Aesthetics of the Qur'anic Epigraphy on the Taj Mahal

by

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ABSTRACT

This thesis examines the Qur'anic epigraphic program of the Taj Mahal. Following the 1989 Begley & Desai book *Taj Mahal: an Illustrated Tomb*, the flourish of scholarship that would expectedly follow a complete epigraphical catalog never arrived. Despite being well-known and universally cherished as indicated by the Taj Mahal's recognition as a UNESCO world heritage monument and as one of the New 7 Wonders of the World, there is insufficient research directed towards the inscription program specifically.

In order to focus the scope of the project, I employ phenomenological methodology, using a typical visit to approach the most salient, prominent inscriptions. I argue that the epigraphic program operates on three distinct, hierarchical registers: aesthetic, symbolic, and then denotative. Furthermore, I argue that the inscriptions hint towards a preferred way to approach the site.

The thesis argues that the primary concern of the calligraphic design on the Taj Mahal is aesthetics. This study finds that letter forms and overall design of the script contribute to a presentation of the Qur'an as visually balanced and demonstrates that this balance was the primary design consideration. Furthermore, the thesis considers the calligraphic aesthetics at multiple scales and shows that aesthetic considerations overlap at various distances and vantages. Finally the thesis questions the strict separation of aesthetics from symbolic reading offering alternative interpretations involving a connection between symbolic meaning and aesthetics.

Thesis Supervisor: James Wescoat
Aga Khan Professor

I dedicate all of my work herein to my mother whose support of my education has and remains invaluable.

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This thesis would not be possible without the continual guidance of my advisor, Professor James Wescoat. His dedication to scholarship as well as to his students is an extraordinary resource for MIT and the School of Architecture and Planning. I am continually grateful for his input, advice, and compassion. Working with Professor Wescoat has been a delight. I am still impressed by his extensive knowledge and experience.

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Introduction

The Taj Mahal was commissioned in 1632 by then Mughal Emperor Shah Jahan shortly after the death of his wife Mumtaz Mahal. The funerary garden complex, completed over the next two decades, represents the conflux of various historical, theological, architectural, artistic, economic, and social contingencies.[1] The complex represents the apogee of Mughal monumental funerary gardens due not only to its splendor and architectural excellence, but also due to the subsequent shift away from grand monumental architecture to more modest burials initiated by Aurangzeb after which declining Mughal economic power limited similar architectural undertakings. In this sense, the Taj Mahal complex can be seen as the culmination of a short yet influential period of royal monumental tomb gardens beginning with Akbar's commission of Humayun's tomb in Delhi.

Among other design features that set apart the Taj Mahal from previous monumental tombs is the epigraphic program, which is the most extensive existent Islamic calligraphic program today.[2] With twenty-five Qur'anic *Surah*s produced in part or in entirety, calligraphic inscription adorns significant portions of the Taj Mahal complex.[3] This inscription program also operates within a series of calligraphic precedents in Muslim South Asia. Beginning in the Sultanate period Qur'anic inscription proved significant within architectural projects including the Qutb Minar complex in Delhi.[4] The most relevant precedent is the *Buland Darwaza* at Fatehpur Sikri due to both the scale, style, and location of inscription: monumental *Thuluth* inscribed in a band framing an *iwan* arch in a massive gatehouse (figure 1).[5] The inscription, however, produces significantly different visual effect. The gatehouse inscription is produced by relief

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[1] See Ebba Koch, *The Complete Taj Mahal,* 2006

[2] Ibid. pg. 224. There are no existent architectural sites with more calligraphic inscription, however there are written sources providing examples of more extensive epigraphic programs including the prophet's mosque in Medina which purportedly had the entire Qur'an inscribed on its walls.

[3] Throughout the paper I use the Arabic word *Surah* of which 114 comprise the Qur'an due to its common usage in English texts. To refer to specific verses I use the English word instead of the Arabic *ayat*.

[4] See Richard Ettinghausen's essential paper, "Arabic Epigraphy: Communication or Symbolic Affirmation" 1974.

[5] For a review of Mughal monuments, see R Nath, *Calligraphic art in Mughal architecture*, 1979 and Wayne Begley, *Monumental Islamic calligraphy from India*, 1985.

carving the stone of the structure. As such, the inscription does not produce color contrast on the structure, and is difficult to recognize at distance. The tomb of Itimad ad-Dawla completed roughly ten years before the Taj Mahal on the opposite bank of the river provides another important precedent for the Taj Mahal. The white marble mausoleum features prominent inlay on the exterior and interior. A band of relief carved marble inscription runs along the building directly above the arches. The script style generally resembles that of the Taj Mahal including two registers of text stacked vertically and interlocking letter forms. The relief carving, however, does not provide the same visual effect of the inlay calligraphy on the Taj Mahal.

Fig. 1 Calligraphy at Fatehpur Sikri

Furthermore calligraphic script itself has a rich history including widespread use in the South Asian context. Monumental *Thuluth*, the script employed for the Qur'anic inscriptions, bears a long tradition and historical development. Consensus points to Ibn Muqla as the innovator of the script within 10th century Baghdad chancery. Although there were cursive scripts in use at the time of Ibn Muqla's reforms, his principles of geometric regularity coupled with innovative ways to cut the pen obliquely remain an essential turning point in the development of Arabic cursive scripts. *al-khat al-mansoob*, as these scripts are known, is further implemented by Ibn al-Bawwab. Consistent with this great-calligrapher model of script

development in which individual scribes trace their knowledge of specific scripts to master writers as a chain of transmission, Yaqut al-Musta'simi is the next essential character in the development of cursive scripts. He recodified "the six scripts" including *Thuluth*.
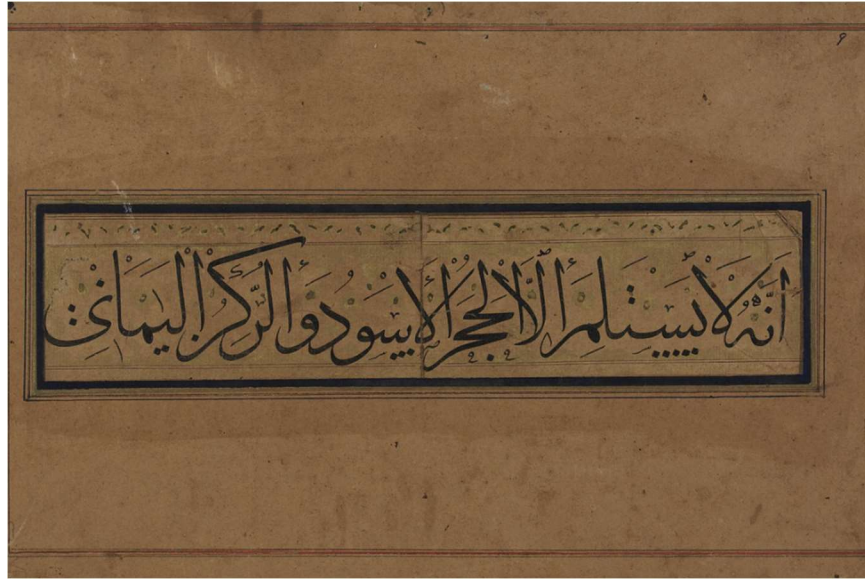

Fig. 2 Thuluth *by Yaqut al-Mustasimi*[6]

Monumental *Thuluth* reflects a conscious design decision evoking specific aesthetic and formal concerns. It is important to note that although it was an important, widely used script, *Thuluth* was merely one of multiple scripts employed in Mughal inlay. Equal in importance and implementation was *Nastaliq*, which was then a relatively recent development emerging out of Persian calligraphic practice. *Nastaliq*, however, would prove unsuitable for writing Qur'anic inscription as this practice was extremely rare.[7] Thus, *Nastaliq* is reserved mainly for inscriptions of Persian text, and not Qur'anic verses. *Naskh* script was also in widespread use in the Mughal court, although this was reserved primarily for manuscripts.[8]

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[6] Library of Congress ascs.004
[7] There is nothing inherently unsuitable about using Nastaliq
[8] See P.I.S M. Rahman, "Mughal Calligraphy" *Islamic Studies* 1987

Amanat Khan, who designed the Taj Mahal calligraphy, had a preference for *Thuluth*; the three other known examples of inscription attributed to him are all produced in similar *Thuluth* script. It is not particularly odd to render Qur'anic inscription in *Thuluth*, however in the case with Persian verse, *Nastaliq* was generally preferred in the Mughal Empire. Thus, the Sarai Amanat Khan (dated around 1640) demonstrates the calligrapher's commitment to the script. As such, the selection of Amanat Khan as the designer of the epigraphic program presumably also entails the selection of *Thuluth* script.

Chapter 1: Review of relevant literature

Historical studies of the Taj Mahal intersect multiple disciplinary approaches. Work on calligraphic inscription is found primarily in architectural histories. The scope of this review covers primarily works directly pertaining to the Taj Mahal before broadening to include some primary examples of architectural calligraphic studies in Arabic script.

Ebba Koch's *The Complete Taj Mahal* approaches The Taj Mahal site from the perspective of architectural history situated within a cultural urban context.[9] Her writing spans disciplinary approaches and relies on resources including measured drawings, site plans, primary accounts, and accounts of building construction and conservation. Her text is divided into five sections. "Mughal Agra, a riverfront garden city" continues the thinking of her 2005 article in Muqarnas "The Taj Mahal: architecture, symbolism, and urban significance" where she contextualizes the Taj Mahal site within the garden culture of Mughal Agra.[10] She examines property records to create an understanding of the gardens along the Yamuna River. Her second section, "The construction of the Taj Mahal" examines both the sourcing and production of the Taj Mahal. Here she contextualizes the Taj Mahal within a larger arc of Mughal funerary architectures. "III More than a tomb: the parts of the Taj Mahal" catalogues and describes the various elements of the complex with equal focus on periphery structures and the central tomb in order to emphasize her reading of the site as an entire multi-functional complex. "IV The paradisiacal house of the queen" which includes discussion of the epigraphic source work examines the funerary significance of the gardens, structure, and decoration. The final section "Everybody's Taj Mahal" extends the significance of the structure into folklore, popular understanding, and reconceptualization through historical iterations. Although she continually addresses questions of significance, her text focuses on architectural historical methods and the inclusion of

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[9] Ebba Koch, *The Complete Taj Mahal,* 2006
[10] Ebba Koch, "Mughal Agra, a riverfront garden city," *Muqarnas, vol. 22* 2005

epigraphic sources as part of additional angles approaching the site provide a cursory survey of the material.

The text is particularly strong in covering the many approaches utilized to study the Taj Mahal, but only in regards to a traditional architectural historical approach does Koch provide a comprehensive study of the material. The specific use of the calligraphic inscription is used in relationship to the funerary complex as a paradise garden housing the body of the queen. She briefly alludes to Qur'anic passages selected, and describes the material and aesthetic qualities of the inscription, but her analysis pertains mainly to symbolic readings.

Wayne Begley dedicated a great deal of his career to developing Mughal Architectural history. His first key work provides an overview catalog of Islamic inscriptions in India organized chronologically.[11] Following this regional level survey, Begley with Desai accomplish a site specific survey for the Taj Mahal four years later.

The Illumined Tomb, published by Begley and Ziyaud-Din Desai provides an extensive survey of Taj Mahal textual material.[12] Cataloging translations of primary source materials including documented records as well as court histories, this volume provides essential historical evidence pertaining to the construction, utilization, and reception of the monumental site.

Furthermore, Begley & Desai provide documentation and translation of the Taj Mahal inscriptions. They separate the inscriptions by historical and Qur'anic categorization. Their comprehensive study translates each passage in order of appearance at the site. They present the material, along with photographic sources, as a collection of all available epigraphic sources. The book includes contextualization of the Taj Mahal epigraphy within other examples of Amanat Khan.

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[11] Wayne Begley, *Monumental Islamic Calligraphy from India*, 1985
[12] Wayne Begley and Ziyaud-Din Desai, *The Illumined Tomb: an anthology of seventeenth-century Mughal and European documentary sources*, 1989

Although this text provides invaluable access to textual sources, it does not provide commentary or analysis. The authors eschewed any attempt at interpretation, claiming that an interpretive volume would follow. They also made no reference to a narrative construction based on the ordering of the text. In this regard the ideal photographs and the order of the text abstract the inscription from the architectural context.

In other works such as Begley's "The Myth of the Taj Mahal and a New Theory of Its Symbolic Meaning" (1979) the author incorporates the epigraphic survey within an interpretation of the symbolic meaning of the Taj Mahal site.[13] This article puts forth a deterministic understanding of the calligraphy which fails to find the nuance when considering audience, and the relationship between the inscriptions and the site. Begley also provides a biographical piece about Amanat Khan in which earlier calligraphic context provide an arc of monumental inscription leading up to the production of the Taj Mahal.[14]

Ram Nath, the retired professor of history at University of Rajasthan, published *Calligraphic Art in Mughal Architecture,* which extends beyond merely cataloging inscription and provides description of the form and content of inscription on monumental Mughal structures.[15] The author rightly claims this to be the first such study of its kind. His work focuses on the content of the inscription rather than the formal qualities of the script, a methodology which produces a narrow understanding of the textual significance.

Nath's texts are particularly useful in reconstructing an early historiographic arc of Mughal architectural history. Due to the length and productivity of his career, Nath is positioned within an early contemporary historiography which provides access to late 19th and early 20th century histories in context. *The Immortal Taj Mahal* continues the work of historians such as James Fergusson and E. B. Havell as well as other contemporaneous historians of the British era. Similar to Ebba Koch's recent book, this publication first provides South Asian funerary architecture as historical context before examining the Taj Mahal site

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[13] Wayne Begley, "The Myth of the Taj Mahal and a New Theory of its Symbolic Meaning" 197

[14] Wayne Begley, "Amanat Khan and the Calligraphy on the Taj Mahal." Kunst de Orients, v. 12 n1-2, pg.5-60

[15] Ram Nath, *Calligraphic Art in Mughal Architecture*, 1981

itself.[16] Then, he provides a detailed examination of the ornamentation followed by discussion of popular meanings, tales, and folklore surrounding the site and its construction.

Framed within a larger architectural context, James Wescoat and Joachim Wolschke-Bulmahn's text from a Dumbarton Oaks symposium provides a useful overview of Mughal garden studies.[17] Dealing with a major theme of complicating available sources used when interpreting Mughal gardens, the sources of garden studies pair well with an aesthetic interpretation of the Taj Mahal calligraphy. Wheeler Thaxton's paper in that symposium serves well to connect textual aesthetics to garden motifs. He argues that poetry does not serve as a useful source to understand formal qualities of Mughal gardens due to the reliance on pre-established poetic conceits already present in Persian traditions. Despite this, the poetic sources aptly demonstrate an aesthetic connections with garden design.

Moving broadly towards Arabic architectural inscription, Erica Dodd and Shereen Khairallah provides an exhaustive index of Qur'anic epigraphy employed on architecture.[18] Volume II of their work organizes the inscriptions by Qur'anic verse, geographic location, and location on the building within comprehensive indexes. The arrangement and presentation of this evidence favors the conclusions put forth in the first volume: that Medieval Islamic art operates as a continuity of theological and artistic practices arising from Classical traditions.

Their text, to which anyone working with Islamic inscription owes a debt of gratitude, provides access to wide inter-regional context. These comparisons, rooted within empirical methodologies, enables rigorous approaches to comparative work within the field. This methodology, however, risks flattening the site specific contingencies into broader categorical data which can be indexed.

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[16] Ram Nath, *The Immortal Taj Mahal,* 1972
[17] James Wescoat and Joachim Wolschke-Bulmahn, *Mughal Gardens: Sources, Places, Representations, and Prospects,* 1996
[18] Erica Dodd and Shereen Khairallah, *The Image of the Word: A Study of Quranic Verses in Islamic Architecture*, 1981

Sheila Blair continues, in a sense, the work of Dodd and Khairallah by providing a broad look at Islamic writing in order to understand large scale comparisons across culture and temporal divides.[19] Her work attempts to explain diachronic shifts in writing through the promulgation of innovative developments spawning from great masters such as Ibn Muqla and Yaqut al Mustasimi. Again, the cost of such an expansive project is the specific context of the manuscript or site. Blair organizes her argument chronologically with breaks associated with political histories.

Muhammad Gharipour and Irvin Cemil Schick edit a volume presenting an alternative approach to Dodd and Khairallah's, and Blair's. *Calligraphy and Architecture in the Muslim World* (2014) is a collection of articles organized broadly by region, temporal, or dynastic separators.[20] Their approach ensures the recognition of site specific complexities and contingencies. Less able to make broad conclusions about the whole of Islamic Inscription, this approach necessitates site specificity. Their text allows for later comparative work to be done, but only carefully through small scale projects.

In terms of specific development of monumental architectural scripts, the work of Yasser Tabbaa is invaluable. He posits the development of proportional cursive scripts within a larger theological debate between Abassid and Fatimid theological stances.[21] He argues that the form of calligraphic scripts arrive through theological considerations; moving from *Kufic* to cursive scripts implies a theological distinction in understanding access to the text of the Qur'an as sufficient, or mostly sufficient, to access liturgical significance. Simply, cursive Qur'anic text is meant to be read.

Within the Mughal context specifically, P.I.S Mustafizur Rahman, published a brief paper documenting calligraphic trends and practice from the reign of Babur to Aurangzeb.[22] His paper identifies broad scriptural developments as well as locating specific preferences for script styles such as the trend

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[19] Sheila Blair, *Islamic Calligraphy*, 2005
[20] Muhammad Gharipour and Irvin Cemil Schick, *Calligraphy and Architecture in the Muslim World,* 2014
[21] Yasser Tabbaa, *The Transformation of Islamic Art During the Sunni Revival,* 2002.
[22] P.I.S. M. Rahman, "Mughal Calligraphy," *Islamic Studies*, V 26. N. 3, 1987

towards *Nastaliq* due to its relative novelty. His paper briefly considers aesthetic implications especially when considering the calligraphic practices of the emperors specifically.

Tim Edensor provides a dramatological approach to a visitor experiencing the Taj Mahal complex.[23] Working within phenomenological traditions of experience as well as sociological methods, Edensor examines the Taj Mahal site from the perspective of a "typical visitor." His work provides an approach which allows for a broadening of experience from a singular phenomenological access to the site and instead permits varied readings gleaned from visitors representing disparate cultural, social, and language backgrounds.

For the purpose of my study, Edensor provides a way to abstract my observations into a more generalized framework of a tourist experiencing the site, applying my observations and photographs as part of an experiential moment for a tourist.

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[23] Tim Edensor, *Tourists at the Taj,* 1998

Chapter 2: Methodology and theoretical framework

The importance of this study lies mostly in the lack of any endeavor to specifically address the inscription program as an aesthetic element. There has been significant work documenting and cataloging Mughal epigraphy, but no similar attempt at explicating meaning and significance. It is necessary to add an interpretation of the inscriptions in order to further the depth of understanding this monument. The study has further implications of interest with its potential to highlight various tensions existent in Islamic religio-political entities.[24]

This mode of approaching the inscription, however, runs risk of decontextualizing the written word from the aesthetic and experiential features of this writing. Epigraphy does not operate as a neutral source of information, but is charged with aesthetic, political, religious, and cultural registers. Recognizing this intractable formation of writing, especially writing the Qur'an, this thesis bridges this epigraphic understanding of text as historical data with an architectural sense of aesthetics.

The Taj Mahal inscriptions are typically treated as a source of historical evidence augmenting the scant philological record. Whereas some epigraphic inscription – such as the signature of Amanat Khan - is readily available for dating and biographical information, the Qur'anic inscription is also utilized as explanation of the meaning of the site. Mughal Architectural Historian Ebba Koch writes, "Surface and ornament are our most immediate window into the meaning of the Taj Mahal" Or, as Mughal Architectural Historian Wayne Begley puts it in his 1976 paper: "In view of this obvious concern with visual and decorative effect, the content of the inscribed Koranic passages must have been a matter of equal, if not greater, concern to the scholar in charge of the selection." The scholastic consensus finds the aesthetic concerns of the inscription program either secondary, or supplementary to the pursuit of symbolic meaning. Although

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[24] It is important to note that there is Qur'anic commentary about grave practices. One commonly held belief is that graves should not have structures over them, should be unmarked (with any distinguishing features which would signify an individual), and should be modest and small. For hadith on graves see *Sahih Muslim* v.4 ch. 47, 199, 200. The Taj Mahal obviously flies in the face of all of these regulations and raises interesting questions about the nature and function of the site and the category of Islamic funerary gardens broadly speaking.

he inscription program contributes to an overall religio-political significance blanketing the site, the primary concern is aesthetic.

Each chapter of this thesis will deal with a specific space of the site and how it relates to the epigraphic program. This arrangement allows for the construction of multiple possible narratives which in turn posit alternative possible relationships between the Qur'anic program and the complex. The order of the thesis will follow the order in which the monument's inscriptions are experienced, but the relationship between these specific inscriptions and larger epigraphic framing questions remains unclear.

The Taj Mahal epigraphy is characteristically considered as evidence pertaining to the meaning of the site.[25] The program, along with other decorative elements, provides clues as to how the monumental tomb was intended to be interpreted and understood. In this regard, authors consider the epigraphy as a textual source which can broaden and deepen our understanding of the monument. The historical epigraphy dates the site and identifies the calligrapher. The Qur'anic epigraphy blankets the monument in religious significance and hints at the theological implications at work during the creation of this Islamic burial site.

As such, the way the text looks becomes critically important to further our understanding of both the function of the inscription program as well as the way these inscriptions become discernable at a specific point.

To enable the inclusion of aesthetic considerations within a larger understanding of textual inscriptions, this thesis relies on a phenomenological walk-through of the site. In this walk-though I focus on aesthetic and experiential considerations pertaining to the inscription program without isolating the text from other decorative and architectural concerns present. Included here is a series of photographs

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[25] Ebba Koch writes, "Surface and ornament are our most immediate window into the meaning of the Taj Mahal,"in *The Complete Taj Mahal* pg. 224. Or, as Mughal Architectural Historian Wayne Begley puts it in his 1979 paper: "In view of this obvious concern with visual and decorative effect, the content of the inscribed Koranic passages must have been a matter of equal, if not greater, concern to the scholar in charge of the selection."

which provide a rudimentary sense of how one encounters the calligraphic inscription, and how these inscriptions mutate from point to point in the site. [26]

This thesis argues for aesthetic consideration as the primary determination of calligraphic form and function. As such, it is incumbent to suggest an overall aesthetic framework within a Mughal context. This proves difficult not only due to the lack of Mughal textual sources on aesthetics, but also the contemporary tendency to provide incomplete systems in which aesthetics are addressed relationally to other more evidenced concepts.[27] The limited corpus entails that most attempts at unified aesthetic theory remain speculative and limited.

Mughal Aesthetics is an insufficiently developed field. It is limited especially by the inordinately small number of texts surviving on theoretical concerns of art and architecture. Furthermore, secondary attempts at Mughal aesthetic theory are few and exist relationally to other areas of study with greater evidence available. Art Historian Gregory Minissale's text posits Mughal Aesthetics within an Anti-European and European dialectic in which Mughal aesthetics (of painting) must be considered through endogenous cultural construction. His aesthetic framework, however avoids cultural pitfalls by remaining largely formal: addressing concerns of geometry and proportionality. Islamic Art Historian Valerie Gonzalez's text on Mughal aesthetics and hybridity also relies more heavily on the interlocutor of hybridity than establishing comprehensive aesthetic theory.

In their historiographic introduction to the field of Mughal Gardens James Wescoat and Joachim Wolschke-Bulmahn, separate modern interpretations of Mughal garden aesthetics into subjective and

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[26] The use of photography is not to imply a scenic approach to the landscape but rather serves as a singular point in a multi-scenic approach in which the photographs are expanded or disrupted by textual description

[27] See Valérie Gonzalez, *Aesthetic hybridity in Mughal painting, 1526-1658,* 2015 in which aesthetics are considered in relation to cultural hybridity and the success of Mughal or George Minisale *Images of Thought, Visuality in Islamic India 1550-1750,* 2006 in which Mughal Painting is considered free from Western historical tropes. He considers formal qualities and proportional geometries of the painting composition as the major source of aesthetic principles.

formal aesthetics.[28] The writers are largely critical of subjective aesthetics due to romantic tropes of picturesque gardens associated with Orientalist views. This thesis reconsiders the subjective aesthetic as a useful category deepening our understanding of the Taj Mahal complex.

Although there exist extensive sources comprising a corpus of writing on calligraphic form, these sources pertain chiefly to earlier medieval periods. Within the Mughal context there is limited writing on calligraphic aesthetics. Therefore, in order to patch together a way of seeing aesthetics, this thesis includes distinct yet intersecting sources of poetics, garden studies, and painting. By including considerations from distinct sources, aesthetics are approached, albeit with varying degrees of clarity, as a complete system of principles guiding design decisions.

There are broad principles pertaining to design which are accessed through a wide array of sources. Perhaps the most important principle is the emphasis on balance. This abstract principle applies to painting, architecture, garden design, literature, and as we will see, calligraphy. The appreciation and reliance on balance is acutely seen in the lateral symmetry of Mughal architecture, but is similarly present in the calligraphic design. Second is the notion of a unified theory of aesthetics. At times difficult to salvage from Orientalist tropes, this concept posits that Mughal aesthetic principles apply across mediums and are mutually contingent with other philosophical constructs such as justice.

One of the connections between Mughal garden design and textual aesthetics comes from Mughal conception of poetics. Wheeler Thackston argues that poetic sources offer limited help in understanding the formal, phenomenological, and symbolic characteristics of gardens due to their heavy reliance on previously established tropes codified within Persian poetry.[29] Mughal garden poems describe landscapes more closely resembling Persian geographies than those of India. As such, the adoption of Persian poetics

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[28] See James Wescoat and Joachim Wolschke-Bulmahn, "Sources, Places, Representations, and Prospects: A Perspective of Mughal Gardens," in *Mughal Gardens: Sources, Places, Representations, and Prospects*, Ed. James Wescoat and Joachim Wolschke-Bulmahn.

[29] See W. M. Thackston, "Mughal Gardens in Persian Poetry," in *Mughal Gardens: Sources, Places, Representations, and Prospects*, ed. James Wescoat and Joachim Wolschke-Bulmahn.

therefore reveal more about Mughal literary practices than about the qualities of gardens. This poetic descriptions, however, serve wonderfully to augment our understanding of Mughal aesthetics.

Furthermore there is a longstanding relationship between poetic descriptions of gardens and poetic descriptions of writing. al-Tawhidi's manuscript on handwriting includes reference to gardens and flowers in relation to text. He writes, "'Abd al-Hamid said: Barren soil is some thing desolate. A flower garden, on the other hand, is something pretty, and when it is in bloom, its beauty is perfect. Thus a handwriting without dots and diacritical points is like barren soil. On the other hand, a handwriting that is provided with dots and diacritical points is like a garden in bloom."[30] Later he adds, "'Abd al-Hamid b. Yahya,… Handwriting is a garden whose flowers are instructive remarks."[31] Either merely as poetic conceit or a conceptual connection, these metaphors imply that there exists a guiding aesthetic principle connecting distinct forms.[32] In other words, that which makes flowers and gardens beautiful also makes writing beautiful.

It is important to consider non-textual sources such as paintings as important contributions to our understanding not only of aesthetic principles but also how landscapes were seen in a Mughal context. Rather than a series of perspectival scenes, Mughal painting provides multiplanar views of landscapes which combine a series of perspectives combined to produce a series of representations of a landscape. As such, a phenomenological study of the Taj Mahal needs to incorporate this multi-scenic approach to

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[30] See Franz Rosenthal Trans., "Abu Ḥaiyun al-Tawḥidi on Penmanship," *Ars Islamica* Vol. 13, 1948. Pg. 18
[31] Ibid. pg. 12
[32] The obvious problem here is that these aesthetic principles from the 11th century have little if any bearing on 17th century ways of seeing. I am conflicted as to whether this connection has salience. On one hand, calligraphic arts are seen as chain of transmission from original masters such as Yaqut, which implies that texts were still read to provide understanding of how to produce calligraphic forms. On the other hand, the obvious distance geographically and temporally makes this a weak connection. Despite this, the prevalence of poetic conceit at least reinforces the notion of a guiding aesthetic principle spanning distinct art forms. I.e. there isn't an aesthetics of painting, and an aesthetics of architecture, but rather there is merely aesthetic principles which govern both painting and architecture.
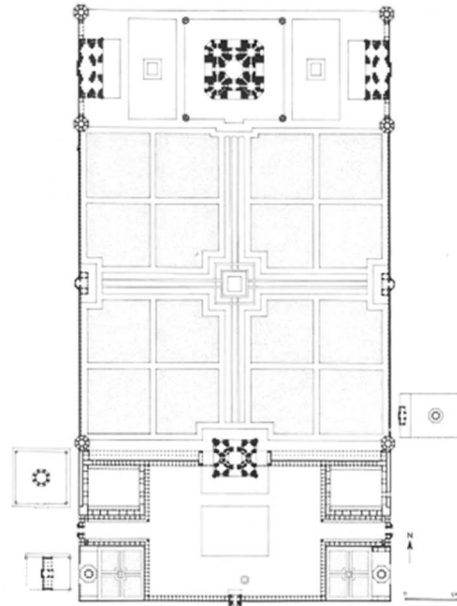
landscape.[33] In this thesis, the scenic photographic representation is disrupted by textual description to

approach an alternative reading of the space.

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[33] I owe this terminology to James Wescoat who employs the term to describe Mughal landscape painting

Chapter 3: Approaching the Tomb

Introduction

Fig. 3 Plan of Taj Mahal[34]

The Taj Mahal is a large funerary complex including a series of buildings and landscapes all of which contribute to an overall sense of monumentality and importance. The current context provides a distinct rupture between the contemporary urban location within Agra and the historical space of the Taj. This break is emphasized not only by the selective preservation of site at the boarder of the courtyard south of the gatehouse marked by large imposing walls with massive gates and also the presence of security checkpoints situated within these walls. The historical caravansaries and other urban constructions from the Mughal Era are replaced with the contemporary urban fabric packed with shops, restaurants, vendors, and transportation services all which profit from the influx of tourists.

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[34] Drawing by Richard André Barraud in Ebba Koch, *The Complete Taj Mahal*, 2006 pg. 114

There are three possible entrances to the site, each with a specific aesthetic feel. Although the site operates within a larger designed area, it is removed in part from its original urban context. Once in the site, there are multiple pathways which funnel through specific points moving the visitor along. For example, all entrances lead to the forecourt which in turn offers multiple pathways to the gatehouse. From the gatehouse, the *charbagh* opens providing multiple paths to two possible plinth access points.[35] In this regard, there is not a singular order to walkthrough and experience the site, but rather an overall immersion within an expansive garden-tomb.

It is critically important to consider the gardens and the periphery buildings in addition to the mausoleum. Aesthetically, and functionally these elements serve essential roles. Even economically, the gardens provided annual income in the source of fruits for the foundation, maintenance, salaries, and charitable services associated with the complex.[36]

Fig. 4 Forecourt looking West

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[35] Even though it could be argued that the Taj Mahal Garden is not a *charbagh*, but instead should be considered a riverfront garden, I employ the term throughout to describe the main garden of the Taj Mahal complex. There as the term was widely understood in Mughal sources.

[36] Although no endowment document survives for the Taj Mahal, Begley and Desai provide the Waqf for Wazir Khan's mosque at Lahore as a model for a likely endowment structure. *The Illumined Tomb*, 1989, pg. 183

Beyond functional services, the garden operates within a system of signification. The popular reading of the *charbagh* is as a representation of paradise. Along with the didactics on site preferring this symbolic reading of the garden form, Begley and others argue for the paradisiacal reading of the garden and the site as a whole. [37] In defense of this reading he employs *Surah al Fajr*, the first one encounters on the south facade of the gatehouse. Although this reading is cohesive, it does not provide a complete understanding of the grounds and the significance of the site. Also, the garden and the architecture provide worldly delights through a pleasant, enjoyable micro-environment. Furthermore, the symbolism employed throughout the site operate not only on religious levels, but also further political claims for legitimacy and supremacy. The aesthetics of the text, both in terms of script usage and larger site-scale experience have not received sufficient attention. I develop an aesthetic interpretation which adds to the current understanding of these textual inscriptions.

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[37] See Begley "The Myth of the Taj Mahal and a New Theory of its Symbolic Meaning," 1979 and Koch, *The Complete Taj Mahal*, 2006 pg. 217
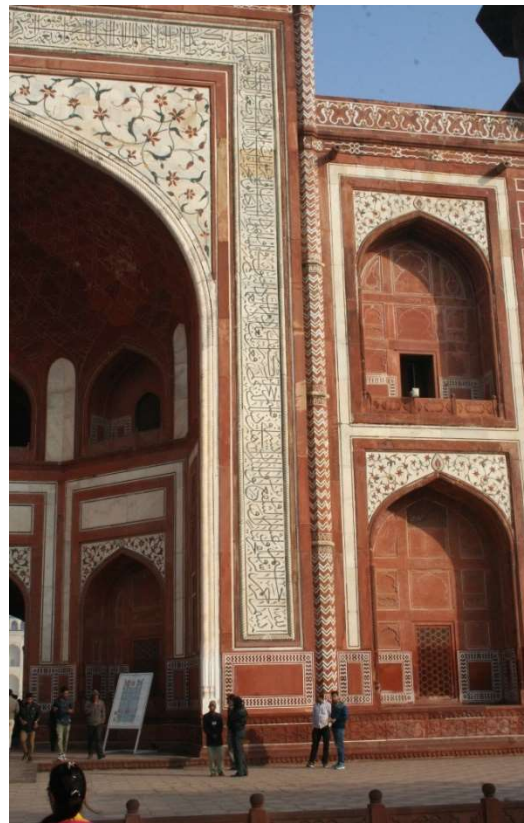
B. The Great Gatehouse from the south

The gatehouse provides the only way into and out of the Taj Mahal *charbagh*. Royal visits to the site during the Mughal period would frequently arrive by boat: An access point which no longer exists due to security fences and the absence of a dock. As such, all contemporary visitors arrive through the large south facing archway. Providing the first calligraphic encounter, this archway sets the tone of the site. Its large impressive span, balanced decorative features, ornate inlay and engraving, and iconic color and material are repeated throughout the site. The major architectural features: a large *iwan*, pietra dura inlay in the spandrel, calligraphic inscription framing the arch, and flanking guldastras and chattri repeat throughout the major structures of the site.
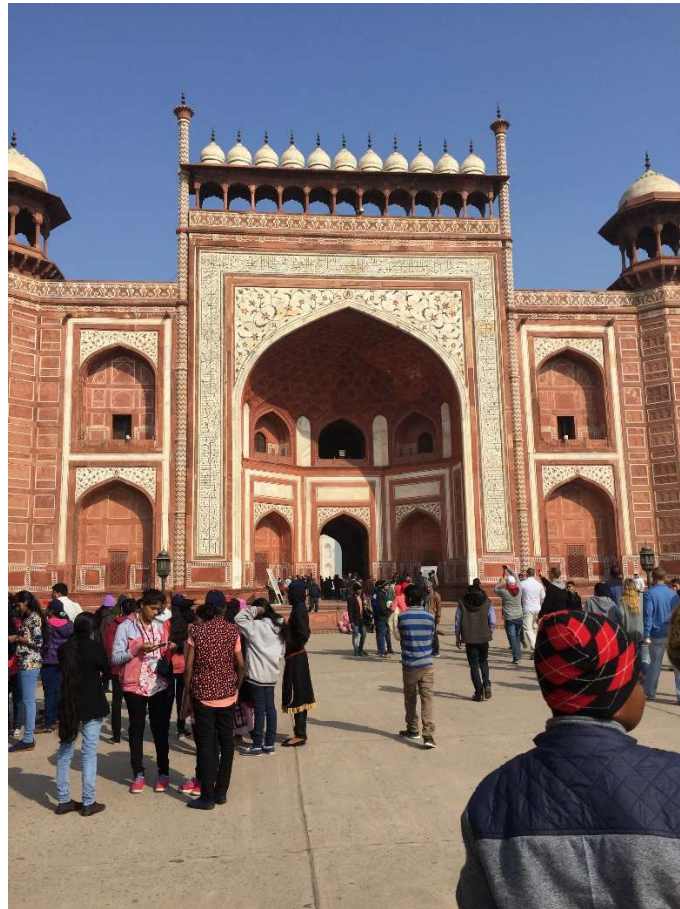
Fig. 5 Great Gatehouse looking north

The calligraphy, an inscription of *Surah al-Fajr*, provides an introduction to the style, content, and location of calligraphic inscription found throughout. The iconic *Thuluth* script employed by Amanat Khan, is easily recognizable and discernable from the point of encounter. The relatively small scale of this courtyard means that the calligraphy can always be seen as text.[38] The calligraphy of *al-Fajr* is seen first from relatively close positions. It becomes most discernable at the base of the platform where a single step separates the garden courtyard from the platform of the gatehouse. The high contrast of white marble band - on which the calligraphy is inscribed - against the red sandstone of the gatehouse structure accentuates the text and reemphasizes the pietra dura inlay in the decorated chevron corner detail which shares color with the sandstone (figure 6).

Fig. 6 Great Gatehouse South facade detail

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[38] This is when compared to the large expanse of the *charbagh*.

The Taj Mahal *calligraphy* is distinct from most Mughal case studies by employing two contrasting materials: one for the ground and one for the lettering. Koch argues for material hierarchy corresponding to political-social hierarchy. [39] The all marble tomb bearing the royal bodies is accordingly elevated above the red sandstone structures of the complex in which marble is reserved only for special features such as the dome or the calligraphic frame.

The visual contrast created by the inscription emphasizes these material distinctions. The text creates high color contrast between black lettering and white negative space. This color contrast mutually emphasizes the material qualities of both elements. The white marble is emphasized as an important material in the construction of the site and the black lettering is clearly rendered on the white background.

This high color contrast is also seen in Mughal painting which frequently pairs reds with greens and blues with yellows. Sometimes seen for their allegorical qualities to emphasize conflict between two factions or moralistic fables, the color contrast also serves to create dynamic composition full of vivid movement, and bold patterns. Furthermore, these bold color combinations were often reserved for depictions of royal figures. Thus, within a larger Mughal artistic milieu, high contrasting colors could be seen as a mark of aesthetic excellence.

From a distance, these two colors blend creating bands of color on the facade. As such, the calligraphy operates at multiple distances providing important color patters from afar and high contrast up close.

Surah al-Fajr references historical events of retribution directed towards *'Ad Iram*, the *Thamuds*, and the *Phaoros*.[40] The conquest of *'Ad Iram* is previously mentioned in *Surah An-Najm* v.50. The *Surah* seems like a curious choice to introduce a piece of monumental architecture due to the negative depictions

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[39] Ibid. 215

[40] Here the Qur'an is referring to either lost cities or since nonexistent civilizations. The *Ad Iram* refers to a lost city of unknown origin. The *Thamuds* were a tribe living in the *Hijaz* centuries before the time of the Prophet Mohammad, and the *Phaoros* refers to Egyptian Pharaonic civilization.

of the architectural projects of these three pre-Islamic civilizations. "The words *dhat-ul-`imad* (of lofty pillars) have been used for the 'Ad because they built high buildings and the pattern of architecture of erecting edifices on lofty pillars was introduced by them in the world. At another place in the Qur'an this characteristic has been mentioned in connection with the Prophet *Hud*,[41] who said to them: "What, you erect for mere pleasure a monument on every high spot, and build huge castles as if you were immortal!" (*Ash-Shu`ara'*: 128-129)."[42] How do we understand contextualizing a grand architectural project within these words directly addressing monumentality? Is the text to be understood as a self-critical reflection on the difficult of erecting monuments within an Islamic context or is it to be understood metaphorically as a register of the conquest of Islam over South Asia as mirroring the spread of Islam north from the Hijaz?

The tension evident in this *Surah* highlights the multifaceted areas of discontinuity in interpreting the Taj Mahal itself. Impossible to reach an understanding of the monument from a single source or function, the monument operates within intersecting social, religious, and political spheres. The iconography present attempts to mediate among various factions in the Mughal court evidencing a noteworthy self-historicity promoted by the decorative program.

It is important to note that the interpretation of the Taj Mahal as a representation of paradise would be supported by final two verses of the *Surah*: So enter with my servants and enter my paradise.[43] If we are to understand the text as the "front matter" to the monument, then the last few verses serve as salient evidence for those who argue that the *charbagh* funerary garden is symbolic of otherworldly paradise gardens (*jannah*). Alternatively, we can understand the invitation as an introduction to a splendid space of natural and designed beauty. The garden, and structures combine to create a pleasant space of

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[41] Prophet *Hud* is a prophet mentioned in the Qur'an – the eleventh Surah is named after him – who is sometimes associated with the pre-Israelite 'Eber.

[42] See Tafsir Maududi *Tafhim-ul-Qur'an* on "Surah al-Fajr" available in translation on englishtafsir.com

[43] One popular conception of Mughal Funerary gardens is that of a representation of a literal paradise in the hereafter. see James Dicke "Mughal Garden: Gateway to Paradise" 1985, Elizabeth B Moynihan *Paradise as a Garden: in Persia and Mughal India* (1979),

enjoyment. In this framework, the calligraphic inscription works with the natural beauty of the garden, and the architectural magnificence to create an overall space of enjoyment. The natural beauty of the environment including birds, animals, shrubs, grasses, trees, and water combine with specific artistic creations to produce an overall pleasing environment akin to paradise.

Fig. 7 Looking North from the Great Gatehouse

The gatehouse interior provides the first spatial break after entering the site through one of the three security checkpoints. Visual contact can be maintained with the Taj Mahal mausoleum while approaching and passing through the gateway if the visitor remains on axis. The space of the gatehouse, however, still provides a significant spatial break between the central *charbagh* and the periphery gardens and architectural features. The dim lighting, expansive space, aural disjunctions all contribute to a sense of spatial demarcation.

The interior of the gatehouse itself is particularly plain. Employing iterated marble inlay designs present throughout the site, the interior maintains the visual language of the site without drawing attention to its decorative program. Notably, the marble bands framing the arch, rather than creating a rectangular form to house calligraphic inlay, follows the form of the arch and bears no decoration except a black marble

border. Here is the first instance of a location that is left unadorned with calligraphic inscription. It would be reasonable to inscribe calligraphy in this frame given the location of calligraphy in other structures on site. Especially contrasting monuments from the Sultanate period in South Asia, the Taj Mahal employs relatively few inscriptions providing a balance to the text and also emphasizing the importance of the present text.[44]

From this interior, the Taj Mahal mausoleum emerges visually as a visitor passes into the garden. Obstructed only by the bustle of the site, and the occasional need to mind one's step, the image of the mausoleum remains fixed and framed within the confines of the gaze, and the archway. Passing through the archway, this fixedness gives way to a series of vistas and visual distractions throughout the gardens: fountains, trees, floor patterns, birds, and flanking architecture attract the attention of the visitor.

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[44] Compare, for example, the complex at Qutb Minar in which a great majority of the exterior surfaces are elaborately adorned with carved calligraphic inscription. The effect here was one of overwhelming presence of text, rather than a visual balance and striking presence of specific, selected verses.

Since it is impossible to walk towards the mausoleum on axis due to the presence of a water-channel with fountains, specific on axis views are privileged in light of their availability. Only when architectural features intersect the central channel can the mausoleum be viewed on axis. The first such view is available directly exiting the gatehouse. The raised gatehouse platform gives way to the gardens below via two sets of stairs on either side of the platform. From the center of the platform, the frame of the Taj Mahal mausoleum can be accessed on axis (figure 8).

Fig. 8 View from the Southern end of the Garden

From this distance, the details of the Taj Mahal facade are inscrutable. Only the major architectural features such as the dome, the *chattris*, the minarets, the plinth, and the *iwan* are prominent. Other minor details are observable but difficult to make out. Furthermore, the details of the garden which visually direct

the gaze distract from the more minute details on the facade. The side structures are visible only by their domes emerging from above the tree line.

From this distance, the calligraphy would seem to be completely inaccessible. However, the calligraphic inscription blends together effectively forming a band of darker color around the arch. The *Surah* is accessible only as a band of color

Given the long reflecting pool along the site, on-axis views of the Taj Mahal are available only at these privileged sites for observation. As such, the privileged scenes provide strong still-frame impressions of an otherwise moving, lively scene. As such, the spaces on axis are designed to highlight moments of pausing to look and appreciate the architecture at different scales and distances.

E. Reflecting pool looking north

The second on-axis vista is available at the center of the garden from a marble reflecting pool. From this vantage, the visitor may freely survey the extent of the site along both intersecting axes. The view of the mausoleum itself gains clarity of detail. Elements which from afar blend together at this point are distinct. The decorative inlay bands under the dome rather than a single shade can be seen as four distinct motifs. Large cuts into the marble such as cartouches, and the *muqarnas* pattern become visible. Shades of marble, distinct due to the staggering in the cleaning process, grow distinguishable. Black marble inlay on the minarets appear as thick grout lines. The large central *pishtaq* begins to show depth into the building due to foreshortening caused by shadows.

Fig. 9 Mausoleum from the reflecting pool

The large scale calligraphy at this point is recognizable as text; some letter forms are distinguishable. As a whole it is extremely difficult to read. Although it is discernable as text, the calligraphic inscription remains most prominent as a rectangular band of color on the *pishtaq*. Other decorative elements such as the lotus pattern underneath the dome and the Persianate patterns along *guldasta* also blend to singular bands of color. The pietra dura therefore receives extra attention at this scale. The slight

elevation of the pool accentuates these vistas and create a sense of emphasis on the structures on plinths elevated above the garden floor – mainly the mausoleum, but also the side structures and the entry gatehouse.

F. The Gardens

The gardens provide pleasant environments away from the central processional axis of the Taj site. Seeing significantly less activity than the central axis today, the shady tree-lined walkways provide peaceful respite from the bustling crowd of the Taj Mahal.

The fourfold garden plan (*charbagh*) features prominently with the calligraphic inscription in arguments for a symbolic reading of the Taj Mahal as paradise. Wayne Begley argued for the paradisiacal gardens as a representation of heaven on Earth.[45] Ebba Koch provide a more modest claim that the gardens are eschatologically positioned by only through synecdoche.[46]

Aesthetically, the pleasant setting of the garden connects more broadly to the calligraphy and floral details in pietra dura on the built structure. Although formally distinct, the details on the structure weave a broader natural garden setting onto the building's skin. In this regard, the interconnected aesthetics of script and floriated with the natural beauty of the garden posit a broad framework for approaching and appreciating the site's beauty.
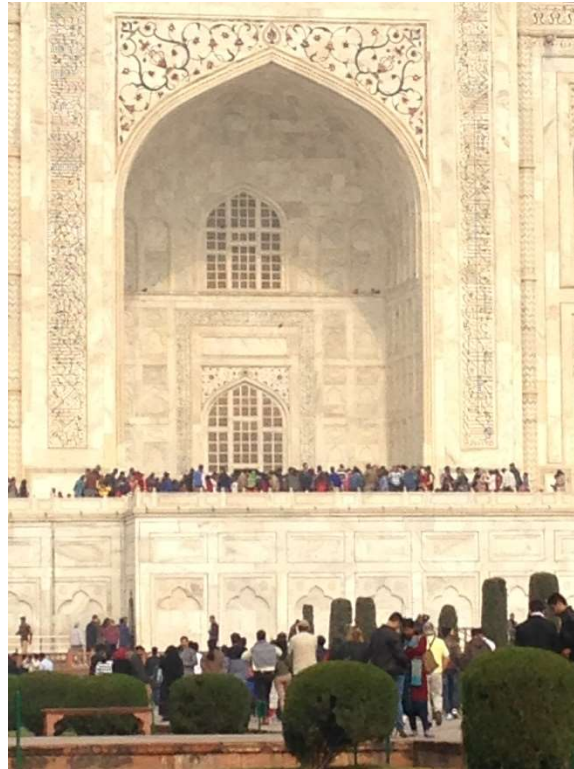

Fig. 10 The Gardens looking North East

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[45] See Begley, "The Myth of the Taj Mahal and a New Theory of its Symbolic Meaning," 1979.
[46] See Koch, "The Taj Mahal: Architecture, Symbolism, and Urban Significance," 2005.

G. Plinth base looking towards the tomb

Fig. 11 Southern facade and plinth base from the Gardens

From this position in the garden, the decorative details gain clarity (Fig 11.) The text of *Surah* Ya-Sin is both recognizable and its letter forms are discernable. It still creates a band of color which accentuates the architectural features of the façade. Here we clearly see the scale from the presence of people both in the garden and on the edge of the plinth. The inscription begins at nearly twice the height of a person, where it extends skyward. Functionally, this text projects outward, relating to the space of the site as a whole. From the south, here, the text is encountered from the space of the garden. From the west and east, the text relates to the space of the Mosque and the guesthouse respectively. From the north, this relationship is less clear as the site end abruptly at the edge of the Jumna River. I suggest that with the

presence of boat traffic, including the propensity for the royal family to travel by way of boat and even approach the Taj site from the north, this inscription therefore projects outward into the space of the river.

An important finding of this research is that the calligraphy of the *iwan* is best experienced from the right hand path. Although from colonial times to the present foot traffic generally moves through the site on the left hand side, the location of calligraphic inscription suggests that it would be better experienced from the right. On approach through the garden, the right hand path places a visitor directly in line with the introductory verses of the inscribed *Surah* Ya-Sin. The scale and location of this *Surah* on the exterior of the *iwan* makes this *Surah* best approached from a distance. The trend is true of all exterior calligraphic inscriptions on *iwans* suggesting that the ideal way to circulate through the site is via right-side pathways, unlike current trends.

Chapter 4: On the plinth

A. Introduction

At the northern end of the *charbagh*, the elevated sandstone base rises markedly above the garden space. This platform demarcates and connects the key structures – the marble mausoleum, the flanking sandstone mosque to the West, and its mirror to the East - from the rest of the complex. At the center of the platform, the large marble plinth rises above this platform. This chapter will consider the experience while on the marble plinth specifically.

The Taj Mahal plinth is accessible by two sets of stairs along the East-West access which functionally disrupt any chance of visual continuity while approaching the mausoleum. After a smooth approach through the garden which the details of the south facing façade gradually become clear and legible, there is a distinct break. The size of the plinth blocks visual access to the epigraphy and the inlay on the façade. In this sense, the stairwells carved into the plinth act as portals onto the plinth and into a different scale of experience.

Views of the tomb from the plinth are limited by close proximity. The dome, *chattris* and *guldastras* are largely obscured from vision by the large *iwan*. Despite their massive scale, observation of the calligraphic elements on the façade are largely plagued by suboptimal viewing angles, excessive light, and problems of scale.

There are five complete *Surah*s inscribed on the exterior facades. *Surah* Ya-Sin occupies all four sides of the exterior. Within the arches, there are calligraphic spaces framing the portals: *al-Takwir* from the south. *al-Infitar* from the west, *al-Inshiqaq* from the north, and *al-Baiyina* from the East. The smaller scale calligraphic spans nestle within thef larger inscriptions of *Ya-Sin.*

B. Opening

As a visitor exits the garden and enters the plinth, we again have a point of visual confinement, and darkness. One is shuffled through a narrow stairwell in which visual contact with the mausoleum and the garden are severed, although the presence of the plinth wall already breaks most contact with the mausoleum. The plinth is entered from two stairs cut into the southern edge of the plinth. These stairs function as a distinct break in the experience of the Taj. Coming from the large, open space of the lower base the visitors are channeled through open metal doors into a narrow, dark passage (figure 12).

The wide vistas, bright space, and looming presence of the mausoleum become reduced to a singular tight space with smooth marble. Furthermore, the massive size and close proximity of the plinth means that one is entirely cut off from the calligraphy as well as any other details on the façade. These stairs open onto a platform on the southern end of the plinth. The edge of the plinth is bound by a small marble wall, which provides no effective barrier to falling.

Fig. 12 Stairs onto the Plinth looking east

The mausoleum emerges at a personal scale. Rather than a smooth transition, the stairs cutting through the plinth create two distinct experiential frameworks. On the plinth, the arches and niches show depth into the building. Through screens and passageways, one can see the interior. Intricate carved and inlayed details are visible and discernable. Even the grain of the marble takes on characteristics. The south facing façade rises skyward; for the first time, the inscription is more prominent than the pietra dura floriated patterns due to the relative position of the two decorative elements. The text of *Ya-Sin*, which extends from above the dado, is immediately visually accessible. To view the floriated pattern, one must look sharply upward (figure 13).

Fig. 13 South facing facade from the plinth

Arriving on the plinth, the visitor is engulfed in marble. The floor provides a sense of immersion which furthers a sense of interiority. The booties given by the Archeological Survey intensifies this feeling. Furthermore, the separation of the plinth from the rest of the site, detaches and elevates the plinth.

Approaching the plinth from the right staircase is preferred. These stairs deposit the visitor directly in line with the opening text of al-Takwir, and closely in line with *Surah* Ya-Sin already viewed. Then, to

circumambulate the structure, the viewer would cross over from the opening lines moving up to the later lines (closing in the case of the shorter *Surah*) moving down the left side of the facade. During this time crossing over the central axis, the viewer has an opportunity to pause and appreciate the intricacy of the script (figure 14).
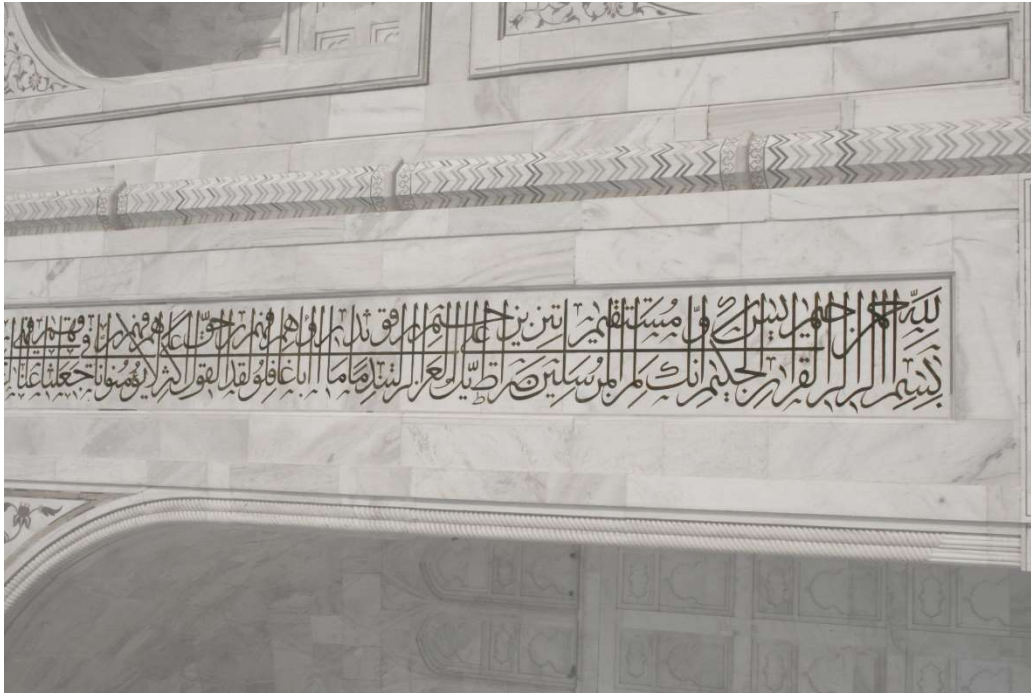

Fig. 14 Ya-Sin *Detail on Southern facade*

During this pause, one can appreciate the calligraphic composition producing the overall visual effect of the text. Following the beginning of *Surah Ya-Sin* along the right register of text, it becomes clear that the letter forms, spacing, and location are determined by aesthetic considerations. Beginning with the easily recognizable Bismillah, which occupies the entire lower part of the register, the text then bifurcates into two concurrent bands of text, one above the other separated by strong horizontals.[47] These horizontals are the formed by the tail end of the letters *alif maksura* and *ya* written in the terminal form. Vertical extenders on the letters *alif, lam, Ta(ط), Dha(ظ),* and *kaf* rise from the bottom register of text through

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[47] Horizontal for the text is in many cases rendered vertically on the building. I use the text as directional reference.

the top register. As such, the arrangement of the words is manipulated to ensure that letters with long extenders are written on the bottom register and letters used to produce horizontal dividers come in the upper register.

Subsequently, individual verses and even individual words are disrupted in order to maintain the overall balance of the inscription. From afar, the text appears to run smoothly along two bands at regular intervals. To produce this visual effect, however, the text is cut and rearranged. 36:4 prominently shows the willingness to rearrange word order to create visual balance (figure 15). The verse is arranged with careful attention to visual continuity which in turns creates textual discontinuity. The line begins in the top left with *"ala"* which tails back to the right to create the strong horizontal line dividing the upper and lower band of text. *"Ala"* provides an interesting design problem due to both the presence of a *lam* which is normally produced on the lower band of text and also a terminal *alif maksura* which are written from the top register to create the horizontal dividers. The terminal *alif* or *ya* is rarer than letters with vertical ascenders, and therefore the terminal *alif maksura* takes precedence determining the position of *"ala"* on the upper register. The line then moves directly below and slightly to the right where the word *"Sirat"* reads as it would normally appear from the right to left with two long extenders which interlock with three letters in the upper band of text. The line then jumps back and up to produce the final word (*mustaqim)* on the upper band of text. We can see that the visual continuity of the inscription as a whole is produced only by reorganizing word order within each verse. As such, we can extrapolate that the visual continuity takes

precedence over the textual continuity. It is more important to see the text with visual balance than with textual consistency or legibility.
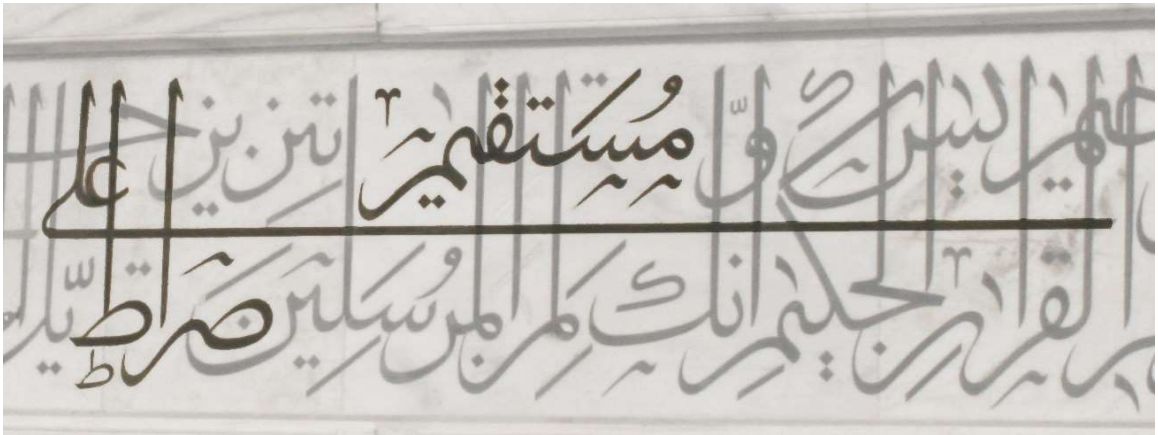

Fig. 15 Detail of Ya-Sin

Strong vertical extenders create regularly spaced visual rhythm and patterned geometry when paired with the horizontal bisector and the angular strokes of the *kaf* and the *lam-alif*. This rhythm accentuates the balanced spacing between script and negative space. The significant fluctuation between thick and thin pen-strokes creates a vibrant sense of motion in the text. Overlapping letters accentuate this movement and also create depth in the text.

This verse also provides insight into the use of nestling in which part or all of a letter is written within the form of another letter. We see the *Sod* in *Sirat* nestle within the terminal *nun* from the previous verse's *almurasilin.* The letter pointing of that *nun* in turn nestles within the loop of the *Sod.* The resulting effect is concentric nestling which interlock verse 36:4 and verse 36:5 (figure 16).
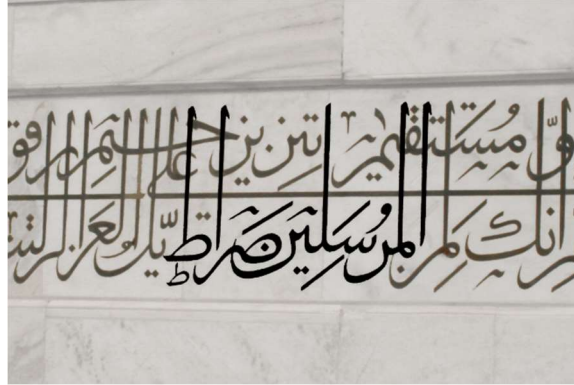
Fig. 16 Detail of Ya-Sin *36:4-5*

Verses are further connected by the presence of interlocking letters. There is significant overlap throughout the text where letters are written on top of other letters. These points are at times amplified by placing letters specifically in order to draw attention to these overlaps such as the vertical extender of the *lam* in *ghafilun* running directly through the *fa* from the previous word (figure 17). This overlap not only creates a dense script which completely fills the space, but also provides a sense of depth and complexity to the script.

Fig. 17 Detail of Ya-Sin *36:6*

Furthermore, the choices pertaining to letter pointing clue the aesthetic considerations at play when producing these inscriptions. Take for example the final word in verse 36:5, *"mustaqim"* (figure 15.)

There are three instances of letter pointing here: two dots to form the *ta*, two dots to form the *qaf*, and two dots to form the *ya*. The two dots above the *sin* are letter pointing for two *dhals* from verse 36:7 and are not part of this verse. The two dots of the *ta* are arranged horizontally whereas the two dots of the *qaf* are arranged vertically. The letter pointing appear between regularly spaced vertical extenders, but the presence of the *qaf* letter form dictates a vertical arrangement as to not crowd the space around the serif on the vertical extender. The spacing between letter forms, letter pointing, and diacritical marks is maintained at relatively constant intervals. The negative space of the calligraphy is actively used to exemplify the overall balance of the composition. This essential element of calligraphic inscription is described in al-Tawhidi's early treatise on penmenship as "*Tafrik*" or division of letters such that they do not encroach on each other.[48]
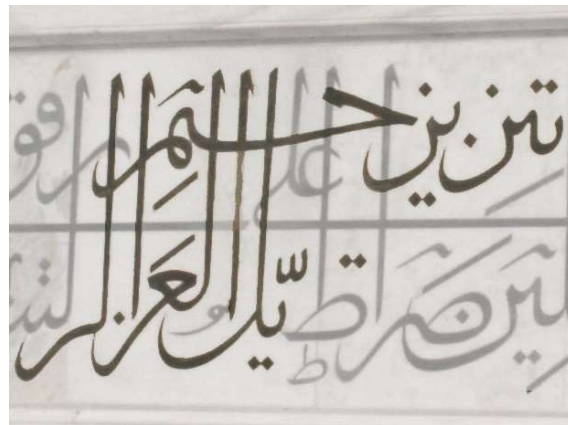

Fig. 18 Detail of Ya-Sin (36:5)

Textual disruption is also seen at the scale of individual word such as 36:5 in which words and letters are written out of order. When seen overall 36:5 has a fairly cohesive block of text visually: it appears to be a singular unit (figure 18). To produce this visual cohesion, the text is cut and rearranged such that there is no textual continuity. For example the last two letters in the second word in the verse, "*aziz*"

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[48] See Franz Rosenthal trans. "Abu Ḥaiyun al-Tawḥidi on Penmanship," *Ars Islamica* Vol. 13, 1948. Pg. 10

appears to be connected to the first three letters from the first word of the previous verse "*tanzil*" (figure

19). In order to maintain the visual balance of the verse, the textual continuity is discarded entirely.
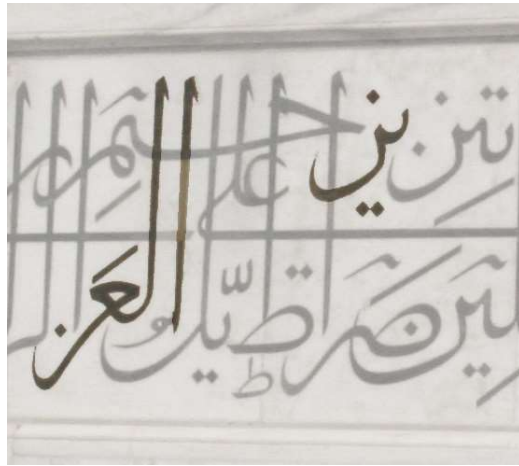
Fig. 19 Detail of Ya-Sin *36:5*

C. Circumambulating the exterior

Once on the Taj Mahal plinth, one can either enter the tomb interior directly from the top of the stairs, or walk around the exterior on the plinth. I chose to first circumambulate the plinth in order to replicate a likely approach taken by a Mughal era visitor as well as accessing the extent of *Surah* Ya-Sin. The arrangement of this *Surah* implies this path. Since the *Surah* begins on the south facing façade, and continues clockwise around the exterior, the order of experience when visiting the site should likely mirror this arrangement.

Circumambulation plays a major role in processional approaches to pilgrimage spaces.[49] In Islam there is a strong history of circumambulation, most importantly the *Kaaba*. Notably, the *Kaaba* circumambulation runs in a counter-clockwise direction, and since *tawaf* is an integral part of orthodoxy, there are specific regulations governing its form and procedure. The major distinction with the *Kaaba* is that the *kiswah* epigraphy, which reads in the opposite direction of circumambulation, is comprised of short statements of faith within cartouches. Other Islamic monuments such as the Alhambra in Granada largely implement this model of distinct expressions as opposed to an epigraphic narrative. The Dome of the Rock epigraphy also implies a circumambulation following the arrangement of the text. Here two bands of text produced from a quilting of Qur'anic passages into a single cohesive, polemic text run along the upper registers of the building's interior.

Within the South Asian context, Sufi shrines provide context for pilgrimage sites. Pilgrims to these shrines – such as the Nizamuddin Chisti or Salim Chisti Shrine – circumambulate clockwise in concentric circles, sometimes touching the inscribed Qur'anic verses. That the Taj Mahal interfaces with these traditions of circumambulation pose interesting questions pertaining to the meaning and function of the

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[49] Koch notes that the Taj Mahal has been an important pilgrimage site for Muslims and Hindus alike in South Asia: Koch, *The Complete Taj Mahal,* 2006, pg. 229

site. Was the Taj Mahal conceived of as a pilgrimage site in the style of South Asian shrines? For whom would this pilgrimage be benefiting, the deceased empress or the pilgrim?

There are significant complications to the visual approachability of the script unique to the experience from the plinth. The proximity to the building necessitates a sharply vertical viewing angle which makes recognition of letter and word forms difficult due to their massive size, distortion, and the inability to see large-picture of the text. This difficulty is mitigated by circumambulating near the edge of the plinth from where the text is flatter due to the shallower viewing angle.

Also, the daytime light in Agra can be extremely intense. The brightness is accentuated by the all-marble plinth and diffusion due to hazy weather. The sunlight reflects strongly from the marble structures making continual reading of calligraphy without the aid of sunglasses difficult and often painful. When underneath the calligraphic inscription, this brightness is further pronounced by the viewing angle which directs the gaze skyward and therefore sunward. The brightness is largely dependent on weather conditions and time of day. It is easiest to read the text while the weather is clear and the sun is low in the sky.

There are ideal spaces on the site from which *Surah* Ya-Sin can be easily read. For the south facing calligraphy, the best vantage is from the closest quarter of the garden. The East and West facing calligraphy is best read from the steps of the Mosque and the Guesthouse. The North facing calligraphy has no similar vantage due to the precipitous drop towards the river and narrow access along the north end of the structure. Although the majority of the *Surah* can be easily read, the unfortunate difficulty of these vantages is their relative distance. It is therefore impossible to completely read the *Surah* anywhere but on the plinth

Fig. 20 east facing facade

The script of *Surah* Ya-Sin is similar to the calligraphy in the rest of the site. Like other calligraphy on the site, *Surah* Ya-Sin is marked by a strong sense of a grid produced by elongated horizontal letter forms contrasting with bold vertical letters set perpendicular. Consistent with *Thuluth* script, diagonal lines are inscribed through the letterforms of alif-lam, Kaf, and occasionally solitary alifs. At times, the arrangement of words will accentuate the diagonal angularity without rotating the position of the letter. Finally, the script has regular spacing and size.

From the plinth, the script is fully differentiated, and is read only as text. The grain of the stone as well as differentiation in color is visible. The boundary lines of the text, however, remain well defined and produce an effective repetition of letter forms recognizable at the periphery of the text.

E. Portals inside the arches

Each cardinal exterior wall of the central dome has a smaller scale arch within the larger *iwan*. The north and south facing arches have cutout portals in the screens which function as entry and exit doors. These portals fit within and echo the architecture of the larger *iwan* arch.

In terms of scale and view, decoration on the portals relate in scale to a visitor on the marble plinth. The calligraphic inscriptions are best seen on axis and readable only from a vantage on the plinth. Whereas *Surah* Ya-Sin relates to the larger site-scale as it is seen from the gardens, the mosque and the gatehouse, the four *Surah*'s written here are activated from closer proximity.
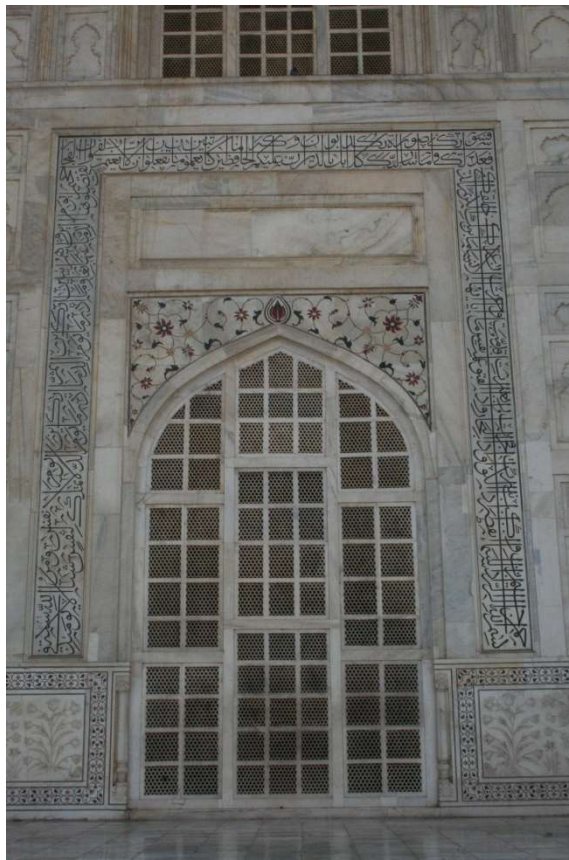
Fig. 21 west facing portal

These *Surah*'s: *al-Takwir* from the south, *al-Infitar* from the west, *al-Inshiqaq* from the north, and *al-Baiyina* from the East each deal with themes of eschatology. These themes are amplified by the scale on

which they are read and understood. As the visitor approaches the central dome and the interior tomb of the mausoleum so too does that visitor encounter calligraphy that is directly relevant to the function of the site.

The portal text is offset from the large *iwan* frame; as such, it is proportionally smaller. The text, however, does not merely scale down, but undergoes specific transformations of letter form to accommodate the smaller space. Subsequently, the portal text is slightly different overall from the larger text on the *iwan* arches.

The smaller script is rounder, emphasizing curves and diagonals rather than strong rectilinear verticals. The effect is a script that appears to be more delicate, but also less regular. In addition to curvilinear letter forms, the diacriticals and supplementary marking are frequently placed in the interior of the script. The overall rectangular form created by the larger script is less pronounced at this scale.
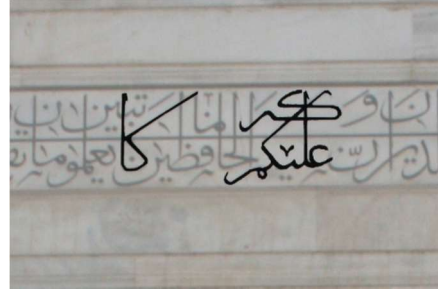
The letter form of the *kaf* is written both as it is on the larger script: two strong diagonal strokes or as a singular elongated curved form depending on the spatial positioning of the letter in the text. (figure 23) The curved *kaf* is more frequently used in the smaller script than in the larger script. The same is true of letter form *lam-alif*, which on the large text is mostly produced by a vertical lam with a short tail and a long extending *alif*. The smaller text *alif-lam* is mostly composed of angular lines joined by a single loop (figure 22).[50]

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[50] This is not universally true of smaller script portions. For example, the south facing portal has only the strong vertical *alif-lam*. It is difficult to generalize a preferred letter form as they are readily transformed to fill the space required. In this regard, the versatility of the script is more essential than that specific formal qualities at any moment.

Fig. 22 detail of al-Infitar   *Fig. 23 Detail of* al-Infitar

Furthermore, since the portal calligraphy interacts only from up close, the need to create an overall rectangular form, for which the use of strong rectilinear forms is effective, is less important. The overall effect creates a delicate script which is particularly dense and difficult to follow. The presence of two vertically stacked bands of text is difficult to recognize without the consistent presence of strong horizantals. As such, the textual arrangement can seem freeflowing or at times even jumbled.

E. Guesthouse and mosque

To the east and the west of the tomb, two sandstone structures sit against the edge of the site. These structures which provide visual balance and frame of the tomb while approaching now exist within their own visual frame, and are in turn flanked by two large turrets.

The case of the side structures provides a particularly poignant example of the restraint employed when designing the epigraphic program. The register of white marble along the arch of the *pishtaq* is left without any text or decoration (figure 13). This contrasts with the heavily decorated archways and doorways on the exterior of the mausoleum and also with the inscription present on both sides of the gatehouse.

Fig. 24 Mosque from the plinth looking west

Chapter 5: Interior

A. Introduction

The tomb, which is a series of concentric octagons, is entered through a cutaway in the southern portal.[51] This break between plinth and interior represents the most profound discontinuity on the site. Both visually and aurally, the interior space is completely distinct from that of the plinth. Low light conditions means that the profound color of pietra dura and brilliant marble is muted and desaturated. The intense contrast in calligraphy blends together creating hardly perceptible text. Aurally, the tight space create overwhelming sound reverberating throughout the space. Sound fills the space completely and intensely.

The spatial qualities amplify the experience of the calligraphy which in the interior operates on an intimate body scale. The center point of the tomb is the cenotaph of Mumtaz Mahal. The cenotaph of Shah Jahan was added later directly west of hers after his death. As is common with Mughal funerary architecture, the cenotaph sits directly over a true cenotaph buried below. The true cenotaph is accessible by stairs which open to the southern portal of the tomb. These stairs are permanently blocked excepting the date of Shah Jahan's death anniversary at which point the space is opened for the Urs celebrations in which a sewn cloth offering is deposited over the cenotaphs.

In the current arrangement, a visitor enters the tomb and then directly encounters the interior space where she can circumambulate around the marble screen. After which, the visitor exits and walks an easterly semicircle before exiting the structure towards the river at the north.

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[51] In plan, we see that the tomb is more like a square that utilizes a *hasht-bihisht* floorplan. The way the site is experienced however with emphasis on the central screen, leaves the impression of concentric octagons. For more on the *Hasht-bihisht* floorplan see Koch, *The Complete Taj Mahal.*

B. Entering the tomb

The final visual rupture present in the Taj Mahal program occurs when entering the tomb interior. Here visitors shuffle through the south facing portal. The bright exterior quickly gives way to a dimly lit entrance room. This transition into a space of extreme serenity is smoothed over by the constant present of a tightly-packed crowd and ample noise.

Although the experiential program during the Mughal era likely followed a series of concentric circumambulations would entail that a visitor would first circle the central room before entering, the current arrangement has visitors enter the central room directly which amplifies this rapid transition from intense brightness to dimly lit interior.

Fig. 25 South facing portal: Tomb entryway

The entry interior has no calligraphic inscription, but the floriate details both carved and inlay provide beautiful detail at close. Within the confinement of an interior room, and with the pace slowed by having to cram through two narrow passages, the minute decorative details are examined up close.

In the center of the room, an additional set of stairs which descend into the interior of the structure are blocked off by a small wooden panel and low hanging ropes. These stairs proceed to the actual cenotaphs which sit directly below the false cenotaphs in the adjoining room.[52]

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[52] This chamber is opened once a year for the Urs celebration of Shah Jahan.

C. Circumambulating the central room

The central room is full of incredible detail. The precise marble carving and inlay of the screen. Massive amount of floriate pietra dura inlay on every surface. The current program, however, obscures this overwhelming sense of decorative elements due to the lack of light. Transitioning straight from the exterior to the central room fails to let the eyes adjust to low light and eliminates the possibility of experiencing the overwhelming sense of being encircled by inlay flowers and Qur'anic verse (figure 26)

Fig. 26 Dome interior

The calligraphy is hardly noticeable when first entering the room. Cramped conditions and the presence of a crowd of tourists makes navigating the space difficult and distracting. Tour guides routinely shout along the arches to demonstrate the acoustics, and of course the percussion of guards' whistles which contribute to the general sense of chaos in the room.

The pietra dura inlay here is particularly precise and splendid. In part due to the materials being protected, both the interior marble and the semi-precious stones have particular gloss and shine on the screen around the cenotaph. The low light of the room deemphasizes the calligraphic inscription, which appear at first glance to be bands of slightly darker stone in the marble, the same effect as when the calligraphy is seen from a great distance. The calligraphic inscription is better suited for the light condition of the exterior.

Textual evidence suggests that reciters were hired to fill the space with Qur'anic recitation. As such, we can imagine that during Mughal rule in Agra, this space would be echo with recitation. We can understand the text as working within this framework: encircling the tomb with Qur'anic verse.

The interior script begins in the south eastern corner along the upper register of text with *Surah* al- Mulk. This *Surah* continues along the upper register until it returns to where it started. The remaining verses of that surah inscribed along the arch below. They reach almost directly above the vertex of the arch at which point *Surah* al-Fath picks up and continues along these arches until it arrives in the Western arch. Here *Surah* al-Fath gives way to *Surah* al-Insan which runs until nearly all the space is filled. The final inscription is two verses from *Surah* al-Zumar.

This odd arrangement suggests that the individual *Surah*s are important, given that the calligrapher selected *Surah*s which do not exactly fill the space, but it is not important that these *Surah*s are intelligible given the places in which they start. As such, the argument that one reads the first line of a *Surah* and the fills in the rest does not apply here because in order to read the first line of the next *Surah*, one would have to struggle through the entire chopped-up text of the previous one until arriving at the haphazard starting locations. It is more likely that the text is important as being recognized as Qur'anic text fully surrounding the space of the tomb. This gesture would be amplified by the presence of Qur'anic recitation, hired to fill the space aurally.

This arrangement suggests that the text is not read in entirety, but rather functions as an aesthetic element within the tomb. Like the text from a distance, the low light of the tomb's interior does not sufficiently separate the black inlay of the text from the white marble surface. In low light, these two colors become alike, which serves to create distinct yet similar bands of color along the surface of the interior. In this way, the calligraphy serves to create larger geometric forms within the interior space. Where the arches extend towards the ground, the visitor sees the text and recognizes the elegant sweeping forms of monumental *Thuluth* which create this effect.

As the visitor circumambulates the cenotaph, the Qur'anic script is always present. When the visitors looks towards the cenotaph, the inscription is in the background. As this octagonal space works with circular ambulation, this relationship is always present. If the visitor knows the passages, they will note the political nature of these specific *Surah*s.[53] al-Fath establishes the notion of divine interjection in political matters recounting early Muslim political trials and victories. al-Mulk or the dominion describes the creation of a comprehensive divine kingship.
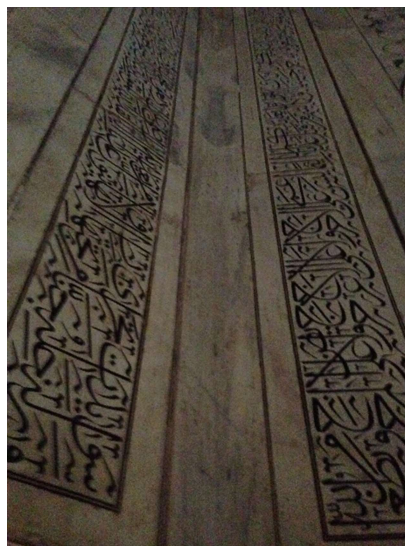

Fig. 27 Detail of interior arches

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[53] See Tafseer al Maududi

D. Cenotaphs

The false cenotaphs above are shielded from view by an elaborate carved marble screen. The screen is presumably the same marble screen installed sometime between the second year and tenth year of construction. Originally, a gold screen was installed, but sometime after the erection of the structure, this screen was replaced with the less costly marble carved.[54]

Whereas the cenotaph of Shah Jahan is adorned only with pietra dura the cenotaph of Mumtaz Mahal is adorned with calligraphic inscription of specific verses selected from a range of *Surah*s in addition to pietra dura. This is the only place on the site where pietra dura and calligraphic inscription work in tandem. The top of this cenotaph has pietra dura borders and the arrangement of text which create the qualities of a manuscript: lines of text read right to left, top to bottom within a rectangular, bound space.


Fig. 28 Screen detail with cenotaphs behind

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[54] See Begley and Desai, *the Illumined Tomb, 1989. 67-86*

The cenotaph text is also produced through an amalgamation of many different *Surah*s. Individually selected verses are combined to create what appears to be a complete text. Surrounded on all sides, Mumtaz Mahal's cenotaph is shrouded in Qur'anic inscription. In this intimate space closely relating the queen's body, the texts are individual paradisiacal verses. The floriate motifs of pietra dura – reserved for the royal household - combine with the calligraphic details to produce a unified visual effect.
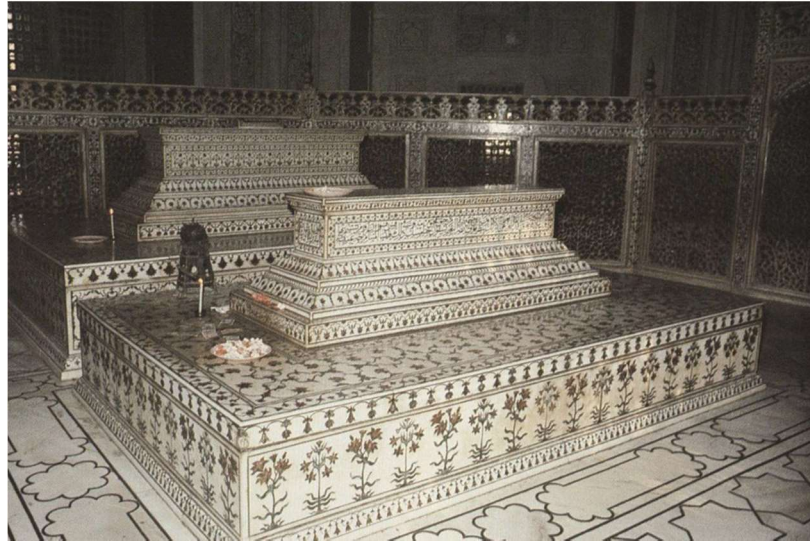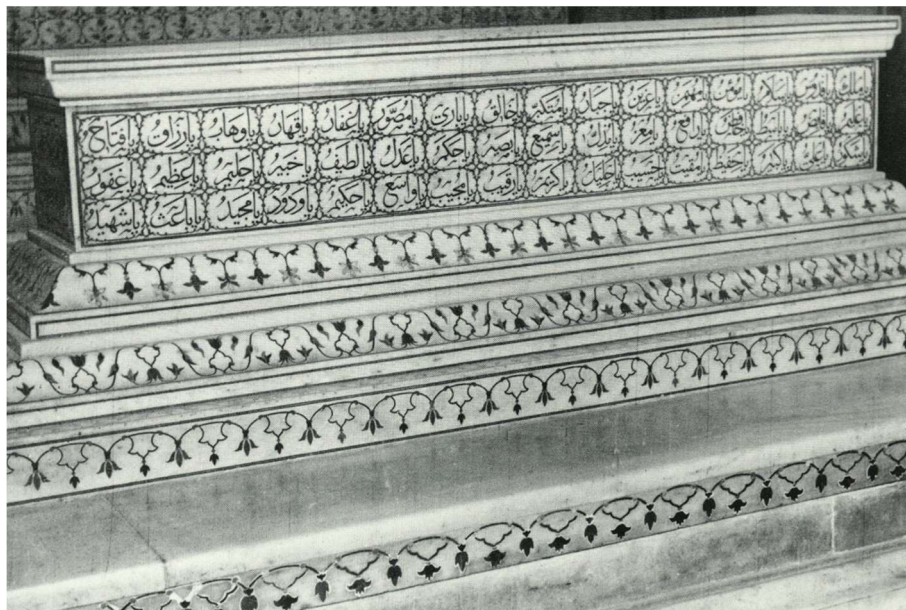

Fig. 29 Upper cenotaphs looking north-west

As the visitor circumambulates the cenotaph, the Qur'anic script is always present. When the visitors looks towards the cenotaph, the inscription is in the background. As this octagonal space accommodates circular ambulation, this relationship is always present. If the visitor knows the passages, they will note the political nature of these specific *Surah*s. al-Fath establishes the notion of divine interjection in political matters recounting early Muslim political trials and victories. al-Mulk or the dominion describes the creation of a comprehensive divine kingship. In the presence of the cenotaph of the Queen, these religio-political verses emphasize the presence of the Mughal crown symbolically extended throughout the world. In line with visual depictions of the emperor standing atop a globe, or the series of titles afforded to the emperor such as Padishah, al-Sultan-al-Azam, or Jahan Panah there is a

consistent language of encompassing worldly spaces with representations of Mughal religio-political legitimacy.

The cenotaph in the basement has the ninety-nine most beautiful names of God symbolically encapsulating the body of the Queen. Again we see the nestling of calligraphic scales in the structures interior. The expansive and encompassing texts in the dome – give way to symbolic personal paradisiacal pleas for the queen's body – and the true cenotaph below encases her body within notions of divinity. These texts concentrically intensify as they reach the center point of the site- the body of the queen.

Fig. 30 Lower cenotaphs looking north-west

Chapter 6: Departure

A. Introduction

This chapter addresses the three *Surah*s inscribed on the North Facing arch of the Southern Gateway.[55] These passages, *Surah al-Duha, Surah al-Inshirah,* and *Surah al-Tin*,[56] become visible as the visitor departs from the complex to the south. This is the first example of a single architectural element receiving multiple distinct *Surah*s. These three *Surah*s can be read as a recording of what is necessary for the Taj Mahal visitor to receive gifts of paradise upon their death: faith and good works.[57] *Surah al-Duha* stresses the importance of giving alms and treating those who are unfortunate with compassion and respect. *Surah al-Inshirah* advocates for the labor of worship and remembrance. *Surah al-Tin* proclaims that belief and good works is rewarded unendingly.

Alternatively, we could apply a more political reading in which the inclusions of the *Surah*s make claims to the piety of construction the Taj Mahal itself. In this reading the unfortunate orphan, poor, and ignorant stand in for the Mughal subject. This is especially important when considering the relationship to the Funerary anniversaries of Mumtaz Mahal at the Taj Mahal site.[58] In honor of the late empress, large

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[55] Begley and Desai order the north facing façade of the southern gateway directly following the southern facing façade of that gateway. I argue that this reading does not make sense. It would require a visitor to turn their back on this monumental form at the end of the water channel – the very image that the site has become famous for, in order to read some calligraphy. The only reason that Begley and Desai order it this way is due to their preconceived project of documenting the epigraphy coupled with an already established knowledge of where to find the verses. Hence, they run through the text organized by distance from the start point as you walk towards the center with the one exception of a circumambulation of the exterior – A gesture that is forced, in a sense, by the continuity of a single verse.

[56] *Surahs* 93, 94, 95

[57] This is a theme common across multiple forms of Mughal art. An early act decreed by Jahangir, Shah Jahan's father, upon assuming the throne was to run a string of bells directly from his window to the street below. Any subject who had been treated poorly by a representative of his court, or whose legal proceedings had somehow been compromised could ring those bells to petition Jahangir – who would go to the balcony upon hearing them – for justice.

[58] These funerary remembrances, or *urs* meaning marriage, were appropriations of Sufi practices in place to remember the reunion of the Sufi saint with his creator. The *urs* ceremony was practiced on the Taj Mahal site in remembrance of Mumtaz Mahal in which all members of the community were invited for Qur'anic recitation, food, and ceremonies. Afterwards, large quantities of currency were distributed to the needy.

quantities of currency would be amassed and distributed to needy people. During the transportation of the body, funeral rites, and subsequent funeral anniversary events, charity and alms played a significant role.[59]

Koch argues that these rites further the symbolic-paradisiacal interpretation of the site.[60]

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[59] See the Mughal histories in Begley and Desai 1989, pg 1 -124 especially mentions of the funeral urs pg. 47-124 and the transportation of the body pg. 41-45
[60] Koch, *The complete Taj Mahal,* 229

B. From the plinth

     Exiting the plinth works differently than previous moments of moving through passages. The entrances, which funnel visitors through visually dark and narrow passages from which they arrive at impressive panoramic vistas, are unlike the exit from the plinth. Here, the vista of the garden amplifies the grand scale of the site. Furthermore, descending the steps accentuates the light available on the plinth. Although the stairs are mirrors along the central axis, the descent feels more open and well-lit than the arrival.

Fig. 31 Gardens from the plinth looking south

C. Gatehouse

Fig. 32 Great Gatehouse north façade

The northern facing facade of the grand gatehouse has three distinct *Surah*s. Whereas the *Surah*

breaks in the interior are seemingly random, here the *Surah*s only break at the corner of the panels. The

text of *Surah* al-Doha runs upward along the right panel. *Surah* al-Inshira runs along the top panel, and

Surah ya-Tin on the leftmost band.

Fig. 33 Calligraphic detail on north facade

As we exit the site with newfound appreciation for the aesthetics of the calligraphy we encounter these three *Surah*'s on the north facing façade of the gatehouse beginning with *Surah* al-Doha. This *Surah* begins *wa doha wa layli idha saja*. This text, in which the early daytime is contrasted with the stillness of the night mutually reinforces the visual contrast of the text. Here is a specific moment in which the aesthetics correlate with the meaning of the text, or specifically where the visual aesthetics correlate with Qur'anic poetics. This moment asks us to reconsider the connection between aesthetics, and symbolic meaning. The presentation of the Qur'an as visually balanced, completely filling the space, rendered in beautiful calligraphy with established traditions expresses an admiring attitude to the text and to the worthiness site.

The aesthetics of the site interlock at multiple scales, across multiple mediums. It would be missing a larger point to merely focus on calligraphic aesthetics without considering the possibility of calligraphic aesthetics operating within a larger aesthetic framework governing the creation of an overall sense of beauty. In this regard, the various artistic practices and traditions which contributed to the design of the Taj Mahal emphasize the pleasant experience of the site and the artistic splendor of its creation.

Conclusion

This thesis is mostly important for bringing textual aesthetic considerations to the sub-field of Mughal art and architectural history. By providing specific discussion on formal considerations pertaining to the calligraphic inscription, the thesis reopens discourse largely abandoned in avoidance of Orientalist tropes which posited calligraphic inscription merely as decoration. Bringing calligraphic aesthetic discourse into the Mughal South Asian context, the thesis allows for further discourse of monumental calligraphic practice.

Furthermore, by seriously considering formal and subjective aesthetics, the thesis complicates the binary between symbolic affirmation and legibility established by Ettinghausen's paper. By examining calligraphic aesthetics as another interpretive element in understanding Arabic architectural inscription, the thesis pushes beyond a binary between denotative and symbolic significations.

The purpose of this thesis is not to mitigate readings of symbolic significance in the Qur'anic inscriptions, but rather to argue that this symbolic meaning – insofar as it is present – is not explained to the visitor via the inscriptions. In other words the inscriptions do not operate primarily as semiotic instructors which guide an erudite reader to greater significance. Rather, these inscriptions serve to create an aesthetic element which coincides with the religio-political aims of the Mughal court.

In this regard, this thesis opens a possible line of discourse pertaining to the limitation of calligraphic design on the structure. Given the evident limitations in accessing the inscriptions, the designers did not consider their audience when arranging the letters and script. Instead, design of the text could be motivated by the aesthetic joy of the calligrapher producing the designs. These conclusions reframe calligraphic design, or even design more broadly, as insular practices reserved for those able to piece together the specific calligraphic puzzles.

Alternatively, the calligraphy can be intended in mutually reinforcing symbolic and aesthetic registers. It seems clear that these passages were indeed selected for their significations. However, the

calligraphic inscription as a whole is designed more-so for the aesthetic features. The creation of strong text forms and regular geometry takes precedence over having a discernible script.

Balance acts as a guiding principle for understanding these aesthetic gestures. The text itself is rendered with formal balance. Letter shapes assume regular patterns which creates unified regularity throughout the site's inscriptions. Long, bold vertical extenders on the *Lam, Alif, Kaf* and *Ta* letter-forms punctuate the script with regular spacing and high visibility. The creation of two lines of text is accentuated by stretching terminal *ya's* and *alif maksura* along the center of the panel. *Surah*s, verses, and even words are readily cut up in order to maintain the aesthetic regularity of the script.

In addition, the inscription functions on a larger scale by creating architectural balance on the facade and the interior. In these cases, the text blends together into a single block of color running along the boundaries of the inscription panel. Most evident at great distances or in low-light settings in the interior, these bands of color provide simple geometric balance by framing the cutaway arches of the *pishtaq*. This form is iterated on the gatehouse.

Although it is a useful tactic, it is impossible to fully extract aesthetics without considering the symbolic meaning of the text, and the various ways in which these artistic systems interlock. To focus exclusively on aesthetics, simply put, would miss half the story. Perhaps these aesthetic considerations even reinforce the symbolic significations, but for the purpose of this thesis the aesthetic considerations are primary.

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