By Joseph Piro and Iftikhar Ahmad

# Ah, to build, to build! That is the noblest of all the arts.

— Henry Wadsworth Longfellow, Translation of Sonnets of Michael Angelo

# ARCHITECTURE AS A WINDOW INTO CULTURE

In compiling a checklist of what makes a civilization great, there are some universal markers. What original ideas did the civilization advance and have they had staying power? How many notable leaders were produced and what were their accomplishments? How influential were their cultural values and did these contribute to the civilization's rise and spread, or subsequent decline? Another measure of civilization, perhaps not as frequently used but no less significant, could be the number of great buildings constructed. To measure the greatness of a civilization by the grandeur of its architecture can be highly instructive. The built environment serves as an enlightening window into the vitality, depth, and imagination of a civilization, for architecture does more than decorate. It can identify a culture and illuminate a civilization, defining the conscious—and unconscious—decisions made by this civilization in its desire to be remembered.

Think of images arising at the mention of such architectural masterpieces as the Acropolis, the Coliseum, or Stonehenge. All of these structures are firmly imprinted in our mind's eye, and because of the instant "graphic" these sites create, it is easy to capitalize on their visual familiarity, especially with students. Using architecture as a pathway to crafting a unit on understanding Islam in India holds much curriculum potential, and can serve as an especially motivating force of discovery about faith, spirituality, and culture.

To advance this idea, the article will focus on how two structures located in Agra, a city in north central India, can function as a window into the legacy of Islam in India. One structure is well known, probably the most instantly recognizable building in the world, the Taj Mahal. The other, the Agra Fort or Red Fort, is less familiar but no less imposing. Part fort, part residential palace, the Agra provided architects, and an array of master craftsmen of diverse heritage, ample opportunity to mingle architectural styles, creating a structure that provides insight into the inroads made in India by Islam. On a recent trip to India through Fulbright Group Projects Abroad, one of the authors was able to visit and photograph these two sites and found both to be remarkable structures, each with one foot planted in Islam, the other in Hinduism.

What, for many, is most interesting about these structures is their blending of style and vision. The idea that the Islamic culture could, metaphorically, coexist with that of India through architecture was an intriguing thought. Just as Buddhist missionaries did not ask

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East Asian cultures to abandon their deities but incorporated aspects of Buddhism into existing belief systems, so too with Islam and Hinduism. In cultivating an integrated building style, Hindu and Muslim cultures borrowed from each other to create an amalgam of architecture that endures as a visual statement about the flexibility, interdependency, and fusion of cultures.

#### AN OVERVIEW OF ISLAM IN INDIA

According to the latest official census of the government of India, approximately 138 million Indian citizens are Muslim out of a population of more than one billion.<sup>2</sup> Historical forces accounting for the spread of Islam into India are complex. Nonetheless, a consensus exists among historians that Arab armies and merchants were on the subcontinent in significant numbers by the early eighth century.<sup>3</sup> Following this, in the late fifteenth and early sixteenth centuries, Zahiruddin Babur, a descendant of Ghenghis Khan and founder of the Mughal dynasty, led his forces from Central Asia into India. By the time he died in 1530, he had conquered all of Hindustan and controlled an empire that extended from Deccan to Turkestan. Mughal descendants (technically, descendants of the Mongol, Turkish, Persian, and Afghan conquerors of South Asia) ruled India from about 1526 to 1858, the beginning of direct British rule. Contact with this Mughal culture generated a number of derivative structures using the vernacular of Islam in places like Agra. This design style has alternately been described as Indo-Saracenic or Indo-Islamic, the term we will use here. Furthermore, because Indo-Islamic architecture blended features of Italian, Persian, and Islamic styles, these are represented in its design code.

### LOOKING AT ISLAMIC ART

After September 11th, much of the conversation involving Islam has been focused on the spread of pan-Islamic militancy. The belief that continued unrest in the Muslim world has led to a surge in the increasing politicization of Islam is a dominant issue in global strategic policy. Capitalizing on this growing interest in Islam, using architecture as a teaching medium presents an intriguing counterpoint. Very simply, architecture communicates messages. These messages can, more often than not, depict a society's viewpoint on culture, conflict, religion, and identity. Using architecture to communicate specifics about these topics can help students develop a more inclusive perspective, appreciating and understanding the interplay of political, religious, social, cultural, and historic forces that form the totality of a culture. For teachers, one of the most effective ways

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to analyze this Islamic architectural presence in India is to treat structures as "texts." Focusing a curriculum unit around a "big" question, such as what is the relationship between architecture and identity, and then encouraging students to seek out an explanation or response, can help them to read these "texts" and anchor them to larger, more overarching concepts.

For example, one can begin with the overall principle in Islamic iconography that stresses geometry as representing universal, harmonious laws expressing unity within diversity.

In Islam, intricate, self-replicating geometric patterns can be read as "symbolizing . . . Islamic principles of *tauhid* (the unity of God) and *mizan* (order and balance), which are the laws of creation in Islam" (www.islamicarchitecture.org). The patterns found in Islamic architecture can also be interpreted to reflect a belief in the perfection and beauty of numbers considered, in Islamic doctrine, to be of divine origin.

Continue this train of thought by telling students that three distinctive features characterize Islamic art and architecture, much of which was integrated into Indian architecture:

- use of calligraphy in various forms of Arabic script with written passages usually taken from Islam's sacred text, the *Qur'ān* (*Koran*, literally, reading or recitation)
- use of arabesques, scrollwork, and other floral motifs as described in passages in the Qur'ān
- use of a limited number of geometric shapes in differential ways

# HOW THE RED FORT AND THE TAI MAHAL TEACH ABOUT ISLAM

Agra is probably most well known—and revered—as the site of the Taj Mahal or *Crown Palace*, a major Indo-Islamic monument (Figure 1).

The Taj Mahal, basically a mausoleum built by Shah Jahan for his wife Mumtaz Mahal, was constructed ca. 1632–1654. Construction documents show that its master architect was probably Ustad 'Isa, a renowned Islamic architect of the time. What makes it so interesting is its stylistic mingling of Hindu tradition and Islamic architecture. For instance, telling students at the outset that the concept of a mausoleum or a tomb as architecture was virtually unknown in India until Mughal dominance reveals to them an excellent example of cultural assimilation. Even more interesting, this architectural style can be read, perhaps, as fusing elements typical of Hindu temple architecture, including pyramidal high towers or *gopurams*, crowned summits, small domes or *chatris* over pavilions, and the use of a plinth or platform to frame the structure (Figures 2 and 3) with features characteristic of Islamic art, including curved arches and a large "Persian dome."

### **EDITOR'S NOTE:**

Space did not permit us to publish all of the superb photographs relevant to this essay. Interested readers will find six additional photographs on the Supplemental Online Materials page of the *EAA* Web site, http://www.aasianst.org/eaa/supplemental.htm



Figure 1. View of the setting of the Taj Mahal.
All photos courtesy of Joseph Piro.



Figure 2. Façade of a Hindu Temple in South India with chatris.



Figure 3. Gopuram or tower over a Hindu temple in South India filled with Hindu deities.

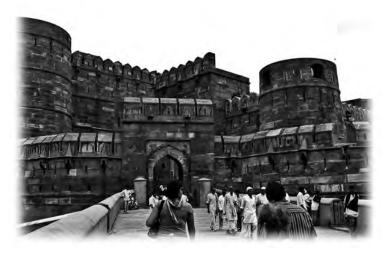


Figure 4. The Amar Singh Gateway to the Red Fort with entry on the diagonal.



Figure 5. Top of an entranceway in the Red Fort with geometric designs repeated throughout.

Contrastingly, the Agra or Red Fort is, more appropriately, a citadel fort-city of numerous buildings (Figure 4). It might interest students to know that citadels were common structures in countries in the Middle East, such as modern day Jordan, Egypt, and Iraq. Think of them as a sort of desert palace for rulers and warriors who—true to their nomadic traditions—wanted to construct multiple living quarters throughout their kingdoms to accommodate such activities as impromptu hunting expeditions and military exercises. This is the tradition imported into South Asia.

Although construction of the Red Fort started around 1156 CE as a mud and brick fortress, it was subsequently rebuilt, beginning with Akbar the Great (1556–1605 CE) who, it is believed, created over 500 structures in the complex. Its physical location served as a natural moat defending the structure from enemy attack, as did the red sandstone inner ramparts that rise over seventy feet. Akbar's grandson, Shah Jahan, builder of the Taj Mahal, completed the Red Fort, largely because he wished to move his capital from Delhi to Agra, in effect, converting the Fort into an Islamic-style palace.

# DESIGN ELEMENTS OF THE RED FORT AND THE TAJ MAHAL AND ISLAM

Because Islam is a monotheistic religion, its central focus is the sovereignty of one God (Allah, in Arabic). The foundation of Islam is its five pillars, which include shahāda (testimony of faith), salat (prayer), zakat (charity), saum (fasting), and hajj (pilgrimage). Given that Allah is the central focus in the spiritual lives of Muslims, the shahāda asks that all Muslims profess their faith in the oneness of Allah and the final prophethood of Muhammad as a testament that all beginnings and ends are part of a divine plan. Therefore, the use of intricate, interconnected, and balanced geometrical figures artistically implies this conceptualization of Allah's place in the cosmos. Furthermore, because the main thrust of the Islamic belief system is focused on the glorification of Allah, it finds expression in floral patterns, symmetry, proportion, and harmony. Figure 5 is taken from one of the interior mosques found in the Red Fort complex. It illustrates how a limited geometric design can be used to suggest—but not explicitly state—this belief system.

Within this "sacred geometry," the idea of symmetry becomes critical. Symmetry, again a reflection of mizan, order and balance, in the laws of creation in Islam, is a core principle recognizable in this built environment of the Red Fort entranceway.

The art of calligraphy also plays a key role in Islam. Because Arabic (also immersed into much of the Indian culture) is the language in which the *Qur'ān* was revealed to Muhammad by the Angel Jibra'il (Gabriel), it is the language of worship, as well as a unifier, binding Muslims. Thus, a characteristic of Islamic art and architecture is the appearance of the Qur'ānic verses adorning the walls of mosques, palaces, and other buildings, generally written in elegant, colorful, ornate calligraphy. This calligraphic style was developed to embellish the word of God in writing, giving it respectful, decorative import. Interestingly, it has also been suggested that the linguistic structure of Arabic in which words are related to each other by a pattern of units well represented in the oral poetry of the *Qur'ān*, plays an influential role in Islamic design.<sup>4</sup>

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# THE MOSQUE IN ISLAM

Another of Islam's five pillars is the daily prayer, a ritual performed five times a day at prescribed hours. In Islam, prayer (salat) demonstrates both humility and obedience to Allah. Thus, it is not surprising to find a place for prayer, a *jami*' (congregarional mosque), in both the Taj Mahal and the Red Fort complex. A jami' (*mosque*, literally, "place of prostration") is, perhaps, the most representative of Islamic buildings. The mosque embodies a specific, regulated way of life for Muslims and identifies traditions and belief systems represented in Islam.

The prototype for mosque architecture—as depicted in Figure 6—was the design of Muhammad's home at Medina in western Arabia. This original pattern has, in essence, remained the same—a roofed space lined with columns looking out onto a rectangular enclosure. Its evolution was also dependent on events in Muhammad's life. In 628 CE, when the crowds who came to see him grew increasingly large, a pulpit (*mimbar*) raising him a few steps over the crowd was devised. And, today, as mosques become sites for extended print and broadcast coverage for so many events in both the Middle East and South Asia, knowing their architectural history broadens the "news context" for the viewer, and helps develop a greater historical understanding. By offering this perspective, a great opportunity exists for teachers to use the mosque, as well as other forms of architecture in India, to teach about Islamic civilization.

The minaret, from which the *adhān* (summon to prayer by a muezzin) occurs, is an important design feature of a mosque. This tall, slender column, usually with a balcony, is most commonly attached to a mosque, as shown in Figure 7.

Figure 8 moves to the mosque interior, illustrating how a decorated wall and pointed archway, important design features of Islamic (and Gothic) architecture, were integrated into the Red Fort structure. Note especially the symmetrical designs on both wall panels. Interestingly, when you look closely at the space "blueprint" defined in Figure 8, you will see another absorption of Islamic influence into Indian culture—the need for group-efficient space sufficient for large congregational prayer at specific hours of the day, true to its literal definition as a "place of prostration." Compare this with Hinduism. Because the practice of Hinduism is largely a private, devotional affair with prayer to numerous individual deities, there is no need for vast, daily "congregational" space. The placement of statuary in niches throughout Hindu temples, along with ornate carvings, also contrasts with the need to not accommodate any figural representation in Islam.



Figure 6. Exterior of a mosque adjacent to the Taj Mahal.



Figure 7. A minaret at the Taj Mahal.



Figure 8. Decorated marble interior pointed archway in the Red Fort.



Figure 9. The Thousand-Pillared Hall (mandapa) in the Meenakshi Temple in South India.

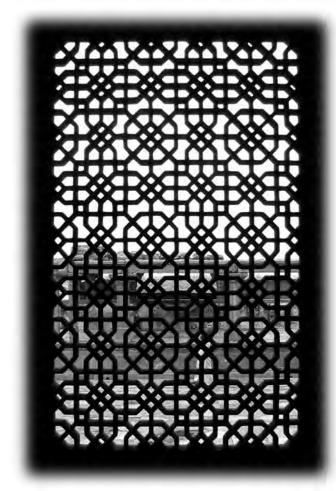


Figure 10. An example of a jali screen design.

One way to extend this point with students is to have them compare the interior of a Hindu temple, such as the Meenakshi Temple in Figure 9, with that of the mosque. Directing their eye to what some have described as the purposeful "abode of mystery," exemplified by the commanding granite columns in this Hindu temple compared to the ambient "light and transparency" of a mosque, can be a good lesson in a metaphorical analysis of two faiths.

Inside the mosque are both the  $mihr\bar{a}b$  and the qibla wall. The  $mihr\bar{a}b$  (wall recess in the form of an arched niche) generally located under the main dome, would point the prayer leader in the direction of Mecca. The mimbar (or pulpit) is usually found near this niche. It is from here that the Imam or spiritual leader speaks.

Some other fundamentals of Islamic design can be found in the Red Fort. The *jali* (fretted stone screens) are distinctive, carved, grill-like shading devices designed to allow the entry and circulation of cool breezes. These dot areas of the Fort. Generally, women were afforded privacy through the use of the jali screen, also functioning as a divider, in keeping with the tenets of Muslim society that respected and encouraged modesty (Figure 10).

The notion of entering paradise in the next life figures prominently in Islam. Most notably, this belief is manifested, architecturally and symbolically, by the presence of an Islamic—or, more accurately, a Mughal—garden (*ghaida* or *hadiqa*) typically characterized by trees, shade, large courtyards, and, especially, fountains. Influenced by the story of creation that unfolded within a garden, gardens, in Islam, were viewed as conducive to concentration and, therefore, deemed especially appropriate environments for prayer. Recall the landscaped garden surrounding the Taj Mahal, although this probably owes more to its nineteenth-century restoration along the lines of an English rather than an Islamic garden, showing the absorption of aspects of Western culture.

Because of the desert geography of much of the Middle East, water is a coveted commodity. The use of water architecture, consisting mainly of fountains around large, expansive courtyards came to be viewed as a preview of paradise, a representation of what many Muslims believed heaven might look like. Again, conceptually, a "linear" pathway from a present life to "one heaven" was not part of the generally cyclical kind of belief in an afterlife characteristic of Hindu theology. It was something that came about because of the Islamic belief system associated with it. For example, a large court-yard in the Red Fort surrounded by greenery, space, and shade depicts a scene that may be described as a potential foretaste of paradise. And, more intriguingly, the word Agra derives from Agraban, where it first appeared in the Hindu epic poem the Mahabharata, as Sanskrit for paradise.

### ISLAM, INDIA, AND THE CURRICULUM

Finally, how might one go about actually implementing understanding Islam in India through architecture in the school curriculum? A variety of approaches could be explored, both disciplinary and interdisciplinary. Exploring Islam in India can be accomplished by modifying portions of a traditional global studies course or an art history course at the secondary level. On the elementary level, it may be approached with interdisciplinary strategies, merging units in social studies, language, math, science, and art to explore the many dimensions the topic presents. Some suggestions on how to manage this are given on the next page. Whatever choices are made, the opportunity to introduce students to the singularity and splendor of Islamic architecture in India can reap rich rewards in teaching and learning.

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## **TEACHING SUGGESTIONS**

Discuss the three basic principles of Islamic design—calligraphy, arabesque and floral decorations, and geometric design—in a variety of ways. Compile a short guide for students entitled *What to Look for in Islamic Art*, or create an illustrated glossary that contains the vocabulary of Islamic art and architecture with explanatory pictures. Sketch and label the Red Fort in an architectural drawing. Highlight Islamic design examples as well as Hindu influences.

Shah Jahan (1592–1668 CE), the builder of the Taj Mahal, added to the construction on the Red Fort. Discuss his contributions as representative of the Islamic architectural style and how the vision of one person can often shape a country's culture and history.

The Red Fort has been designated a World Heritage site by UNESCO (http://whc.unesco.org/pg.cfm). Structures on this listing are selected due to their great historical significance. Justify the Red Fort's inclusion on this list.

Using small Student Response Groups, explore where the Red Fort in Agra exhibits principles of Islamic design. Assign students different locations in the complex and have them search for indications that the architecture illustrates principles of Islamic tradition. Have them both illustrate and record their observations.

Develop an architectural timeline of Islam and place on it the development of architectural structures in various locations in Africa, Europe, Asia, and the Middle East. ■

#### TEACHING RESOURCES

#### **PUBLICATIONS**

Alhriri-Wendel, T., and A. Alhiri-Wendel. 2002. Symbols of Islam. New York: Sterling Publishing.

Alfieri, Bianca Maria. 2000. Islamic Architecture of the Indian Subcontinent. London: Lawrence King Publishing.

Blair, Sheila, and Jonathan Bloom. 1994. *The Art and Architecture of Islam 1250-1800*. New Haven: Yale University Press.

Brend, Barbara. 1991. Islamic Art. London: The British Museum Press.

Chebel, Malek, and Laziz Hamani. 2001. Symbols of Islam. New York: Assouline.

Ettinghausen, Richard, Oleg Grabar, and Marilyn Jenkins-Madina. 2001. *The Art and Architecture of Islam:* 650–1250. New Haven and London: Yale University Press.

Grabar, Oleg. 1987. *The Formation of Islamic Art. 2nd.* ed. New Haven: Yale University Press.

Hillebrand, Robert. 1999. *Islamic Art and Architecture*. London: Thames and Hudson Ltd.

Hoag, John D. 1975. Islamic Architecture. Milan: Rizzoli.

Hourani, Albert. 1991. A History of the Arab Peoples. Cambridge, Mass.: Belknap Press of Harvard University Press.

Irwin, Robert. 1997. Islamic Art in Context: Art, Architecture and the Literary World. New York: Prentice Hall.

Koch, Ebba. 1991. *Mughal Architecture: an Outline of its History and Development* (1526–1858). Munich: Prestel-Verlag publishers.

Lewis, Bernard, ed. 1992. The World of Islam: Faith, People, Culture. London: Thames and Hudson.

Michell, George, ed. 1995. Architecture of the Islamic World: Its History and Social Meaning. New York: Thames and Hudson.

Milo, Francesco. 1999. The Story of Architecture. New York: Peter Bedrick Books.

Tadgell, Christopher. 1990. *The History of Architecture in India*. Singapore: Phaidon Press, Limited.

#### WEB SITES

The Web site for UNESCO—The Red Fort http://whc.unesco.org/sites/251.htm

The Web site for UNESCO—The Taj Mahal http://whc.unesco.org/sites/252.htm

Fact File for the Taj Mahal http://ignca.nic.in/agra007.htm

ARCH Net for architectural resources http://archnet.org/library/images/

Web site for the Built Environment of Agra and Fatehpur Sikri http://ignca.nic.in/agra001.htm

The Web site for IndianSaga and information about the Red Fort http://www.indiansaga.info/architecture/agrafort\_arch.html

The IndiaNest Web site for information on the Mughal Empire http://www.indianest.com/architecture/00029.htm

Web site for sources on South Asian Art and Architecture http://www.columbia.edu/itc/mealac/pritchett/00artlinks/index.html

Web site on Islamic Architecture

http://www.islamicart.com/main/architecture/index.html

Web site for the Aga Khan Organization http://www.akdn.org/

Dictionary of Islamic Architecture from ARCHNet http://archnet.org/library/dictionary/

A Glossary on Islamic Art and Architecture from the American University in Cairo http://www.aucegypt.edu/walking\_tours/cairo/glossary/glossary.html

Web site of the Asia Society

www.asiasociety.org

Web site of the Art of the Mughals at the Metropolitan Museum of Art http://www.metmuseum.org/toah/hd/mugh\_2/hd\_mugh\_2.htm

Web site for Islamic Art

www.colostate.edu/Orgs/MSA/find\_more/islart.html

#### NOTES

- J. M. Piro. India through Architecture: A Teaching Guide to the Indian Subcontinent. Curriculum Teaching Guide prepared for Fulbright Seminars Abroad Program. Washington, D.C. 2005. http://myWeb.cwpost.liu.edu/jpiro/
- 2. http://www.censusindia.net/religiondata/summary%20Muslims.pdf
- 3. B. Brend, Islamic Art. (Cambridge: Harvard University Press, 1991).
- 4. Ibid., 17.
- 5. B. Lewis, From Babel to Dragomans. (New York: Oxford University Press, 2004).
- 6. R. Hillebrand, *Islamic Art and Architecture*. (London: Thames and Hudson Ltd, 1000)
- 7. F. Milo, The Story of Architecture. (New York: Peter Bedrick Books, 1999).
- 8. O. El Gohary, "Symbolic Meanings of Garden in Mosque Architecture," in Attilio Petruccioli, ed., *The Garden as a City. Environmental Design: Journal of the Islamic Environmental Design Research Centre* 2 (1985).

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