The Tughluqs: Master Builders of the Delhi Sultanate

In the history of Muslim India the Mughals hold pride of place. Their rule of more than three hundred years, from the beginning of the sixteenth until well into the nineteenth century, extended over most of India and shaped the architectural and cultural face of Islam there. But the roots of their achievement in creating a distinctive and unitary Indo-Muslim culture are found in the fourteenth century. From 720 to 791 (1320–88) most of northern and central India was ruled by three kings of the Tughluq dynasty who established the strongest and most creative state in the history of the Delhi sultanate. Great patrons of literature, learning, and Islamic institutions, they were also responsible for three of Delhi’s great urban complexes and for a rich and varied architecture. It is this Tughluq architecture that will be examined here. Although minor Tughluq kings functioned nominally until 816/1413, the dynasty in effect came to an end with Timūr’s invasion of northern India and sack of Delhi in 801/1398, and even the decade between the death of the last great Tughluq and Timūr’s attack was one of internecine warfare between feuding claimants to the throne. Effective Tughluq architectural patronage therefore encompasses only the reigns of Ghiyath al-Dīn (720–25/1320–25), Muḥammad (725–51/1325–51), and Firūz Shāh (752–90/1351–88), and for the most part the buildings examined here were produced in those years. The majority of them are in the Delhi region, but several other important sites that enjoyed royal patronage are in north and central India.

In this period of sixty-eight years Muslim Indian architecture was transformed from a provincial variation of Ghurid forms to a distinct and self-generating style of its own. Materials and building methods were standardized, and royal involvement was systematized through a formidable bureaucracy of architects and engineers. While earlier Muʿizzī and Khalījī architecture of the late twelfth through early fourteenth centuries can be discussed only in terms of a small number of buildings, the extant corpus of Tughluq architecture is very large. It is a period of creativity, eclecticism, and energetic experimentation on many levels and marks a turning point in the history of India’s Islamic architecture.¹

HISTORY AND PATRONAGE

The Ghurids’ occupation of Delhi in 588/1192 marked the beginning of Muslim rule over northern India, and their choice of Delhi as court residence made it the center of Indian Islamic political, religious, and cultural life until the sixteenth century. In its first two centuries the new Islamic state was distinguished, first, by its vigorous, though far from regular, expansion from Delhi outward into eastern, southern, and western India, which led to constant conflict with Hindu principalities; and, second, by its formal submission to the Ābbasid caliph, which provided the image of lawful rule. The state was therefore governed by sultans and ghazis (frontier fighters for Islam), who were performing a vital role in transforming the dār al-ḥarb (“land of war”) into the dār al-Īlām (“land of Islam”). But the sultanate looked west toward the older lands of Islam not simply for caliphal recognition and robes of honor: Persian was the language of court and official record, and Iranian models served as the basis for administrative structures. From the west and northwest also came the immigration of Arabs, Persians, and Turks that was vital to the expansion of the state. After the 617/1220 onset of the Mon-

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Invasions of the Islamic world, the pace of immigration accelerated; until the end of the century the Delhi sultanate served as the major refuge for Muslims from western Islam. Their presence lent a cosmopolitan air and helped transform a distant province into a major center of Islam; their numbers stabilized and diversified the state.

The sultanate looked west for its initial architectural forms. Thus the plan of the Quwwat al-Islam mosque is a classic hypostyle, while its great minar is based on Ghurid prototypes. Although the 470 columns used in the construction of the mosque came from dismantled Hindu and Jain temples in the area, their use did not represent an attempt to reconcile Muslim and Hindu-Jain architectural aesthetics, but rather a pious recycling of materials that had served nonbelievers. The ghazis’ attitude toward the Hindu majority in the new sultanate is also stated through the epigraphs that adorn the minar and the qibla screen, both erected during the reigns of Qutb al-Din Aybak (588–607/1192–1210) and Ilutmish (607–33/1211–36). In them predictable references to the virtues of belief in Islam and the value of prayer are found together with a substantial and epigraphically very unusual number of references to the evils of idolatry and polytheism. The need to reinforce the spiritual and political authority of Sunni Islam through architecture is evident, too, in Ilutmish’s construction of the Arhai-din-ka-jhompra mosque in Ajmer, the major religious center for the Sufi Chishtiyya order, and his construction of India’s first royal mausoleums: the 629/1231 tomb of his son Nasir al-Din Mahmud and the c. 1230–35 tomb at the Quwwat al-Islam that is traditionally, and probably accurately, said to be his own. All of them rapidly became established as pilgrimage sites and religious centers.

Ilutmish’s White Palace, known only through literary accounts, adjoined the Quwwat al-Islam, and under Sultan Balban (664–86/1266–87) this political and religious site retained its central role, though the sultan probably built his tomb in the Mehrauli area slightly to the south of the mosque. His short-lived successor, Mu’izz al-Din Kaykubad (686–89/1287–90), broke with this pattern by constructing his Kilukhari palace nine kilometers to the northeast along the Jumna River and effectively shifted the elite population of Delhi from its old center: the use of the palace as an instrument of urban policy was to remain a constant factor in later architecture and city development.

The most important of the Khajji monarchs was Sultan ‘Ala’ al-Din Muhammad Shâh (695–715/1296–1316), who resisted Chaghatai in-cursions, centralized his administration along Iranian models, instituted successful economic reforms, and expanded Islam’s control to include nominal authority over almost the entire subcontinent. The Muslim population was far larger and more complex than it had been a century earlier, and this “second Alexander” built a walled military camp, named Siir, four kilometers to the northeast of the Quwwat al-Islam and initiated a vast expansion of that venerable complex as an expression of success and long-term ambition. No Hindu temple elements were reused, perhaps because the immediate area of Delhi had already been totally depleted of its non-Muslim architecture. But a hundred years of rule also had a more positive effect, for in the structure, plan, and decoration of the ‘Alai Darwaza, the most perfectly preserved Khajji building, it is clear that Islamic architecture in India had come of age and had found a distinct stylistic idiom.

Ghiyath al-Din Tughluq

The palace coup of Khusraw Khan, which overthrew the Khajjis, was short-lived, thanks to the resistance of the military governor of Dipalpur and Multan, Ghiyath al-Din Tughluq, who became sultan in Delhi in 720/1320. His father was Turkish, his mother most likely a Hindu. Later Tughluq rulers also took Hindu wives, the first Delhi sultans to do so, as they were also the first to bring substantial numbers of Hindus into governmental and military service, a move that had a marked effect on the shape of Tughluq culture. Ghiyath al-Din’s long duty in Multan also shaped his attitudes, for he prided himself on his role as ghazi, successfully resisting the inroads of Mongols and Chaghatai Turks from Central Asia. According to Ibn Batuta, Multan’s congregational mosque was inscribed with a list of his twenty-nine victories against infidel invaders. His short but very energetic reign (720–25/1320–25) reestablished Delhi suzerainty over south India and built a stable administration dominated by Multanis.

A very loyal body of amirs with their own personal followers formed the core of his support. Seeking to establish a new and more defensible urban center, the sultan constructed the huge garrison city of Tughluqabad, seven kilometers to the east of the Quwwat al-Islam and large enough to include a royal quarter and accommodate his close retainers, army, and administration. His tomb, located immediately to the south of Tughluqabad, was a military enclosure as isolated and self-contained as the city itself, and both tomb and city walls resembled Multani prototypes.

Powerful Multani influence in government and
architecture continued well into the reign of Sultan Muḥammad ibn Ghiyath al-Dīn (725–52/1325–51), who further developed Tughluqābād and the adjoining citadel of Ḍilālābād and was possibly buried in the small tomb adjacent to his father.'

The three major Tughluq monarchs concentrated their architectural patronage in Delhi, but each of them also exercised significant patronage in a restricted number of centers outside the capital region. The Mughal region was the other focus of Ghiyath al-Dīn's architectural attention, and the mausoleums of the saints Rukn-i 'Alam in Multan and Farid al-Dīn Ganj-i Shīkar in Pakpattan are closely related in form to his own tomb in Tughluqābād. Other building outside Delhi was under the aegis of local amirs, like Daulat Shāh Muḥammad Būmārī, who served as governor of Gujarat and who showed no concern for royal example when he oversaw the construction of the jāmi' masjid of Bharoch in 721/1321. Neither established Delhi nor Multani architecture affected its forms, for like the initial masjid at the Quwwat al-Islām, it was located on a Hindu or Jain temple site and was ingeniously constructed from temple ruins. The ghazi ideal and the availability of local materials set early provincial Muslim styles far more than did the capital mode.

Muḥammad
Ghiyath al-Dīn's loyalty to his Khaljī patrons and his attention to his Multani origins helped shape his architecture, but his son and successor, Muḥammad, was far less bound by tradition. Intellectually gifted and quixotic in personality and politics, he inherited an empire spanning over most of the subcontinent, and he was the first of India's Muslim rulers to try to rule it in pan-Indian terms. Barānī deeply resented the sultan's attention to Hindus: the king not only appointed them to high administrative posts but even participated conspicuously in Hindu festivals. He permitted the construction of new temples, and, like Akbar more than two centuries later, he enjoyed engaging in theological discussions with Hindus and Jains. This openness to other faiths was oddly combined with a devotion to Sunni orthodoxy that reflected the sultanate's abiding concern with declarations of legitimacy: the 744/1343 receipt of formal investiture from the 'Abbasid caliph in Cairo was a major event in his reign. Long-resident Muslims and recent mawali resented his abundant favors to Turks, Khorasansis, Afghans, and Arabs who came from the west in great numbers to sample India's celebrated riches, and they could not have appreciated the sultan's appoint-

ment of Ibn Baṭṭūṭa, a Maliki, to the post of qadi of largely Hanafi Delhi. Even more than his predecessors, Sultan Muḥammad viewed himself as a ghazi, and almost annual military campaigns in the Deccan eventually brought nearly the entire subcontinent under his authority. Thus, while he sought to reestablish the sultanate's links with the rest of the Muslim world and to extend the dār al-Islām, he aroused much bitter Muslim resentment in India. Hostility toward him crystallized around his establishment in 729–38/1328–37 of a second capital at Daulatābād in the Deccan. Crucial to his plan to assimilate the Deccan into the Delhi sultanate were the Chishtiyas and Suhrwardi Sufi orders, which had been notably successful in converting large numbers of low-caste Hindus. Despite traditional Chishtiyya distance from the state and avoidance of governmental service, the sultan ordered Delhi's flourishing dargahs (centers of Sufi orders) to move to the Deccan along with a core of administrative personnel and key aristocrats. 'Isāmī's ferocious diatribes against the sultan reflect their resentment. Chaghatai raids in northern India forced the sultan to return to Delhi, and in 736/1335–36 he permitted former Delhi residents to return home. Daulatābād continued to function as a second administrative center until the end of Muḥammad's reign.

Other events did nothing to make him more popular. Severe famines were frequent in the decade 735–45/1334–44, and the Black Plague devastated India between 736 and 739 (1335–38). Unsuccessful military campaigns weakened the royal army, and rebellions were chronic. Vijaynagar became the capital of a resurgent Deccani Hindu kingdom in 736–37/1336; Bengal declared itself an independent Muslim state in 739/1338–39, and the Muslim Bahmani dynasty was established in the Deccan after 748/1347. By the end of Muḥammad's reign the sultanate's authority was restricted largely to northern India, and the sultan's ghazi expansionism had ended in bitter failure.

Muḥammad's politics reveal the personality of an activist and to some extent a visionary, given to original solutions. His architectural patronage can be approached in similar terms. Though we have no dated building identifying him as patron, he was a builder on a massive scale. Tughluqābād and the tomb of Ghiyath al-Dīn may have been brought to conclusion in the early part of his reign, and the neighboring fort of Ḍilālābād was his own and housed an impressive palace. In Multan and Badaun he built saints' tombs, and the so-called Tomb of Kabir al-Dīn Awwiyya in Delhi almost certainly belongs to his reign. Literary
accounts indicate that the new city of Daulatābād was a major architectural endeavor, though its present state of ruin provides us with little information about types or styles of buildings constructed under Sultan Muḥammad. The demands of construction in the Deccan did not prevent him from undertaking grandiose projects in Delhi at the same time. He began to construct a great wall linking old Muʿẓzī Delhi with Khalji Siri and his own ambitious royal city of Jahānpānah, in the center of which he constructed a royal palace and jāmī masjid.

Except for Delhi, Daulatābād, and the scattered sites of saints' tombs, little evidence remains of his active architectural patronage. In the provinces local taste was still the determining factor: the 725/1325 masjid in Khanapur, Maharastra, was constructed from the looted remains of Hindu temples, while the 726/1326 Idgah of Bharoch was built under the patronage of Daulat Shāḥ Muḥammad Būtmārī, the governor of Gujarat who had also been active under Ghiyath al-Dīn. Only the great 725/1325 congregational mosque of Cambay in Gujarat implies in its technical and artistic quality the presence of builders familiar with the capital mode, though of the Khaljī rather than the early Tughluqs. It is this structure that marks the emergence of an indigenous and increasingly independent Gujarati Muslim architecture of great distinction.

Firūz Shāh
Sultan Muḥammad died suddenly during a military campaign. Like his uncle Ghiyath al-Dīn, Firūz Shāh only reluctantly accepted the crown offered him by key notables, and he remained diffident throughout his long reign (752–90/1351–88). The turbulence initiated and sustained by his predecessor was replaced by placidity. Where Muḥammad had been gifted, daring, imaginative, and mercurial, Firūz Shāh was steady and given more to acquiescence than to struggle. The sultanate under his rule was fortunate, not because of his gift for leadership, but because it was not severely tested. There were neither plagues nor famines, and basic commodities were low in cost, while wages were high. There were no rebellions or invasions of consequence, and Firūz Shāh tended to avoid military conflict by accepting loss of territory. Aristocrats were satisfied with unrestricted corruption and the dispersion to them of state revenues, the military and the bureaucracy with hereditary assignments of office. Provided with a high, though benign, sense of responsibility but little interest in active administration, Firūz Shāh delighted in delegating most royal authority to his two capable viziers, Khān-i Jahān Maqībūl (752–70/1351–68) and his son Khān-i Jahān Jānān Shāh (770–89/1368–87). The elder Khān-i Jahān was a Deccani convert from Hinduism, and many of his relatives remained Hindu. Despite Firūz Shāh’s very public Sunni stance, his personally recorded destruction of several Hindu sites, and his hostility to Hinduism, his death occasioned general mourning. His long reign of thirty-eight years had been a success, but it was the calm before the storm, for the next decade was torn by fratricidal conflicts that made the sultanate easy prey for Timūr’s 801/1398 invasion and devastating sack of Delhi.

Looking back on this “golden age,” ‘Affī charactized the sultan as a “very cautious man,” who had three abiding interests: governing, hunting, and building. Although Muḥammad had warned his cousin against his inordinate passion for hunting, both before and after he took the crown Firūz Shāh spent much of his time pursuing game. It is, however, his role as a lavish and personally involved patron of architecture that ‘Affī praises most: “Sultan Firuz excelled [sic] all his predecessors on the throne of Delhi in the erection of buildings; indeed, no monarch of any country surpassed him. He built cities, forts, palaces, bungalows, mosques, and tombs in great numbers.” Despite this diversity, ‘Affī’s list is incomplete, for the sultan also built cisterns (baolis), maḥals, madrasas, and khanaqahs, and painstakingly restored edifices put up by his predecessors. This frenetic architectural activity — so constant as to seem the principal raison d’être of the sultan’s government — had a purpose beyond its practical uses: it was intended to project an image of piety, just as the king’s pilgrimages and public prayers at tombs of Muslim saints were meant to do. That this image was vital to the ruler is clear from his Futūḥāt: “Among the gifts which God bestowed upon me, His humble servant, was a desire to erect public buildings. So I built many mosques and madrasas and khanaqahs, that the learned and the elders, the devout and the holy, might worship God in these edifices, and aid the kind builder with their prayers.”

These expressions of the sultan’s piety and the active promotion of his salvation were central to his architectural patronage. They, not grandiose cultural aspirations like those of Sultan Muḥammad at Daulatābād, were behind his foundation of new cities. Instead, sites were chosen with care and developed with diligent engineering. The new royal city of Firūzābād was built eleven kilometers to the northeast of Jāhānpānah and sensibly extended from the Jumna west to the Delhi
ridge where the sultan hunted. To protect the Punjab against attacks from the northwest and to serve as a way station for travelers, the city of Hisar was established, and a complex series of canals was built to supply the city and its surrounding fields with water. Jaunpur was founded to control the Gumti River and counteract the importance of largely Hindu Varanasi. Similar criteria governed the establishment of other cities.

Islam was promoted by the sultan's substantial patronage of religious architecture and by his care in providing villages, endowments, bazaars, and gardens for the upkeep of these structures. But his personal faith had other expressions: he had his Futuhat inscribed in the interior of his jami' masjid at Firuzabad; he had the names of previous legitimate sultans of India included with his own in the khutba, and several pages of the Futuhat detail his careful rebuilding of their edifices. He evidently considered architectural conservation and restoration to be a pious duty that would bring him ample reward. His striving for ample reward is also demonstrated at his tomb, for it is the central focus of a vast madrasa, and the tomb's dome is inscribed with uncommon hadith dealing with the joys of paradise. In his search for salvation he even offered recompense (in exchange for letters of forgiveness) to those who had suffered from the famous brutalities of Sultan Muhammad, and he placed these documents next to the sultan's cenotaph. Proclaiming Islam's victory and Tughluq dynastic legitimacy probably also motivated the Firuzabad Lat Pyramid minar, where he used an Asokan pillar to imitate the concept of Quib al-Din Aybak's Iron Pillar at the Quwwat al-Islam mosque.

The number of architects, engineers, and artisans employed in the sultan's administration was larger than ever before, and they were better organized and better paid. The fact that 'Affif and others considered altillitarian architecture and engineering worthy of mention indicates a new ethos: royal responsibility, like the bureaucracy, had been extended to new areas. But both the Futuhat and 'Affif's history reveal another aspect of the sultan's patronage: he laid out gardens and constructed irrigation canals with the same intent that inspired his vast expansion of the royal karkhanas ("factories"), and he expected them all to be profitable.

Other patrons played important roles during his reign, and for the first time in sultanate history they were significant in Delhi. Firuz Shah's delegation of great authority to his two viziers was the impetus for a new kind of patronage from the vizierate that continued irregularly until late Mughal times. Referred to by the sultan as the "king of Delhi," Khân-i Jahân Maqbul amassed enormous wealth and prestige, but it was his son and successor as vizier, Khân-i Jahân Jûnân Shâh, who became a significant patron of architecture; he was the builder of two major mosques and a major tomb (the first extant Indian tomb that houses neither a sultan nor a saint).

Despite the dispersal of royal patronage and style through the founding of cities, officials in newly conquered areas followed established practice and made mosques out of dismembered Hindu and Jain temples. Regional styles continued to survive in older provinces, and some structures bear epigraphs explaining their origins: a leading amir, Malik Shâhin Bek, built a mosque in 767/1366 in Hânsh in the Punjab, and the sultan's master of the hunt was responsible for the 772/1371 jami' masjid in Ladnun. But there is also evidence of less august patronage. In Didwana in 779/1377 two mosques were constructed, both bearing epigraphs: the first mosque's patron was a weaver, the second's a baker. They are the earliest extant instances of proudly cited, humble patronage in India.

Thus the chief characteristic of architecture during the reign of the last effective Tughluq ruler is its complexity. The government's architectural bureaucracy was extensive and effective in promoting a relatively uniform style in northern India. While many of these structures show striking originality, however, the royal aegis does not overshadow other patrons. A vizier could experiment with new plans, and wealthy tradespeople could be patrons in their own right. In the twilight of the Tughluqs, architecture's base was broadened in terms of buildings and their patrons.

**TYPOLOGICAL SURVEY**

Like the Khaljis, the Tughluqs undertook large-scale architectural programs, particularly when planning cities and founding new capitals. But while 'Alâ al-Din Khalji had chosen to develop further the Quwwat al-Islam complex and to create a contiguous urban area at Sîri, Ghayath al-Din Tughluq selected an entirely new capital site seven kilometers to the east. The outer fortified walls of Tughlaqabad describe a rough trapezoid, enclosing an area of about 120 hectares. The walls, sloping with a pronounced batter, are built of great blocks of roughly cut stone and range in height from nine to more than fifteen meters. Reinforced by semicircular bastions set at intervals around their circumference, the walls are breached
by thirteen gates. In Tughluqābād's southwest, protected by an inner course of massive walls (plate 1), is the palace quarter, containing the remains of several extensive buildings and a baoli. On a rocky outcropping immediately to the east of the palace quarter is the citadel, surrounded by an even larger wall, in some places attaining a height of twenty-eight meters. A single fortified gate links the palace quarter with the citadel, the interior of which is filled with the debris of an elaborate ensemble of rubble-masonry structures, including again a baoli.

South of the city is a broad, flat plain that narrows on the east into three rocky defiles. When Tughluqābād was built, the defiles were blocked by bunds, which would have collected the drainage from the plain and formed a large, shallow lake below the palace quarter and citadel. In this plain and connected to the palace quarter by a fortified causeway supported by arches is a smaller fort (plate 2), containing the mausoleums of Ghiyath al-Dīn and his son Fath Khān and provided with two grain silos and a good well. More than a bowshot distant from the citadel, this tomb-fort must have functioned as a military refuge as well as a royal necropolis.

To the southeast of Tughluqābād and linked to it by a bund and a causeway is an additional fort named ʿĀdilābād or Muḥammadābād, built around a rocky outcropping during the reign of Sultan Muḥammad.33 Consisting of a lower bailey and upper ward or keep, ʿĀdilābād's walls have the same pronounced batter and ashlar masonry of huge stone blocks that Tughluqābād has. Two gates — in the southeast and the southwest — lead into the lower ward. With fortified gates on the east and west, the upper ward contained grain silos and a rectangular inner court.34

A second small fortress, known as the Nai-ka-kot, lies in ruins on a hillock about seven hundred meters east of ʿĀdilābād. Constructed in the same manner as the two previous forts, it is smaller than ʿĀdilābād and contains what appear to be the remains of a citadel and a cantonment.35

Early in his reign Sultan Muḥammad began construction of his second capital at Daulatābād, and his ambitious plans for it are described by al-ʿUmari:

The Tughluq sultan chalked out the plan of the city in such a wise way that separate colonies were to be built for the different sections of people; a colony was for the residence of the army, another for the vazirs and secretaries, a third for the qadis and ʿulama, a fourth for the sufis and mendicants, and a fifth for the merchants and artisans. There were made separate arrangements according to the needs of the colonies, such as mosques, minarets for ʿazam, bazaars, public baths, flour mills, ovens, and various types of craftsmen's shops, such as goldsmiths, dyers, leather-tanners, so that people of one colony may not depend on that of the other for exchanging goods. In this way every colony was self-contained.36

The citadel of Daulatābād is built on a hill of rock about two hundred meters high; in design and execution it is basically a Hindu creation of the thirteenth century, when, as Deogiri, it was the capital of the Yadava Rajas before the Khaljis overwhelmed them. A 718/1318 Khalji mosque is the earliest Muslim structure. Sultan Muḥammad's additions to the site consisted largely of three walls of fortification on the east below the citadel hill; it was a necessary extension to protect the city's newly expanded population. The outer wall encloses the town; the two inner walls and a moat provide further defenses that made the fortification one of the strongest in medieval India.37

During the same period the sultan was build-
ing on a vast scale in Delhi. Eight kilometers of walls were erected to link Jahānpānāh with the older Delhi center of Sīrī and Lāl Kot (the area around the Quwwat al-Islam). Up to twelve meters thick in some places, the stone walls contained thirteen gates, six on the north and seven on the south and east. Ibn Baṭṭūṭa describes Jahānpānāh as the royal residence, and there seems no reason to doubt that the uninscribed Begampur masjid at its center was the city’s jāmi’ masjid, built on the sultan’s orders and linked to the north with his Hazār Sutūn palace (the sole surviving fragment of which is now known as the Bījai Mandel).40

In 755/1354 Firūz Shāh began the construction of his own Delhi capital of Firūzbād. It was a shift of geographic focus away from the southern Delhi region, for Firūzbād was located nine kilometers to the north, extending from the Jumna River northwest to the northern ridge. No traces of city walls have been found yet. ʿAffīf describes this huge area as being filled with stone houses, mosques, and bazaars, but its size should not imply that the earlier Delhi cities had been abandoned, for the historian reports a steady traffic throughout: the extended urban area:

People used to go for pleasure from Delhi to Firuzabad, and from Firuzabad to Delhi, in such numbers that every kār of the five kārs between the two towns swarmed with people, as with ants or locusts. To accommodate this great traffic there were public carriers who kept carriages, mules, and horses, which were ready for hire at a settled rate every morning after prayers, so that the traveller could make the trip as seemed to him best, and arrive at a stated time.41

The sultan’s citadel, Kotla Firūz Shāh, was elaborately fortified with close to two kilometers of battered and crenellated walls of rubble construction, reinforced by semicircular bastions similar to those of Tughluqābād. Roughly rectangular in plan, the citadel’s east side was protected by the Jumna; its main entrance was on the west through a great, fortified gateway. The space within the citadel was divided into three rectangular, walled areas. The northern and southern enclosures are now filled with modern buildings. Larger than the other two, the central enclosure included gardens, a palace, an audience hall, a baoli, and the jāmi’ masjid and minar, or Lat Pyramid.42 The first Muslim Indian palace complex to have at least partially survived, the Firūzbād kotla in its basic combination of structures appears to have established the royal citadel type that is central to the organization of the great Mughal forts in Delhi, Agra, and Lahore.

Firūz Shāh also founded several provincial fortress towns, including Hisār Firūzā, Fatḥbād, and Jaunpur. Of particular note is Hisār Firūza, the modern Hisār, situated about 130 kilometers northwest of Delhi and controlling

Plate 2. Tughluqābād necropolis with the tomb of Ghiyath al-Din, c. 1325.
the road linking Delhi with Lahore and Khur-san. Begun in 757/1356, Hisâr and the area around it were supplied with water by two lengthy canals built with royal funds. On the walls of the fortress is a small, well-preserved mahal that probably served as an audience hall. Within the fortress are the remains of a palace as well as a mosque-tomb complex (the Lat-ki Masjid) with a slender lat (an Asokan-style pillar) in its courtyard. The rest of the Firuzian town is covered by modern structures.

While these Tughluq towns obviously served both administrative and military purposes, they also had other functions: Hisâr and Fatâbâd were developed to settle new populations in the Punjab and to expand agricultural production. Jaunpur rapidly became a major center of Muslim culture and faith to rival the Hindu holy city of Varanasi. Archaeological knowledge of these Tughluq towns is too scanty to permit an examination of street layout or of the relationships among the various structures, but a few generalizations can be made. Though the cities founded by Ghiyath al-Din and Muhammed were walled, those built under Firuz Shâh often were not: funds were spent on urban and agricultural engineering projects rather than on defense. Thus, when Tîmûr invaded northern India in 801/1398, many of the towns of the Tughluq state fell easily. Nonetheless, each city had a powerful, central citadel for its bureaucracy, garrison, and governor, and all of these forts were constructed with similar characteristics: rubble masonry, crenellated and battered walls, and elaborate gate complexes.

Mosques
In these new towns the Tughluqs were patrons of impressive monumental architecture, including mosques, madrasas, commemorative structures, palaces, and a variety of public works. The earliest Tughluq mosque is a ruined structure within the city walls of Tughluqâbâd. Measuring approximately 110 meters on a side, it was constructed of rubble masonry faced with massive blocks of cut stone, sloping with the distinctive Tughluq batter. Its plan seems to have been similar to that of the Mîlużzi Quwwat al-Islam mosque: an open courtyard with arcades on the north, east, and south sides and a broad prayer hall before the qibla.

This standard sultanate type reappears in the congregational mosque of Jahânpânah (the Begampur mosque), though with important modifications. The mosque measures ninety by ninety-four meters (fig. 1) and is approached on the east side by a broad flight of stairs rising from the street to the imposing entrance (plate 3), a combination of dome and interior iwan that clearly reflects an Iranian model, perhaps brought to India by Sultan Muhammed’s architect, Zâhir al-Din al-Jayush. The large central court (plate 4), measuring seventy-five by sixty-eight meters, is enclosed by arcades on three sides and by a prayer hall three bays deep and covered by low domes on the west. In the middle of each side are an iwan and dome, here used in the first four-iwan plan in Muslim Indian architecture. The arcades are protected by long stone eaves (chhajjas), and the bays are covered by low domes on massive square stone pillars. Again reflecting an Iranian type, the prayer-wall iwan is framed by two nonfunctional, engaged minarets of three stories, the first polygonal and the upper two circular and tapering like the Qub minar. Projecting off the north end of the prayer wall (access is provided by a meter-high entrance) is a large royal maqṣūra, three bays square, with an impressive stone mihrab. An exterior entrance on the north side of the maqṣūra presumably connected the mosque with the palace. The mosque’s walls show the typical Tughluq slope and are constructed of rubble masonry covered with a thick coat of durable stucco, originally decorated with small, inset blue-glazed tiles that are in some places still intact and, used here for the first time in India’s Muslim architecture, are another instance of Iranian influence.

Two mosques, built for different patrons, define a second Tughluq type: the two-storied plinth mosque. Its first example is the c. 755/1354 jami’ mosque in Firuz Shâh’s citadel at Firuzâbâd: it has a first-story plinth of vaulted cells, and worship took place in the second story (plate 5). The sultan’s Futâhd stress his concern about adequate financial support for religious institutions, and it seems highly probable that this initial level was intended for shops rented as waqf properties for the mosque’s upkeep. The mosque’s east side was bounded by the Jumna River in the fourteenth century so that the main entrance was on the north, where a broad flight of steps leads to a domed gate chamber, less massive than that of the Jahânpânah mosque. The central courtyard, now in ruins, was surrounded by dome-covered arcades (fig. 2), while behind the qibla runs a high, narrow passageway, reached by means of stairs in the northwest and southwest corners. First appearing here, this qibla passageway of unexplained function became a common feature in later sultanate mosques. Over a pool in the courtyard’s center apparently were eight square pillars supporting an octagonal dome on which was inscribed the text of the sultan’s Futâhd.
Figure 1. Mosque of Jahanpanah (Begampur mosque), c. 1343. Ground plan.

Immediately to the north of the mosque was the extraordinary edifice now known as the Lat Pyramid, the first Muslim building in northern India to depart dramatically from the basic canons of Islamic architecture to the west (fig. 3). A three-tiered, stepped pyramid, each of its three levels is constructed of a series of vaulted cells surrounding the structure's solid core. Corner staircases led to the upper level on which was a stone balustrade enclosing a massive sandstone Asokan lat that rose an additional thirteen meters and was visible to the river traffic to the east and the land traffic to the west. The *Sirat-i Firuz Shahi* provides detailed descriptions of the 764/1367 removal of the pillar from its original site 192 kilometers north of Delhi, its transportation down the Jumna, and its erection in Firuzabad. Both 'Affif and the *Sirat-i Firuz Shahi* refer to the structure as the jami' mosque's minar, and the lat itself was called the minar-i zarrin (“Golden Minar”). Since the buildings in the citadel were plastered and whitewashed, the pillar's golden stone must have been dramatically accentuated. Contemporary poems describe the structure as a marvel and one of the wonders of the age, but the *Sirat* also indicates that it served as a visible statement of Muslim convictions: “After it had remained an object of worship of the polytheists and infidels for so many thousands of years, through the efforts of Sulṭan Firuz Shāh and by the grace of God, [the lat] became the minar of a place of worship for the faithful.” Its use also reinforced Tughluq legitimacy in the line of India's sultans, for, as 'Affif recognized, it repeated conceptually Qub al-Din Aybak's construction of the Quwwat al-Islam mosque around the Hindu Iron Pillar.

The Kalan masjid, built in 789/1387 outside the citadel but in the central part of Firuzabad, also follows the two-storied plinth plan, though it was built for a different patron, Khan-i Jahān Jannān Shāh, and was completed in the final year of his vizierate and a year before the sultan's death (fig. 4). Built on a high plinth of vaulted cells, the two-storied mosque is approached by a long stairway on the east and entered through a domed gate over which is the patron's dedicatory inscription. The eastern half of the mosque consists of a rectangular open court around a central pool, with arcades of domed bays resting on huge square stone piers on three sides (plate 6). The prayer hall is divided into fifteen domed bays and has five mihrabs.

A third Tughluq mosque type — the cross-axial mosque — represents a striking, though short-lived, innovation, again testifying to the originality of Tughluq architecture. Probably its earliest example is the uninscribed Khirki masjid, a very substantial mosque in the southeastern part of Jahānpanāh (fig. 5). Resting on a three-meter-high plinth, the mosque is square, measur-
Figure 2. Mosque of Firuzabad, c. 1354. First-floor plan.
Figure 3. Lat Pyramid in the Firuzabad citadel, c. 1367. East elevation and cross section.
Figure 5. Khirkī mosque, c. 1352–54. First-floor plan.
ing approximately fifty-two meters on a side, and has corner towers and three projecting domed gateways (one in the middle of each side), flanked by tapering, engaged minars, as at the Begampur mosque. While the minars on the north and south entrances are circular in plan and articulated to give the appearance of three stories, the two minars framing the east entrance (the main gate leading to the qibla and, incidentally, the general direction of the Quwwat al-Islam and the Quvb minar) are four-storied, and the second story has stellate flanging identical to that of the third story of the Quvb minar (plate 7). Architectural mimesis of this sort was surely no accident and must be understood within the context of Tughluq statements of Indo-Muslim legitimacy.

On the second story, directly above the vaulted cells of the first-story plinth, are pointed-arch windows with perforated screens. Cross-axial, domed corridors, three bays wide, divide the interior into four quadrants, each with a square court slightly more than nine meters on a side and open to the sky (plate 8). An arcade, three bays deep and fifteen bays long, runs around the interior of all four sides of the mosque. Viewed from the roof (plate 9), the mosque consists of twenty-five equal units, measuring approximately nine by nine meters each. Four of these units are the open courts; nine units contain nine bays each and are surmounted by domes on drums, the central dome being of greater height and having exterior, decorative ribbing; the remaining twelve units are also each made up of nine bays and have low domes and flat roofs. This admirable symmetry is further enhanced by the housing for the mihrab, a domed chamber with engaged minars projecting off the center of the west wall and resembling the three gateways. Altogether, it is one of the finest architectural compositions in sultanate history.

While the Khirk mosque has generally been dated to the latter part of Firuz Shh's reign, there is neither epigraphic nor literary evidence to justify this attribution. From 755/1354 until 791/1388 Firuz Shh's monumental architecture in Delhi was concentrated far to the north in Firuzabad and its environs. The Hauz Khsh madrasa, a kilometer to the northwest of Jahanghan, was the only major exception to this geographic preference. Jahanghan had been the architectural focus of Sultan Muhammed, and after work began on Firuzabad some of its population must have shifted north to that city. Thus it seems unlikely that a mosque of such size and noble proportions would have been erected after the foundation of the new city. A major mosque— the Begampur masjid — had already been built in the center of Jahanghan. While it is possible that some time between 744 and 752 (1343–51) Sultan Muhammed had a second large, major mosque constructed only one and a half kilometers away, it is far more likely that Firuz Shh, who resided in Jahanghan from 752 to 755 (1351–54), ordered the mosque as his pious inaugural contribution to the capital. If this supposition is correct, the Khirk mosque is the earliest instance of Firuz Shh's architectural patronage.

This proposed dating would explain the obvious relationship between the Khirkī masjid, comparable in grandeur and quality only to the Begampur mosque, to the 772/1370–71 Kālī masjid at the Nizamuddin dargah. An inscription over its eastern portal identifies Khān-i Jahān Jūnān Shāh as its patron. His Kalān masjid had been clearly modeled on the earlier congregational mosque in the Firūzābād citadel, and the Kālī masjid has a similar connection to the Khirkī, for the vizier’s mosque is a less elegant and less harmonious variant on the sultan’s cross-axial one. Measuring twenty-seven meters on a side, its gateways are square, domed rooms flanked by engaged, tapering minars, too small to serve any but symbolic functions. The arcade around the interior is eleven bays on a side and only one bay deep, the prayer hall is three bays deep, and the cross axes are only one bay wide. While the four open courts in the Khirkī masjid were symmetrically arranged to create four quadrants of equal size, the courts in the Kālī mosque occupy the eastern two-thirds of the building, which lacks the elegant proportions and intricate harmony of parts that is central to the aesthetics of the Khirkī mosque. While the mihrab projects out from the west wall in a manner similar to that of the mihrab of the Khirkī masjid, none of the Kālī mosque’s three entryways possesses the direct reference to the Quṭb minar that is found on the east gate at Khirkī: this kind of quotation from the past appears to be a royal prerogative. Thus, as with the 789/1387 Kalān masjid, the Kālī mosque is the vizier’s polite variation on a royal mosque type.

Finally, a number of Tughluq mosques consist simply of prayer halls, occasionally with one or two projecting arcades partially enclosing an open courtyard. Mosques of this type were built under the patronage of Firūz Shāh: the ruined mosque at the tomb of Nāṣīr al-Dīn Māhmūd (referred to as the “Sultān Ghārī” tomb); the mosque at the tomb of Makhdūm Shāh ʿĀlam
in Wazirabad, eight and a half kilometers to the north of Firuzabad (plate 10); the mosque at the tomb of the sultan’s son, Faṭḥ Khan, in the dargah of Qadam Sharif; the Lat-ki masjid in Hisar (plate 11), where a fragment of an Asokan-style pillar serves as the base of a four-storied minar; and the congregational mosque at Firuz Shāh’s Hauz Khās madrasa. Built around 761/1360, this last structure is located at the northern end of the complex and consists of a prayer hall nine bays wide and a single bay deep; arcades on the north and south sides, each two bays deep and four bays long, partially frame the broad, T-shaped court on the east.

Thus four distinct types of Tughluq mosques can be identified, with individual variants within those types. All share the same basic construction materials: rubble masonry, stucco covering on both exterior and interior, massive piers, and low domes. Otherwise, however, it is clearly a period of experimentation, with royal initiative the decisive element, for the two subroyal mosques display a politic deference toward the sultan’s prototypes. Whether owing to the diversity of available architects or to the keen interest and originality of the patrons, this is a highly creative but not a classic moment. Timur’s devastating invasion undermined the classicism that might have developed and caused a hiatus of two centuries until the Mughals developed a unified, pan-Indian Muslim architecture.

Madrasas

Despite contemporary references to the large number of madrasas built under the patronage of Firuz Shāh, only one example survives: the superb Madrasa-i Firuz Shāhī that extended along two sides of the great Hauz Khās reservoir in south Delhi and was apparently constructed in part over an earlier foundation of ‘Ala’ al-Din Khalji. Founded in 753/1352 when the sultan still resided in Jahānpānā, it was elaborately praised by Barani: “Its magnificence, architectural proportions, and pleasant air make it so unique among the great buildings of the world that it would be justifiable if it claimed superiority over the Khwarnaq built by Sinmar or the palace of Kısıra.” Barani further describes a traditional Sunni course of instruction in tafsīr (qur’anic exegesis), hadith, and fiqh (Islamic law) and refers to various buildings and parts of the complex: lecture halls, rooms for teachers, students, imams, and muezzins; guest quarters; a jāmi’ mosque; and cells for those wishing to devote themselves to religious meditation.

The madrasa and associated buildings line the eastern (c. 138 meters) and southern (c. 76 meters) sides of the reservoir and consist of a two-storied series of interconnecting blocks of long, narrow, pillared halls and domed chambers (plate 12). The lower story contains cells, presumably the residential quarters mentioned by Barani; the upper story, more open to breezes from the water, seems to have served instructional purposes. It is also level with the spacious and carefully planted gardens located to the south and east between the madrasa and the outer walls of the complex. To a contemporary poet, Mutahhar of Kara, these gardens were a sensory delight:

The moment I entered this blessed building through the gate, I saw an even space as wide as the plain of the world. . . . There was verdure everywhere and hyacinths, basil, roses, and tulips were blooming and were beautifully arranged so far as the human eye could reach. It seemed as if the last year’s produce had in advance the current year’s fruits, such as pomegranates, oranges, guavas, quinces, apples, and grapes. Nightingales, so to say, were singing their melodic songs everywhere.

At the intersection of the southern and eastern blocks was the square, domed tomb of Firuz Shāh (plate 13); in the garden to the east are several domed pavilions and domed pavilion tombs, some polygonal and some square. To the north in the direction of the jāmi’ masjid is an open, T-plan hall, often referred to as the Convocation Hall, which may have been the principal center of instruction and debate.

The largest and most complex madrasa of this period to have survived anywhere in the Muslim world, Firuz Shāh’s complex was probably the most important center of intellectual activity in late-fifteenth-century Delhi. It was intended to promote Sunni Islam and the salvation of its founder, as Barani clearly recognized.

Because this madrasa is a monument of good works and public benefaction, prayers, obligatory and supererogatory, are constantly being offered within its precincts. . . . Through the endowments of Sultan Firuz Shah, these people get stipends, inams, allowances, and charities in cash, and every day tables covered with delicious dishes are spread before the people. . . . Whosoever from amongst the worshippers of God chooses to go to or enter the Madrasa-i Firuz Shāhi attains comfort and ease and with an easy mind devotes himself day and night to the task of praying for the long life of the king of Islam.

Tombs

The earliest Tughluq tomb was built by Ghiyath al-Din in 720/1320 in Multan while he was still provincial governor. Unlike earlier Multan tombs, the mausoleum of Rukn-i ‘Alam is octagonal
Plate 10. Tomb and mosque of Makhdüm Shāh Ālam, c. 1375.

Plate 11. Lat-ki mosque, Hisār, c. 1356. Qibla and lat minaret.

rather than square in plan, and, unlike the Tughluq architecture of northern India, it is built of brick instead of stone. The tomb consists of two levels, the first an octagonal platform, 15.5 meters high, with battered walls and tapering turrets at the angles; the second is an octagonal chamber with perpendicular walls and a large dome. Its distinctive form, substantially influenced by contemporary Iranian architecture, anticipates some key characteristics of Tughluq building, particularly in its battered walls and its bastion-like corner towers.

Ghiyath al-Din’s own mausoleum in Delhi (c. 725/1325) is enclosed within a pentagonal fortress in the artificial lake on Tughluqabad’s south side (plate 2). Constructed of rubble masonry and faced with red sandstone and white marble decorative courses, the tomb is a square structure, sixteen meters on a side, with battered walls and a high, marble-covered dome which is crowned by a finial. There are entrances on the north, east, and south sides, and a mihrab in the interior qibla wall. Its stylistic indebtedness to the Rukn-i ’Alam tomb is slight; its relationship to the c. 715/1315 ’Alâ-i Darwaza of ’Alâ al-Din Khalji at the Quwwat al-Islam mosque is substantial, as was Ghiyath al-Din’s often acknowledged political indebtedness to his Khalji predecessors.

In the fortress’s northern corner tower is a small (eight meters in diameter) octagonal tomb built between 723 and 725 (1323–25) for the sultan’s son Zafar Khân (plate 14). Its dome is also faced with white marble, but, unlike the neighboring tomb of the sultan, the tomb chamber, containing two cenotaphs, is surrounded by an ambulatory (plate 15). Though the sultan’s tomb is barren of epigraphs of any sort, the interior of the prince’s tomb (both chamber and ambulatory) is impressively inscribed with religious epigraphs that will be discussed below. Thus this early Tughluq necropolis introduces the two basic tomb types — square and octagonal — that will be characteristic of most later sultanate architecture.

Closely following Ghiyath al-Din’s tomb in plan, elevation, and construction is the Lâl Gumbad (often referred to as the tomb of Kabir al-Din Awdiya), lying between the Begampur and Khirki masjids in Jahânpanâh and about two kilometers from each (fig. 6). On a low plinth and measuring 13.5 meters on a side, it is faced with red sandstone and white marble courses, and its dome is topped by a finial (plate 16). It is obvious that the building was intentionally modeled on the earlier royal tomb. It seems most unlikely that such a restatement would have been constructed for a nonroyal personage, and since the mausoleum is located in the middle of Jahânpanâh, it seems very possible that it was initially built for Sultan Muḥammad.

Figure 6. Lāl Gumbad ("Tomb of Kabīr al-Dīn Awliya"), c. 1343-51. Ground plan.
Plate 15. Tomb of Zafar Khan. Interior.

Plate 16. Lal Gumbad. South and east sides.
with three pointed-arch openings on each side and a dome over each central bay. Topped with a battlemented molding, the veranda is sheltered by bracket-supported stone chhajjas. Its stuccoed exterior has the pronounced Tughluq slope and was once enriched by an elaborate decorative and epigraphic program. The vizier died in 770/1368: the tomb may have been started before his death, but it is more likely that it was built by his son, Khān-i Jahān Jūnān Shāh. His father’s tomb was not the first octagonal mausoleum in India, and its plan can be seen as an elaboration of the tomb of Zafar Khān.

Finally, a number of Tughluq tombs belong to a type that can be categorized as chhatri, or pavilion, tombs. Either square or octagonal in plan, they usually rest on a plinth carrying either four or eight solid piers, shaded by bracketed chhajjas and supporting a dome. In most instances the spaces between the piers were originally closed by elaborately carved stone screens such as the one that survived until recently in the tomb of Makhdūm Shāh ʿĀlam at Wazirābād (plate 10). This type also represents a Tughluq innovation that was widely used in later times.73

Tughluq tombs, like Tughluq mosques, show great variety in plan, and during this period of innovation and experimentation models were established that became basic for most subsequent Muslim architecture in India. But under the Tughluqs the three prevailing types — square, octagonal, and pavilion — bespeak more than just a desire for variety. If Sultan Muḥammad built the Lāl Gumbad for himself, then all three Tughluq

Plate 17. Tomb of Frūz Shāh, c. 1388. Railing, south veranda. View to the west.

Frūz Shāh also chose the square plan for his own tomb in the Hauz Khāṣ madrasa.70 In general plan and profile it is strongly reminiscent of the Lāl Gumbad and the tomb of Ghiyath al-Dīn (plate 13). It is, however, faced not with stone, but with a thick layer of durable stucco that was originally covered with paint. It measures fourteen meters on a side and is entered from the garden to the south by means of a paved veranda enclosed by stone railings plainly derived from Buddhist prototypes like those at Sanchi (plate 17). More than any other sultanate ruler, Frūz Shāh used pre-Muslim Indian forms as a means of associating himself with earlier greatness. The interior of the tomb was also originally painted, apparently in several colors, and inscribed with religious epigraphs (plate 18). Doorways in the west and north walls provide access to the madrasa buildings, so that those passing from one side of the madrasa to the other walk through the founder’s tomb.71

The last major Tughluq tomb is the mausoleum of Khān-i Jahān Maqbul Tilangānī, located within the walls of the Nizamuddin dargah (fig. 7).72 Slightly less than six meters on a side and about fifteen meters in diameter, the mausoleum consists of an eight-sided domed chamber of crude masonry and a blocky mihrab (plate 19). The chamber is enclosed by an ambulatory-veranda
Figure 7. Tomb of Khān-i Jahān Maqbul
Tilangāni, c. 1368. Ground plan.
sultans between 720 and 791 (1320-88) chose to be buried in square-plan tombs and presumably associated that form with kingship. Octagonal tombs were not built for kings: they were intended to house the remains of royal princes, viziers of exalted rank and privilege, or provincial governors; most of the extant pavilion tombs are built over the graves of celebrated pious men. Although such distinctions became blurred in the next century when sultans were buried in both square and octagonal tombs, under the Tughluqs a definite symbolism of architectural form seems to have been followed.

**Palace Architecture**

The palace quarters at Tughluqabad are in too ruinous a state to be discussed architecturally, but two later Tughluq palaces are better preserved. In his *Rihla*, Ibn Baṭṭūta describes at length the palace of Sultan Muḥammad in Jahānpanāh:

The Sultan’s palace at Dihli is called *Dār Sard* and contains many gates. At the first gate there are posted a number of men in charge of it, and beside it sit buglers, trumpeters, and pipe-players. When any amir or person of note arrives, they sound their instruments. . . . Outside the first gate are platforms on which sit the . . . executioners, for the custom among them is that when the Sultan orders a man to be executed, the sentence is carried out at the gate of the public audience hall [meshwar]. . . . Between the first and second gates there is a large vestibule with platforms built along both sides, on which sit those troops whose turn of duty it is to guard the gates. . . . Between the second and third gates there is a large platform on which the principal naqib [usher] sits. . . . At the third gate there are platforms occupied by the scribes of the door. . . . This third door opens into the immense and vast hall called Hazār Ustūn, which means [in Persian] “a thousand pillars.” The pillars are of painted wood and support a wooden roof, most exquisitely carved. The people sit under this, and it is in this hall that the Sultan sits for public audience.

The pillared hall admired by Ibn Baṭṭūta seems to have been admired by others as well, for a qasida by the court poet, Badr al-Dīn Chāh, evidently refers to it under the name of Khurramābād: “If the palace of a thousand pillars were not like Paradise, why should rewards and punishments be distributed there like as on the day of judgment? Certainly this abode of happiness, Khurramābād, is chosen as a royal residence, because there the king, by execution of the laws, acknowledges his subservience to the Khalīfa of the world.” In a second qasida the poet celebrates the completion of Khurramābād in Muharram 744 (June 1343).

It is generally accepted that the ruins known as Bijai Mandel (“Wonderful Mansion”), forty-two meters to the north of the Begampur masjid, are the remains of the palace. The entire complex was built on a raised platform with an elaborate gateway to the north of the Bijai Mandel, which was probably only the southwestern corner of the whole palace. The Bijai Mandel is a platform measuring approximately seventy-four by seventy-eight meters, with a finely proportioned,
square, domed building, perhaps a tomb but more likely a gatehouse, as its base on the west (plate 20). From this western side a steep flight of stairs rises to the top of the platform where the remains of the palace stand: a long, groined-vaulted hall with a second-story, low, octagonal pavilion on its western side (fig. 8; plate 21). To the platform's south beneath the level of the terrace are additional vaulted halls. Excavation carried out in this area in 1934 uncovered the bases of wooden pillars, assumed to be those of the Hazār Ustūn. Unfortunately, no systematic survey or excavation of the entire site has been undertaken, and its overall architectural coherence is difficult to discern.

Far better preserved is Firūz Shāh's palace complex at Firūzābād. "Affīf refers to three palaces in the citadel, each of which served a different purpose: "The Maḥal-i sahan-i gilīn ["Palace of the Clay Court"] was appropriated to the reception of the khans, maliks, amirs, officials, and distinguished literary men. The Maḥal-i chhaja-i chobīn ["Palace of the Wooden Gallery"] was for the reception of the principal personal attendants. The Maḥal-i bār-i 'ām ["Palace of the Public Court"] was used for general receptions." According to Ibn Baṭṭūṭa, the rank of someone received by Sultan Muḥammad in the Hazar Ustūn was expressed spatially by his location in the single reception hall. Such functional differentiation of palaces seems therefore to have been Firūz Shāh's innovation, and, like many other aspects of Tughluq architecture, it set a precedent for later Mughal builders.

J. A. Page's conjectural restoration of the kotla locates a khāṣ mahāl ("royal residence") and harem immediately to the south of the jāmi' masjid, where there is now a ruined complex of domed and vaulted structures. A gate complex to the east may have connected the Mahāl-i Angūr and the Maḥal-i bār-i 'Ām. On the northeastern side of the mosque is the foundation of a substantial, square, porticoed hall that resembles later Mughal structures in plan. To the northwest of the Lat Pyramid minar is a multistoried, circular baoli with several interior chambers so that the structure could have served as a cool, pleasant pavilion (fig. 9).

The sultan personally oversaw the construction of a second major palace complex, a kushk-i shikār ("hunting palace") that occupied a large area on Delhi's northern ridge. Because of its commanding view of Delhi, stretching from below the ridge to the Jumna, it was also known as the Jahānnumā palace. It was much admired by Timūr, who camped there during the attack on Delhi. That Sultan Firūz considered it to be a second royal residence is indicated by his erecting there a second Asokan pillar, though it was smaller than the pillar in the citadel: "This obelisk stood in the vicinity of the town of Mirat, in the Doab, and was somewhat smaller than the

Plate 21. Ruined palace of Sultan Muḥammad (Bijai Mandel), Begampur. View to west.
Figure 9. Firuzabad citadel, c. 1354. Plan, section, and elevation of baoli.
minara-i zarin. This also was removed by Sultan Firoz with similar skill and labor and was re-erected on a hill in the Kushk-i Shikar (amid great feasting and rejoicing). After the erection of the pillar a large town sprang up, and the khans and maliks of the court built houses there.\textsuperscript{89} None of these houses remains, and of the royal complex only two incomplete buildings still stand. One, now known as the Pir Ghaib (plate 22), is a dilapidated, rubble-built structure of two stories with several rooms on each level and a very steep double staircase ascending the south façade to the roof. Although a complete plan is no longer discernible, this architectural fragment is probably the northwest corner and only extant portion of the congregational mosque of the Jahannumà complex. The second structure — now called the Chauburji masjid — appears to have been intended as a tomb but was much altered in late Mughal times.

Four small mahals in and around Delhi have been attributed to Firûz Shâh’s patronage: the Kushk Maḥal; the elaborate Malcha Maḥal (fig. 10; plate 23); the Bhûli Bhatiyârī-ka Maḥal; and the maḥal in the village of Mahipalpur, south of Delhi.\textsuperscript{90} None bears epigraphs, and none is referred to in any contemporary text. The attribution of the four to Firûz Shâh rests on three points: the sultan had a remarkable passion for hunting; all four mahals are in areas that he developed architecturally; and elements such as pillars, capitals, and balustrades are stylistically identical with their counterparts in dated buildings. All four buildings are compact. The Kushk Maḥal, Malcha Maḥal, and Mahipalpur Maḥal are vaulted structures of several rooms; each has access to the roof where there are indications that awnings were set up. The Bhûli Bhatiyârī-ka Maḥal is a large, walled area with an open interior apparently designed for tents and a few small, low, vaulted rooms along its walls. It is at the north end of Delhi’s southern ridge, closer to the Jahannumà palace than to the other three mahals. All four buildings appear to have been designed as temporary halting places rather than residences and were presumably used for rest and relaxation during the hunt. Such hunting lodges were widely built under Mughal patronage in the seventeenth century, and Firûz Shâh’s maḥals are the first extant examples of this type in Muslim India.

Tughluq palaces\textsuperscript{91} represent an impressive diversity of type, and their functional variety indicates the increasing sophistication of royal ceremonial and symbolism. As elsewhere in the Muslim world, they seem to have been consciously employed as focuses for new urban areas, and they were thus the most important elements in the enormous city projects undertaken by Tughluq monarchs. Even the huge size of Tughluq palace complexes can be understood as a response to the increasing bureaucratic centralization of the Tughluq state and to the massive immigration into India of Muslims from the west.

\textbf{Civil Architecture}

There is as yet no information on Tughluq road system or construction, so this survey of civil architecture will examine only gardens, canals, and dams.

No Tughluq garden has survived intact. Although 'Affî refers to several gardens in the citadel of Firûz Shâh, both he and the sultan indicate that the creation of productive gardens for a wider public was a major royal concern.\textsuperscript{92} Many of them were established to supply waqf income for religious institutions, but others paid rent directly to the king, whose private income increased enormously as a result.

Bringing new lands into cultivation was also a source of income for the sultan. The dry lands around the new city of Hîşâr required extensive

\textbf{Plate 23. Malcha Maḥal. West side.}
Figure 10. Malcha Maqāl, c. 1360. Plan.
irrigation, and the sultan’s own funds not only paid for much of the city but also for two canals, flowing from the Jumna and the Sutlej, which doubled the area’s agricultural capacity.

Bunds had been built at Tughluqābād, and Firūz Shāh constructed a large irrigation dam at Mahipalpur, not far from his hunting lodge. But the most impressive, extant Tughluq dam was built under Sultan Muḥammad. In the southeastern wall of Jahānpānāh, eight hundred meters east of the Khirki masjid, is the Satpula (fig. 11), a dam eleven spans in length: its seven principal spans were sluices that controlled the water in an artificial, rain-filled lake lying within the city’s walls. At each end of the dam was a tower with an octagonal chamber, probably designed for the dam’s maintenance crew and for guards protecting the walls.93

Restoration Architecture

Firūz Shāh viewed the preservation and restoration of the architectural achievements of earlier kings as an important royal function. Indeed, he devotes far more space in his Futūhāt to his activity as an architectural conservator than to his work as a patron of new buildings: “Again, by the guidance of God, I was led to repair and rebuild the edifices and structures of former kings and nobles, which had fallen into decay from lapse of time, giving the restoration of these buildings the priority over my own building works.” Succeeding paragraphs of the memoir list these buildings: twenty-two mosques, minars, cisterns, madrasas, and tombs are cited, and this list includes many of the most notable structures of early sultanate architecture.94 Only two of them will be examined here.

After general refurbishing of the Quwwat al-Islam mosque, the sultan ordered the Qutb minar, damaged by lightning in 770/1369, to be repaired. Most of the fourth and all of the fifth story (plate 24) are the work of his builders who “raised [the minar] higher than it was before” and not only changed its form but also its material, for they made liberal use of marble, a favorite stone in the monarch’s restorations, though not in his new buildings.

During the Chaghatai attacks on Delhi in the early fourteenth century, the 629/1231 madrasa-mausoleum of Nāṣir al-Dīn Mahmūd (the Sultān Ghārī tomb) had been severely damaged. Firūz Shāh was particularly proud of his attentions to it: “I rebuilt it and furnished it with sandal-wood doors. The columns of the tomb, which had fallen down, I restored better than they had been before. When the tomb was built, its court had not been plastered, but now I made it so. I provided the hewn stone staircase of the dome, and I re-erected the fallen piers of the four towers.”95 The restoration was obviously substantial, but, from the Futūhāt and the architectural evidence, it is possible to differentiate his work from that of the original madrasa. The restoration was carried out in four main areas. The first three are the corner towers, all four of which must have been damaged, but their present form does not particularly reflect the characteristic profile of Tughluq architecture — the sultan’s contributions were apparently limited to reerection rather than substantial change; the court, which was covered with a thick layer of plaster of the sort widely used in late Tughluq architecture; and the octagonal drum, which is over the crypt in the center of the court and has an early-thirteenth-century core. Since Firūz Shāh cites his “hewn stone staircase” leading into the crypt, he must also have added the substantial marble facing that now frames the drum.

The fourth and most notable restoration occurred along the qibla, where an unspecified number of columns had fallen down: ten of them were reused, and these columns are those now flanking the projecting portico in front of the mihrab, for their red sandstone material and their forms mark them as Muʿizzī. The portico’s six columns, however, are of marble, and details of their form indicate that they are of Tughluq manufacture (plate 25). They are fluted and vaguely Doric, and support a marble-faced entablature, perhaps designed to complement the slight pedimental appearance of the six-sided dome. The whole portico is awkward and clearly an afterthought, surely modeled not on any specific classical prototype but rather on a verbal description, perhaps conveyed by a visitor from the west, such as Ibn Batṭūta, who had known Firūz Shāh before he became sultan. The portico is the only known instance of classical influence in Muslim Indian architecture, and it underscores an important aspect of Firūz Shāh’s patronage: determined to demonstrate his piety through transformation of the qibla into something “better than it had been before,” he was willing to reach far outside his own traditions and adopt what can only be called an extremely exotic form. Whether or not this unique sultanate hybrid is aesthetically satisfactory, it bespeaks an adventurous and creative patron who possessed the ability to see beyond conventional architectural patterns.
ARCHITECTS AND THE PRACTICE OF ARCHITECTURE

No known Tughluq building bears an inscription identifying its architect, but contemporary literary and historical sources provide valuable information on architects during the reigns of the three major Tughluq rulers.

Khwājah Jahān. Converted from Hinduism to Islam by Nizām al-Dīn Awiya, Khwājah Jahān was a powerful official throughout the reigns of Ghīyath al-Dīn and Muḥammad. His career came to an abrupt end, however, when he actively opposed the accession of Fīrūz Shāh. Barānī vilifies him, and Ibn Baṭṭūtā directly implicates him in the assassination of Ghīyath al-Dīn, when his temporary palace, constructed on the orders of Prince Muḥammad, collapsed and crushed the king and his favorite son Maḥmūd: “Muḥammad Shāh built [the kushk] in three days, constructing it mostly of wood, raised upon wooden pillars to some height above the ground. He had it skillfully built on a plan which was supervised by al-Malik Zādah, known later by the title of Khwājah Jahān, his name being Abīd ibn Ayyās, the chief of the vazirs of Sultan Muḥammad, who was at that time the controller of buildings.”96 The architectural plan was presumably the work of a builder under Khwājah Jahān, who himself functioned as the royal clerk of the works.

Zāhir al-Dīn. In his qaṣīda celebrating the completion of the palace of Khurramābād in Muharram 744 (June 1343), the court poet Badr al-Dīn Chāch reports that it was erected on the sultan’s orders by “the director of the architects, Zāhir al-Dīn al-Jayush,” who is cited twice in the poem.97 Worthy enough to be lauded in a panegyric for the king, Zāhir al-Dīn was probably also responsible for the design of the sultan’s jāmi’ masjid, the Begampur mosque. If so, he was an architect of great skill and notable originality, and his use of the four-īwan plan implies that he was one of the many Iranians in the royal service.

Fīrūz Shāh. In the eleventh chapter of his Ta’rīkh-i Fīrūz Shāhī the historian ‘Affī lists in detail the many and varied types of building projects undertaken by Fīrūz Shāh. He also cites the king’s active restoration of earlier buildings and supplies some very general information about the administrative structure set up by the monarch: “The financial officer examined the plan of every proposed building and made provision so that the work should not be stopped for want of funds. The necessary money was issued from the
royal treasury to the managers of the building, and then the work was begun. Thus it was that so many buildings of different kinds were erected in the reign of Firuz Shah.\textsuperscript{98} ‘Affī’s matter-of-fact description implies that this part of the bureaucracy was well conceived and efficient. The number and quality of buildings indicate that it was ably staffed. It operated more smoothly than other parts of the administration, perhaps because building was the only area of governance in which the sultan actively intervened. For, while all three major Tughluq kings were deeply interested in architecture, only Firuz Shah went beyond the role of involved patron.

According to the 
Sirot-i Firuz Shahī, the king not only initiated the removal of the Asokan pillar from its original site to Delhi but was directly concerned with every stage of the work: “From the scheme of taking down the pillar, its transportation by boats, removal to the boats, and from the boats to the fort, and its re-erection therein, as well as the construction of the building on which it was erected, every one of these works was done exactly according to the orders and suggestions of His Majesty the King.”\textsuperscript{99} This information is repeated several times in the text, often after a set rhetorical formula: an architectural or engineering problem arises; the king seeks assistance from his “wise men and engineers, architects, and masons,” who are, however, unable to provide it; and the king offers a solution that, invariably, is successful. While this scenario conforms to a pattern of royal omniscience as old as pharaonic Egypt, it cannot be dismissed simply as panegyric. Both Barani and ‘Affī corroborate this evidence of the king’s expertise, and ‘Affī also cites the sultan’s active supervision of the construction of the Jahannumā palace.\textsuperscript{100} Firuz Shah, like his Mughal successors Akbar and Shāh Jahān, brought substantial architectural ability to his passion for building.

Malik Ghāzī Shāhna. Writing after 801/1398, ‘Affī also mentions the architects in charge of the sultan’s projects: “Malik Ghāzī Shāhna was the chief architect and was very efficient; he held the gold staff [of office]. ‘Abd al-Haq, otherwise Jāhīr Sundhār [was deputy, and] held the golden axe. A clever and qualified superintendent was appointed over every class of artisans.”\textsuperscript{101} If, as ‘Affī’s wording implies, Malik Ghāzī Shāhna occupied his post of chief architect for most of Firuz Shāh’s reign, he was evidently a man of formidable architectural and administrative skills, who enjoyed both royal favor and ample funding. He must have been on close terms with the sultan, and if he was responsible for the design and construction of most of the building projects from 755 through 791 (1354–88), he is clearly a figure whose position in the development of sultanate architecture can be compared to Sinan’s role in Ottoman architecture. His deputy’s name indicates that ‘Abd al-Haq was a convert from Hinduism, like so many other Tughluq officials.

An extensive description of the Lat Pyramid project occupies folios 91–105 of the manuscript text of the 
Sirot-i Firuz Shahī.\textsuperscript{102} The pages are rich in technical detail and indicate that the unnamed author must have been assisted by someone with a substantial knowledge of engineering and architecture, an official high in the ranks of royal employees. It seems likely that a project of such importance as the Lat Pyramid would have been assigned to the chief architect, working here under the active direction of the sultan. There seems to be every reason to suppose that the author of the text was aided by Malik Ghāzī Shāhna.

RELIGIOUS EPIGRAPHY

Unlike their Mu‘izzī and Khaļīj predecessors, the Tughluqs did not make lavish use of architectural epigraphy, and the corpus of Tughluq religious inscriptions is puzzlingly limited.\textsuperscript{103} While the c. 725/1325 mausoleum of Ghiyath al-Dīn completely lacks epigraphs, the small, adjacent tomb of his predeceased son Zafar Khān is inscribed in its interior with verses from five different suras from the Qur’an.\textsuperscript{104} Together they offer six principal themes: God’s uniqueness; affirmation of belief in God, His Messengers, and the Qur’an; divine omnipotence; God’s support and promise of paradise for the faithful; a plea for absolusion from sin; and God’s power to give and take life. In short, the tomb’s epigraphs emphasize both God and the deceased individual who aspires to paradise.

No Tughluq mosque has many of these religious epigraphs, either. On the mosque of Jahān-paṇah small roundels occasionally contain the words 
Allah and 
Allah is sufficient for me. The small mosque in the tomb-mosque complex of Makhduṭ Shāh ‘Alam also uses roundels inscribed with short quotations from the Qur’an\textsuperscript{105} and on its central mihrab is an incomplete rendering of the Throne Verse (Qur’an 2:255–56). Only the now ruined mosque in the Firuzābād citadel was substantially inscribed, not, however, with verses from the Qur’an or with hadiths, but instead with the whole of Firuz Shāh’s 
Futūḥāt. Thus the only Tughluq mosque with exten-
sive epigraphy was limited to a highly personal, though piously Sunni, statement.

The only other Tughluq structure impressively inscribed is Firuz Shah's mausoleum at the Hauz Khaz madrasa complex. All its inscriptions are on the inside. On the arches appear several Qur'anic verses stressing divine power; on the drum supporting the dome are the *asma' al-husna*, or ninety-nine names of God. The dome itself (plate 18) has the most significant epigraphs. In the center is written the Throne Verse, while large circular and top-shaped medallions decorate the rest of the surface. Most are inscribed with Qur'anic verses proclaiming divine power, but three offer other themes: the gulf between believers and nonbelievers; the Day of Judgment; and a plea for divine protection against evil. Remarkably, four hadiths are used that appear nowhere else in northern India: he who misses a prayer willfully becomes an infidel; the world is a prison to the believer and paradise to the unbeliever; the world is a cursed [place] and ... God is ever-living; and prayer is the ascent to heaven for a believer. These hadiths referring to prayer, paradise, and the soul's longing to be free are accompanied by the names of prophets - Ibrahîm, Yusuf, Moses, Jesus, and Muhammad - all of whom were assured of paradise. Hadiths and holy names protectively hover over the sultan's cenotaph, as if representing his own aspirations for salvation.

Among Tughluq structures only the mosque of Firuzabad and the two royal tombs are significantly inscribed. Where earlier architectural epigraphy in Muslim India conveyed the wider religious convictions of the society at large, Tughluq epigraphs are more narrowly based and largely destined to serve the person of the ruler.

The formal influences on Tughluq architecture are diverse, as could be expected of an eclectic, preclassical style evolving under three powerful but distinct royal patrons. Three main sources that were vitally important to its development can be identified. The pre-Tughluq sultanate offered in the Quwwat al-Islam mosque the model for the standard hypostyle that appears in the jaami masjid of Tughluqabad, though this plan is seldom used thereafter. The early mosque covers its bays with low domes that establish the basic roofline profile of Tughluq mosques, even though the domes of later buildings have a higher profile and are sometimes ordered in complex compositions. Basic tomb types - whether the square plan of Sultan Ilutmish or the octagonal plan of Prince Nasir al-Din Mahmud - provide the models for Tughluq elaborations.

Though the Mu'izzis had utilized the Hindu Iron Pillar in the Quwwat al-Islam mosque, Tughluq attention to India's jahiliyya is both more systematic and more sustained. Most striking, of course, is the massive and expensive Lat Pyramid constructed with so much labor and care in the Firuzabad citadel, but the sultan's use of other pillars at the Jahannumah Kushk, the Hisar mosque, and the mosque at Fatehabad indicates that the king intended them as a royal statement, reiterating the symbolic appropriation not merely of the land but also of the jahiliyya and firmly tying the Tughluqs with the origins of the Delhi sultanate. Other elements, presumably having little if any symbolic association, were borrowed from India's non-Muslim building traditions: the chhatri, the blocky pillars and capitals, the heavy stone railings and balustrades, and the chhajas, or eaves. Their absorption into Muslim buildings styles was essential to the creation of an Indo-Islamic architecture.

Tughluq admiration for Islamic culture to the west was most pronounced under Sultan Muhammad, who seems sometimes willingly to have cast himself in the role of a distant, though powerful, provincial. It was under his aegis that such characteristic Iranian forms as the four-ivan plan, engaged-ivan minars, and glazed tiles first made their appearance. Influence from the west under Firuz Shah is more problematic. While octagonal mausoleums were built in fourteenth-century Iran, there are important differences between these structures and the tomb of Khân-i Jahân Maqbul Khân; and in any case there are two earlier octagonal tombs that establish sultanate precedents for the type. Likewise, while the functional differentiation of parts found in the individual palaces within the walls of the Firuzabad citadel is shared with both earlier and contemporary Islamic palace architecture elsewhere, important variations established a distinctively Indian Muslim palace type.

Although these borrowings are important, the most notable features of Tughluq architecture are innovation and originality. The new architectural repository includes battered walls, two-storied plinth mosques, cross-axial mosques, intimate mahals, a lake- and garden-centered madrasa, and perhaps even the stepped pyramid that supports the Firuzabad lat. Architectural problems elicit creative approaches under the Tughluqs. It is an intellectually open period teeming with ideas, and even its energetic eclecticism is a sign of its inventiveness and sense of daring.

India posed particular cultural, social, political, and architectural problems for Islam, and
patronage was the key in dealing with them. But the diversity of Tughluq forms indicates that it was not a unitary patronage; instead, the period from 720 through 791 (1320–88) can best be described as coming increasingly under the sway of personal taste. Architecture under Ghiyath al-Din had shown deference to both Multan and the Khaljis, the two roots of the dynasty’s rise to power and its early sense of legitimacy. Sultan Muhammad’s architectural borrowings from Iran were in keeping with his attention to Islam in the west. Even more complex as patron was Firuz Shâh, whose enormous energy and activity were directed at spreading and upholding Islam through building, whether monumental or utilitarian. For him, commanding statements of Indo-Islamic legitimacy had greatest significance, but the search for his own salvation is also a constant theme in his architectural patronage. It is under his rule that subroyal architectural initiative — whether from the vizier in Delhi or tradespeople in the provinces — becomes not just an acceptable means of stating piety but also a significant element in the development of style.

Despite this broadening of architecture’s patronage base, royal taste and motivation are the overriding factors throughout this period. New urban foundations like Daulatâbâd, Hişsâr, and Jaunpur spread imperial styles far beyond Delhi and had a lasting effect: building under the Sharqs of Jaunpur and the Bahmanis of the northern Deccan owes much to Tughluq antecedents. The proliferation of tombs that characterizes late sultanate and Mughal architecture also began under the Tughluqs, and ended with the mausoleum’s becoming the creative focal point of Muslim architecture in India. A centralized bureaucracy and sustained dynastic accession ceremony the state on the royal autocrat, and his tomb becomes a statement not simply of his own aspirations but of his society’s as well.

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NOTES

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5. “Tughluq” was the personal name of Ghiyath al-Din; its use as a dynastic name is convenient but inaccurate.


13. Tomb of Miram Mulhim, Badaun; tomb of Shaykh Rukn al-Din Abul-Fath, Multan; tomb of Shaykh ‘Alî al-Din at Adjahan (Pakpattan).

14. The tomb bears no inscription. Percy Brown, Indian Architecture: The Islamic Period, 2d ed. (Calcutta, 1942), p. 25, attributes it to the reign of Ghiyath al-Din II (790/1388), and Y. D. Sharma, Delhi and Its Neighbourhood (New Delhi, 1974), p. 74, attributes it to c. 1397. There seems to be neither epigraphic nor stylistic justification for placing it at the end of the Tughluq period.


16. Ibid., p. 27.

17. ‘Affî, in H. M. Elliot and J. Dowson, The History of India as Told by Its Own Historians, 8 vols. (Allahabad, n.d.) 3:354.

18. Firuz Shâh, in Elliot and Dowson, History of India, 3:382.


20. Ibid., p. 317.


22. Ibid., p. 307.

23. Ibid., p. 354.


25. Ibid., p. 383.
26. Ibid., pp. 385-86.
30. Ibid., p. 20.
31. In this respect they followed the traditions of the ‘Abbasids and Ghānawīds.
32. Although the site has not been systematically surveyed or published, the broad outlines of Ghiyath al-Dīn’s foundation are still fairly clear. For Tughluqābād, see Waddington, “Adilabad”; Carr Stephen, The Archaeology and Monuments Remains of Delhi (Simla, 1876; reprint ed., Delhi, n.d.); J. Burton-Page, “Tomb of Ruorganic Alamin,” n. 7; and Sidney Toy, The Strongholds of India (London, 1957), pp. 117–19.
33. For this site, see R. Nath, Monuments of Delhi (New Delhi, 1979), p. 5; Waddington, “Adilabad”; Madan, “Adilabad — A Dream”; and Toy, Strongholds of India, pp. 117–21. Site plans are to be found in Waddington, p. 67; and Toy, p. 118b.
34. Sayyid Ahmad Khan’s location of a palace with a thousand columns of white marble in the court of the upper ward is difficult to visualize, since the rectangular court is entirely devoid of such supports.
35. Burton-Page has suggested (EI, 2d ed., p. 258, s.v. “Dhibi”) that the site was perhaps first occupied by a “madrasa or a shrine,” and that it was used as a residence by Ghiyath ad-Din while Tughluqābād was under construction. Others (Sharma, Delhi and Its Neighbourhood, p. 104; Waddington, “Adilabad,” p. 63) have suggested, however, that it dates from the reign of Sultan Muḥammad. Available information permits no firm conclusion.
38. This fact belies the story that Delhi was abandoned and ceased to function as the capital.
39. According to Sayyid Ahmad Khan; translation from Nath, Monuments of Delhi, p. 5.
40. Because of the encroachment of New Delhi’s southern suburbs into the area of Jahānpānah in recent years and the use of its building material for later construction, little of the urban layout of Jahānpānah can now be ascertained from surface remains. Excavations were carried out in 1930 by M. P. Varma at the Bijai Mandel that revealed a structure which may have been the Hazār Satīn palace (see Annual Report of the Archaeological Survey of India [1930–34], pp. 146 ff., and Waddington, “Adilabad,” p. 66). A small-scale excavation was undertaken in 1964–65 at the point of junction between the walls of Jahānpānah and the east wall of Kila Ray Pithora.
41. ‘Afif, in Elliot and Dowson, History of India, 3:303.
42. J. A. Page, A Memoir on Kotla Firoz Shah (Delhi, 1937), pp. 33–42, offers much useful information.
43. No systematic or thorough description of Ḥiṣār has been published. At various times archaeological and restoration work has been carried out under the auspices of the Archaeological Survey of India (see Annual Progress Report [Northern Circle] for 1914, 1915, 1916, 1917–18–19, and 1921–22). For a brief history and survey of the literature, EI, 2d ed., 2:484–85, s.v. “Ḥiṣār Fīrūza.”
44. ‘Afif (in Elliot and Dowson, History of India, 3:301–02) makes clear that Fīrūz Shāh had three principal concerns with this hydraulic engineering: to make the area more fertile, to provide inexpensive water for pilgrims and other travelers, and to obtain lawful rent from water use.
45. Sayyid Ahmad Khan included the Begampur mosque as one of the seven mosques built by Khān-i Jahān Maqūb and his son (Nath, Monuments of Delhi, p. 40), but epigraphic and stylistic evidence indicates that only the Kālia and the Kali mosques were built under the patronage of Khān-i Jahān Jūnān Shāh. Percy Brown and most other writers accepted the view of Sayyid Ahmad Khan. Nath (Sultanate Architecture, pp. 56–57), and Mahdi Husain (Rise and Fall, pp. 119–20) have argued convincing that it was the congregational mosque of Jahānpānah and built under Sultan Muḥammad. Ibn Baṭṭatuq (Gibb, trans., Travels of Ibn Baṭṭatuq, p. 665) describes a congregational mosque adjacent to the Dār Sarā palace of Sultan Muḥammad. It was perhaps completed around the same time, 744/1343, by the same architect.
46. This distinctive façade, often rather erroneously referred to as a pylon, has no stylistic legacy in Delhi but does have an impressive impact on the fifteenth-century architecture of Jaunpur.
47. Past scholarship has associated this type of construction with building under Fīrūz Shāh, but it was evidently introduced under Sultan Muḥammad.
48. It is possible that these cells might have been part of a madrasa.
51. The pyramidal form is puzzling. Its resemblance to Buddhist-Hindu stepped architecture is slight, but it obviously has no counterpart in earlier Islamic building to the west. Its closest formal correspondence is to the c. 2650 B.C. stepped pyramid of Pharaoh Zoser in Saqqara. Although this suggestion seems farfetched, it is possible that a verbal description of the Old Kingdom tomb by someone like Ibn Baṭṭatuq could have served as a design model; another possible instance of an antique borrowing transmitted by verbal description is discussed below. It may, of course, have been an entirely original creation (possibly by the sultan himself) to solve the structural problem of creating a solid buttress around the
massive core and a series of steps to elevate the lat. The Firūzābād stepped pyramid had no immediate impact on Muslim Indian architecture, but it may well have been the conceptual source for two buildings by that other great Muslim Indian eclectic, Akbar — the Panj Mahal at Fatehpur Sikri (c. 979/93–1571–85) and the emperor’s own tomb at Sikandra (c. 1014/1605).

52. Page, _Kotla_, pp. 33–66. Page (p. 5) speculates that a bridge originally connected the lat pyramid with the northwest corner of the mosque.

53. Ibid., p. 33.

54. Ibid., p. 42.

55. ‘Arif, in Elliot and Dowson, _History of India_, 3:353.

56. Nath (Sultanate Architecture, pp. 69–73) applies the term _caturinga_ (“four-quartered”) to this mosque type.

57. Ebba Koch first pointed out this architectural mimesis to me. It appears in several later sultanate buildings. For example, the qibla wall of the late-fifteenth-century Bara Gumbad masjid, built under Lodi patronage in Delhi, has engaged minars that in their second story repeat the first story rounded and stellate flanging of the Qutb minar.

58. Citing no sources, Sayyid Ahmad Khān (Nath, _Monuments of Delhi_, p. 40) dates the mosque to 789/1387 and attributes it to the patronage of the Khān-i Jāhān. This is the inscribed date of the Kalān masjid, and it would appear that Sayyid Ahmad Khān confused the two structures. Later writers have followed his attribution and dating.

59. Yahyā Sirhindī reports in the _Tārikh-i Muḥarrak Shāhī_ that Firūz Shāh was architecturally active in this period: “In the year 753/1352 ... Prince Muḥammad Khān was born in the capital. ... In this same year [the sultan] founded the masjid-i jami’ near the palace, and the college at the top of the Hauz-i Khāṣ” (Elliot and Dowson, _History of India_, 4:7). Sultan Muhammad had several palaces in Jahānpānāh, and the artificial lake that he had created in the environs of the Khīrī masjid would have been an ideal location for one of them. Thus Yahyā Sirhindī’s text may well be referring to the construction of the Khīrī masjid near the palace in which Sulṭān Firūz Shāh resided before moving to Firūzābād.

60. See Nath, _Sultanate Architecture_, p. 69, fig. 35, for a ground plan of the mosque.

61. Firūz Shāh, _Patishāh_, in Elliot and Dowson, _History of India_, 3:383; ‘Arif, ibid., p. 354. Al-ʿUmari (Ṣiddiqī and Ahmad, trans., _Fourteenth-Century Arab Account_, p. 36), refers to one thousand madrasas in Delhi at the time of Sultan Muhammad, “one of which is for the Shaftes and the rest for the Hanafites.”


64. Ibid., p. 74.

65. Ibid., pp. 78–79.


67. The tomb is unmarked, but buried in it are presumably Ghīyāt al-Dīn, his wife Makhzum al-Jāhān, and one of his sons.

68. Nath, _Sultanate Architecture_, p. 58, points out that the Persian inscription on the lintel of the south side of the tomb of Zafar Khān identifies it as the Dār al-Aman (“Place of Peace”) built by Ghīyāt al-Dīn over the body of his son Zafar Khān. The central grave must be that of Zafar Khān. Nath observes that the neighboring cenotaph on its east side is not stone but rubble-and-plaster, the building technique prevailing at the time of Firūz Shāh. Since Firūz Shāh refers in his _Futuḥat_ (Elliot and Dowson, _History of India_, 3:385–86, to Sultan Muhammad’s burial in the Dār al-Aman, Nath’s hypothesis that this cenotaph marks the grave of the second Tughluq sultan is probable.

69. Mahdī Husain, _Tughluq Dynasty_, pp. 501–02, suggested that the Lāl Gumbad might have been the mausoleum Sultan Muhammad intended for himself. He died while on a military campaign in Sind in 752/1351, was given a temporary burial there, and later (perhaps because of his unpopularity) was buried in the Tughluqābād necropolis rather than in the Lāl Gumbad. The latter tomb contains nine graves, five of stone and four of rubble-and-plaster; it is said to be the mausoleum of one Shaykh Kābir al-Dīn Awlīya, about whom we otherwise know nothing, but there is no epigraphic evidence to support this attribution nor the dating of 800/1397 offered by Brown, _Indian Architecture_, pp. 25–26, and Nath, _Sultanate Architecture_, p. 77. For brief descriptions, see also Sharma, _Delhi and Its Neighbourhood_, pp. 74; and Cunningham, _Annual Report_, 20:147–49, and pl. 33.

70. According to Sayyid Ahmad Khān (Nath, _Monuments of Delhi_, p. 41), the tomb “was built during the reign of Nāṣīr al-Dīn Muḥammad Shāh in 792/1389.”

71. The tomb contains three cenotaphs; presumably the central one is that of the sultan. Its epigraphs are analyzed below.

72. For a description of the mausoleum, see Zafar Hasan, _Guide to Nizamuddin_, pp. 37–38; Brown, _Indian Architecture_, p. 25; Nath, _Sultanate Architecture_, pp. 84–85. Nath suggests that it was begun by Khān-i Jāhān Maqābul and completed by his son.

73. Both types are found in the gardens of the Ḥauz Khāṣ madrasa of Firūz Shāh. The sultan erected an octagonal chhatri tomb over a Muʿizzī grave (of either Rukn al-Dīn Firūz Shāh, who died in 633/1236, or Muʿizz al-Dīn Bahrām Shāh, who died in 637/1240), just south of the madrasa-tomb complex of Nāṣīr al-Dīn Maḥmūd (the “Ṣultān Ghārī” tomb).

74. Perhaps on the model of the tomb of Ilutmish, who, as the first Indian sultan to receive formal ‘Abbasid investiture, was widely regarded as the founder of the Delhi sultanate.

75. Perhaps on the model of the tomb of Nāṣīr al-Dīn Maḥmūd.
77. Elliot and Dowson, *History of India*, 3:570.
78. Ibid., p. 572.
79. Immediately inside the remains of the outer gates on the northernmost part of the platform are several cenotaphs that, according to Sayyid Ahmad Khan (Nath, *Monuments of Delhi*, p. 6), mark the graves of Shaykh Hasan Tākīr (who died in 909/1503) and his family.
81. Page, *Koti*. This monograph is in general an excellent introduction to this site, though the author’s reconstruction of the citadel should be used with some caution.
82. Also called the Maḥal-i Dihk or Maḥal-i Angār.
83. Also called the Sahn-i Miyanāgī or central quadrangle.
84. *‘Affī*, in Elliot and Dowson, *History of India*, 3:343.
86. Excavation of the terraced lawns of the kotla would undoubtedly shed much light on the internal disposition of the structures.
87. *‘Affī*, in Elliot and Dowson, *History of India*, 3:366.
88. Timūr, in ibid., pp. 432–34. The term kashk-i shikar may refer not simply to one building but to the whole palace area. The kashk seems to have remained relatively intact until the early part of the eighteenth century, when it was destroyed by the explosion of a neighboring powder magazine. See Stephen, *Archaeology and Monuments Remains*, p. 143.
89. *‘Affī*, in Elliot and Dowson, *History of India*, 3:353. For a description of the area, see Stephen, *Archaeology and Monuments Remains*, pp. 140–45; Sayyid Ahmad Khan (Nath, *Monuments of Delhi*, pp. 7, 80–81), and Husain, *Tughluq Dynasty*, pp. 420–21, who reproduces a curious illustration purporting to depict the appearance of the kashk-i shikar before its destruction. It strikingly resembles the Lat Pyramid in the Fīrūzbād citadel. The lat, broken into five pieces by the gunpowder explosion, was restored and reerected by the British in 1867 about three hundred meters south of the Pīr Ghaib.
90. These mahalis are the subject of a forthcoming study by the authors.
91. *‘Affī* (Elliot and Dowson, *History of India*, 3:299) describes the now ruined palace at Ḥisār: “Inside the fort a palace was built, which had no equal in the world, and the various apartments of which were contrived with infinite pains. One of the arrangements of this palace was that any person, having a general acquaintance with the place, after passing through several apartments, would arrive at the center. This central apartment under the palace was very dark, and the passages were narrow, so that if the attendants did not guide the visitor he would never be able to find his way out. Indeed, it is said that a servant once went into that place, and after he had been missing for some days, the guards went there in search of him and rescued him from the darkness.”
92. *‘Affī* in ibid., pp. 300–02; Fīruz Shāh in ibid., p. 383.
93. Adjacent to the tomb-mosque of Makhdūm Shāh ‘Ālam at Wazīrabād in northern Delhi is a bridge of nine spans crossing a canal. It may also have originally functioned as a weir.
94. Fīruz Shāh, in Elliot and Dowson, *History of India*, 3:383–85.
95. Ibid., p. 383. The whole site is examined by S. A. A. Naqvi, “Sultān Ghārī, Delhi,” *Ancient India*, no. 3 (January 1947): 4–10, with 12 plates.
97. Elliot and Dowson, *History of India*, 3:572.
98. Ibid., p. 355.
100. Elliot and Dowson, *History of India*, 3:366.
101. Ibid., p. 354.
102. The manuscript reproduced in Page, *Koti*, pp. 33–67, includes a large number of technical illustrations. K. A. Nizami, (Supplement to Elliot & Dowson’s *History of India*, vol. III [Delhi, 1981]), pp. 63–64 suggests that Mutahhar of Kara, the poet who lavishly praised the Ḥauz Kāsh Madrasa-i Fīruz Shāhī, may have been the author.
103. Welch, “Islamic Architecture and Epigraphy in Sultanate India.”
105. “God is sufficient for me. God be glorified. O Opener! Thanks be to God. Sovereignty belongs to God.”

**BIBLIOGRAPHICAL NOTE**

Until well into the twentieth century, Muhammad Qasim Firishta’s *Gulshan-i Ibrāhīm*, or Ta’rīkh-i Firishta ([Bombay, 1832; Lucknow, 1905], trans. J. Briggs as *History of the Rise of the Mohmedan Power in India*, 4 vols. [1829; reprint ed., Calcutta, 1909 and 1966–71]), completed in 1018/1609–10 under the patronage of Ibrāhīm II ‘Ādil Shāh of Bijāpūr, served as the standard authority for sultanate and early Mughal history, but for Tughluq history Firishta is a source of negligible worth. His account is largely and not always reliably derived from the *Ta’rīkh-i Fīrūz Shāhī* of Dīyā al-Dīn Barāni (ed. S. A. Khan [Calcutta, 1860–62], trans. in H. M. Elliot and J. Dowson, *The History of India, as Told by Its Own Historians*, 8 vols. [Allahabad, n.d.], 3:93–268), which is Tughluq history’s single most important source. Writing between 752 and 759
(1351–57), when he was old and in exile, Barānī relied upon memory to construct a didactic history of the Delhi sultanate between 665 and 759 (1266–1357). His architectural information is scattered throughout the text in the form of brief references of little use. Even the urban complexes of Tughluqubād and Jahānpānah receive only passing mention, and since Barānī died before Firūz Shāh undertook his greatest building programs, his comments are restricted to Khaljī and early Tughluq monuments.

Ibn Baṭṭūṭa resided in India from 734 through 744 (1333–43) and served as qadi of Delhi under Sultan Muhammad for much of that time. He was often at court and received lavish patronage from the sultan. His Rihla (Cairo, 1928), trans. H. A. R. Gibb as The Travels of Ibn Baṭṭūṭa. 3 vols. (Cambridge, 1971), with its succinct observations, constitutes the most valuable source for Delhi’s architecture in the 730s/1330s, and his descriptions of the city’s walls, the sultan’s palace, and the jāmi’ masjid are often coupled with useful information about ceremonies, processions, and their relationship to architectural setting.

Other sources are far less useful. Badr al-Dīn Chāch (Qaṣīd [Cawnpoore, 1873], trans. in H. M. Elliot and J. Dowson, History of India, 8 vols. [Allahabad, n.d.], 3:576–73), one of the sultan’s court poets, includes a panegyric description of Delhi in his Qaṣīd and presents an extravagant account of the royal palace of Khurramābād, completed in 744/1344. A second poet, ʿĪsāmī (Futūh al-Salāṭīn, ed. A. M. Husain [Agra, 1938]), found less to praise. He and his family had suffered when in 729/1328 Delhi’s elite was forced to emigrate south to the Deccani city of Daulatābād, and as a poetic foil to the miseries of that city he offers a refugent general description of the beloved Delhi he had left behind that includes some imprecise references to individual monuments. Second-hand architectural comments on both Delhi and Daulatābād are found in the Masālik al-absār fī mamlūk al-amṣār of Shihāb al-Dīn ʿAbbās al-Umārī (trans. I. H. Siddiqi and Q. M. Ahmad as A Fourteenth-Century Arab Account of India under Sultan Muhammad bin Tughluq [Alligarh, 1971]), a Damascus scholar who never journeyed to India but instead relied on the accounts of travelers, merchants, and scholars who had been there.

Firūz Shāh’s passion for building was noted by most contemporary historians, but the most useful account of his architectural patronage is the sultan’s own Futūhāt-i Firūz Shah (ed. and trans. S. A. Rashid and M. A. Makedooni [Alligarh, n.d.]; trans. in H. M. Elliot and J. Dowson, History of India [Allahabad, n.d.], 3:374–88), which he wrote specifically for inscription in the jāmi’ masjid of Firūzābād. While the Futūhāt underscores the sultan’s ardent attachment to Sunni Islam and presents some of his most significant decrees and his ideals of kingship, it also includes valuable information recording his efforts to restore and reconstruct the damaged or decaying monuments built by his predecessors. This material is precise, not only naming extant structures but also indicating in some detail just what he ordered done to them. His comments on his own original buildings are less helpful by far and are intended simply to demonstrate that, as a prolific builder of mosques, madrasas, and khanqahs, he was a pious king.

Shams-i Sirāj ʿAfīf, who lived to see and lament Timūr’s destruction of Delhi, was sympathetic to Firūz Shāh’s rule and attentive to his architectural achievements. The fourteenth section of his Taʾrīkh-i Firūz Shāhī (Persian text, ed. M. W. Husain [Calcutta, 1890]; trans. in H. M. Elliot and J. Dowson, History of India, 8 vols. [Allahabad, n.d.], 3:374–88), which begins where Barānī ended in 1357, includes a list of the monuments restored by Firūz Shāh that is based largely on the monarch’s own Futūhāt. Elsewhere in his history ʿAfīf deals with original architecture and lists many of the monarch’s buildings as well as the new cities he founded, most notably Ḥeṣār and Firūzābād. His description of royal ceremonies in Firūzābād is useful for an initial understanding of the function of some no longer extant structures there, and he notes particularly Firūz Shāh’s incorporation of Asokan pillars in his palaces at Firūzābād and Jahān-numā.

The Asokan pillar at Firūzābād is a central concern for the anonymous author of the Strār-i Firūz Shāhī (extract and trans. in J. A. Page, A Memoir of Kota Firoz Shah, Delhi, Memoirs of the Archaeological Survey of India, no. 52, [Delhi, 1937], pp. 33–42), who describes in marvelous detail the engineering complexities and achievements of transporting the pillar from Topra and reerecting it in Delhi. His intense interest and his verbal precision indicate that he was probably assisted by an official in the sultan’s department of architecture, and this relationship would also account for the Strār’s third chapter, which describes in considerable detail the canals constructed by Firūz Shāh and lists some of his more important buildings.

The ten years between the death of Firūz Shāh and Timūr’s sack of Delhi could not have been architecturally impressive, and in detailing
the complex dynastic warfare of this period Yahyā Sirhindī’s Ṭārīkh-i Mubārak Shāhī (Persian text, ed. M. H. Husain [Calcutta, 1931]; trans. in H. M. Elliot and J. Dowson, History of India, [Allahabad, n.d.], 4:6–88) refers only to buildings already constructed under previous monarchs and offers no new information about them. In his own way Timūr was more attentive, and his Malūfzātī-i Timārī or Tāzuk-i Timārī (trans. in Elliot and Dowson, History of India, 3:389–499), demonstrates that he admired the architectural achievements of the Tughluqs even as he set out to destroy them. Saraf al-Dīn Ḍīl Yāzdī’s Zafarnāmāh (ed. M. M. Ilahbad [Calcutta, 1888]; partial trans. in Elliot and Dowson, History of India, 3:478–522) offers nothing new and bases its architectural references entirely upon its patron’s Malūfzātī-i Timārī.

As for significant secondary work, Ishwari Prasad was the first scholar to examine Tughluq history in depth. Though ending with the death of Sultan Muhammad in 1351, his History of the Qaraunah Turks in India (Allahabad, 1936; reprint ed., 1974) is still a useful study. Agha Mahdi Husain’s Rise and Fall of Muhammad bin Tughluq (London, 1925) is an impressive discussion of this powerful personality; the same author’s Tughluq Dynasty (Calcutta, 1963; reprint ed., New Delhi, 1976) offers new information on Muhammad as well as a careful examination of the other Tughluq kings, and his architectural observations are often trenchant. Jamini Mohan Banerjee’s History of Firuz Shah Tughluq (Delhi, 1967) is the most extensive available study of this ruler and includes a chapter on his architectural patronage. For the entire Sultanate period the most recent and authoritative work is Mohammad Habib and Khaliq Ahmad Nizami, eds., A Comprehensive History of India (New Delhi, 1970), vol. 5, The Delhi Sultanate; the chapter on the Tughluq period is a valuable and thorough critical analysis.

Architecture under Tughluq patronage has not until now been examined as a single entity. Previous considerations of this architectural tradition included it in broader contexts ranging from the history of Muslim buildings in Delhi to the history of Islamic architecture. Sayyid Ahmad Khan’s Aḥār al-Sandādīd, first published in Urdu in Delhi in 1847 and again in 1854 and reprinted several times since then, was the earliest — and is still a basic — guide to the Muslim architecture of the Delhi area, and his chronology and corpus of sites are still largely followed. Gärchin de Tassy’s French translation of the Aḥār al-Sandādīd (Journal asiatique, 5 ser., 15:509–36; 16:190–254, 392–451, 521–43; 17:551–60), is the standard one, but an English abridgment has recently been published by R. Nath under the title Monuments of Delhi (New Delhi, 1979). Carr Stephen, The Archaeology and Monumental Remains of Delhi (Simla, 1876; reprint ed., Delhi, n.d.), and Y. D. Sharma, Delhi and Its Neighborhood (New Delhi, 1974), essentially follow Sayyid Ahmad Khan’s model.

Useful introductions of varying lengths to the development of Tughluq architecture can be found in all of the following: Percy Brown, Indian Architecture: The Islamic Period, 2d ed. (Calcutta, 1942); R. A. Jairazbhoy, An Outline of Islamic Architecture (New York, 1972); Ziauddin Desai, Indo-Islamic Architecture (New Delhi, 1970) and Mosques of India (rev. ed., New Delhi, 1971); J. D. Hoag, Islamic Architecture (New York, 1978); and J. Burton-Page’s two entries (s.v. “Dīhī” and “Hind-Architecture”) in the second edition of the Encyclopaedia of Islam.

An exhaustive photographic survey of sultanate architecture that includes every Tughluq structure of major significance in Delhi is the Japanese publication of T. Yamamoto, M. Ara, and T. Tsukinowa, Delhi: Architectural Remains of the Sultanate Period; unfortunately, this major work exists in a limited and virtually inaccessible edition (Tokyō Daigaku, Indo Shiseki Chōsa Dan, Deri shoōcho jidai no kenzōbutsu no kenkyū, Indo Shiseki Chōsa Dan hen, 3 vols. [Tokyo, 1968–70]). R. Nath, A History of Sultanate Architecture (New Delhi, 1978), presents a new analysis and new information and includes a substantial and useful discussion of Tughluq architecture.

British attention to particular sites has been recorded in the Annual Reports of the Archaeological Survey of India, but few monuments have been studied in any detail. The earliest structure built under Tughluq patronage, the tomb of Rukn-i ‘Alām in Multan, has been briefly discussed by J. Burton-Page (in Splendors of the East, ed. M. Wheeler [London and New York, 1965], pp. 72–81). The Khalji and Tughluq contributions to the dargah of Nizām al-Dīn Auliya in Delhi are presented in Zafar Hasan’s Guide to Nizamuddin, Memoirs of the Archaeological Survey of India, no. 10 (Calcutta, 1922), and a single short excavation report deals with the major Tughluq fortress of ‘Adilābād (Hilary Waddington, “Adilabad, a Part of the ‘Fourth’ Delhi,” Ancient India, 1, no. 1 [January 1946]: 60–76). F. Wetzel, Islamische Grabbauten in Indien in der Zeit der Soldatenkaiser (Leipzig, 1918), briefly examines four identified Tughluq tombs. Only one Tughluq site has been provided with a basic (though far from comprehensive) monograph in J. A. Page, A
Memoir on Kotla Firoz Shah, listed above. Thus sites of outstanding importance for the development of Islamic architecture in India, such as the great walled city of Tughluqabad, the Begampur mosque and palace, and the Hauz Khāṣ madrasa of Firuz Shāh, have yet to be studied as they deserve.

Fortunately, Tughluq architectural inscriptions have been given more attention, most notably in a steady succession of informative articles in Epigraphica Indo-Moslemica and Epigraphica Indica, Arabic and Persian Supplement, both published by the Archaeological Survey of India. An admirable localized study of epigraphs, indispensable for any investigation of sultanate architecture, is M. A. Husain, A Record of All the Qur’anic and Non-Historical Epigraphs on the Protected Monuments in the Delhi Province, Memoirs of the Archaeological Survey of India, no. 47 (Calcutta, 1936).