INDIAN
ARCHITECTURE

By
B. L. DHAMA A.I.I.A.
Architect
Ex-SUPRENTENDENT
of the
ARCHAEOLOGICAL SURVEY
of
INDIA
and
Holder of the George Witter
Memorial Scholarship

THE
AJANTA PRINTERS
JAIPUR

ALL RIGHTS RESERVED
Published by
B. L. DHAMA
Under the auspices of the COUNCIL OF ART & CULTURE, SWASTIKA HOUSE Station Road, JAIPUR.

CENTRAL ARCHAEOLOGICAL LIBRARY, NEW DELHI.
Aca. No. 46172
Date 61 1968
Call No. 724 41 /262
Halabid, Mysore: 

GANESHER, also called Gajanana, Lambodar “Pendant bellied” etc., is the God of wisdom and remover of obstacles, hence he is invariably propitiated at the beginning of any important undertaking and is invoked at the commencement of books, 12th Century A.D.
Chintarpur, Bundelkhand: Vishnu (Anantasayana) slumbering on the serpent Shesh, also called Avantra. He is recognised as the supreme Being from whom all things emanate. Brahma, the active creator, is represented as springing from a lotus which grew from the navel of Vishnu. Lotus: he played an important role in the evolution and development of Indian Architecture, 10th Cent. A.D.
Khajuraho, Chhatarpur (Bundelkhand) : Details from the facade of a Hindu Temple, 10th Century, A. D.
Ajmer: Ceiling from an old Temple used as spoil in the Arahi-din-ka-Jhonpra, Early 10th century A.D.
Bhuvanesvar: Torana in front of Mukutesvar Temple. Cir.975 A.D.
Delhi, Purana Qila: Talaqi Gateway. 1541 A.D.
DELHI: TOMB OF SIKANDAR LODI, A.D. 1517.
Scale \( \frac{1}{4} \) \( \frac{1}{8} \) of Feet

ELEVATION

HALF PLAN at the Springing of the DRUM of the DOME

HALF GROUND PLAN

B.L. Dharma ALIA, Architect
Ex-Supt. of the Archaeol. Survey of India

Plate XI.
FATHPUR-SIKRI: ARCHWAYS
FROM BIRBAL'S HOUSE. A.D. 1571.

Plate XVIII.
AMBER-BRINDABAN.
A.D. Late 16th Century.

A.D. Middle 17th Cent. Bracket from the Diwan i Am, Amber.

A.D. Late 16th Century Bracket from the Temple of Jagat Siromani, Amber.

A.D. Late 16th Cent. Arch from the Temple of Jagat Siromani, Amber.

A.D. Late 16th Cent. Bracket from the Temple of Govinda Deva, Brindaban.

A.D. Early 18th Cent. Bracket from the Gopesh, Jaipur.

B. L. Dhamo ALLA Architect, Ex-Supdt. of the Archaeological Survey of India.

Plate XXI
AMBER: ARCHITECTURAL DETAILS
FROM JAGAT-SIROMANI TEMPLE,
End of 16th Century A.D.

CROSS SECTION
Plate XXII

ARCHITECTURAL DETAILS
Scale 1:400
2 = 2 feet
AMBER: BALCONY FROM NATHJI
PAURHIT'S HAVELI, A.D. Middle of 17th Century.

Front Elevation

Scale 2 4 6 8 of Feet

Cross Section

Plate XXV

B.L. Dhamia A.I.A. Architect
Ex-Supdt of the
Archaeological Survey of India
AJMER: BARADARI ON THE ANA SAGAR BUND. A.D. 1637.

Brackets From Amber. First Half 17th Cent.
Amber Palace, 17th Century A.D.

Plate XXXII
NASIK: WINDOW FROM A HINDU TEMPLE, A.D. 18th CENT.
EXPLANATION OF PLATES

Plate. Frontispiece: shows the palace at Datia (M. P.) built by Bir Singh Deo in about 1620 A. D. It consists of a courtyard which contains a five storeyed structure in its centre and ranges of rooms surrounding it, both being connected by means of flying corridors or bridges radiating from the middle of each side. The exterior of this great conception is very remarkable for its fine architectural effect. The entire structure standing on a rocky eminence, with its pillared and domed balconies with their openings filled with perforated screens, cupolas flanked by kiosks rising from the middle of the sides, the central dome soaring high in the sky and other architectural accessories, casting their shadows in the lake below, forms one of the most charming spectacles exciting admiration.

Plate I: It represents the image of Ganesha, 12th Century A. D. from Halabid in Mysore. Ganesha is the god of wisdom and remover of obstacles: hence he is propitiated at the beginning of every important undertaking and invoked invariably at the commencement of Books, and also placed on the head of the principal entrance to a house.

It is related that when the god Vishnu was being married, he forgot to invite Ganesha and so Ganesha feeling the insult directed his vehicle, the rats to make hollow the path of Vishnu’s marriage procession, which held up the latter from proceeding on. Thereupon divinities and astrologers set to task of finding the cause of this catastrophe. It was soon discovered that they forgot to send invitation to Ganesha who put this obstacle in their path. Vishnu repaired to him and propitiated whereupon Ganesha joined and ordered the rats to remove the obstacle which was done and the wedding procession moved on.

Ganesha is also called Ganapati, lord of the ganas or inferior deities especially those attendant on Siva, his father. He is represented as a short fat man with protuberant belly (which makes his seating in Padamasana with ease impossible), four hands holding, of a shell, a tray of sweet balls, a goad and a water lily; he has the head of an elephant and his vehicle a rat.

There are various legends accounting for his elephant’s head, one, however, is narrated here which runs thus:— Parvati, Ganesha’s mother went to her bath and instructed Ganesha to guard the door. Siva, Ganesha’s father wanted to enter and was opposed, thereupon Siva chopped Ganesha’s head off, but then to pacify Parvati he replaced it with an elephant’s head the first that came to hand.
The sculpture is very handsomely carved, the delicacy and intricate nature of the carving of the Mukut or tiara and the canopy behind is suggestive of carving in wax or ivory.

Plate II: This sculpture from Chhatarpur, Bundelkhand, 12th century A.D. represents Vishnu (Anantasayana) reclining on the serpent Shesha, also called Ananta with his hood forming a canopy over Vishnu’s head. Vishnu has in his four hands the usual symbols, namely the discus or Chakra, conch, lotus and the club. From his navel grows the lotus, and Brahma, the active Creator, is seen springing from the lotus which has played the principal role in the evolution and development of Indian Architecture. Surrounding Vishnu are other deities, his consort Lakshmi shampooing his feet while above his stretched leg a rider on horse represents the Kalki Avatar one of the several incarnations of the God Vishnu.

Plate III: This shows a sculptured facade of a temple at Khajuraho, belonging to the tenth century A.D. Three belts run round the exterior and in the recesses and projections are represented gods and goddesses, females in conquettish attitudes, and some erotic scenes within the panels in the middle of the facade.

At Khajurho there are at present about thirty temples surving out of a large group which once adorned the place. In beauty of outline and richness of carving the temples of Khajuraho are unsurpassed by any kindred group of monuments in India.

Plate IV: In this plate is given a ceiling from a temple used as spoil in the mosque known as Arahi-din-ka-jhonpra erected in 1192 A.D. It is a very richly carved and instructive piece of sculpture. Within a rectangle is made a square and within the square an octagon which encloses a circle composed of cusps which in its turn encloses a full blown lotus. Within the corners of the square are carved Kirtimukhas with foliage on their either sides, while in the spaces left on the shorter sides of the rectangle are carved half-lotuses.

The cusped circle forms a prototype of the cusped arch used in Muslim buildings in India or outside.

Plate V: This plate illustrates a detached Torana or triumphal arch in front of the Mukatesvara temple at Bhubanewar, cir. 975-A.D. It is 15'-0" high and consists of two columns of elaborate workmanship supporting a round arch within semi-circular pediment in the centre of which and over the columns are circular chaityas in which are inset handsomely carved faces. On either side of the central chaitya is a reclining female figure and the top of the arch is crowned by a finial. The whole is a marvel of fine workmanship unlike anything of the kind in India or abroad.
EXPLANATION OF PLATES

Plate VI: This plate illustrates the north entrance to Sher Shah's stronghold known as the Purana Qila (Delhi), built by him in A. D. 1541 on the ancient site of Indrapratha. The gateway is called Talaqi-Darwaza or abandoned gate as it was closed after the death of the king and never used being considered ill-omened. The structure is exceptionally elegant, forceful and robust, and with its flanking grim bastions strongly built of rough and well bonded masonry in distinct contrast and structural texture to the high aesthetic red sandstone and white marble and occasional insets of blue glaze employed in the construction of its face and the pilared and domed pavilions which crown its roof, stands one of the finest and most imposing gateways of India.

Plate VII: Jaipur, originally the capital of the State of the same name, now the capital of Rajasthan, is situated on the metre gauge line of the Western Railway. It was founded by Sawai Jai Singh, the Kachhawaha Rajpur, in A. D. 1727, according to the canons of Hindu Shilpa or Architecture. In the plate are illustrated an elephant bracket, plinths and their copings taken from the temples of the 17th and 18th centuries A. D. situated at various places.

Harsh (Sikar): Sikar, the chief town of Shekhawati, is situated on the metre gauge line of the Western Railway. Eight miles south-west of Sikar lies the ancient and the ruined town of Harsh at the foot of Harsh mount, known as uncha-pahar or high mount on the summit of which once stood several temples of exquisite beauty of the 10th century A. D. built during the reign of the Chauhans. The past glory of the place can be gleaned from the relics consisting of images, sculptures of architectural members displayed in the Museum at Sikar, Rajputana-Museum at Ajmer and on the site. The temple, now standing and dedicated to Harshnath, is a renovation of the early eighteenth century A. D. on the old foundation. A few illustrations of the plinths and pillars will give an idea of the excellence of design and carvings.

Plate VIII, illustrates the gateways and wicket to Kadam-sharif enclosure at Delhi. Kadamsharif is situated to the south-west of the Lahori Gate of the city and at the foot of the ridge. It is a fortified enclosure within which was buried in 1373 A. D. prince Fath Khan, the eldest son of the emperor Feroz Shah. The name Kadamsharif is derived from the sacred foot-print on a marble slab said to be of the Prophet Muhammad preserved under water in the shrine.

The plan consists of a double gateway with a courtyard and gaurds' dalan between. The other plan below it shows a wicket protected by a barbican. The corner bastion to the wall is crowned by a pillared and domed pavilion which has added to the picturesqueness of the enclosure. The top figure in the plate shows the front elevation of the second gate and sections of the first gateway and the gaurds' dalan, which are provided with loop-holes for musketry, the whole being a good specimen of military architecture.
Plate IX: shows the ground plan, roof plan, elevation and section of the tomb of Mubarak Shah, the second king of the Sayyid dynasty, at Delhi. This massively built tomb, octagonal in plan, stands within an enclosure, and rests on a plinth reached by a stepped ramp. It is surrounded by a covered colonnade with three arched openings on each of its octagonal sides. The arches rest on double pillars of grey stone, and the corners of the octagon are strengthened by sloping buttresses of the same stone, and the whole octagon being sheltered by a stone chhajja supported by brackets. Its dome springs from a cylindrical drum and is surmounted by an inverted lotus which is crowned by an octagonal, pillared and domed chhatari like a lantern; and, surrounding the drum are placed on the roof of the colonnade at octagonal corners domed and pillared pavilions also octagonal in plan. The height of the dome excluding the finial is 60 feet.

In the west wall of the tomb is the qiblagah and in the south the entrance door, while within the wall, between the two, is housed a stair that leads to the roof of the colonnade.

The whole structure comprising the dome and its kiosks being pressed down, a slightly stunted elevation is produced.

This defect has been removed in the tomb of Muhammad Sayyid erected ten years later. The drum of the dome has been raised several feet, and the kiosks were also elevated to a slightly same extent.

Plate X: Jaunpur, is situated on the Eastern Railway. It stands on the Gomti River and is 36 miles from Banaras by Road. Juna Khan, known as Muhammad-bin-Tughlaq (1325-1351) founded it, and appointed a powerful eunuch entitled Khwaja Jahan to be the lord of the east or Malikush-Sharqi. When Timur's invasion had shattered the Delhi Government Khwaja Jahan's adopted son seizing the opportunity set up himself as an independent king with the title of Mubarak Shah Sharqi in 1399. On Bahlol Lodi's becoming Sultan of Delhi he drove out Hassan Shah, the last independent king of Jaunpur, and replaced him by his own son Barbak Shah as viceroy in about 1410 A. D. Sikandar son of Bahlol expelled his brother Barbak Shah and took Jaunpur under the direct control of the Delhi Government until Akbar conquered it in 1559 A. D.

The Sharqi dynasty had a great taste for architecture and their principal memorial is the group of wonderful mosques erected out of the spoils of the vast Hindu temples and Buddhist monasteries and shrines that stood near the Gomti and once adorned the ancient city.

The Plate illustrates the detailings from the principal mosques namely, the Atala, Lal Darwaza, and Jami masjids, raised respectively in 1408; 1450, and
1470 A.D. The detailings consist of plinths, pillars and pilasters; their caps and brackets; string courses, bands, and cornices; friezes, ceilings; niches, arches; domes' finials; squinch, parapets and jalis. Their facades are designed in a peculiar style borrowed from one of the entrances of the caves at Junnar near Poona.

Plate XI: The noble city of Ahmadabad was founded by Ahmad Shah (1411-1441) adjoining the ancient town of Asawal. It was the capital of Gujarat which is distinguished for its excellent buildings. The plate shows Dada Hari's mosque and Dada Hari's well at Asarva situated about half a mile north-east of the Daryapur gate. It is one of the best decorated buildings as evinced by the detailings illustrated in the plate.

Plates XII and XIII: The tomb and the mosque of Sikandar Shah Lodi stand in the Khairpur group of monuments situated on the left almost mid-way of the road between Humanyun's mausoleum and Safdar Jung: they are remarkable for their boldness of design, graceful minarets and balconies.

The dome of the tomb is lofty and imposing placed on a circular drum raised over an octagon formed by corbelling out the corners of a square apartment. From the middle of the facade project out superimposed arches within which are placed trabeated entrance door-openings which lend a very pleasing feature to the structure.

The mosque consists of three square chambers (covered by domes of which the central one being higher than those on the sides), and two rectangular chambers one on each end, from the end walls of the latter project out balconies. Within the south wall which is wider than the north one, is housed a flight of steps which provides access to the roof.

Plates XIV, XVII, XVIII, XIX, and XX: Fathpur Sikri is situated 23 miles south-west of Agra. Akbar having had the misfortune to lose two infant sons while living at Agra came to regard that place as unlucky. A Muslim holy saint of Chist reputed to have possessed the power of divinity and performing miracles, then living among the rocks at the village Sikri, promised the Emperor three sons who should survive. The prophecy was fulfilled and prince Salim (afterwards the Emperor Jahangir), the eldest, Murad, the second, and Danyal, the third, were born in 1569, 1570, and 1572 respectively.

Akbar, believing the neighbourhood of Fathpur Sikri lucky for himself, built a city about seven miles in circumference enclosed by embattled walls on three sides-the fourth being open but protected by a vast lake, in honour of the event.

Within the city he built a mosque, a palace, and other royal residences, equipped with all the conveniences thought necessary in that age and adorned
with all the resources of art and architecture the magnificence of which may be estimated from the various detailings taken from the buildings and illustrations in the plates mentioned above.

Except the tomb of Salim Chisti which is built of marble, all the edifices are built of the local red sandstone, a fine durable building material.

Plate XV: After many vicissitudes Humanyun by his defeat of Sikandar Shah Lodi regained his throne of Delhi in 1555 A. D. which he had lost for thirteen years having been expelled by Sher Shah Sur. He was the first Mughal Emperor of India. About six months after his accession he died from a fall from the stair at the Sher Mandal in Purana Qila, and his mausoleum, commenced by the dowager empress Hamida Begam, was completed by his son Akbar at a cost of fifteen lakhs of rupees. In the plate are shown brackets, capitals of pillars, domes, finials, jalis taken from the tomb and other monuments in its neighbourhood.

Plate XVI: Sonepat is an ancient place and one of the five estates over which the traditional conflict of Mahabharat took place.

The Plate illustrates the plinth, pillars, column, brackets, domes, finial, parapet, arched and latticed windows taken from the tomb of Khwaza Khizra Khan who served under the Emperor Humanyun, and gave him his sister in marriage.

Plate XXI: Amber, the ancient capital of Jaipur (dhundar) formerly known as Ambavati Nagri, is situated five miles to the north of the modern city of Jaipur on the old Highway-Delhi to Ajmer. Erelong the Kachhawahas wrested it from the Minas in the middle of the eleventh century A. D. it was a place of considerable importance as is attested by several ruins of temples belonging to the 10th century A. D.

Brindavan, near Mathura is famous on account of its associations with Krishna having been the scene of this god's notable exploits. Here is a group of several temples of which the largest and most prominent is the temple of Govinda Devaji built by the celebrated Man Singh of Amber in 1590 A. D.

In the plate are given brackets from Govinda Devaji's temple, arch, balconette, and elephant bracket from Jagat Siromani's temple, and an elephant headed bracket from the Dewan-i-amm at Amber, and one another elephant headed bracket from the palace at Jaipur.

Plate XXI A: Amongst the temples at Amber the temple of Jagat Siromanj, standing lofty and erect at the north-west foot of the Amber-Palace hill, is the largest and most magnificent, from which modern architects can borrow hints as it embodies all the salient features of the science of architecture,
EXPLANATION OF PLATES

It is said to have been built by Kunkawati at a cost of nine lakhs of rupees in memory of her brother Kunwar Jagat Singh, the eldest son of Man Singh, who predeceased his father.

Plate XXII shows a pair of sunk ledges between pairs of pilasters as a part of the facade of the lower storey on the left of the entrance to the temple of Jagat Siromniji at Amber. They are profusely decorated by borders of geometrical patterns, foliage, flowers and panels.

Plate XXIII gives an arcade from the temple of Govinda Devaji, also called Man-Mandir after the name of Man Singh, who built it in 1690 A.D. The lobed strings above the cusped arches and the frieze decorated with miniature domed and pillared shrines with kumbhas or jars within them, miniature torana and cusped arched headed panels with lotuses and perforated arched lotussed panels on the abutments of the central arch, all combined form a pleasing architectural composition.

Plate XXIV indicates the detailing of a series of wooden doors from the Amber-Palace which are remarkable for beauty of versatility of design, richness of carving, and excellent ivory and shell inlay-work unsurpassed by any similar work elsewhere.

Plate XXV: The fine balcony illustrated in the plate is taken from the Haveli or residence belonging to Nathji Purohit and built during the middle of the seventeenth century A.D. Its inclined parapets decoated with full-blown lotuses is a noteworthy feature.

Plate XXVI: In this plate are illustrated details of arches columns, pillars, brackets and plinth-copings taken from the buildings of Shah Jahan at Agra and Delhi. The architecture shows an abrupt change from the previous trend in as much as that the carvings, though delicate and elegant appearing to be embossed, are suited on metal than stone. They are, however, exuberant and full of life.

Plate XXVII shows the plan, half elevation, half section and a portion of the beam under the chhajja of the Dewani-Amm or the Hall of Audience built by Mirza Raja Jai Singh (1621-67) at Amber. Its hall measuring interiorly 42 feet by 25 feet 8½ inches is remarkable for its size and the vaulted roof that covers it.

There is nothing at Agra or Delhi or elsewhere in India amongst this class of buildings which could excel the stately grace of this building.

Plate XXIII: On the bank of the Ana Sagar or the great lake built by Arnoraj Chauhan, the Emperor Shah Jahan erected in 1637 A.D. a noble range of marble pavilions (Baradaris or the pavilion of twelve openings) which had fallen into decay and were restored under the direction of Lord Curzon in 1899 A.D.
In the plate is shown one of the baradaris with its plan, elevation, and a large scaled detail of a pillar and its entablature and detailings of three brackets of the contemporary period taken from the Amber-Palace.

Plate XXIX: Bijapur is situated 202 miles on the main line of the Southern Railway, Bombay to Madras. Yusuf Adil Shah, Governor of Bijapur declared his independence in 1489 A.D., and the Adil Shahi dynasty lasted about 200 years, that is from 1490 to 1686 A.D.

The buildings erected under the Adil Shahi dynasty are marked by a grandeur of conception and boldness in construction, Their arches, domes, beautiful cornices, slender minars, fine deep chhajjas supported by closely set ornamental brackets, foliated parapets, latticed arched windows, lotus leaved drums, and etc., harmoniously and skilfully composed, are of great artistic merit as will be seen from the detailings in the plate.

Golgumbaz (Gumbad), the mausoleum of Muhammad Adil Shah (1626-1656) is one of the largest and finest examples of structural and architectural triumphs of the Hindu builders unsurpassed by any domical structure in the whole world.

Plate XXX shows the entrance gateway to the inner apartments of the palace at Amber. It is called Ganeshpol and it consists of a hall whose corners are cut off, an inclined passage that provides access to the mezzanine and upper storey; a porter’s room on the left and on the right another but smaller hall by which the inner court and apartments are reached. The cusped entrance fitted with a brilliant brass door is set within an apse rising from the portal seats on either side of the entrance. Over the apse is a rectangular chamber with arched openings the front ones being fitted with jalis. The central apse is flanked by smaller apses resting on the plinth and above them on the mezzanine are arched openings whose heads are corbelled out to support the half-octagonal and domed balconies of the rectangular chambers on either side of the central chamber. This upper storey consisting of a central chamber and the side ones with balconies is called Sohag-mandir (swanga, the well-shaped or handsome house) fitted with delicately finished jalis in its arched openings through which the royal ladies once watched the state functions held in the Dewan-i-Amm and its court. The whole gateway with its sohag-mandir is entirely built of marble and the elegant jalis and excellent workmanship of its construction does indeed title it to be called not only a well-shaped or handsome but one of the finest and noblest portals in the world.

Plate XXXI illustrates a curvilinear roofed pavilion from the garden of Dala Ram at Amber. It is rectangular in plan measuring interiorly 21’—6’’ by 11’—6’’ with cusped arched openings, three on each of its longer sides and single ones on the shorter, protected from rain by a deep and curvilinear chhajja
supported by brackets. Above the *chhajja* rises the curvilinear dome crowned by five finials. The openings are fitted with slab railings which are perforated by finely designed *jalis* in geometrical patterns, while the space between the frame-work over the arches and the curved *chhajja* is decorated with arched and lotused panels. The building is massively built in red sandstone and is of fine proportions.

Plate XXXII shows the palace and the fort of *Amber* overlooking the fine lake called *Maota* dammed by the Dala Ram-ka-Bagh and provided with a terraced garden, named Mohan Bari in the midst a marvellous scene where art and nature have so happily been combined.

The palace consists of many individually interesting buildings raised on a terraced plateau at the north-east foot of the hill between 1589 and 1728, and is an excellent specimen of the palace architecture of the mediaeval time.

Plates XXXIII and XXXIV illustrate a fine balcony window from an eighteenth century A. D. temple at *Nasik* situated on the bank of the sacred river Godavari—the Ganga of the Dekhan; and a small temple of the eighteenth century A. D. standing on the bank of an holy and picturesque tank at Walkeshwar in Bombay.

The simple and finely proportioned detailings of pillars, tapering pilasters, capitals, brackets, pendants, entablature, and moulded plinths can profitably and usefully be employed in the designing of modern buildings.
BY THE SAME AUTHOR

1. A Guide to Khajuraho (Times of India Press, Bombay) Written on the occasion of the visit to Khajuraho of Their Excellencies—The Viceroy and Lady Irwin—January, 1928.


4. Indian Architecture.

5. Good Advice.

6. Domestic Architecture. (English & Hindi)

7. Jaipur & Amber (Briefer version of No. 3).

8. The Taj. (English & Hindi).

BOOKS UNDER PREPARATION

9. A Detailed History of Indian Traditional Architecture.


11. Memoir on Amber.


15. Hindu marriage based on astrology.
BOMBAY: TEMPLE AT WALKESWARA
18th Century A.D.

SECTION on A.B.

HALF GROUND PLAN OF SHIKHARA

SIDE ELEVATION
Scale 22 1/2 of Feet

FRONT ELEVATION
Scale of Feet

Plate XXXIV