

describe the layouts of the principal gateways and their associated bastions, courtyards, vaulted corridors and silos before proceeding to the citadel, the most heavily defended part of the city, which was provided with a mosque, reservoir, royal apartments and a domed pavilion known as the *Jahān-nāma*, raised on a stepped, pyramidal base. They also consider the “dungeons” and a royal escape route that led downwards and outwards through the ramparts. The authors next describe the fort on the western flank of the citadel, drawing attention to the masonry traces of a large ceremonial complex that was focused on a vast rectangular court of public audience with a vaulted *īwān* on the south, presumably for the sultan’s throne. The authors point out that this vaulted feature represents a different type of throne room from the *hizār-sutūn*, or hall of one thousand columns, known to have been erected by Muḥammad b. Tughluq at his later capital of Jahanpanah, only a short distance away. The fort at Tughluqabad also contains a palace complex, complete with courtyards, apartments with interconnecting chambers, and an upper pavilion. Here the authors must be congratulated on their interpretive perseverance; without their photographs and explanatory diagrams these greatly deteriorated features would be virtually incomprehensible to most visitors.

The investigative techniques of the Shokoohys is nowhere better represented than in their treatment of the town of Tughluqabad. Combining a surface reconnaissance with an aerial photograph from 1946 they convincingly “recover” the overall plan of the town, complete with its processional street, shops and markets, water supply system, blocks of residential quarters and mansions with central courtyards. Here, too, stands the Jāmi‘ mosque of the city, as well as another smaller mosque and a madrasa. Throughout, the authors present both the existing evidence as well as their imaginative architectural reconstructions, some utilizing computer graphics techniques.

The volume concludes with a comparison of the city with later sultanate urban examples, such as Ahmedabad (Gujarat), Chanderi (Madhya Pradesh) and Bidar (Karnataka). The authors then return to Tughluqabad to describe the lake and its associated hydraulic features, including Ghiyāth al-dīn’s island tomb, a monument familiar to architectural historians and comparatively well published. Since the outworks of Adilabad are the only part of the main city to have been described previously, in *Ancient India*, no. 1, 1946, 60–76, the Shokoohys reproduce this earlier report in full, with their comments, a new survey of the palace, photographs and additional notes. A more exhaustive treatment of Tughluqabad could hardly be imagined. It can only be hoped that this volume will serve as a model for comparable, painstaking explorations at other sultanate sites in India that still lack adequate documentation.

**George Michell**

ADAM HARDY:

*The Temple Architecture of India.*

256 pp. Chichester: John Wiley, 2007. £45. ISBN 978 047002827 8.

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This attractively produced and profusely illustrated volume presents a highly individual contribution to an understanding of the stylistic evolution of the Indian temple. Hardy is a trained architect, and the drawings and schematic diagrams that he himself has prepared go a long way towards underscoring his argument. The author

is the chief propagator of the “aedicular” school of analysis. In his opening chapter Hardy defines the aedicule as an architectural unit, complete with basement, columns, parapet and tower. These units are employed at different scales, in full and in part, as well as in different combinations, to create the complex forms that are such a characteristic of mature Indian temple architecture. The use of aedicules characterizes both the northern and southern temple styles, known in local terminology as *nagara* and *dravida*. As the author demonstrates, aedicules often appear as “embedded” elements in the building fabric, but their overall purpose is to express the expanding form of the temple, in parallel to the expanding influence of the deity who receives worship within. This lends the sacred monument an inherent symbolism that has been interpreted in different ways by scholars. However, the author cautions against an approach that constantly seeks for overriding “perennial ideas”, recommending instead a concern to understand better the method by which these buildings were actually designed.

To begin with Hardy offers an historical introduction to the chronology of ancient kingdoms and empires in India, outlining the role of powerful dynasties and individuals as temple patrons. From this overview the author proceeds to an analysis of the principles that underlie temple design, both *nagara* and *dravida*. Here he proposes a series of design processes, which he categorizes as “projection”, “staggering”, “splitting”, “bursting of boundaries”, “progressive multiplication” and “expanding repetition”. Each of these processes is illustrated with an explanatory diagram, which should help the reader to decode the architectural complexities of temples such as the Teli-ka Mandir at Gwalior and the Mahadeva at Khajuraho (both in Madhya Pradesh). In the chapters that follow Hardy explores the philosophical, cultic and ritual aspects of Hinduism. He draws these general concerns into the orbit of the temple by considering the iconographic programmes by which sculptural imagery is organized within an architectural setting. His claim that these programmes may accord with a specific philosophical system, such as the Pancharatra or Siddhanta school, may indeed be true, but is not fully explored here. More convincing is his discussion of the actual building practice, the subject of the next chapter. Here Hardy touches on the role of the master architect, or *sthapati*, and the division of work into different groups of specialists. He makes the point that in spite of prescriptive *shastras* there was “ample scope for invention”, especially with regard to those designs that reconcile fusion with the dynamics of what he calls “emergence”, “expansion” and “proliferation”. While these concepts are essentially subjective, the author is able to offer diagrams that give persuasive visual expressions for them (as, for example, figure 6.4).

Fortified with this historical, religious and aesthetic background the reader is now well equipped to follow Hardy’s surveys of the different temple traditions. His chapters on early Buddhist architecture and rock-cut monuments address the development of the arched *chaitya* form, which later becomes the *gavaksha*, a diagnostic element of the *nagara* idiom. Hardy then proceeds to analyse the typical temple plan, demonstrating the evolution of different staggered, stepped diamond and complex stellate configurations, as well as the variant ways in which shrines are combined with *mandapas*, or even multiplied to achieve complicated plan types. Then comes an exposition of the *nagara* style, tracing the evolution of the *latina* and *bhumija* modes, as at Chittor (Rajasthan) and Sakegaon (Maharashtra). This chapter is followed by a comparable one that deals with the *dravida* style, and which classifies the varieties of aedicular compositions that characterize this mode. Though both the *nagara* and *dravida* styles tend towards ever increasing complexity, they never lose their underlying geometry. It is therefore appropriate for Hardy to devote a whole chapter to this subject. Here he stresses the role of rotated squares in generating

stellate plans. The use of intersecting circles seems to be another such device, as is evident from his analysis of the Lakshmi-Narasimha temple at Bhadravati (Karnataka). From these generalities Hardy progresses to particular architectural details, especially basement mouldings, or *adhishthanas*, columns, ceilings and *gavakshas*. His diagrams explaining the geometric structure of complex *gavaksha* designs are the clearest ever to be published (figures 16.10 to 16.14).

The chapters that follow offer brief histories of the principal variants of the *nagara* and *dravida* idioms. Hardy believes that only by understanding the manipulation of the aedicular components of the buildings is it possible to characterize the different temple styles. Readers should be encouraged to scrutinize carefully his complicated, though helpful, diagrams. The discussions here are particularly insightful when it comes to following a stylistic path that leads towards complex compositions, such as those of temples at Taranga (Gujarat), Jagat (Rajasthan), Bhubaneswar (Orissa) and Ittagi (Karnataka). The volume concludes with a summary investigation of later temples down to the present day, not only in India, but even beyond, as in the Hindu shrine at Casselberry (Florida, USA). Here Hardy makes a plea for a better understanding of a great architectural tradition, so as to guarantee the quality of Hindu temple building in the future. We can only hope that his book will reach the right audience!

**George Michell**

GEORGE MICHELL (ed.):

*Vijayanagara: Splendour in Ruins.*

250 pp. Ahmedabad: Mapin Publishing and The Alkazi Collection of Photography, 2008. ISBN 978 81 89995 03 4.

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In recent years, an increasing number of scholars have investigated the history of photography in nineteenth-century India alongside the early European exploration of South Asia's archaeology. The great historical sites and monuments of India attracted many visitors, especially from the late eighteenth century, both official surveyors and curious travellers. Visual knowledge of India's monuments was recorded in maps, plans, paintings and drawings by both European artists and by local artists producing work for European patrons within India. The arrival of photography in India in the 1840s continued this fascination with the region's monumental past; many of the same sites previously represented in paintings were now photographed. Amongst the historic sites in South Asia most well documented by nineteenth-century photographers is the city of Vijayanagara in northern Karnataka, the capital of an empire that dominated almost all of southern India between the mid-fourteenth and mid-sixteenth centuries. This magnificent volume examines the documentation of Vijayanagara by nineteenth-century photographers, including Alexander Greenlaw in 1855–56, William Pigou and Andrew Neill in 1856, and Edmund David Lyon in 1868. This is the second publication, following Rosie Llewellyn-Jones (ed.), *Lucknow: City of Illusion* (New York, London and New Delhi, 2006), in an ambitious programme from the Alkazi Collection of Photography, one of the most extensive private collections of nineteenth- and early twentieth-century photographs from India, Ceylon, Burma, Nepal, Afghanistan and Tibet.