Building the Modern Mosque

Stonemasonry as Religion and Labor

STONEMASONS, PATRONS, AND ARCHITECTURAL KNOWLEDGE

In 1875, Riyasat ʿAli Sarshar, a master builder and lead mason from Lucknow, compiled a sixteen-page treatise on construction, titled *Tazkirah al-aiwān* (Compendium of buildings).[1] The text, like so many of the others in this book, focused explicitly on how to carry out a trade—in this case, stonemasonry and construction—as a pious Muslim. Sarshar and the masons and builders that he hoped to educate were engaged partially in the construction of religious architecture, building mosques, tombs, shrines, and other physical markers of Muslim religious practice and identity.[2] Like many of the master artisans analyzed in the previous chapters, Sarshar framed his labor as pious, informed by a Muslim past and Islamic practice. But unlike most of the others that we have studied, the structures that he produced were also received—by patrons and a wider public audience—as sites of Muslim religious piety.

Sarshar's authority as a master builder was based in part on his training under his father Muhammad Nizam, a lead mason who had worked maintaining the religious architecture of the nawabs of Awadh in Lucknow.[3] Prior to the deposal of the nawabs of Awadh by the East India Company in 1856, Lucknow was among the most prestigious sites of patronage and employment for those engaged in the construction of Muslim religious architecture.[4] For Sarshar, familial and educational ties to this site of displaced architectural prestige offered proof of his ability to write knowledgably about how to build and engage in stonemasonry piously. At the same time, Sarshar also based his authority on his experiences as a lead mason and master builder, noting that he had been employed by Sayyid Muhammad Ali Khan, the landlord of Shamsabad, near Fatehgarh in the North-Western Provinces, to construct an *imāmbāṛā* (a site for Shia commemoration) there.[5] His

work was published by the small Dilkushā Press in Fatehgarh, suggesting that his work on the *imāmbāṛā* may have brought him local prestige.

Sarshar emphasized both the pious nature of the labor of stonemasons and the pious nature of the buildings that they might construct. Reflecting the norms of artisan manuals aimed at Muslim workers more broadly, Sarshar explained God's revelation of knowledge of construction and stonemasonry.[6] Written primarily in verse, the *Taẕkirah al-aiwān* highlighted God's revelation of building to the imme-diate descendants of Adam, and through them to humanity. Referencing God's revelation of construction to Mahalalel, the son of Qaynan and great-grandson of Adam, Sarshar tied the origins of construction to the origins of humanity and the Prophets:

> God, who has created the Prophets,
> Has given each of them a task,
> And when God created the Prophet Mahalalel
> What was the order of God the Great?
> He started the construction of palaces
> And He propagated the methods of construction.
> From Him came forth the invention of houses.
> He remains the supreme *ustād* in this trade.[7]

Even as he centered God's revelation of knowledge of construction and stonema-sonry, Sarshar maintained that some buildings were more reflective of God's inten-tion for construction than others. His own claim to fame was in the construction of religious architecture, as represented by the *imāmbāṛā* of Shamsabad. But he did not suggest that the buildings that were most reflective of God's intentions were only those that served as sites of religious practice. Instead, he maintained that all buildings—palaces, homes, mosques, *imāmbāṛā*s, even offices—could be designed in an "auspicious" manner that glorified God and his revelation of knowledge.[8]

Sarshar's text did not provide detailed patterns or training in the basics of masonry; it focused, instead, primarily on the ways a mason should perform his piety while building. It served as a trade history and manual of the religious prac-tice of building. Still, he included notes on the properties of auspicious buildings, including the positions of their walls and the organization of their rooms. Sarshar's intended audience, therefore, consisted of members of his own class of apprentice-ship-trained lead masons and master builders, artisans with a degree of authority over construction. For instance, he maintained that there were months and days when it was auspicious or inauspicious (*sa'd o naḥs*) to undertake the construction of new architecture, suggesting that his readers should have sufficient authority within their worksites to influence the days and order of work.[9]

Sarshar wrote primarily for Muslim master masons, people trained piously, at home or in a workshop, but with sufficient authority in their field to coordinate

labor. But he also spoke to their patrons and employers, those who would pay for the materials and designs and would demand that work be completed within specific time frames. He aimed to ensure that these patrons and employers would understand why the construction of their buildings must follow certain principles.[10] As an accomplished master builder, notable for his contributions to Muslim religious architecture in North India, Sarshar sought to educate his potential patrons about the piety of the labor that they should expect from him and other Muslim masons and architects. For Sarshar, the piety of labor and the piety of buildings were intimately connected, and to dispense with the former would be to risk the latter.

By the late nineteenth century, texts like Sarshar's *Tazkirah al-aiwān* circulated in a crowded knowledge economy centered on practices of building and construction. For Muslim lead masons and the Muslim artisans who labored under their direction, materials like the *Tazkirah al-aiwān* were useful means of circulating knowledge about the pious practice of their trade. These manuals may also have been relevant in convincing patrons and overseers of the importance of recognizing artisan knowledge of the pious way to build. This was especially, but not only, true for structures that were popularly understood as sites of religious practice.

Simultaneously, lead masons were exposed to the shifting norms and preferences promulgated by colonial public works departments and British engineers. Even when they did not work directly for the British Indian public works departments or had limited interactions with British engineers, both patrons and technical intermediaries expected masons to follow a consolidating set of building practices. These building practices often centered the precise preparation of new plasters, as well as the application of new styles preferred by the consolidating Indian middle class. As a result, while many Muslim lead masons engaged with models of pious labor like those promulgated in Sarshar's *Tazkirah al-aiwān*, they also relied on translated and adapted British Indian textbooks about construction.[11] In contrast to their patrons, who often divorced technological change from the religious meaning of buildings, Muslim masons often integrated new technologies and materials into their religious narratives of construction. They adapted to shifting technical demands without necessarily adopting the distinctions between the religious and the technical asserted by many of their patrons.[12]

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In chapters 2 and 3, I argued that Muslim artisans often maintained religious traditions and asserted Muslim pasts for their trades and technologies. In most cases, while artisans understood their labor and production as pious, patrons and consumers did not share this understanding. Producers experienced the religiosity of their work but consumers did not typically understand the final product as "Islamic" or reflective of Muslim practice—except for scribal work when it was used to produce religious texts.

In contrast, this chapter examines a trade in which both producers and consumers often understood the final product through a lens of religious experience and practice. The mosques, shrines, tombs, and other "religious architecture" that I analyze here reflect the pious labor of producers. Additionally, for the people who funded and visited them, they reflected what Anna Bigelow calls "Islamic materiality," functioning as "emplaced material objects . . . [that] facilitate or inhibit transactions between religious actors and their conceptions of the divine."[13] Focusing on stonemasons and the construction and repair of mosques, shrines, tombs, and *imāmbāṛā*s, the chapter analyzes how patrons, technical intermediaries, and artisans understood the "Islamic materiality" of architecture. It asks how shifting practices of patronage and technical oversight influenced how master masons understood and practiced their trades.

I argue that Muslim stonemasons often maintained a more capacious understanding of "religious architecture" than their patrons or middle-class overseers. They did so both by integrating new technologies and materials into their narratives of pious labor and by applying their understanding of Muslim stonemasonry to a wider range of buildings. Through this chapter, I position artisan Islam within the argument that practices of construction and stonemasonry could reflect or even deepen the Muslim piety of the worker, regardless of whether the building itself was popularly understood as "Islamic." However, I am especially interested in the ways that Muslim artisan engagement with sites of worship and piety intersected with and diverged from elite conceptions of "religious architecture."

This chapter focuses on the patronage of religious architecture of two Muslim-led princely states: Rampur, which is surrounded by the North-Western Provinces, and Bahawalpur, in Punjab. In both Rampur and Bahawalpur, a class of Muslim lead masons engaged with the models of pious stonemasonry and construction recommended in the *Tazkirah al-aiwān*. At the same time, these masons necessarily negotiated shifting technical expectations of princely patrons and the technical intermediaries and engineers that they employed. Masonry work, even on architecture understood by patrons and the public as Islamic, was increasingly subsumed within princely state adaptations of what Gyan Prakash terms the "technologizing exercise of state power."[14] In the context of directly administered British India, Prakash notes that colonial administrators "represented colonial rule as a matter of improving technics," meaning "technical routines, knowledges, practices and instruments."[15] In their efforts to demonstrate their scientific and technical parity with British India, princely state rulers often adopted these same technics.[16] These princely patrons required local laborers—such as masons—to adapt materials, technologies, and practices that were promoted by the colonial state to a variety of princely projects, including religious architecture.

Muslim-led princely states were not the only or even the primary sites of Muslim patronage of religious architecture. Wealthy Muslim families in rapidly growing cities in British India, religious *anjuman*s, and regional landholders were all also

major patrons of new mosques, shrines, tombs, and *imāmbāṛā*s. But princely state patrons—and the colonial administrators assigned to their states—left behind a wealth of records that offer unique insights into why and how they commissioned the construction and repair of religious architecture. Moreover, even outside of the geography of the individual princely states, members of princely families and their courts were among the most prominent funders of mosques and other forms of "Islamic architecture," exerting both stylistic and ideological authority. And when the members of Muslim *anjuman*s and other institution in British India sought to build religious architecture, they often turned to princely patrons to raise sufficient funds, allowing these patrons input into the style and design of their buildings.[17] As a result, focusing on princely patronage offers important insights into the shifting expectations placed on master masons in the late nineteenth and early twentieth centuries.

The chapter turns first to a brief contextualization of how princely state elites understood and patronized architecture that they understood as "Islamic," before returning to knowledge production about masonry and construction. It examines not only the *Tazkirah al-aiwān* and similar manuals but also formal textbooks that circulated in colonial technical institutions, many of which were translated or adapted from English. Subsequently, I explore how these forms of knowledge may have been used by masons in Rampur and Bahawalpur. By the early twentieth century, masons in both states faced a deepening overlap of courtly patronage and state bureaucracies. I ask how artisan stonemasons circulated knowledge about their labor, religion, and technologies as they constructed representations of the Muslim authority of the courts of Bahawalpur and Rampur. How did Muslim stonemasons engage these multiple forms of knowledge about how to carry out the technical and pious work of stonemasonry? And to what degree did they integrate the shifting technical and ideological preferences of their patrons into their narratives of the Muslim practices of building?

CONTEXTUALIZING ISLAMIC ARCHITECTURE
BETWEEN RAMPUR AND BAHAWALPUR

In his article "What Is Islamic Architecture Anyway?" Nasser Rabat argues that the academic category of Islamic architecture emerged through colonial power over much of the so-called Islamic world, solidifying in the late nineteenth century.[18] The category holds inherent contradictions. As Rabat notes, the "architectural historical discipline . . . cast Islamic architecture as a formal expression of Islam," even as it "shunned religion as a . . . classificatory measure and instead sought unity in culturally shared approaches to aesthetics and spatial sensitivities."[19] European orientalists of the nineteenth century usually located Islamic architecture in a supposed classical precolonial period, one from which living Muslims were excluded as part of the narrative of "Eastern" and Islamic decline.[20] However, in India as

elsewhere, wealthy Muslims often sought to revive and revitalize Islamic architecture, even in cases where they accepted European narratives about its defining characteristics and its "decline." They were sometimes joined in these projects of revival by Europeans themselves, with one British state architect asserting in 1913 that regional Islamic architecture was "dormant" but "worth reawakening."[21]

In South Asia, Muslim-led princely states were a major site of this Islamic architectural revival. Many princely state leaders—be they Hindu, Muslim, or Sikh—sought to position themselves and their states as repositories of architectural traditions that had been lost in British India, even as they also hastened to demonstrate their technological parity with British-administered territory.[22] In Muslim-led states, this meant that stonemasons and other artisans who labored on architectural projects were expected to adopt materials and styles that were seen as evocative of a Muslim—often Mughal—past, even in cases where these materials and styles had limited local precedent. In the late nineteenth century, popular Indian accounts of the Mughal Empire and its architecture portrayed elite mosque construction as a means of developing the Muslim social, political, and architectural identity of the state, a form of both aesthetic and religious influence.[23] For Muslim princely elites who hoped to evoke Mughal authority, this was a powerful precedent, and one that they pursued not only by endowing mosques but also by determining the material and style of the mosque itself. Simultaneously, however, masons were expected to apply materials that were widely used by the British Indian public works departments and other British Indian projects to architectural projects that aimed to evoke a restoration of a prestigious Muslim past.

In the wake of 1857, the Indian subcontinent was divided into a patchwork of administrative territories. Regions outside of directly administered British India, known as native or princely states, were at least nominally ruled by local dynasties. Princely states formed approximately a quarter of India's population and nearly 40 percent of its territory.[24] This division of regional authority reflected the piecemeal conquest of India under the British East India Company. Rampur and Bahawalpur were both Muslim-led states with quasi-autonomous Indian rulership under British Indian governmental oversight and suzerainty, although their political histories differed notably.

Bahawalpur State was led by a dynasty that had established itself near the edge of the Cholistan desert in a primarily Saraiki-speaking region located geographically within the British province of Punjab. The Bahawalpuri dynasty had conquered a set of small local polities that together became Bahawalpur State in the mid-eighteenth century.[25] The dynasty successfully negotiated the rise of regional powers including the Afghan Durranis and the Sikh Empire, ultimately entering a subsidiary alliance with the British in 1833 to protect itself from its more powerful neighbors. The state retained quasi-autonomous status due to the support of its nawabs for the British during the Anglo-Afghan War of 1839–42 and the two

Anglo-Sikh Wars of 1846 and 1848–49.[26] Rampur, conversely, was a rump state, the remains of a larger polity of Rohilkhand that covered much of what is now Western Uttar Pradesh. Most of Rohilkhand was conquered by the British East India Company between 1774 and 1745, but a member of the deposed Rohilkhandi ruling family was installed as nawab of Rampur as part of a peace agreement with the Company.[27] Although they were descendants of Afghan Sunnis, the nawabs of Rampur embraced Shiism in the mid-nineteenth century, and their architecture sometimes sought to evoke the lost power of the Shia-led court of Awadh. Indeed, both states were home to courts that sought to assert political and religious authority through Islamic architecture, including through the construction and repair of local mosques, shrines, and tombs.[28]

Despite the differing histories and geographies, Rampur and Bahawalpur states shared sufficient commonalities to allow meaningful comparisons of their courtly patronage of architecture. Both were midsized states in terms of population. Unlike states such as Hyderabad and Mysore, neither was home to a massive population that would rival European nations.[29] Bahawalpur, with a population of approximately 720,877 in 1901, was more populous than Rampur, which was home to 533,212 residents. Bahawalpur was, however, far less dense. It was the seventh-largest Indian princely state by area and covered a much more expansive area—including much of the Cholistan desert—than geographically diminutive Rampur. Their titular capital cities—where the most notable state- and court-patronized religious architecture was constructed—were roughly similar in size, with just under eighty thousand people in Rampur city and just over ninety thousand in Bahawalpur at the turn of the twentieth century.[30]

What is most important for the purposes of this analysis is that both states also hosted public works departments modeled on those in British India by the 1870s. This was not the case in several of India's approximately six hundred princely states, many of which were tiny polities functionally closer to large landholdings or feudatories than states.[31] But both Rampur and Bahawalpur had a level of wealth and population that enabled their courts to develop bureaucratic markers of statehood and autonomy, even as they remained bound to colonial suzerainty and often hosted British advisers.

This meant that increasingly, in the late nineteenth and early twentieth centuries, major projects of religious architecture in each state were shaped not only by the interests and aims of individual patrons. The administrations of each state also used the technical expertise and manpower of their public works departments and related bureaucracies to direct the construction of important new mosques, shrines, and tombs.[32] And even when this was not officially the case, the workshops contracted for public works department projects were often also contracted by princely patrons, meaning that technical expectations common within the public works departments extended to these private projects.[33]

TRANSLATING AND CIRCULATING KNOWLEDGE
OF CONSTRUCTION

Even before the consolidation of public works department technical oversight over architectural production in Rampur and Bahawalpur, regional masons negotiated patrons' changing preferences surrounding materials and technologies of construction. This was the case not only in princely states but also in directly administered British India, where masons often constructed Islamic architecture at the behest of landowners, Muslim *anjuman*s, or princely patrons who wished to demonstrate their authority beyond their territory. In this context, Riyasat ʿAli Sarshar framed his 1875 *Tazkirah al-aiwān* as a guide to the pious labor of masonry. At the same time, as a lead mason and master builder in the North-Western Provinces, he was clearly aware of the demands of regional colonial public works departments, including the materials that they preferred and their processes of contracting and recruitment. His text highlighted the organization of rooms and internal walls and provided advice on the construction of external brick walls.[34] Sarshar wrote with the assumption that masons were familiar with many of the basic physical requirements of construction, gleaned either from their apprenticeship training, or from likely having contracted for regional public works department projects. In the latter case, masons would have been exposed to the regulations for building set out in translated textbooks used by Indian engineers and construction overseers, even if they did not personally read or use these textbooks.

English-language textbooks on construction and stonemasonry that focused on the standards of building for the colonial public works departments were first translated into Urdu beginning in the 1850s. Many of these early Urdu translations of textbooks were translated at Thomason College at Roorkee. As I have already shown, engineering education, including at Thomason College, was organized hierarchically by "race," with Indians excluded from the highest levels of training.[35] But beginning in the early 1850s, Indians were trained in "subordinate" classes to take up medial positions for both the railways and the public works departments. Thomason College's "native masters"—many of whom were Indians who had been educated there and stayed on as teachers—translated or adapted English-language textbooks and manuals on construction materials for the school's lower-level classes. For instance, an 1873 translation of a manual titled simply *Taʿmīr -i ʿimārat* (Construction of buildings) was produced by two "native masters" named Rai Mannu Laʿl and Lala Behari Laʿl and then reprinted with amendments by Lala Behari Laʿl four years later.[36] The text included precise recipes for various plasters, as well as directions on how to "build brick walls" and "create domed roofs."[37] Other contemporary translations, some undertaken by the public works departments themselves, addressed the use of lime and concrete plasters, as well as practices of whitewashing and inlaying.[38] These directions were aimed primarily at Indians trained to supervise public works department and railway labor, teaching them the expectations that they should hold for the masons and other laborers contracted to carry out the work of construction.

Institutional translations were not the only sources of printed knowledge for Urdu-literate technical intermediaries employed to oversee the construction of religious architecture in the late nineteenth and early twentieth centuries. Some members of this consolidating class of technical overseers also wrote and circulated periodicals that emphasized both technical knowledge and the social interests of Indians who had been educated in colonial engineering schools. Among the most notable of these was *Indian Architect* (*Inḍiyan arkitīkt*), the monthly Urdu-language journal printed in Lahore throughout the late 1880s and early 1890s. *Indian Architect* billed itself as "a journal of art, civil engineering, and building in the vernacular" providing "all types of engineering articles and drafts of old and new buildings, both English and Indian . . . rendered into the Urdu language."[39]

As Gail Minault has argued in the context of Urdu-language women's magazines aimed at middle-class Muslim women, late nineteenth- and early twentieth-century periodicals contributed to a sense of shared class identity. They enabled individuals who otherwise lacked easy or frequent direct contact with each other to develop cohesive norms.[40] Intermediary professionals working in different regions across India similarly developed shared practices and identities through trade periodicals. In the case of *Indian Architect*, this meant that trained architects, engineers, and other associated professionals maintained similar standards even as they found employment across the subcontinent, including in princely states such as Rampur and Bahawalpur.

Unlike most translated textbooks and public works department manuals, articles in *Indian Architect* also opined on the potential futures of Indian building and construction. Just as many princely state patrons sought to "revive" supposedly dormant Indian traditions of architecture using new materials and technologies, so too did the technical intermediaries who wrote and read *Indian Architect*. The journal was aimed at a religiously pluralistic audience, but throughout its run the architectural style and methods of construction used in the Mughal era and earlier periods of Muslim rule in North India were popular topics. It regularly featured sketches of mosques, tombs, and other Islamic architecture and extolled readers to study their dimensions and construction principles.[41] An article from 1894 titled "The Importance of Studying Old Buildings" argues that Indians should base their approach to new construction on that of the Swiss, who supposedly integrated historical styles with modern technologies.[42] The journal emphasized the aesthetics of an Indo-Islamic past as a source for the renewal of Indian building practices.

Even as they encouraged state technical intermediaries to learn from the past, periodicals and treatises such as *Indian Architect* framed new technologies and materials as "modernizing" in nature. They promoted a uniform middle-class professionalism that could be applied equally to colonial public works projects or the construction of a mosque, tomb, or *imāmbāṛā*. These new intermediaries increasingly understood their role as applying "modern" technological and material practices to construction, regardless of whether the buildings were meant to represent the power of the colonial state or the "traditions" of a presumed religious past.

MUSLIM STONEMASONS AND THE REINTERPRETATION
OF COLONIAL KNOWLEDGE

Lead masons and apprenticeship-trained master builders may have used transla-
tions to learn the physical expectations of colonial public works departments to
secure contracts and patronage. Likewise, some may have read periodicals like
Indian Architect to understand the changing technologies and materials preferred
by their patrons and the growing class of technical intermediaries who oversaw their
work. But as reflected by the *Tazkirah al-aiwān*, lead masons and apprenticeship-
trained master builders also reinterpreted texts and histories for themselves, inte-
grating new technical and material expectations into narratives of pious labor.

For instance, one of the final segments of Sarshar's text laid out a series of rules
and expectations for master builders. These rules indicated that builders were
required to possess knowledge circulated through textbooks like the *Instructions
on Building*, but this was not the only requirement. Of equal importance was
builders' comportment, their ability to work with their hands, and their knowl-
edge of the religious strictures of their trade. Entreating masons to understand
the "perfect" practices of construction, Sarshar explained that they would never
suffer "unemployment" (*baykārī*) if they followed these rules:

> It is first that you should be wise and prudent
> And second, do your craft [*dastkār*] with your own hands.
> Third, you should remember the principles of the plan.
> Fourth, you should be a participant in [the knowledge of] this treatise.[43]

For Sarshar, then, a master builder or lead mason was fundamentally an arti-
san or craftworker, someone who not only was capable of working with his
hands but regularly did so. He was, moreover, educated in the knowledge of
pious labor contained in Sarshar's own text. Following his concluding verses
on the nature of such a builder, Sarshar listed a series of supplications that any
builder should know, recite, and teach to the workers and apprentices in his
workshop. Written in Arabic, the supplications centered the theme of God's
protection of his creation and his intervention in the work of the mason. For
instance, he wrote, "Oh God, protect the world and double the sustenance
[in] my work," and "Oh God, provide us with sustenance and double the suc-
cess of my work in the world."[44]

Sarshar's text was written in an Islamic idiom, emphasizing the prayers that
Muslim master masons should perform over their work. But it also reveals the
interpenetration of multiple Indian religious and visual imaginaries in the worlds
of master masons. In a text with few images, he included a single sketch of an
ouroboros (figure 10), labeled with the months of the year and cardinal directions,
suggesting the auspicious months for starting work in construction.[45] While labeled
with the Islamic, Hijri months, the image evokes the association between serpents
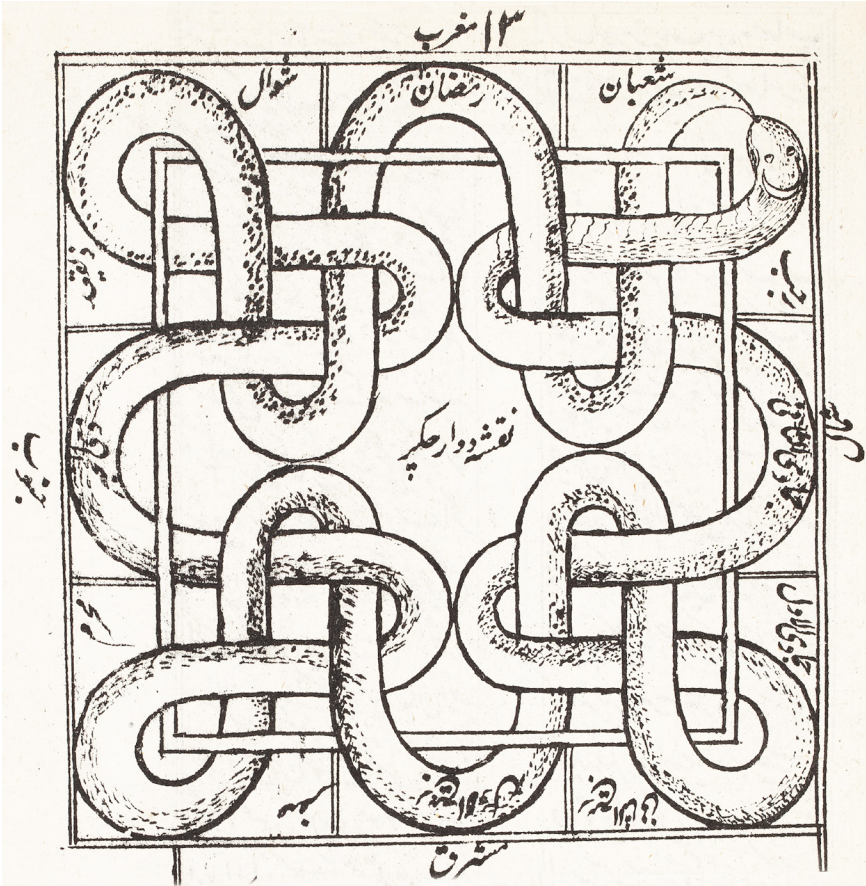
FIGURE 10. The ouroboros in Sarshar's *Tazkirah al-aiwān* (Fatehgarh: Dilkushā Press, 1875), labeled with the months of the year and the cardinal directions to demonstrate the auspicious order of construction. (© British Library Board VT 614, p. 13)

and *vastu*, Hindu traditions of building, and the *vastu naga* (snake), which in some traditions is worshipped as the serpent God of a building site.[46] Indeed, in the verses preceding the image, Sarshar identified the auspicious months for construction in the lunar months of the Hindu calendar as commonly used in North India.

He explained, for instance, that the months of Asādha and Bhādūṇ were particularly inauspicious for starting to build a structure, while beginning in the month of Phāgun would bring certain luck to the project.[47] He wrote, moreover, that he had calculated the cardinal directions associated with each of the Hijri months and suggested that knowing these associated directions would allow a reader to understand when it was auspicious to begin building. Sarshar's understanding of

the relationship between Hindu traditions of *vastu* and pious Muslim construction remains somewhat ambiguous. Nonetheless, his use of the serpent to illustrate the order of auspicious construction is a signifier of what is often left out of many other Muslim artisan manuals: traditions that reflect the intersections of multiple Indian religious idioms. It sets his work apart from many of the other artisan manuals and histories analyzed in this book, as he embraced, rather than elided, evidence of knowledge exchange with non-Muslim communities.

Sharshar's work is distinct, therefore, both from many other artisan manuals and from the periodicals aimed at middle-class intermediaries trained by the colonial state. Unlike materials used by the consolidating middle class of technical intermediaries, Sarshar's book asserted that the technical training of masons was incomplete without pious practice. Texts aimed at middle-class technical intermediaries positioned lead masons and other master artisans as figures to be directed and controlled. Sarshar, conversely, positioned their labor, their authority, and their piety as central to construction, suggesting that structures were secure because masons were skilled with their hands and performed the correct prayers and supplications.

An equally important distinction between Sarshar's mode of writing and those that circulated among middle-class technical intermediaries lies in the way each conceptualized what made architecture Islamic. Periodicals like *Indian Architect* praised buildings that were understood as Islamic in the colonial schema discussed in the introduction to this chapter, and argued that these buildings might be models of education for Indians who hoped to "revive" regional architecture. To do so, the periodical suggested, they should apply new plasters, new tools, and new technologies to old schemas and styles in the model of the "Swiss."[48] But for Sarshar and the masons that he aimed to educate, a building was Islamic not just because of its style or its association with a Muslim past or Islamic religious practice. Certainly, a mason could accrue prestige and demonstrate piety by constructing a building that was used for worship or mourning, as Sarshar had done with the *imāmbāṛā* of Shamsabad. Architecture was also rendered Islamic through the practice and piety of the workers. This, Sarshar suggested, could apply to any building that they were recruited to work on if masons were sufficiently educated in the practice of pious construction and were permitted to carry out their work Islamically.

PATRONS AND PRAISE: CLAIMING TECHNOLOGY AND POWER

In addition to artisan lead masons and middle-class technical intermediaries, a third group circulated knowledge about stonemasonry and its relationship with Islam and the Muslim past. Patrons themselves—and the historians and poets they employed—also sometimes wrote about stonemasonry, albeit primarily to demonstrate their own religious, political, or technical authority. By the early twentieth century, consolidating technical hierarchies within the public works departments

of princely states allowed patrons and members of the courtly elite to subsume the labor of stonemasons within the broader "technologizing power" of their states. Nonetheless, these patrons and courtly elites recognized the importance of masonry to the demonstration of their own political and religious authority.

Members of the Indian elite wrote about stonemasonry not only as a technical practice but also as a source of prestige, piety, and social influence to an extent greater than the other trades that I have examined so far—with the occasional exception of scribal work. As was the case with Sarshar's writing, patrons praised not just the structures that were popularly understood as sites of Muslim religious practice but sometimes also buildings more generally. But this praise, while ostensibly *about* stonemasons, was usually aimed at an elite audience and was used to assert the distinctiveness of the state as a site for the preservation of Muslim tradition and aesthetics, especially vis-à-vis British India.

For instance, in 1905 in Hyderabad State, the wealthy and prominent Muslim-led state in the South Indian Deccan region, a local courtly historian composed a ghazal praising the construction of a bazaar. Sponsored by a representative of the Hyderabadi state elite in the town of Beed, Maharashtra, the bazaar was constructed to represent courtly interest in the town's economy.[49] The ghazal, authored by a poet called Siddiqi, was written in Persian, as indeed was the entire text, even though Hyderabad had adopted Urdu as its official language in place of Persian in 1884.[50] The choice of Persian reflects the assumed elite or highly literate nature of the intended audience, highlighting the fact that verses in praise of masons were likely inaccessible and not intended to be read by the masons themselves.

Siddiqi praised the builder of the Mahbub Ganj bazaar through allusions to the classical story of Shireen and Farhad, in which Farhad was a sculptor ordered to carve through Mount Behistun as punishment for his love of the princess Shireen.[51] Simultaneously, the poet engaged with the imagery of God's creation and the narrative of the builder as a divinely influenced creator:

> Hail to you, chisel of the artisan
> Hail to you, Farhad-like craft
> Hail to you, plaything of the stonecutter
> Hail to you, mountain-cutting lover of Shireen
> Hail to you, who knows the pulse of hard stone
> Hail to you, layer of hardened brick
> Hail to you, builder of Mahbub Ganj
> Hail to you, sheikh of mud walls and glory
> Hail to you, stamped record of creation
> Hail to you, pen of Siddiqi, whose byword is truthfulness.[52]

In Rampur and Bahawalpur, state elites and patrons likewise occasionally praised both the projects that were completed by stonemasons and the stonemasons themselves. In doing so, they positioned these workers as the inheritors of an unbroken

tradition of Islamic architecture, the laboring representatives of the state's claims on a prestigious Muslim past.

As was the case with the poem written in praise of the mason of the Mahbub Ganj bazaar, however, the intended audience of this praise was usually not the stonemasons themselves. Instead, the leaders of princely states such as Rampur positioned local stonemasons and other artisans as repositories of classical Indo-Islamic aesthetic traditions to demonstrate their own political, religious, and social authority. Rampur, for instance, held an annual *Jashn-i Baynaẓīr* (Unparalleled Festival), a fair meant to promote the state's products while also celebrating the state as a center of literary and cultural patronage. At the fair, attendees were often treated to tours of Rampur's architectural accomplishments. The 1879 fair featured the official opening of a shrine honoring a footprint of the Prophet Muhammad.[53] The footprint, reportedly brought from Arabia to the state a few years earlier, was installed under a decoratively carved shrine outside the state's *Baynaẓīr* palace. The opening of the shrine, according to Najmul Ghani Khan, an early twentieth-century historian of the state, led to a "great fervor" among the public, boosting attendance at the fair.[54]

Visitors to the *Jashn-i Baynaẓīr* were also encouraged to peer into erected model workshops meant to demonstrate the industriousness of the state's artisans. An 1894 report described these model workshops as "brightly lit and clean" and noted that the artisans—most of whom were woodworkers along with a few stone carvers—showed "all deference to the honored visitors."[55] Tours of both the state's religious architecture and its model workshops were meant to highlight the religious authority and technological capacity of its court. They did little, however, to directly address the interests and practices of artisans themselves. They reflected a broader trend in which princely patrons used Islamic histories of stonemasonry to assert regional religious authority but did not necessarily incorporate or consider artisan claims on the piety of their labor within these narratives.

STATE BUREAUCRACIES AND MATERIAL CHANGE IN STONEMASONRY

The late nineteenth century thus saw the intersection and interaction of three distinct narratives of stonemasonry. These were the technologizing narratives of middle-class technical intermediaries; the description and circulation of pious labor by Muslim lead masons; and the claims on religious authority asserted by elite patrons. These intersections played out in distinct ways at sites of Muslim architectural patronage across the subcontinent, but they are perhaps most clearly documented in Muslim-led princely states. In states such as Rampur and Bahawalpur, technical hierarchies were gradually reorganized in the late nineteenth and early twentieth centuries. This process placed lead masons more directly under the oversight of middle-class technical intermediaries, even in cases where they were

employed to construct mosques, shrines, and tombs rather than state offices, railway stations, or other "secular" state projects. Pushed downward in technical hierarchies and facing a loss of social prestige and technical authority, these lead masons were increasingly aligned with the wider communities of artisans who labored under their supervision.

In both Rampur and Bahawalpur, new hierarchies of technical oversight emerged most clearly in the first two decades of the twentieth century. In Rampur, the state public works department was officially organized to mirror the public works department of the North-Western Provinces in 1888, and in 1899 Nawab Hamid 'Ali Khan appointed a retired British superintending engineer, W. C. Wright, as department head. Wright was responsible for the construction of a new city gate—still known as Wright's Gate—a new jail, a new canal system, and a new hospital, among many other notable local structures.[56] Most famously, he designed the Hamid Manzil, the central palace complex inside Rampur's old fort walls that has housed Rampur's renowned Raza Library since 1957. Wright designed and organized the construction of these structures, largely adhering to the Indo-Saracenic architectural style preferred by contemporary architects in British India.[57] However, the massive scale of Rampur's construction program in the post-1888 period meant the oversight of artisan labor was carried out by a growing cadre of technical intermediaries.

Before the 1910s, many of these intermediaries were Rampuri master artisans, contracted by the state to interpret the directives of Wright and his small cadre of engineers. For instance, beginning in 1905, a Rampur carpenter and contractor named 'Ali Muhammad led the construction of wooden terraces, roofs, and doors for Hamid Manzil and its main Darbar Hall. Working under Wright's direction, 'Ali Muhammad supervised and led both traditional wood carving and the use of plaster of paris to sculpt decorative exteriors.[58]

As suggested by 'Ali Muhammad's use of plaster of paris at Hamid Manzil, the public works departments and their engineers were especially influential in reshaping the materials used in state architecture. This included the materials that major courtly patrons identified as appropriate for religious architecture. Although at Hamid Manzil plaster of paris was used to sculpt decorative exteriors, other newly developed plasters were used to create a clean, finished look, especially on the domes of tombs, mosques, and shrines. Across South Asia, masons who worked completing this type of plastering were often the least prestigious and lowest paid within the hierarchy of masonry workshops.[59] The labor of plastering was sometimes assigned to new apprentices and in other cases carried out by laborers who were perceived by both employers and other masons as "low skill," employed by masonry workshops at low wages. Despite this dismissal of plasterers as unskilled, these workers were often expected to adapt most rapidly to public works department–influenced technological and material changes.

From the 1910s, Rampur increasingly recruited Indian overseers who had been educated at Roorkee to take on official supervising roles that had previously, unofficially, been undertaken by the state's lead masons and master artisans like 'Ali Muhammad. This new class of middle-class, state-educated overseers did not necessarily require that laborers use radically different materials and technologies than the displaced lead masons did, given that the lead mason class had also been responsive to material shifts. However, as lead masons were pushed downward in the hierarchies of technical oversight, social and religious distinctions emerged between artisan cadres and supervisors. Apprenticeship-trained lead masons were increasingly marginalized from state narratives and aligned with stoneworkers and other laborers, while the new class of technical intermediaries became the representatives of state ideologies.

Reports on the Bahawalpuri Public Works Department of the early twentieth century similarly highlight the formalization of its labor recruitment policies and labor practices in the early twentieth century and the gradual marginalization of the technical authority of apprenticeship-trained lead masons. A 1911 report notes, "Heretofore, works in the State were executed by daily labor or by granting advances to the contractors. This year, the schedule contracts were given, and payment was made to the contractor on a running account for the work done."[60] Moreover, the report explains, the public works department created new structures of oversight in 1910–11. The state was divided into three regions, and a public works department supervisor was assigned to each. In each region, the assigned supervisor was responsible for directing and inspecting the work of contracted lead masons or master artisans and their workshops.[61]

In the capital and the immediate surrounding region, the official public works department supervisor appointed in 1911 was Mirza Hamiduddin, with Munshi Abdul Hadi Khan appointed to the east and Umaruddin appointed to the west. In other princely states, including Rampur, educated locals sometimes complained that "outsiders" were preferred for official positions within the public works department.[62] In Bahawalpur, however, state records emphasize the commitment of the court to sending Bahawalpuris for education at centers of engineering training such as Lahore and Roorkee, and subsequently employing them in the state.[63] Whether that was the case with the three public works department supervisors appointed in 1911 is unclear, but it is possible that Bahawalpuri appointees had stronger social, linguistic, or economic ties to regional workshops than outsiders, allowing for clearer communication and circulation of shifting official preferences. However, regardless of whether the public works department supervisors were Bahawalpuri or recruited from elsewhere, they brought with them the models of building and preferences for building materials such as plasters that they had learned at British Indian engineering schools.

BUILDING THE MODERN MOSQUE IN RAMPUR
AND BAHAWALPUR

In both states, the consolidation of models of technical oversight for stonemasonry that were preferred by the public works departments took place gradually. Monumental religious architecture commissioned in the late nineteenth and early twentieth centuries reflects the partial but not total influence of public works department technical preferences over the preferences of princely patrons. Likewise, mosques, tombs, and *imāmbāṛā*s built in the period reveal the gradual and incomplete shift in authority from lead masons to middle-class technical intermediaries educated in British Indian engineering schools.

For instance, shortly after ascending to power in 1889, the ruling nawab of Rampur, Hamid 'Ali Khan, announced the construction of a new central mosque for the city.[64] The Rampur Jama Masjid was to be built with red sandstone imported to the state from Agra. This was an important marker of princely prestige, as the use of red sandstone during the height of the Mughal Empire had largely been restricted to the state's official projects and regional courts were unable to import it from Agra. The weekly state gazette printed to promote the actions of the state and its court pronounced on March 3, 1890, that "the façade of this mosque will be built of Rampur sugar and Agra stone," with "Rampur sugar" being a reference to the court's heavy investment in sugar cultivation as a crop intended to increase the state's wealth.[65]

The builder of this decadent facade, and indeed, of the mosque, was named Sheikh Kallu Mistrī, a local lead mason and master builder who had learned his trade from his father, who had likewise worked for the state in a similar position.[66] In constructing the new Rampur Jama Masjid, Sheikh Kallu Mistri and the laborers of his workshop likely engaged with narratives of artisan piety like those promulgated in Sarshar's *Tazkirah al-aiwān*. However, they also negotiated the fact that, in the late nineteenth century, architectural and technical authority in Rampur was increasingly directed through the state public works department, which was officially organized to mirror the public works department of the surrounding North-Western Provinces. Expectations about masonry training and practice increasingly flowed through the public works department, even for projects that members of the court patronized as individuals.

As a result, Sheikh Kallu Mistri and other members of his workshop likely encountered a wide variety of narratives and expectations about their trade as they labored at the Jama Masjid complex over the last decade of the nineteenth century. Sheikh Kallu Mistri himself was trained through an apprenticeship and likely learned to be a pious lead mason in the model of Sarshar from his father. However, the technical expectations of his patrons were almost certainly also influenced by an influx of engineers and overseers trained in British Indian institutions like Thomason College at Roorkee, even before Wright became the state's official chief engineer in

1899. New plasters and stucco mixes were especially important in the construction of the Jama Masjid, as the stucco moldings were meant to evoke the aesthetics of earlier regional dynasties and to suggest the state's application of the latest materials and technologies. Likewise, even the use of red sandstone in the state—largely a late nineteenth- and early twentieth-century phenomenon—required Rampuri lead masons like Sheikh Kalu Mistrī to adapt their material practices.

A mosque built roughly a decade later in Bahawalpur similarly reflected the circulation of materials, styles, and models of technical oversight from British India to Bahawalpur. The Nur Mahal (palace) Masjid was completed in 1903 and was located within Bahawalpur city's Nur Mahal complex. The Nur Mahal itself was a notable example of princely state interest in European architectural models. Commissioned by Nawab Muhammad Sadiq Khan IV, it was designed by an English engineer in the style of a neoclassical Italian palace in 1872.[67] But its accompanying mosque, built thirty years later through the patronage of Nawab Muhammad Bahawal Khan V—Sadiq Khan's son—differed markedly. It was a near-exact replica of the Aitchison College Mosque in Lahore, which Bahawal Khan had funded during his student days there.

Aitchison College aimed to provide a secondary education to the sons of "native chiefs" and regional princes, and school administrators, near the end of the nineteenth century, fretted that the campus did not include centers for the religious education of their charges. Consequently, funds and plans were sought for the construction of a masjid, a mandir, and a gurudwara on the campus. Bahawal Khan, then a student at the college, pledged his support to the mosque construction. The college itself had been designed by several of the leaders of the Mayo School of the Arts, including founder J. L. Kipling.[68] The mosque, likewise, was designed and overseen by Mayo School teachers and former students, at least one of whom was later recruited by the nawab to travel to Bahawalpur and oversee the construction of the Nur Mahal Mosque.[69]

The construction of the Aitchison College Mosque reflected the recruitment of technically trained middle-class Indians to a project of Muslim architectural revivalism, even as it required the participation of large cadres of apprenticeship-trained masons and other artisans. The exterior of the mosque was constructed in red sandstone—with its attendant evocations of the Mughal past—with a white marble dome.[70] The interior, elaborately decorated with moldings and brightly painted ceramic tiles, likewise reflected the late nineteenth-century reimagination of the Muslim past among both patrons and architects and technical intermediaries with prestigious training. Ceramic tilework had gained popularity in Europe, especially in Britain, in the mid-nineteenth century as part of a larger "Orientalist vogue."[71] By the 1890s, Indian elites had embraced this European interest in "Islamic tilework." A July 1894 article in the *Āyīnah-yi angrīzī saudāgarī* (Mirror of English manufactures), an Urdu journal that promoted British technical innovations, reflected the spread of interest in decorative ceramic tiles. The article

explained that "several centuries ago India and Iran were the birthplaces of painted tiles. But because of the passage of time and revolutions of our era, today this art is no longer practiced in those regions, and the tiles can only be seen at ruins . . . but England has now brought a new perfection to this art."[72]

The Aitchison College Mosque—and its subsequent facsimile in Bahawalpur—thus reflected the efforts of both a consolidating technical intermediary class and patrons themselves to apply new technical practices to the revival of what they perceived as Islamic aesthetics. Moreover, in commissioning the construction of a copy of the mosque in Bahawalpur, Nawab Bahawal Khan V not only sought to evoke the prestige of an elite Indian Muslim past that he saw reflected in the red sandstone and decorative ceramic tiles. By building a near-exact replica of a modern Lahori mosque—one associated with a colonial educational institution—in Bahawalpur, he aimed to assert the technological and material parity of the state with British India. He brought overseers associated with the Mayo School to Bahawalpur to direct the labor of Bahawalpuri masons and other artisans. In doing so, he aimed to ensure that the Nur Mahal Masjid adhered to the technical and material properties of its Lahore predecessor. This was despite the fact that much of the work was done by artisans trained through apprenticeships in Bahawalpur, where they likely learned distinctive local practices, as opposed to the Mughal revivalist or "Indo-Saracenic" practices popular in Lahore.[73]

HIERARCHIES OF TECHNICAL AND RELIGIOUS KNOWLEDGE

The downward push of apprenticeship-trained lead masons and master builders within hierarchies of technical authority meant that these masons were increasingly alienated from state narratives about their work. Prior to the rise of middle-class cadres of overseers educated in British Indian engineering institutions, lead masons such as Sheikh Kallu Mistrī had been responsible for interpreting patron interests for cadres of laborers. But the rise of new classes of intermediaries placed an additional level of interpretation between the workers who built religious architecture and the patrons who funded these structures and made demands about their content. As they experienced a loss of authority within state hierarchies, some master builders and lead masons sought to reassert their authority within the workshop. They likely did so by strengthening their commitment to the distinctiveness of pious masonry, perhaps arguing, as Sarshar did, that the specific forms of piety and skill practiced in their workshops were necessary to the success of construction.[74]

In Bahawalpur, the post-1911 structure of contracting workshops likewise meant that stonemasons experienced more direct intervention from state overseers and engineers, and lead masons and master builders found their technical authority more constrained. The appointment of official public works department overseers

to each region of the state meant that even comparatively remote projects received greater official intervention. Most notably, state policies toward the repair of some of its most notable tombs and shrines shifted. The state of Bahawalpur included the town of Uch Sharif, renowned for its array of shrines constructed between the twelfth and fifteenth centuries when Uch was an important religious center within the Delhi Sultanate.

Several of the monumental tombs in Uch had been damaged in the early nineteenth century by regional flooding.[75] Initially, any repairs to the shrines were commissioned by the *sajjāda nashīn*, or shrine custodian, of each, typically through waqf funds. However, with the creation of the British-led Architectural Survey of India (ASI) in 1861, the colonial regime placed increased emphasis on the preservation of what it called Indian monuments and pressured princely state elites to do the same. This was especially the case after 1904, when the British Indian government adopted the Ancient Monuments Preservation Act, which brought the "protection and acquisition of ancient monuments" formally under the jurisdiction of ASI.[76] As Michael Dodson has argued, the act aimed to "communicate to all levels of government the historical importance of ancient structures . . . and then also to direct local authorities to repair and preserve them with the appropriate practices of architectural conservation."[77] It marked attempted direct state control over restoration, often coordinated through local public works departments.

Although princely states did not formally fall under the remit of the ASI and the Ancient Monuments Preservation Act, British administrators and engineers in the states pushed state leaders to adopt similar approaches. As a result, in the late nineteenth century, the nawabs of Bahawalpur dedicated funds to the repair and restoration of the shrines and mosques of Uch, while in the early twentieth they assigned regional public works departments to oversee these repairs. The structures repaired included the mosque and shrine associated with Hazrat Jalaluddin Bokhari, the founder of the Jalali Sufi order, who died circa 1291–92 and whose tomb, constructed several centuries later, remains the site of a prominent ʿurs and annual mela. The mausoleum and mosque associated with his grandson, known as Jahaniyan Jahangasht (d. 1384), were likewise repaired through state funds.[78] When money was set aside for the restoration and repairs around 1870, under Nawab Muhammad Sadiq Khan, it seems to have been given directly to local masonry workshops to conduct the repairs according to their own methods, without significant state oversight. However, by the time the last nawab of Bahawalpur, Sadiq Muhammad Khan V, once again dedicated funds to the upkeep of the tombs and mosques, repairs were supervised by the regional public works department officer and his subordinates.[79]

As in Rampur, by the time Sadiq Muhammad Khan V dedicated funds to restore Uch Sharif in the 1910s, lead masons who contracted for state projects were no longer the primary intermediaries. In other words, they were no

longer the primary translators between elite patron understandings of a project and the labor of larger cadres of workers. Instead, these lead masons themselves were directed and overseen by individuals with engineering training. These new intermediaries were appointed for their technical expertise derived from their training in Lahore or Roorkee, rather than from any specific attachment to Uch Sharif, and they sought to "modernize" the tools, techniques, and materials of restoration. As they worked, applying new mortars and plasters to the tombs and mosques, and even building new mud and brick walls, laborers were still directed by lead masons, but these lead masons themselves were subordinated to the demands of new PWD intermediaries.

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As princely patrons reimagined their role in cultivating architectural symbols of a Muslim past, and members of the new technical intermediary class set to work applying "modernizing" technologies and materials to the tombs, what roles were left for stonemasons and other artisans? Did they simply adopt the technologies, materials, and ideologies of their new supervisors wholesale and, in doing so, reflect the idealized position that princely patrons had imagined for them? As I have suggested throughout this chapter, stonemasons' negotiation of the development of new hierarchies of technical oversight was often far more complex.

For princely patrons and many middle-class intermediaries, the technical practice of "modernity" was divorced from the Muslim heritage and authority represented by mosques, tombs, and *imāmbāṛā*s but could nonetheless be used to improve their physical form. To this end, they participated in a physical manifestation of what Faisal Devji frames as the apologetics of Muslim debates on "modernity." The apologetics of Muslim modernity, in Devji's framing, made conceptual room for Muslims to "accommodate" modernizing discourses without necessitating systematic transformations of Islam.[80]

But stoneworker integration of the religious with the material and technological subverted this understanding, reflecting an alienation of many laborers and craftsmen from elite narratives of both religious authority and technical change. In the late nineteenth and early twentieth centuries, as public works bureaucracies expanded and exerted greater influence on masons' work, lead masons themselves turned to distinctive claims on Muslim piety to assert their authority at sites of labor. As we saw through Sarshar's writing, in contexts where stonemasons faced expanding influence of state bureaucracies—be they British or princely—lead masons often turned to the piety of their labor to assert influence and authority within their workshops and on projects of construction.

Ultimately, the experiences of stoneworkers responsible for constructing Islamic architecture suggest that laborers rapidly adapted to the technical demands

of the state, while maintaining distinct understandings of the relationships between religion, work, and technology. Like many of the communities that I have discussed in this book, stonemasons necessarily worked within—and often embraced—technological and material change. But they interpreted this material change through their own lenses, often but not always reasserting the pious nature of their trade, reimagining and reclaiming their own social and technical roles within a shifting industry.