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# THE ORIGINAL IMAGE ATOP THE DELHI IRON PILLAR

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A reconstruction of the image that originally crowned the Delhi iron pillar is presented. The paper first addresses the nature of the capital that once crowned a pillar on the northern hilltop at Udayagiri and concludes that it represents a *nakṣatra-cakra.* The co-relation between the Delhi iron pillar, originally erected at 'Viṣṇupadagiri', and the hilltop pillar at Udayagiri has been utilized to propose that the iron pillar carried a *cakra* as well. The shape of the capital's top surface indicates that the *cakra* was fit vertically on a flat circular base. This was subsequently welded on to the top of the cylinder, around which the components of the decorative bell capital were shrunk fit. The striking similarities between the iron pillar's box pedestal and the support for Viṣṇu's *cakra* depicted to the left of the entrance to Udayagiri's Cave 6 have been pointed out. The paper concludes that the Delhi iron pillar originally carried a wheel-like disc of approximately 20" diameter and 2" thick.

**Key words:** C*akra*, Delhi iron pillar, , Mehrauli, Udayagiri.

## INTRODUCTION

The Delhi iron pillar (also known as the Mehrauli iron pillar) has been a major attraction for historians, archaeologists, metallurgists and corrosion scientists due primarily to its antiquity, engineering and exceptional resistance to atmospheric corrosion. The known facts about the Delhi iron pillar have

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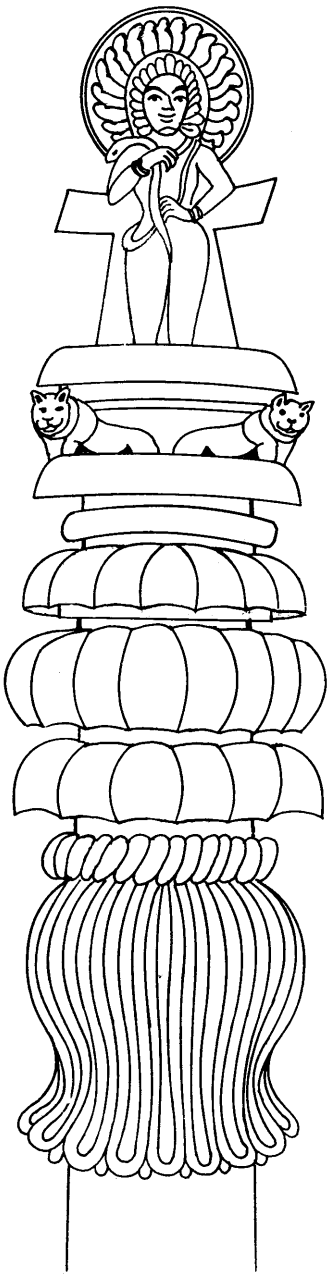
been summarized in a monograph by Anantharaman.[1] Several new insights into its history, technology and science have been outlined in a recent book by Balasubramaniam.[2] The iron pillar is currently located in the courtyard of the Quwwat-ul-Islam Mosque in Delhi. However, the original erection site of this pillar was Viṣṇupadagiri (literally 'hill of the footprint of Viṣṇu') as mentioned in the oldest, Sanskrit inscription engraved on its surface. Viṣṇupadagiri is most probably to be identified with Udayagiri in central India, as argued in detail elsewhere.[2-4] King *Candra*, mentioned in the inscription as the royal donor of this banner for Viṣṇu, is probably identical with Candragupta II Vikramāditya (AD 375-414), as also suggested by the use of the name '*candra*' on that king's Archer-Type gold coins.[4, 5]

Balasubramaniam suggested that the iron pillar carried a Garuḍa image (Fig. 1a) along the lines of the Eran *Garuḍastambha* (Fig. 1b).[6] The devotion of Candragupta II Vikramāditya to *Viṣṇu* is well established. Garuḍa, as the *vāhana* of *Viṣṇu*, was the royal insignia of the Guptas, as evident from their gold coins and royal seals. In her analyses of Gupta gold coins, Raven concluded that whenever the warrior-like qualities of the king were meant to be emphasized in the design, the Garuḍa banner was included.[7] As the iron pillar's inscription identifies the gift as a banner for Viṣṇu, it seemed likely that it once carried an image of Garuḍa.

The banners depicted on Gupta coins show a Garuḍa emblem with a more-or-less human head and an avian body. Clear images of such a hybrid bird are also found on Candragupta II's copper coins.[7] A similar avian Garuḍa might have graced the iron pillar, so it was suggested (Fig. 2).[2] However, as the inscription uses the term '*viṣṇordhvajaḥ*', rather than '*garuḍadhvaja*', the possibility that the pillar originally carried an image of Viṣṇu's *cakra* or his personified *cakra* (*cakrapuruṣa*) was not ruled out entirely.[2]

Balasubramaniam proposed that the pillar was originally situated in front of the Varāha panel (Cave 5) at Udayagiri, as that relief does not contain a Garuḍa image.[2, 4, 8] However, Devendra Handa has recently pointed out that



(a)

(d)

**Fig. 1:** (a) Proposed reconstruction of the Delhi iron pillar's capital image based on (b) the Eran *Garuḍastambha.*

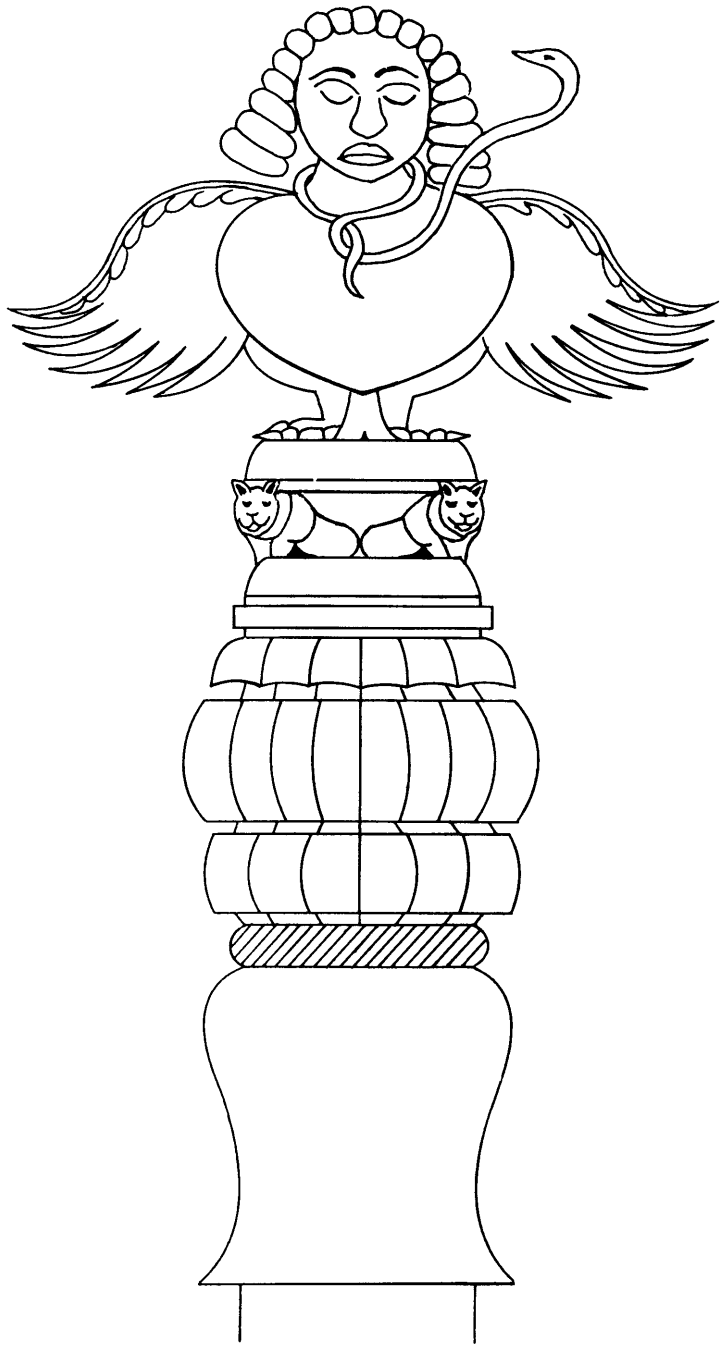


**Fig. 2:** Reconstruction of the Delhi iron pillar's capital image based on Garuḍa as found on Candragupta II's copper coins.

iconography of the *Varāha avatāra* does not require the inclusion of Garuda.[9] More importantly, the nature of the cut in the topmost surface of the iron pillar capital, which is the result of the forced removal of the object, will help us to confirm the second alternative proposed earlier, *viz.*, that of a *cakra*.

## Pillar on the Northern Udayagiri Hilltop

Some of the twenty cave temples from the Gupta period created in the hills at Udayagiri are not temples in the real sense of the word, but rather bas-reliefs carved on the rock face. The significance of these cave temples in the development of Hindu temple architecture has been well established.[3, 10-12] The location of Udayagiri, most likely to be identified with ancient Viṣṇupadagiri, was of great astronomical significance. It is located on the Tropic of Cancer and in ancient times housed an important observatory on the northern hilltop.[11-12] The Vaiṣṇava imagery at ancient Viṣṇupadagiri blended astronomical, mythological and architectural elements.[3, 12]

A ruined structure at the top of the north hill at Udayagiri, excavated by D.R. Bhandarkar in 1914, failed to produce evidence for the presence of a Buddhist *stupa*.[13] Available archaeological evidences, however, suggested that it was a Gupta temple with designs similar to and contemporary with the caves at the bottom of the hill.[3] The four-leaf design on the *kirīṭa mukuṭa* crown of the standing Viṣṇu image to the right of the entrance to Cave 6 (dated to AD 402 by a Sanakanika inscription inscribed on the front face of the cave) reappears in the abacus of the capital of the hilltop pillar.[3] Of course, gradual modifications and additions to the hilltop temple in subsequent times are likely to have occurred. That this may indeed have been the case is suggested by the historians of Iltutmish, who claim that the temple (*i.e.*, the one atop the Udayagiri hill) had taken more than 300 years to construct.[14] The hill temple was dedicated to Sūrya, the Sun God, as indicated by the name of the original temple[3] and by the various sculptures recovered by Bhandarkar in 1914.

Of prime importance for our study of the iconography of the iron pillar's capital is the presence of a relatively large broken pillar in front of the ruined hilltop temple. The bottom of the stone pillar is currently lying in a half-dug pit, and a part of its broken shaft is found nearby. The stump of the column is located toward the southeast corner of the ruined temple. Cunningham noticed the stump in the same position, when he first visited Udayagiri in 1876-1877.[15] The hilltop pillar was originally at least 10m tall.

## Udayagiri Hilltop Pillar Capital

During the excavations by Bhandarkar, the capital of the pillar was found down the hill, where apparently it has rolled down during or after the destruction of the temple. It was recovered in front of Cave 19. Two views of the capital, photographed during the 1914 excavations, are shown in Fig. 3. This piece is currently housed in the Gwalior Museum and has been described in detail by several authors.[16-17] Williams compared the inverted-lotus design of several Gupta and Maurya pillar capitals, including the one excavated at Udayagiri. She noted that the fluted inverted-lotus design of the Udayagiri pillar possesses a higher degree of curvature compared to other Gupta lion capitals, for example the one found at Sānchī.[15] Unfortunately Williams did not include the inverted-lotus capital of the Delhi iron pillar in her analysis. In the rendering of the *pūrṇa-ghaṭa* motif, the iron pillar's design resembles that of the pilaster in Udayagiri's Cave 4 (known as the Vīnā Cave), with its broadly fluted shape and plain concave facets continuing the lines of the sixteen-sided shaft below. This typical sixteen-sided column with an octagonal and then square section below was adopted during the Gupta period at Udayagiri and Besnagar, as revealed by a jamb from the hilltop temple, by a column from Udayagiri now in the Gwalior Museum (Acc. no. 380) and by a pilaster from Udayagiri now located in the Vidiśā Museum (Acc. no. 89).[3] This design was continued at Tigawa, Eran and Deogarh in the later Gupta period.

The Udayagiri hilltop capital's design reflects typical Maurya-period pillar forms, with an inverted-lotus base mounted by four lions facing the four directions, seated back to back against a central shaft (Fig. 3). The shaft and the lions show traces of fine polishing. The abacus of the capital has a height of 18.5 cm. It carries a relief of seated figures in discs accompanied by zodiac signs in anthropomorphic form. The seated figures have been identified as *Ādityas*, the sons of Aditi who are associated with the sun and the twelve months.[16-17] Three circular pellets, of slightly varying size, hover near the proper right side of each sun disk framing the *Ādityas*. Williams suggested that they might be either decorative fillers or they might represent stars. The slight curvature with which the pellets seem to gravitate towards the sun disks, a feature not mentioned by Williams though, supports their identification as stars or planets.

The abacus is now broken, but the seated figures would have been twelve in number when complete. Williams[17] and Dass[3] have described the seven remaining *Ādityas* in detail. Most of them are seated on stools and carry a jar in their left hand; two of them hold a rosary instead. The zodiac signs have an animal head and a human body. They are *Dhaṃu(s)*, *Makara*, *Kumbha*, *Mīna*, *Meṣa*, *Vṛṣabha* (*Vṛṣan*), *Mithuna*, *Karkaṭaka (Karkī)* and *Siṃha*. The images of *Kanyā*, *Tūlā* and *Vṛścika* on the broken face would have completed the zodiac cycle of twelve, arranged in a counter-clockwise direction on the abacus.

## Nakṣatra-cakra Atop the Udayagiri Hilltop Pillar

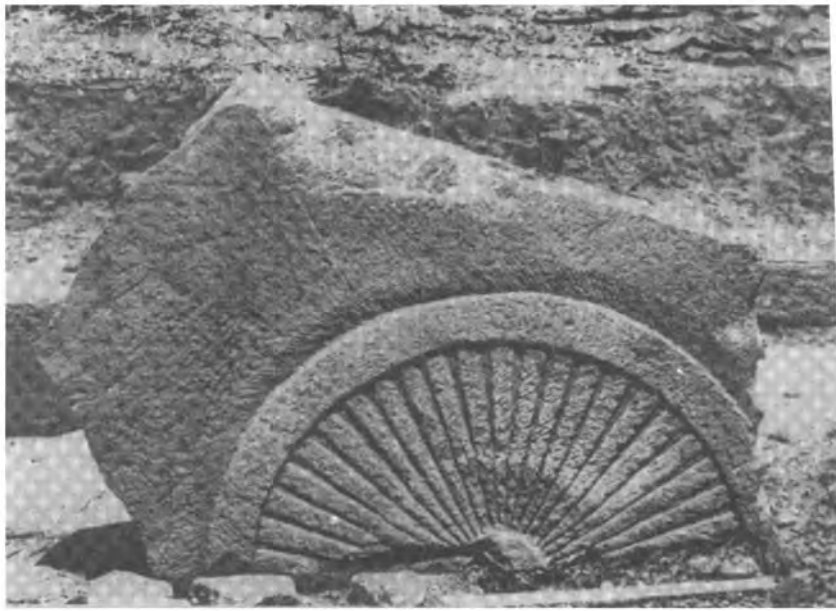
Which kind of image did the pillar at the Udayagiri hilltop carry? Bhandarkar discovered two related panels that are currently kept in the Gwalior Museum. These are fragments of a sandstone circular disc that was 25 cm thick. The bigger fragment shows a circular disc with a lotus ornament carved on one side (Fig. 4a), and figures seated against circular discs placed on the outer ring of a wider lotus on the other side (Fig. 4b). Each man is seated on a

(a)

(b)

**Fig. 3:** (a) and (b). Two views of the hilltop pillar capital in the position in which it was discovered at Udayagiri in 1914 (Photographs courtesy: Archaeological Survey of India).

(a)



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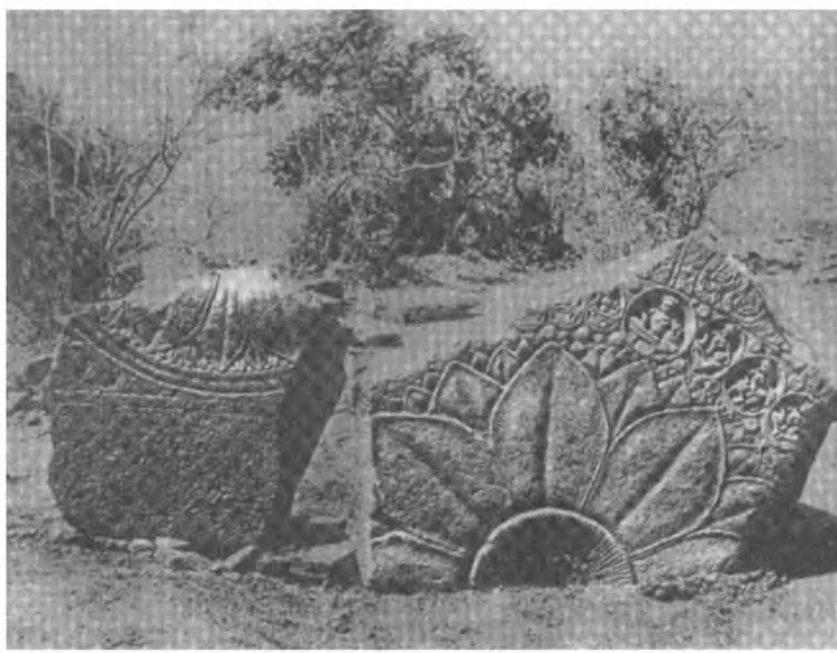


**Fig. 4:** (a) Carved circular disc on one side of the fragment and (b) the reverse side of the fragment in (a) showing circular discs with seated figures on the outer ring of the larger lotus. These photographs were obtained in 1914 (Photographs courtesy: Archaeological Survey of India).

stool, accompanied by a pair of female figures framed by oval discs. Six such oval discs remain in the fragment, each showing a female figure riding a *vāhana*.[3] The seated male figures are very similar to the *Ādityas* in the abacus. When complete, the lotus would have carried a total of 27 (Fig. 5a) or 28 (Fig. 5b) circular discs. In the *Jyotiṣa Vedāṅga*, a Vedic almanac, the ecliptic is divided into 27 or 28 divisions called *nakṣatras* (stars), named according to the asterism comprising it.[18] Every *nakṣatra* has a corresponding deity. Very probably then these images represent *nakṣatras*.

The disk may well have crowned the four-lion capital of the hill-top pillar, making the carvings visible from both sides (Fig. 6). The circular shaft against which the lions rest back-to-back (Figs 3a-b) projects 8 cm above the lions. Its diameter is 30 cm. A 5 cm deep and 23 cm wide die-notch on the shaft suggests that originally it did indeed serve as the support for a crowning element.

In its circular shape and lion support, the lotus-wheel capital of the hilltop pillar recalls Maurya and Buddhist *dharma-cakra* capitals.[19] A conscious attempt on the part of the Gupta kings to emulate the glory of the ancient Maurya dynasty has been pointed out earlier by Williams: the Guptas ruled from Pāṭaliputra, the old Maurya capital; Samudragupta had his famous *praśasti* inscribed on an pillar carrying the edicts of Aśoka; and Skandagupta's Junagaḍ inscription was engraved on the same boulder as Aśoka's fourteen rock edicts.[17]

Whereas the wheel on the Maurya pillars refers to the *dharma* message of the emperor inspired by the Buddha's teachings, the *nakṣatras-cakra* is symbolic of the Sun. Even in times prior to the Guptas, Udayagiri was known for Sun worship and the site was also important for astronomical observations.[11-13] The *nakṣatras* on the *cakra* (Fig. 4b) and the *Āditya-rāśi* pairs in the circular abacus of the capital (Fig. 3a) further attests to the astronomical significance of Udayagiri.

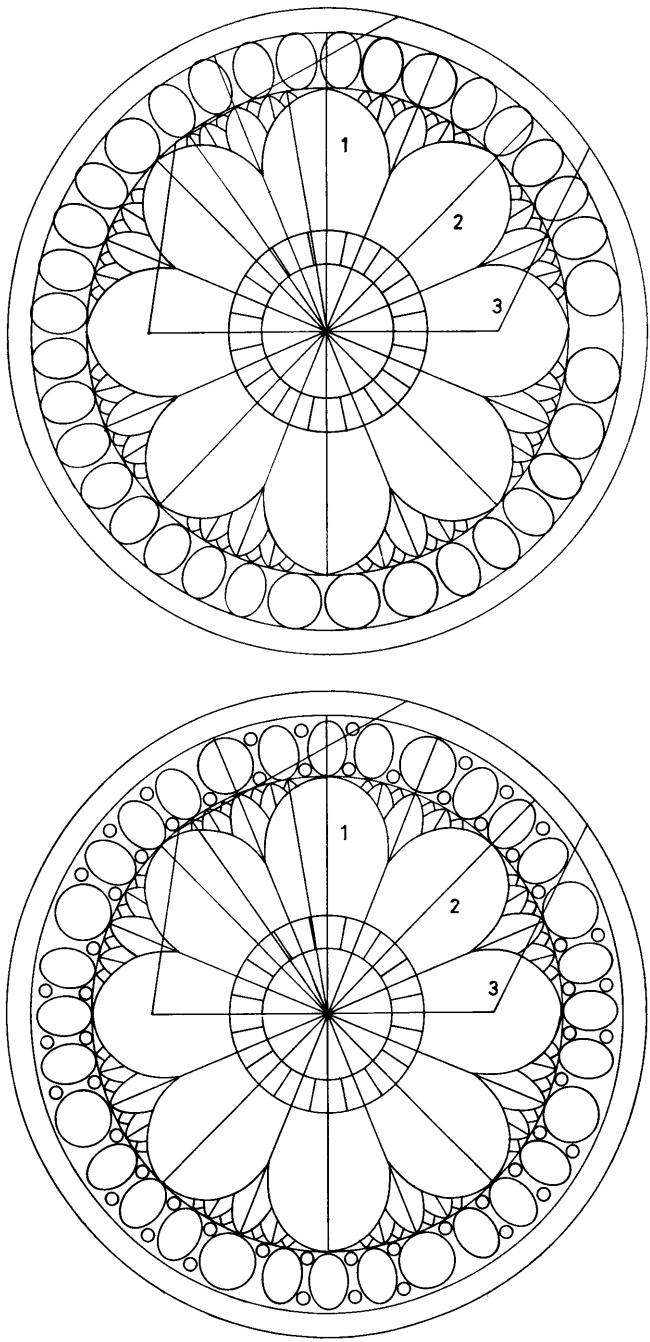



**Fig. 5:** Reconstruction of the circular *nakṣatra-cakra* with (a) 27 circular discs or (b) 28 circular discs.

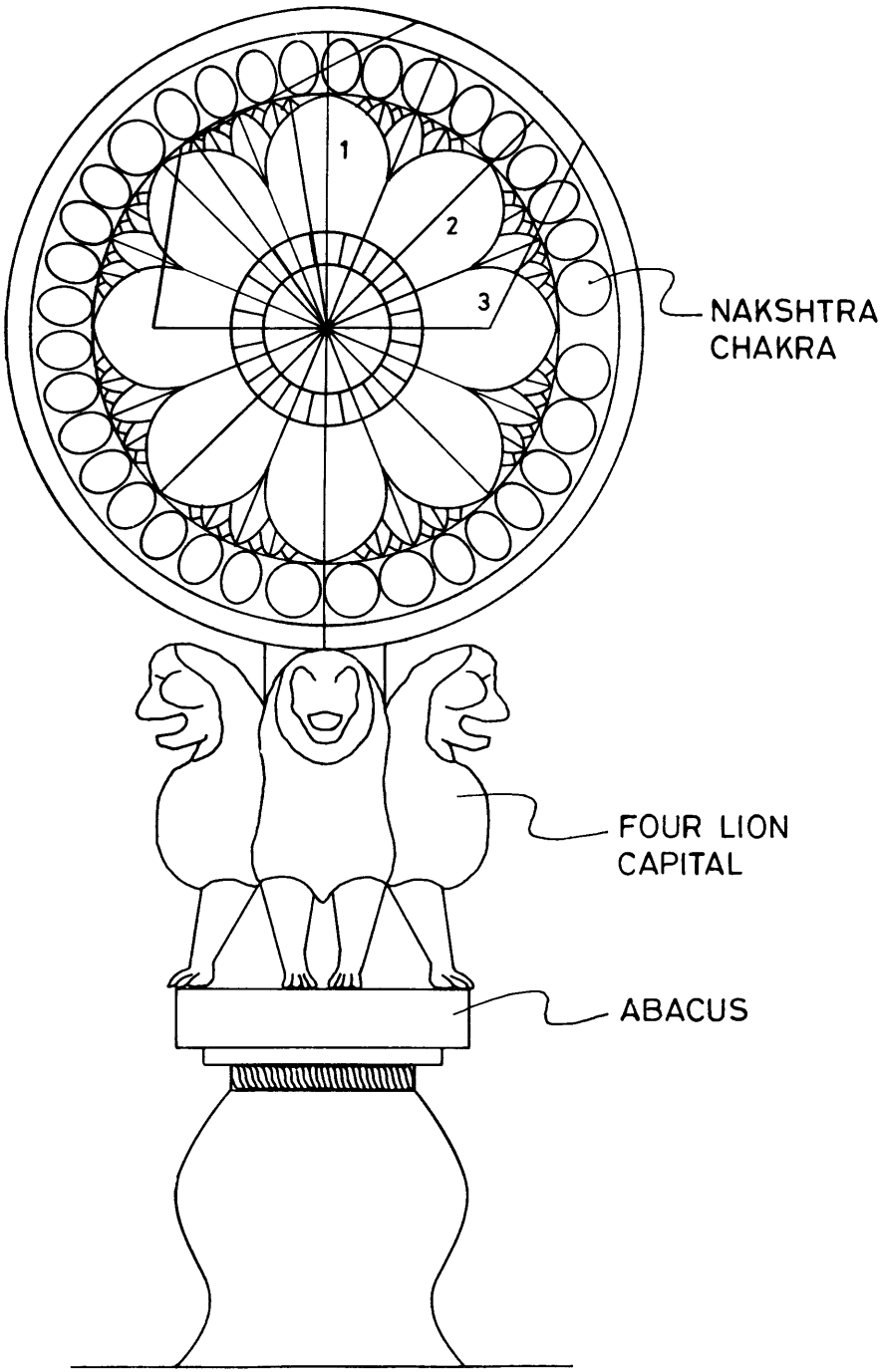



**Fig. 6:** Reconstruction of the Udayagiri hilltop pillar capital including the *nakṣatra-cakra.*

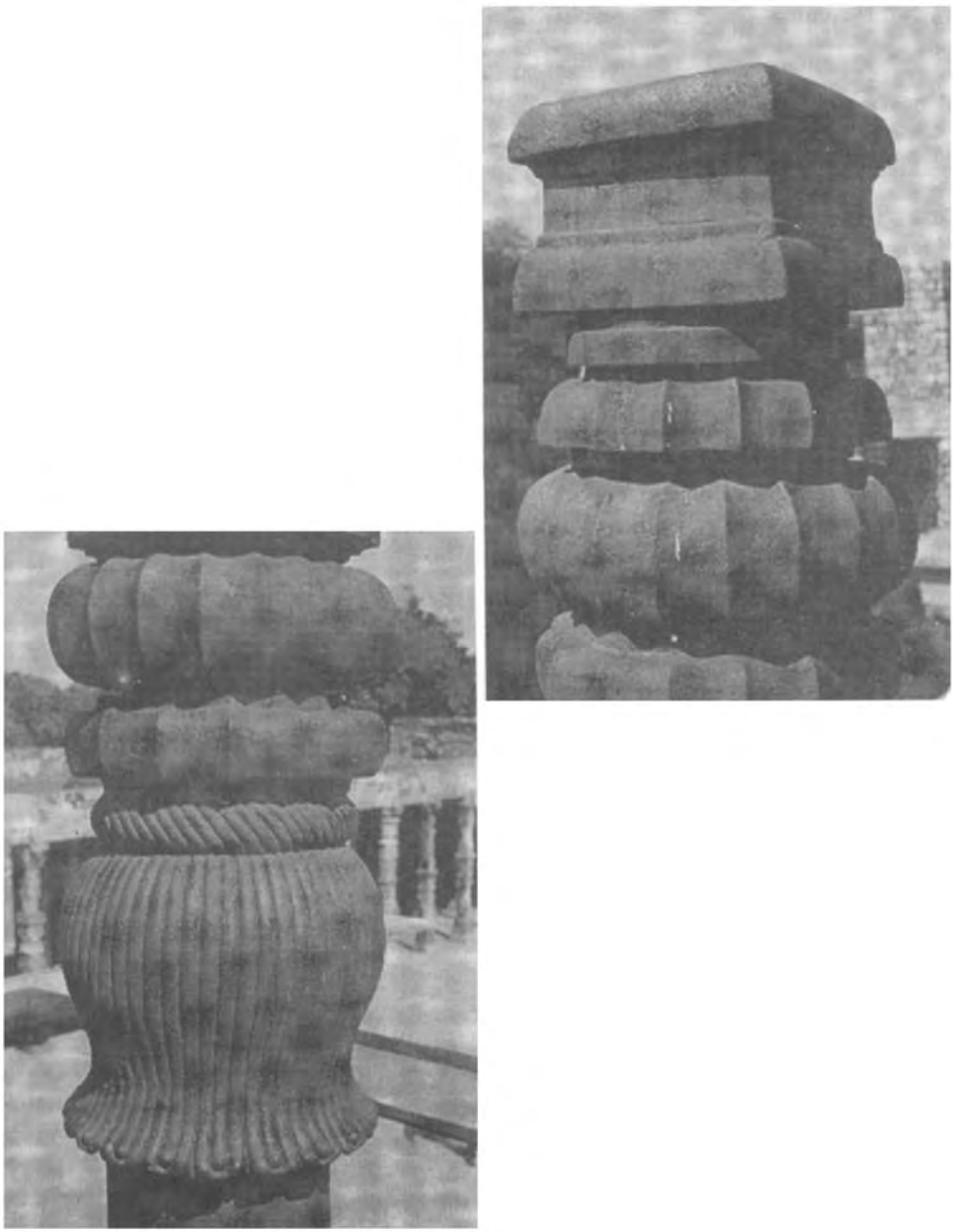
## Delhi Iron Pillar Decorative Capital

We now move down the hill to where the iron pillar was probably erected, and will try to virtually reconstruct the image that may have been on top. The capital consists of seven components. Moving from bottom to top: a fluted inverted-lotus structure, a slanted rod structure, three rounded discs with serrated edges, a circular disc and finally a box-like structure (Fig. 7). These have been shrunk fit around a hollow iron cylinder.[20]

The box-like structure possesses projecting top and bottom faces (Fig. 8). A gap is apparent between the bottom and the lower circular disc, indicating that the box forms a distinct unit. It represents a pedestal (abacus) atop which an image or emblem could be placed. Such a pedestal, either circular or square, is a characteristic feature of North Indian pillar designs from Maurya times onwards. The iron pillar's box pedestal is different in design compared to the stepped pedestals of Buddhist *dharma-cakras* as depicted at *e.g.*, Amarāvatī and Sāncī.

The top and bottom faces are exactly 12" in length on the sides and 2" thick (all measurements are here provided in inches, because the pillar allows exact measuring within the inch system). The total height of the box pedestal is 8 inches. Two bands frame the pedestal below the top face and above the bottom face, as clearly visible in Fig. 8.

The bottom face of the box pedestal has four 0.5"-diameter holes located symmetrically at the four corners of the base. One of these is completely open, whereas fractured iron rods protrude from the other three holes. The vacant hole shows no sign of rusting or distortion. At corresponding locations in the bottom side of the top face, fractured rods are visible at three corners. These rods were probably meant for fixing separate images, probably those of lions, at each of the corners.[20] This design recurs at the corners of the decorative pedestal found in the Gupta-period *Garuḍastambha* from Eran.[21] Perhaps it was even a custom to change these figures periodically and choose appropriate figures for different times of the year.



(a)

**Fig. 7:** Decorative bell capital of Delhi iron pillar: (a) bottom portion, and (b) top portion.

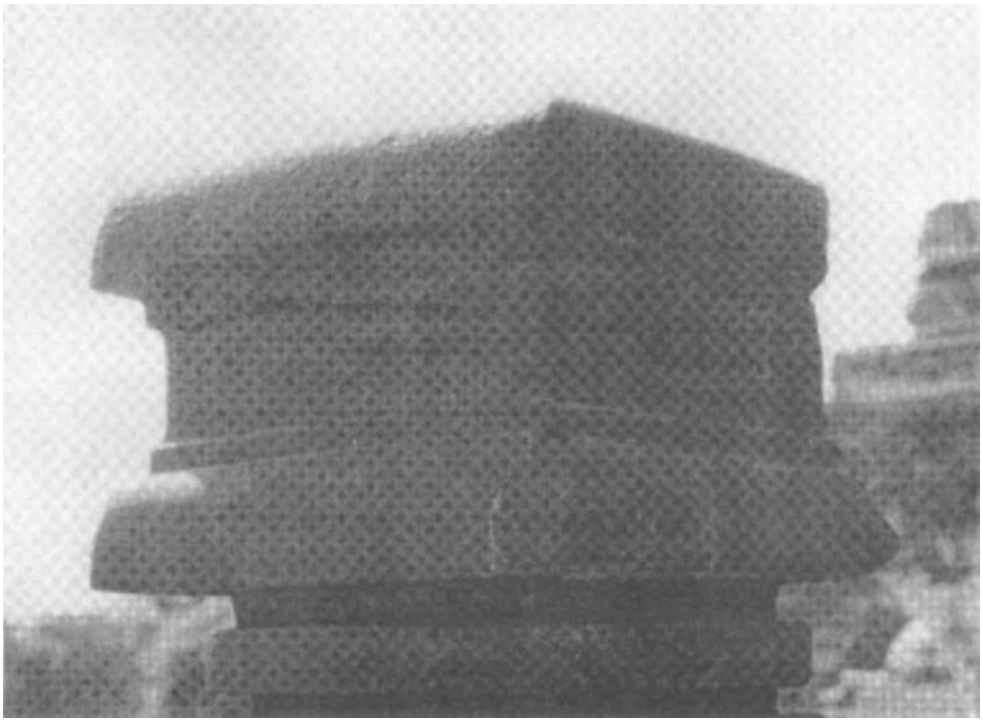
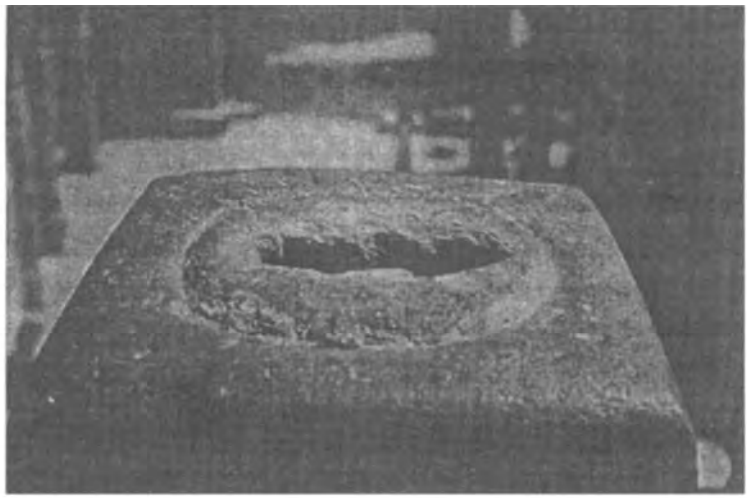


**Fig. 8:** Another view of the box pedestal above the bell capital of the Delhi iron pillar.

One of the four corners of the top face is partially fractured (see top right in Fig 8). The box pedestal was fashioned from a single piece of metal and was not constructed out of plates.[20] The square top face intersects with a circular cylinder with a diameter of 8", as visible in the oblique and vertical views presented in fig 9.[20] A circular slab covers the cylinder. Its centre shows an irregular rectangular 6"×2" slot that marks the location where the crowning image, now missing, was anchored. The open slot is now sealed with wax, so that water does not accumulate inside the hollow cylinder. Apparently the flat, circular slab served as the base for the crowning image. The slab was welded on to the top of the iron cylinder. The base and welded regions are still clearly distinguishable in the top surface of the iron pillar capital (Fig. 9).

(a)



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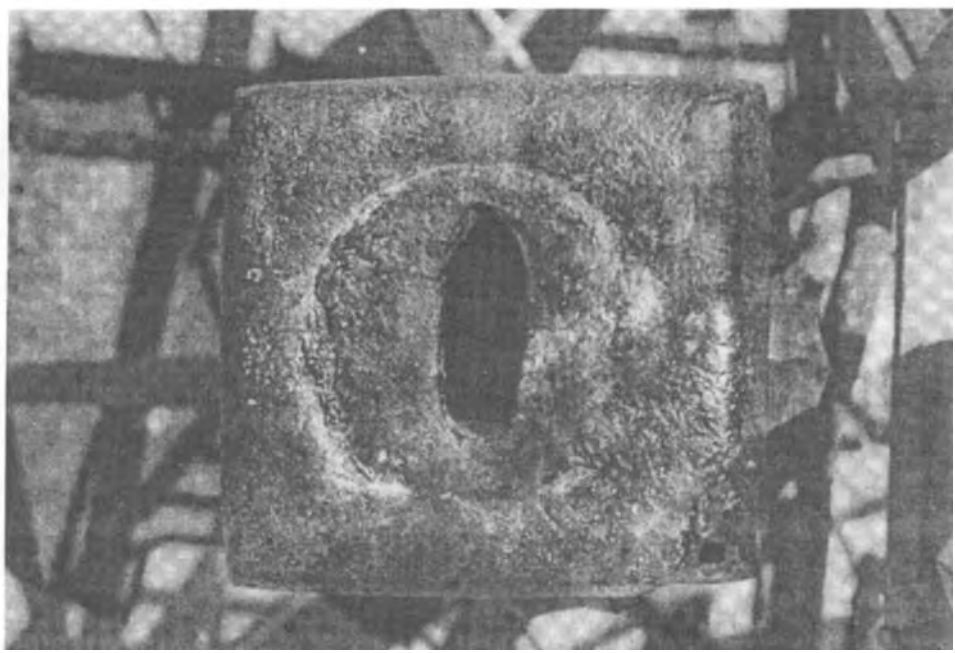


**Fig. 9:** The top surface of the Delhi iron pillar capital. The presence of the hollow slot and the welding lines delineating the cylinder's dimensions should be noted: (a) oblique view photographed in 1993, and (b) vertical view photographed in 1961. (Photograph [b] courtesy: Archaeological Survey of India).

## Cakra Image Identification

The slot in the box pedestal provides an important clue for the identification of the lost image. By all means it would have been difficult for a Garuḍa image to have been fitted on this slot. The top surface of the capital does not show any remains of the claws or feet of a previously present Garuḍa image. Even though we do not know for how long the pillar remained intact, the impact of claws or feet of a bird-like image would have resulted in tell-tale corrosion signs in the form of different coloration on the claw-covered regions of the top surface. However, the surface does not show any such marks.

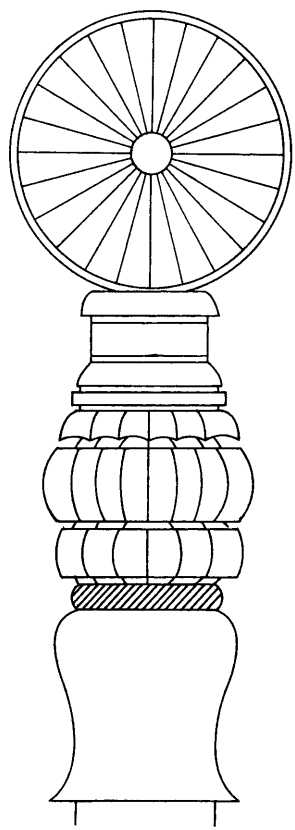


**Fig. 10:** Reconstruction of the *cakra* atop the Delhi iron pillar capital. The relative proportions of the various sections are based on actual measurements.

The shape of the wide, horizontal slot in fact suggests that the gap may have held a circular disc equally thick as the width of the slot, *i.e.*, 2 inches. A dimensional analysis of the Delhi pillar indicates that the height of the object atop the capital must have been 20 inches,[6,20] so a *cakra* would have had a 20" sized diameter (see the reconstruction in Fig. 10). The relative dimensions of various sections have been strictly maintained as per the detailed analysis of the capital's dimensions.

The *cakra* is undoubtedly the most distinctive weapon and royal attribute of Viṣṇu.[22] A search through Gupta-period Vaiṣṇava imagery shows that the artists used different ways to display Viṣṇu holding the *cakra*. Frequently he lifts the disk in his upper (rear) left hand, so no stand was required. In other cases the deity is accompanied by a personified mace and wheel. The number of Gupta period images that have the attributes intact and actually show Viṣṇu's *cakra* as supported on a stand is fairly small. Such stands or pedestals are not uniform in shape. They may be slightly roundish or square, of variable height, and with or without banding on the central section. In every case the bottom and top ledges are wider than the centre section. Perhaps the best published illustrations of this kind of iconography are offered by two 5th-century pillars from Rajghat and Varanasi that carry multiple Vaiṣṇava images in shallow niches. These include a standing Viṣṇu resting his left hand on the rim of a *cakra* on a low stand, and his right hand on a huge mace. In the Viṣṇu images of these pillars, the stands on which the *cakra* rests, have been damaged. However, each pillar also has a niche portraying a standing Narasimha balancing a *cakra* on a pedestal in his left hand and a mace on a low stand in the right hand (Figs 11a-b). These pillars are now in the Bharat Kala Bhavan in Varanasi.[23]

The sun-like shape of Viṣṇu's 'flaming wheel' evokes this deity's solar associations. A *cakra* would therefore have been a most fitting emblem to crown the *Vaiṣṇordhvaja* raised at Udayagiri. The most likely original location of the iron pillar, in front of the passage and near Cave 7, seems to have been

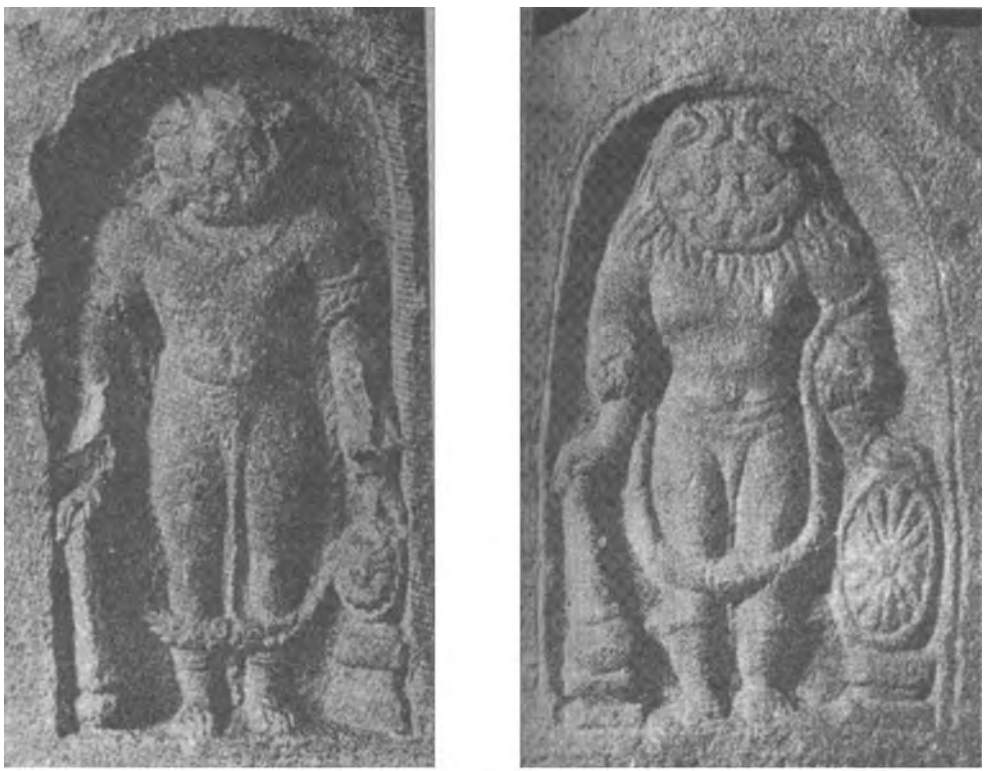



**Fig. 11:** (a) and (b) Narasimha depicted on two pillars, presently at the Bharat Kala Bhavan, (a) is dated to AD 478 during the reign of Budhagupta. Notice the *cakra* on stand in both these images. The additional fillet (s) on the central section of the stand are clear in (b). (Ref: T.K. Biswas and B. Jha, *Gupta Sculptures: Bharat Kala Bhavan*, Banaras Hindu University, Varanasi, 1985, Figs 12d, 13b).

selected for astronomical reasons.[3,12] Placed at the entrance to the main complex at Udayagiri, and facing the easterly direction, every morning the entire pillar would have lit up brilliantly by the incident sunrays during the entire year. The crowning image probably consisted of metal, although we can only speculate as to which kind. If it was constructed of gold or gilded brass or bronze, it would have radiated light, notably at dawn. Many pillars in India have lost their crowning figure, and we cannot be sure under which circumstances, natural or man-inflicted, the iron pillar got decapitated.

One final clue to the proper identification of the original emblem on top of the iron pillar is found right at Udayagiri's Cave 6. The two Viṣṇu images near the entrance, though slightly damaged, reveal a comparable iconography.[24] In both cases the four-armed deity holds a *śaṅkha* (conch shell) in the front left hand, while the front right hand is damaged. The rear pair of hands is reserved for the more striking weapons, the disk and the mace, but these have been rendered differently in the two panels. The Viṣṇu on the right side of the entrance is accompanied by personified attributes, *gadādevī* and *cakrapuruṣa* respectively (Fig. 12).[25] The standing Viṣṇu on the opposite side of the entrance rests his rear right hand on the handle of a mace, the rear left hand on a *cakra* positioned on a pedestal (Fig. 13a). The part above the rounded base of the pedestal quite resembles the corresponding part of the iron pillar's box pedestal. It is worth noticing the narrow fillets that go all around the centre section below the top face and above the bottom face in either pedestal (Figs 8, 13b). Were the creators of this particular Viṣṇu image inspired by the shape of the shiny *cakra* and its support on the pillar at the entrance of the complex? In that case, the relief offers an approximate date *ante quem* for the erection of the iron pillar at the site. The Śanakanika dedicatory inscription in Cave 6 provides a date of Gupta Era 82 (*i.e.*, AD 402).[26] By that time Chandragupta II Vikramāditya had successfully completed his military campaigns in Gujarat, as proven by the introduction of his silver coins in the regions formerly controlled by the Kṣatrapas.[27]

Scholars have voiced different views as to whether the Northern Brāhmi script, in which the Sanskrit inscription on the iron pillar has been engraved, belongs to the early, middle or late Gupta period.[28] Most palaeographers now agree that the characters correspond closest to the Brāhmī used in 5th-century Gupta inscriptions from Bilsad (AD 415), Baigram/ Mankuwar (AD 447) and Kahaum (AD 460). These slightly later dates seem to lend support to those scholars who have interpreted the inscription as a posthumous tribute to Candragupta II. However, possibly *Candra*'s inscription represents the earliest of this palaeographically related group of epigraphs,

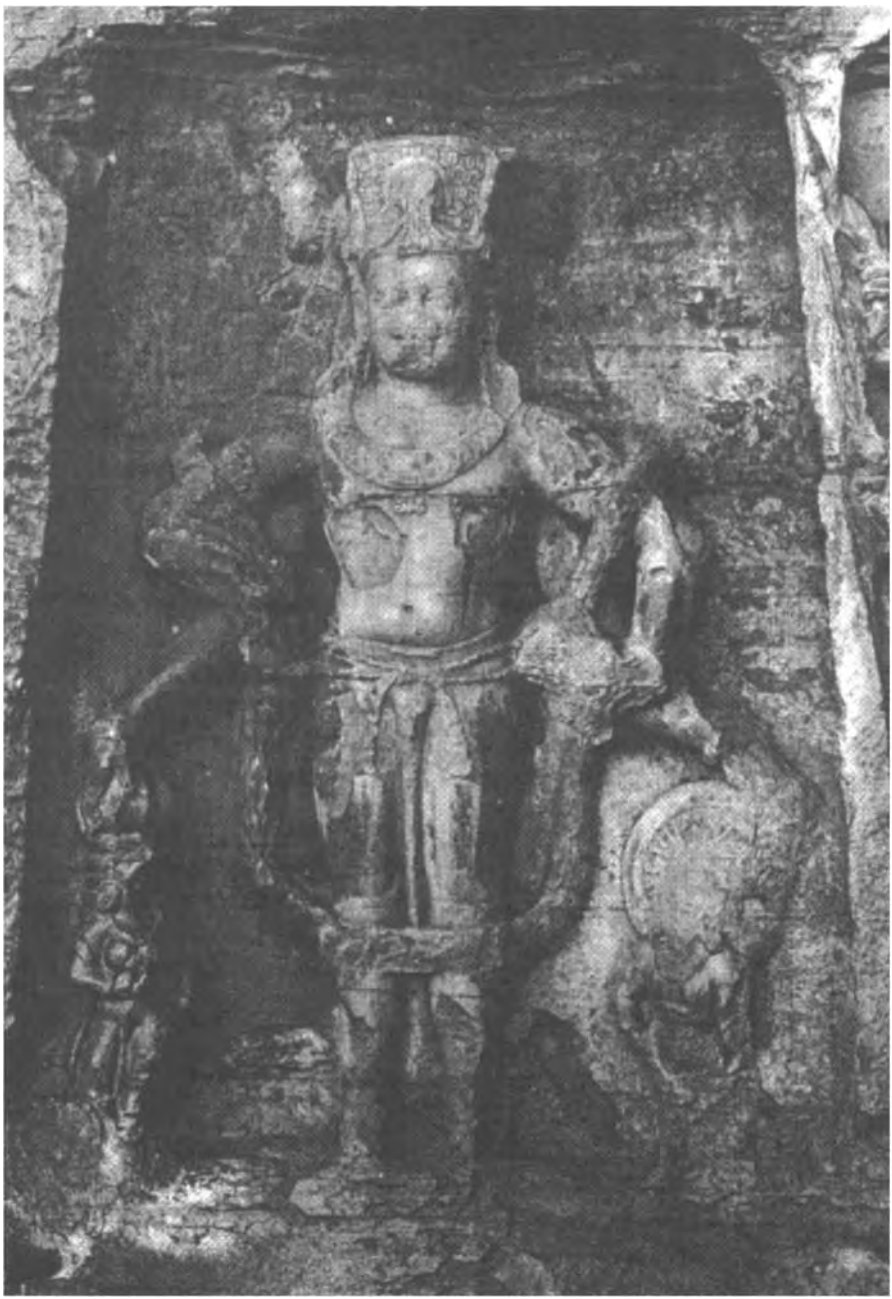
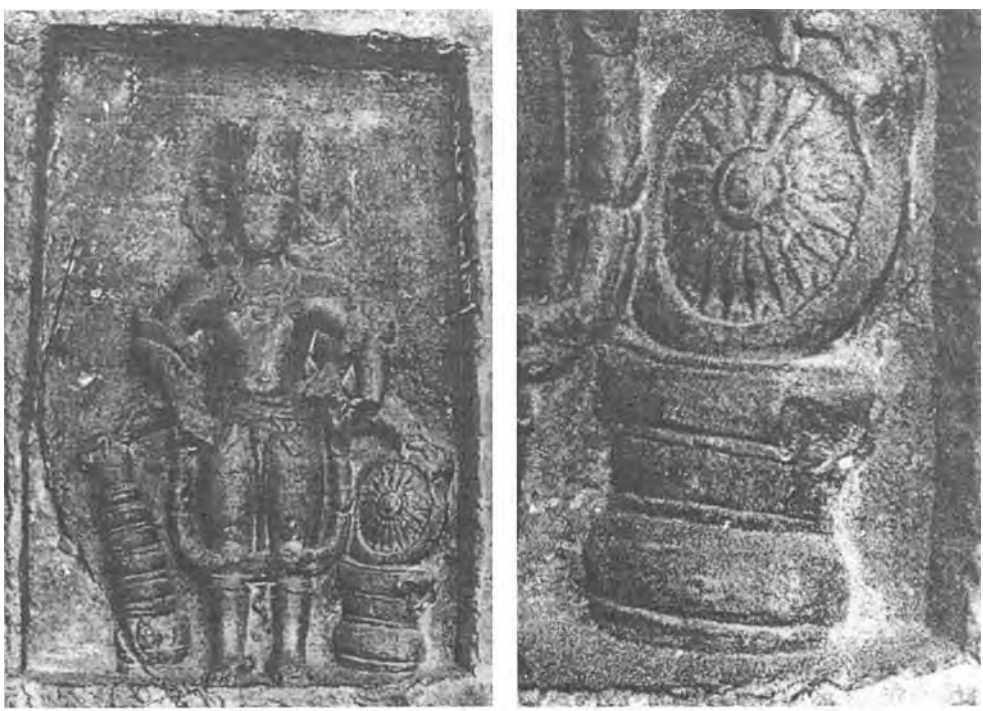


**Fig. 12:** Standing Viṣṇu image on the right of the entrance of Udayagiri's Cave 6. (Ref: J.C. Harle, *Gupta Sculpture: Indian Sculpture of the Fourth to the Sixth Centuries A.D.*, Oxford: Clarendon, 1974,Fig. 8).

reaching back in time to Candragupta's reign. Perhaps a palaeographic comparison of the Sanakanika inscription in Cave 6, the Virasena Saba inscription in Cave 7 and the inscription on the iron pillar may throw further light on their relative times of engraving.

The *cakra* image in the Viṣṇu panel to the left of the entrance to Cave 6 (Fig. 13b) has provided the basis for a reconstruction of the image that may have originally crowned the iron pillar (Fig. 10). The details given for the inner part of the *cakra* are hypothetical. Radiating spokes have been shown to indicate the *cakra*'s probable astronomical significance.



(a) (b)

**Fig. 13:** (a) Standing Viṣṇu image to the left of the entrance of Udayagiri's Cave 6 and (b) the *cakra* on the Viṣṇu image rests on an object that closely resembles the top box pedestal of the Delhi iron pillar. (Photograph courtesy: Kern Institute Leiden and G. Foekema).

There is a remote possibility that the crowning element was a particular kind of *cakra*, *viz.*, the personified disk or *cakrapuruṣa*. The trend to portray Viṣṇu in the company of anthropomorphic forms of his main attributes is in evidence from the early Gupta period onwards, next to the more familiar form. The mint masters of Candragupta II even devised a gold coin in which the *cakrapuruṣa* offers the king three round objects (Fig. 14)[29] Possibly the design symbolizes how the *cakrapuruṣa* transfers the wide-ranging speed, power and lasting impact of Viṣṇu's disk weapon to the Gupta king himself.Candragupta's honorary title on this coin is given as '*cakravikrama*', litt. 'he with the

**Fig. 14:** *Cakravikrama* gold coin type of Candragupta II Vikramāditya. (Ref.: R. Vanaja, *Indian Coinage*, New Delhi: National Museum, 1983, fig. 6).

far-reaching power of the *cakra*'. If the crowning *cakra* was still intact in the early centuries of the 2nd millennium AD, the presence of one or two such human-looking figure(s) on the iron pillar may have led to the removal of the capital by a Muslim ruler.

The iconography of early Gupta *cakrapuruṣa* imagery, however, does not support such a reconstruction of the pillar. The published images show a male figure, the feet firmly placed on the ground, a *cakra* behind the head or body. Since the top of the iron pillar shows neither traces of the feet of a standing figure (or of two figures, one on either side of the disk) near the slot, nor coloration marks of where feet could have been placed, a plain *cakra* is still the most likely emblem to have graced the iron pillar.

## Conclusions

The Delhi iron pillar once probably carried a *cakra*. Its approximate dimensions (20" in diameter and 2" thick) could be determined through a dimensional analysis and from a study of the slot on the top surface of the iron pillar. The *cakra* was fit vertically on a flat circular base, which was subsequently welded on to the top of the cylinder, around which the components of the decorative bell capital were shrunk fit. Similarities between a box pedestal supporting a *cakra* depicted in one of the bas reliefs of Viṣṇu in Cave 6 at Udayagiri on the one hand and the box pedestal of the iron pillar on the other also suggest that it once carried a *cakra*. Although the personified *cakra* is in evidence from the early Gupta period onwards, the top face of the iron pillar's box pedestal does not show any signs that one or two standing male figures were ever attached back-to-back against the *cakra* fixed in the slot. The *cakrastambha* was an ageless phenomenon in the sacred landscape of ancient India. The solar associations of Viṣṇu's 'flaming wheel' on Udayagiri's iron pillar must have perfectly expressed the astronomical importance of Viṣṇupadagiri.

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