a book at a stall, called *A Phrenologist among the Todas*.¹ To me the Phrenology of the Todas was the least important part of the book, but it is all interesting as an account of personal experience among these strange people, and parts are given with much humour. The illustrations are in Photography—the frontispiece caught my eye while buying the book—in it is a representation of a house, and the more I have looked at this peculiar structure, the more I am inclined to think that it gives the true origin of the early round roof of India. In a case of this kind there is no direct, or what might be called demonstrative, evidence; all that can be offered in favour of the idea is coincidence in form, with the highly possible chance that the peculiar manner of construction, belonging to what is supposed to be one of the Aboriginal races, dates back to an early period.

I turned up Fergusson,² to see if he had chanced to light upon these houses, and I was delighted to find that he had, and his notice appears in a note which I had at the moment forgotten. He refers to the work of Mr. Breeks,³ and I find that his conclusions coincide exactly with my own. Of these structures he states that,—“Their roofs have precisely the same elliptical forms as the Chaitya with the ridge, giving the ogee form externally, and altogether, whether by accident or design, they are miniature Chaitya halls. Externally they are covered with short thatch, neatly laid on. Such forms may have existed in India two thousand years ago,

¹ By William E. Marshall, Lieut.-Colonel of H.M. Bengal Staff Corps, 1873.

² *History of Indian and Eastern Architecture*, p. 105.

³ *An Account of the Primitive Tribes and Monuments of the Nilagiris*, by the late James Wilkinson Breeks, of the Madras Civil Service, 1873. A work full of most valuable information; but so far as the Todas are concerned, I prefer Col. Marshall's book, as it deals with them alone, and its information regarding the one tribe is much more complete.

*The TODA MAND or HUT.
From Colonel W. E. Marshall's "A Phrenologist amongst the Todas," frontispiece.*

*The TIRIERI. The HOLY PLACE, or TODA SANCTUM.
From Colonel W. E. Marshall's "A Phrenologist amongst the Todas," p. 146.*

and may have given rise to the Chaitya halls, but it is, of course, impossible to prove it."

I give a pen and ink sketch of one of these Toda huts—which I trust Colonel Marshall will forgive me doing without his permission. The sketch also contains a hut with a straight-lined roof—which is not the common form with the Todas: here it will show that the curved roof is the simpler in construction, and consequently we may suppose for that reason the most primitive. It is easy to understand how simple it would be to bend the flexible bamboo, and thus produce a covering from the sun and the weather; it is still further possible to suppose that in the very earliest condition of man, when trees were utilized for shelter, he would bend the growing bamboo, and spread over them branches or long grass, and thus produce a *pansala*, or primitive habitation; and this would be the first germ of the Chaitya hall. The additions which it would receive in its transition from the bamboo to a more solid wooden mode of construction, which we know the Chaitya hall reached, presents no difficulty. The one difficulty previously was to explain why, at some early time, the builders of India had produced a round roof, like an arch, with wood as their material. The Toda hut is sufficient to supply the explanation. That is all that can be said; we cannot affirm positively that this is the source, but it is, so far as I know, the best suggestion that has yet appeared, and when a better does turn up, I shall be most willing, as in the case of the Persian barrel-roof, to give it up.

According to Colonel Marshall, the Todas are very conservative in everything. No tribe remains perfectly stationary, however secluded it may be; but the Todas seem to have preserved everything about them in a very archaic state, and their huts are evidently not an exception to this condition of things.

I add, also from Colonel Marshall's book, a sketch of what he terms "The Tiriêri: The Holy Place, or Toda Sanctum." I cannot give all the details of the author; it will be enough to say that this is a temple. Constructively, it does not seem to differ from the Toda house, or hut. I do not think it helps the conclusion I have come to, but to some it may

appear as an additional confirmation that temples were also built in this peculiar manner in India. The Tiriêri contains a sacred bell—the bell of a cow—and some other relics, but it is in reality a dairy, and the only person who enters the place is the *Pâlâl*, a very sacred kind of priest, a sort of god—it is believed that the Deity is in him—who is cow-keeper and cow-milker for the community—evidently a most primitive ecclesiastical arrangement.¹

The well-known Hindu temple, with its Sikhara, or spire, presents us with more than one problem for solution. India is covered with these places of worship, and up to the present day the origin of this temple is unknown; some few attempts at solving the difficulties have been made, but no certainty has as yet been reached, and I am willing to confess that the suggestions I am about to offer are here given rather as tentative, than as settled, convictions on my part.

The Hindu temple is formed of a cell, square in plan, with a door on one side. The sikhara rises from the walls of the cell, preserving the square form to the top: the line curves slightly inwards. In the oldest examples the curve is very small below, whilst the greatest amount of bend is at the summit, the line produced being what would be seen if you were to bend a tapered wand. The early sikharas are more like towers than spires. The sikhara is surmounted by a member called the *amalaka*, which is circular in plan, and might be likened to a cushion, or a compressed melon: the outer surface is ribbed. A *kalasa*, or jar, surmounts this as a pinnacle: emblems belonging to the deity of the temple are common on sikharas, but these do not belong to the problems before us.

The magnificent group of temples at Bhuvaneswar, in Orissa, brings before us the earliest known examples of these monuments. They date back, roughly speaking, to the sixth and seventh centuries, and whoever is familiar with Mr. Fergusson's works, will know that we have not in these

¹ Since this was written, I have learned through the Rev. John MacKenzie, that the Gariëpine people, or Yellow Race, of South Africa, have religious ideas about cows, milk, and milking, very like those of the Todas. A woman's presence would make the cattle pen impure; chiefs are buried in the pen, and the ground is trodden down by the cattle to obliterate all trace of the interment.

temples the first starting-point of the style; instead of rude beginnings, we have here the highest development of it. It must be taken for granted that there were earlier efforts, and a long course of them too, to account for the perfected art which we see has been realized. As yet, these earlier efforts have not been found; if any should be discovered, we may yet come upon some indications of the origin. In the case of the temples of ancient Greece, the wooden origin had only to be suggested, when the truth became apparent in every detail. But the Orissan temples are very different in this respect; the parts offer no clue as to what they were derived from. Some have explained the destruction of previous temples as the work of the Muhammadans; others have supposed that they were perhaps wooden, and ended in decay, or were burnt. Whatever may have been the cause, what I have here said will explain why we know so little about the Hindu temple, and why there are problems relating to it, which yet require to be solved.

I should like to say something, to begin with, regarding the origin of the worship in the Saiva temple, more particularly as it has some slight bearing on other points to be dealt with. It must be confessed that I do this with considerable diffidence, because I am but very slightly acquainted with the sacred books of the Hindus, and I may have the Pundits quoting the Sutras, the Brahmanas, and the Puranas, and overwhelming me with texts—a fate that often befalls those who venture beyond the limits of what they know.

In studying the symbolism of temples, I have been much struck with what appears to have been a common origin with many. I have found that temples have often been, in some way or another, a development from a tomb, or from some structure raised in connection with the rites of burial: "Worship of Ancestors" would be the usual term to describe this idea, but I do not like the phrase, for often there is no ancestor. I would prefer "Tomb Worship," as wider in its meaning; but I use the words "Worship of Death," as being wider still. I am aware that there are temples in which this tomb connection cannot be traced, and among the

number I have, up to a few years ago, always classed the Saiva Temple of India.

It was when in Jelalabad with our troops in 1878-79, that the first starting-point of a change in my ideas in this matter should be placed. There is a Hindu temple in the south-west corner of the town, and I made friends with the Hindu who has charge of it. There is a rude temple with a sikhara, and I was rather surprised when my friend told me that it was the tomb of a Gooroo, whose ashes were in it. No theory could be based on this, but I then remembered having seen the tombs of Jogis on the ridge of Delhi—little round heaps of plastered mud, about two or three feet in diameter, but I could not recall whether they had a stone placed in the centre or not. Since then, Dr. Rajendralala Mitra's work on Buddha Gaya has appeared, and in his description of the locality, he says, "Towards the south-west corner of the outer wall of the monastery there is a cemetery, also attached to the monastery. The dead bodies of the monks, unlike those of other Hindus, are buried, and the cemetery contains the graves of about two hundred persons. The body is buried in a sitting posture; and in the case of mere neophytes a small circular mound of solid brickwork, from three to four feet high, is all that is deemed necessary for a covering for the grave. For men of greater consequence a temple is held essential, and in it, immediately over the corpse, a lingam is invariably consecrated. For Mahants the temple is large and elaborately ornamented. It would seem that even for neophytes a lingam was held essential." . . . "In the way from Gaya to Buddha Gaya there are several monasteries of Hindu Sannyasis, and everywhere the graves are alike."¹

Here we have a temple identical with those of Siva, and yet it is a tomb. To what extent such temples exist in India, I have no exact information, but there is no reason to suppose that they are limited to Buddha Gaya. From Mr. Rivett-Carnac I learn, through a paper of his in which he describes a temple in Kumaon with a burial-ground attached:

¹ p. 4.

"In the centre of the yard is a monolith Mahadeo of $4\frac{1}{2}$ feet in height above ground. The priest in charge of the temple held that most of the shrines were very old, and accounted for their large number by saying that the yard was the burial-place of men of great sanctity, some of whom had been brought from great distances for interment there; and that Mahadeos of an elaborate or poor class were placed over the tomb according to the means of the deceased's friends. I have at this moment no means of verifying whether any particular class of Hindus are buried in the hills, or whether my informant intended to convey that ashes only were deposited beneath the shrines, but on this point there will be no difficulty in obtaining information."¹ We have no temple in this case, but there is a recognized Mahadeo, or Siva, placed over the tomb. I am able to add another example from Southern India; it is from an account of the Jangams, by the late C. P. Brown, the well-known Telugu scholar: "Over the grave, the Jangams place an image of the lingam, to which they offer worship for ten days. They then remove it, or leave it established, at pleasure."² The author had not seen any of the Jangam tombs, but he quotes a description given him by Lieut. Newbold, which I insert here, as it contains a point of importance: "The tombs of the Lingavants of rank are generally massive quadrangular structures, raised on terraces built of stone, and simply but handsomely carved. The interior consists generally of a square chamber, beneath which is a vault containing the real tomb, which is also usually square. Over the head of the corpse is sometimes placed a phallus, often ornamented daily with sweet flowers" (p. 176). I may have to refer to the square form of these tombs further on. Another important point is that we have in this case burial of the body, and not the ashes after burning. This particular sect are to be found "among the Canarese, the Telugus, and the Tamils," from which we may conclude that they are Dravidian; hence there may be

¹ "Rough Notes on some Ancient Sculpturings on Rocks in Kumaon," *Journ. of the As. Soc. of Bengal*, 1879.

² "On the Creed, Customs, and Literature of the Jangams," by C. P. Brown, *Asiatic Journ.* 1845, vol. iv. 3rd series, p. 176.

a certain value belonging to this practice of a non-Aryan race, because the worship of Siva is now generally accepted as not Aryan in its origin.

The Salgram stone is, in the worship of Vishnu, the counterpart of the Linga, and I have a quotation referring to it which may be worth giving, as it shows still farther the connection of this peculiar form of symbolism with death: "The Salgram Stone.—One should always be placed near the bed of a dying person, and the marks shown to him. This is believed to secure his soul an introduction to the heaven of Vishnu."¹

Here it may be worth noticing how common in almost all parts of the world it is to find a stone placed as a mark to a grave; and I believe that most of the rites connected with the old stone worship will be found to have had some relation to death. When Jacob erected the stone at Bethel, and poured oil on it, he declared that then the spot was the "Gate of Heaven." Death only can lead us to the portals of the next world.

The attributes of Siva, I submit, point also to the conclusions I am supporting. He is the personification of Destruction and Death. In virtue of these attributes he wears a necklace of skulls. In the Mahabharata, Dakska says of Siva, "He roams about in dreadful cemeteries, attended by hosts of ghosts and sprites, like a madman, naked, with dishevelled hair, laughing, weeping, bathed in the ashes of funeral piles, wearing a garland of dead men's skulls, and ornaments of human bones."² The following, from General Cunningham, is worth quoting, as it is very strongly expressive of this connection with death: "The name Kâlanjârâdri, or the Hill of Kâlanjara, is said to have been derived from Siva himself, who, as Kâla, 'Time,' causes all things to decay (jar), and who is therefore the destroyer of all things, and the God of Death."³ The General also describes a temple at Nand-Chand, between Saugor and Rewa, dedicated to

¹ Stocqueler's *Oriental Interpreter*, p. 200, Art. Salagrama.

² Quoted in Muir's *Sanskrit Texts*, vol. iv. p. 379.

³ Bengal Archæological Reports, vol. xxi. p. 22.

Siva, as Martangesar or Mritangeswara "The Lord of Death."¹

I think there is good evidence that the worship of Siva was formerly, in some way or another, connected with funeral rites, from the story in the Ramayana, which recounts the origin of the Ganges. I have no doubt but that it is known to you all, but it is necessary here to give the leading points of the legend.

The sixty thousand sons of Sagara, while seeking for the horse their father had consecrated, in order to perform the Aswamedha or Horse-sacrifice, were all consumed to ashes by a glance from Kapila. These ashes remained, because there was no sacred water with which to perform the necessary lustrations. Bhagiratha became an ascetic, and by a long course of devotion accompanied by the severest mortifications, the boon he desired was granted, and the sacred Gunga was sent from heaven. Had it fallen direct, the earth would have been destroyed, but Siva placed his head under it, and thus broke the fall. When the water reached the ashes of the sons of Sagara, they became purified, and were thus by its means translated to the heaven of Indra. We have here undoubtedly a legend which we may suppose had some connection with a funeral rite; and so important is it in relation to Siva that he is generally represented with the Gunga flowing from his head. It is still more to our purpose to find that the Linga Pujah, at least as it is practised on the banks of the Ganges, reflects this story of the Gunga. I think we can see the legend in the rite. The Linga Pujah is the worship of Siva, and the Linga is Mahadeo or Siva himself. At times the head of Siva is represented on the symbol, with the Gunga flowing from it; the principal part of the ceremony attached to this worship is the pouring of Ganges water on the head of the linga, thus repeating the prominent part of the legend told in the Ramayana; and represents Siva, I submit, as receiving from heaven the sacred water for the purification of the dead.²

¹ *Ibid.* p. 161.

² For the benefit of those not familiar with the Linga-pujah, it may be added

I may now put the question, is the Hindu temple a development from a tomb, or is it not? My own impression is that the evidence just given is highly in favour of an affirmative answer.

Wishing to know Mr. Fergusson's ideas on this, about two years ago I wrote and gave him some of the statements which have just been laid before you. I may mention that my information has been accumulating since then. I received a note which first stated that "the linga in its present form . . . is derived from the Buddhist emblem of a dagoba"; and that he was sending me a pamphlet where, he said, "you will find my *last* ideas of the origin of the Sikhara. They are not very definite, but are the best I can form."

The pamphlet is entitled *Archæology in India*, and is perhaps the last work of Fergusson's which has appeared. I will give a quotation which bears on the subject now in hand: "For the last fifty years the question of the Hindu Sikhara has been constantly before my mind, and hundreds of solutions have from time to time suggested themselves, but all have been in turn rejected as insufficient to account for the phenomena. Though the one I am now about to propose looks more like a solution than any other that has occurred to me, it is far from being free from difficulties, and must at best be considered as a mere hypothesis till some new facts are discovered which may either confirm or demolish it. The conclusion I have now arrived at is, that the Hindu Sikhara is derived from the Buddhist dagoba, or, in other words, it is only a development of the style of architecture which was practised, both by Hindus and Buddhists, during the early ages in which stone architecture was practised, subsequent to the Mauryan epoch."

The Sikhara I shall deal with immediately, but here it

that the Linga is simply a stone pillar; the worshippers pour Ganges water on the top of it, and make offerings of rice and flowers. I have seen lingas with a jar of water suspended above, and by means of a small hole the water continued to drop on the emblem so as to keep it constantly moist. The celebrated temple of Somnath, in Kathiawar, had jaghires attached, the rents of which were devoted to pay men who continually travelled to and from the Ganges, bearing "Gunga pani" to keep the Mahadeo always in a wet state. This is the Gunga falling on the head of Siva.

may be pointed out that in identifying it with the Dagoba, Fergusson does not reject the idea of a tomb development, for that is the origin of the Dagoba; in fact, the admission implies this very tomb origin I am at the moment contending for. Previously to this pamphlet, Mr. Fergusson had always rejected the theory of the sikhara and the dagoba being the same in origin. In this I felt he was right, and I cannot yet, even with such a high authority as a guide, accept the idea. Fergusson certainly does not insist that it is the only solution which may yet be possible; and he speaks in rather a diffident and doubtful manner in its favour. I do not reject it as impossible, for I know that through the mutations of development, architecture presents us with results as strange and unexpected as we find in other walks of science, where time produces changes. In this case—at present I refer not to the sikhara, but to the body of the temple on which it stands—we have to account for such a great change as that of a solid mass, which the dagoba is, and often a very large mass, to a small hollow cell, and from what seems to have been an established round form, to a square. The changes necessary to account for the sikhara are equally difficult. I will assume, for the moment, that the Hindu temple is derived from a tomb. If such was the case, the original, I think, was not a mound or a cairn, which implies solidity, and it must, at some early period at least, have been square in form. India, with its many races and forms of religion, would no doubt have many forms of burial: various customs and rites exist still. It would have been a very remarkable phenomenon if all the places of sepulchre were similar, over such an extent of country. There is a curious passage in the *Satapatha Brahmana*, which gives colour to what I say; at the same time, it has, I think, an important bearing on the subject. It is as follows: “Four-cornered. The Gods and Asuras, both the offspring of Prajapati, contended in the regions” [conceived, apparently, as square, or angular]. “They, being regionless, were overcome. Hence, the people who are divine construct their graves four-cornered, whilst the Eastern people, who are akin to the

Asuras, construct them round. For the Gods drove the Asuras from the Regions.”¹ This passage leaves much that one would desire to know as to the exact meaning of the words; it is in Muir’s Sanskrit Texts, and with no explanation.

The round graves here alluded to were in all probability the stupas, or dagobas. So far as can be judged at present, the stupa is a very old form of structure. In the Book of the Great Decease,² Buddha himself, when directing how his remains were to be treated, refers to stupas such as were erected to contain the ashes of Chakravarta Rajas: he mentions these monuments as if they were well known. The ceremonies performed at Buddha’s death seem also to have been akin to those of the Asuras, which were probably Turanian, rather than Aryan. A passage in the Khandogya-Upanishad will illustrate this point. The Asuras,—“They deck out the body of the dead with perfumes, flowers, and fine raiment, by way of ornament, and think they will thus conquer the world.”³ The account of the ceremonies at Buddha’s death were even more decorative and festal than is indicated by the above passage. The funeral ceremonies of the Todas and other tribes of the Nilgiris, who are Dravidian, and consequently allied to the old Asuras, are also of a festal character.

As to the divine people who made their graves four-cornered, we may suppose in this case that the Aryans are understood. This could scarcely have been the form of their graves at an early period, for we know that they buried in mounds. There is a hymn in the 8th book of the Rig Veda which is very distinct on this matter; from it we learn that the body was buried, and the earth heaped up over it. Dr. Rajendralala Mitra has published a paper entitled *Funeral Ceremony in Ancient India*, which deals principally with this hymn. He thinks that burial of the body was the rule till about the fourteenth or thirteenth century B.C.; this was followed by cremation, and burial of the ashes in an urn,

¹ *Satap. Brahm.* xiii. 8, 1, 5; quoted in *Muir’s Sanskrit Texts*, vol. ii. p. 485.

² The *Mahā-Parinibbāna-Sutta*, trans. by T. W. Rhys Davids, *Sacred Books of the East*, vol. xi. p. 93.

³ *Khandogya-Upanishad*, *Sacred Books of the East*, vol. i. p. 137.

which lasted till the beginning of the Christian era, when the throwing of the ashes into a river began. This would perhaps indicate the time when the worship of Siva had assumed predominance, and the belief in the purifying power of the Ganges water, as well as the legends connected with it, were accepted. The modern Siva, or Rudra, is so very different from the Vedic Rudra, that he may be classed as a non-Aryan deity, and the last change in the funeral ceremony may indicate pretty nearly the date when the Vedic Rudra had become the non-Aryan Siva; and this would agree with the conclusion which Fergusson came to, that the Hindu Temple was originated and developed during the first five centuries of our era. Whether the four-cornered grave of the divine people was the primitive germ which afterwards became the Hindu temple, or whether some structure connected with the worship of the non-Aryan Siva, was the source, I think we have not as yet the necessary information on which to found an opinion. I am still hopeful that something will turn up to give us light on the subject. If I have shown that the Hindu temple is a development from a tomb, or from some structure connected with the rites of the dead, the point may be of some value as indicating the direction in which to seek for evidence, not only among architectural remains, but also in the old ceremonies, whether given in books of the present or of the past.

Fergusson's identification of the linga with the Buddhist dagoba is rather startling; it may be so, but I regret that we have not his reasons for coming to that conclusion. I know of dagobas which the Brahmins have adopted as lingas; but I should suppose he had more solid reasons than a practice of this kind on which to base his statement.¹

The theory which Fergusson gives of the origin of the Sikhara in his pamphlet² is, as already stated, that it

¹ The Brahmins have utilized the Great Cave at Karli, at least I found them in possession in 1862 when I visited it, and the dagoba was represented by them to be a linga. Rajendralala Mitra mentions that some of the graves of the Mahants, already referred to in this paper, were surmounted by small votive chaityas or dagobas, which did duty as lingas.

² Archæology in India, p. 72.

was derived from the dagoba, with its surmounting umbrellas. He frankly enough acknowledges the difficulties of the case, and how hard it is to believe that the horizontal lines of the dagoba should have entirely vanished in the transmutation, and left no trace behind them. He states clearly enough that he only gives it as the best out of a multitude of suggestions which had occurred to him during the long space of fifty years back. That Fergusson, with all his vast knowledge of detail in Indian architecture, had spent such a length of time considering the subject, and failed to find a satisfactory explanation, is, I think, sufficient evidence that under the peculiar circumstances of the case it must be a very hard nut to crack. I am perfectly aware of the obscurity and consequent difficulties of the question, to venture upon being rash, where Fergusson has been so fearful to venture. As I am dealing in suggestions, I will give you one on this subject, but I confess at once that the evidence in its favour is but small; still it must be remembered that theories, even although not satisfactory, often lead others to think; and in this way even blunders may help towards the true explanation.

It is now three or four years ago, when looking over a popular history of India, full of illustrations,¹ that my eye fell on a picture called the "Car of Juggernaut"—not the one at Puri;—it was evidently from a photograph, and hence I assume was not a fancy picture. No explanation appears, but the car is elaborate, and seems not to have been dismantled after the yearly ceremony, which is the usual practice, but has been kept as a permanent temple; and for this purpose there is what looks like a permanent mantapa or porch built, and the car has been placed alongside, so that the whole produces a complete Hindu temple. No one could look at this without a suggestion of origin coming to the mind. If this combination has taken place in late years, it might also have taken place during the first five centuries. At that time, so far as I can judge, the use of cars at cere-

¹ Cassell's Illustrated History of India, by James Grant, vol. i. p. 372.

monies was far more common than they are now. They do not seem to have been confined to Jagannatha. The Buddhists had car festivals, and Fah-Hian mentions them as taking place at Khoten and Patna; that was in the fourth century. If the cars of the gods were more common in the ceremonies at that date, the chances of one, particularly if it were elaborate and costly, becoming a permanent temple, would be all the greater; indeed, it appears to me that it would be one of the most likely things to happen.¹ I am perfectly well aware, in making this suggestion, that my theory of the sepulchral origin of the Hindu temple would be in great jeopardy; but then, it must be remembered, that I am not laying down theories which have been established, but only suggestions which may lead others to think and to use their eyes. Should any of the suggestions chance to be confirmed as correct, it will then be time for the mental scizzors to act and do the necessary trimming.

It will be perceived that so far the peculiar form of the Sikhara has not been accounted for. Whether we suppose a car or a temple, how did it come into existence? I have a small photograph of one of these raths or cars, in a dismantled condition, and most people who have been in India may have seen either the cars themselves or similar representations. In this one of mine, the framework of the tower is left standing, and that part is made of bamboos, and the bamboos give in the most simple way the form of the Sikhara. I shall ask you here not to limit your thoughts to a car; you may suppose a fixed temple, and most probably a wooden one, sepulchral or otherwise, for I am not dealing now with the whole Hindu temple, but only trying to account for the peculiar form of the sikhara which is a part of it. It would not be asking you much to grant that a temple in India any time about two thousand years ago may have had a roof in which bamboo was employed. Nothing could be more likely.

¹ At Mahavallipur, near Madras, there are nine rock-cut temples; huge boulders of granite have been shaped into temples, and they are called "raths." I cannot tell why temples should be called "cars," for that is the meaning of "rath." If cars had the intimate connection with temples which is here suggested, it might help to give an explanation.

We have what is known as the "thatched roof" of the Bengal temple; as an example of which I may mention the well-known temple of Kali at Kali-ghat, near Calcutta. Now it is accepted that this roof owes its form to the bamboo framework on which the thatch was placed. This form, or derivation from it, beginning in bamboo, went in the course of time through the usual transmutations so common in architecture, and can be now traced nearly all over India, reproduced in brick, stone, and marble. I submit the suggestion, that in the thatched roof of the Bengal temple we have the nearest approximation to the sikhara that has yet been found in India. The curved perpendicular lines in both are suggestive. You have only to get rid of the curved line of the drip, a mere trifle, and elongate the height, and a perfect sikhara will be produced. There would be a natural tendency to elevate the roof of a temple, to distinguish it from other buildings, and in order that it might be seen from a distance.¹ A form like the sikhara could be thatched, but the tendency would be, and particularly where there was wealth, to use another means of covering. Cloth and tinsel ornaments may have been used, as we see in the raths. When the style became established, the bamboo would give place to wood, which admits of more solidity and precision of structure. Metal may have been used as a covering;—such changes as these might suggest an explanation of the peculiar ornamentation of the sikhara, which was ultimately reproduced in stone. The strong point of this theory is the thatched roof of the Bengal temple, acknowledged to be bamboo in its origin; and if the curved Chaitya roof should be found to have been derived from the Toda cottage, or some similar construction, this, by showing that bamboo has had its influence on architectural forms in India, will add to the probability that the curved form in the Sikhara was in all likelihood a result evolved from the use of the same material.

I wrote at the time a short note to Mr. Fergusson,² con-

¹ It is very common in India to see a long bamboo with a bit of cloth at the end, which can be seen at a distance, to mark the site of a temple or holy place.

² This was in 1882.

taining the suggestion ; in reply he said that the idea was "certainly very ingenious, and I was at first immensely taken with it," but on reflection he rejected it. His principal objection was that Fa-Hian describes one of the Patna cars as having been in five stories, this implies the horizontal lines of Dravidian architecture. This I admit is strong evidence against that particular car, and so far it tells against the theory generally. I understand that Mr. Burgess made a similar criticism. The reply to this, of course, would be that the Dravidian style, which is derived from one story standing on another, the one above being smaller than the one below, was not the only style in India ; the Bengal thatch roof being one example, proving so far that there were others. In this paper I have been careful to separate the question of the curved line of the sikhara from that of the car, which I had not done in my note to Fergusson, and his remarks apply more particularly to the conjunction of the two. At the end of his letter, however, he says : "But putting Fa-Hian aside, the bent bamboo theory seems to me to come as near to an explanation of the form as any theory that has yet been suggested, but it must stand or fall on its own intrinsic merits alone. There is not, so far as I know, any authority to support it ; I wish there were any !" This is very much my own view of the case ; when I wrote to Fergusson to tell him of the theory, I remarked that I thought it myself a very good notion, and that all it wanted was evidence. This is the thing which is so difficult to find ; and until some old remains turn up to supply the necessary links, the matter must remain a question of probabilities.

Colonel Marshall gives a slight sketch of a very peculiar temple form which he found among the Todas.¹ This is quite a different structure from the Tiriêri temple already mentioned. I have copied it for this paper, as it may possibly have some connection with the sikhara. There is a photograph of this spire in Mr. Brecks's work ;² there it is called a "boa," while Colonel Marshall gives "boath" as

¹ p. 164.

² pl. xiii.

the name. Neither describe the construction of the spire; hence, very little can be said about it. The plan of the temple is circular, formed of wood about six feet high; this is surmounted by a conical roof, like an extinguisher, about twenty-two feet in height. It would have been interesting to know how the framework was constructed, whether of bamboo or wood: both authors describe it as being covered with thatch. The probability is that we have here a very primitive kind of temple, and what is, perhaps, of some importance, we have what may be called a round sikhara.

The framework of the cone must have some strength, for it is surmounted by a pretty large stone, and this is the feature that I wish more particularly to call attention to, as it may turn out to be an important link. The sikhara of the Hindu temple is surmounted by a member not unlike a cushion; although the sikhara is square to the top, this is circular, and is raised slightly, to give it more prominence. It is called the *Amalaka*. Rajendralala Mitra says it is also called "the *Amra*, or *Amraśila*, so called from its resemblance to the emblic Myrobalan. In the *Agni Purana*, and in the *Manasara*, it is named *Udumbara*, and likened to the fruit of the *Ficus Glomerata*." ¹ This may have been merely an ornament, to give a sort of finish to the top of the spire, but it is such a marked feature and stands out so distinct, that the archæologist naturally inquires if it is not a survival of something that once served a purpose. We have a similar example in the Tee of the dagoba. It, like the amalaka, surmounts the monument, and might have been supposed to be only an ornamental appendage, but Fergusson long ago suspected that it "either was or simulated a relic casket." ² Now Mr. Burgess, in describing the Chaitya cave at Bhaja, states that the tee, or box, had the upper stone hewn out, and thus "indicates very distinctly that it was the receptacle of some relic." ³ Assuming that Mr. Burgess is correct in his conclusion, the Toda boath, with the stone on the top,

¹ *Indo-Aryans*, by Rajendralala Mitra, LL.D., C.I.E., vol. i. p. 57.

² *History of Indian and Eastern Architecture*, p. 64.

³ *The Cave Temples of India*, p. 225.

The BOATH.

Rough Sketch of the HINDU TEMPLE, with Sikhara, &c. The BENGAL THATCH ROOF

From Col. W. E. Marshall's
"A Phrenologist amongst the Todas," p. 164.

supplies a very striking counterpart to this, and justifies my reference to it, even if it should turn out to have no relation to the amalaka of the sikhara.¹

Here is what Col. Marshall discovered regarding this stone, he first learned that there were relics in the boath. He and his friend tried to get in to see them, but the Toda in authority would on no account allow this; the place was far too sacred. So they determined on a midnight expedition to the temple, with the intention of getting the desired knowledge in a burglarious manner. A very humorous account of the adventure is given. The two gentlemen got in all right, but, to their sad disappointment, found nothing that they expected; only some ordinary articles were in the place,—“no bell, no hatchet, neither ring nor relic of any kind, no niche for lights, no altar, no stone, no phallus or lingam. No snakes! Every one has been telling us lies, and the world is full of sawdust.”² As the old Toda on whose information they depended had always given correct information before, he was cross-questioned a day or two later. After some preliminary inquiries, he was asked where the relics were placed, and, “with his hand to the side of his mouth, he said in a low voice, ‘Under the stone on the top of the roof.’”³ In the case of the Todas, these, whatever they were, are not necessarily human relics. The point is that they were relics—something sacred to be preserved—and that is motive enough when we are seeking for origins in architecture. Now it must be evident, if this, which we may easily believe is a very primitive sort of temple, had a relic on the summit of its spire, and the dagoba had a relic-holder on its top, it adds considerably to the probability that the amalaka is a form derived from something of the same kind. Here, again, we have no direct proof: it may have been so, or it may not. The suggestion may be useful as a hint to others, but it must remain a suggestion only, till further knowledge has been obtained.

The Todas cremate their dead, and they have two burn-

¹ Note also the upper half of roof of Bengal temple. Here this particular feature is very strongly marked.

² p. 166.

³ p. 167.

ings. Colonel Marshall and Mr. Breeks seem to me to differ slightly in their accounts, but I shall follow the latter. After death the body is burnt, but the skull is preserved; also a portion of a finger-nail, cut off, I suppose, before the burning. These are kept for about a twelvemonth, and then they are burned with a number of articles. The burning is done at a stone circle,¹ and at the entrance a hole is made in the earth, into which the ashes are placed; a stone is laid over them, and a man breaks a chatty over the stone. This part of breaking the chatty is a custom followed more or less by all the primitive tribes of the Nilgiris. I give this account because if this stone with the ashes under it has any connection with the origin of the stone, similarly with relics under it, on the summit of the boath, we have here what might be the explanation of the *Kalasa*, or vase, which surmounts the amalaka on the Hindu sikhara. This is, of course, assuming the suggestion given above regarding the amalaka is correct.²

I cannot help suspecting that the Toda customs represent at the present day a very primitive condition of the Hindu rites, or perhaps I ought rather to repeat Mr. Fergusson's expression of "Dasya rites." I am not sure whether the bell figures in the old Vedic ceremonies, but we know that it does so very largely in the worship of Siva now. All his temples have a bell, which is sounded by the worshippers, and Nandi has always one hanging from his neck. With the Todas a bell is the most sacred relic in the temple. It is supposed to be old, and has no tongue; a bell is always placed round the necks of the buffalos sacrificed at the cremation; the relics which are preserved from the first burning

¹ Mr. Breeks states that the Toda burning-place is called "*Methgudi*, lit. *Marriage Temple*," p. 20. This suggests an explanation of the Asura festal rites in relation to the dead.

² In many Himalayan sikharas, instead of the amalaka there is a small roof formed of wood; it is square, and a pyramid in shape, standing on four small wooden posts. This very marked variation is, I think, a point in favour of the theory that the amalaka is derived from an umbrella, which would be like the wooden structure and canopy. I believe some of the Himalayan temples have more than one of these roofs, one above the other, in this again still more suggesting the umbrellas of the Buddhist dagoba, which Mr. Fergusson believes to be the source of the sikhara.

are placed in a hut, and a bell is hung over them, which the relatives ring night and morning, generally for nearly a year, when the second cremation takes place. When the votary of Siva at the present day rings a bell at a shrine, which he supposes is to waken or to call the attention of the god, he may be only repeating part of an old rite connected with the dead, of which we have a marked example in the "dead bell" of the Roman Catholic Church.¹ The Hindu of our own time will not kill a cow, in later times he has adopted a more humane ritual; but his Nandi may yet represent the old funereal sacrifice which accompanied the spirit of his proprietor, and was thus a sort of Vahan, to the regions of Yama.²

¹ I can refer to a noted bell of this kind which existed in Glasgow, and was said to have belonged to St. Mungo, the patron saint of the town; it was known as the "Deid Bell," and was used at funerals; it "was also rung through the streets for the repose of the souls of the departed." This bell even survived the destruction of many things at the Reformation, as the following record of a Presbytery meeting in 1594 will show: "The Presbyterie declairis the office of the ringing of the bell to the buriall of the deid to be ecclesiasticall, and that the electioun of the persone to the ringing of the said bell belongis to the ancient canonis and discipline of the reformat kirk." This bell still survives, but only in the armorial bearings of the city.

² The Vahan of Yama is curiously enough a buffalo, the animal sacrificed at the Toda cremations.