

# MAMLUK ART OBJECTS IN THEIR ARCHITECTURAL CONTEXT

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# MAMLUK ART OBJECTS IN THEIR ARCHITECTURAL CONTEXT

Pauli Gallin

A Thesis

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# **MAMLUK ART OBJECTS IN THEIR ARCHITECTURAL CONTEXT**

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## **Abstract**

The field of Mamluk art and architectural history is well developed but there has been a tendency to discuss objects apart from their architectural contexts. My research seeks to explore the relationship between Mamluk objects, furnishings, and fittings attached to particular foundations in Cairo. The aim of this study is to examine the dialogue between design elements in different media and explore their aesthetic and functional relationship to their surroundings. This will give insight into how designs are transferred across media, and how architecture acted as a meeting place for a variety of artistic disciplines. The study will also investigate the merits and limitations of such an approach, and the effects the removal of Mamluk objects from their context has on our perception of them.



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Dimand, Maurice S. *A Handbook of Mohammedan Decorative Arts* (1930), 99.  
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Author (2017)

5146/3 and 5132/3 published in O’Kane, *The Illustrated Guide* (2012), 116.

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Museum of Islamic Art in Cairo 5112/2

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O’Kane, *The Illustrated Guide* (2012), 116.

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Author (2017)

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Thesaurus Islamicus Foundation-islamic-art.org

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Wood and ivory, carved and inlaid

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Author (2017)

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O'Kane, *The Mosques of Egypt* (2016), 146-151.

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Egypt, Circassian Mamluk Period (1384-1386)  
Carved stone, joggled masonry  
Author (2017)

Behrens-Abouseif, *Islamic Architecture* (1989), 133-135.  
O'Kane, *The Mosques of Egypt* (2016), 146-151.

Figure 3.3-Qur'anic Inscription on Portal  
Egypt, Circassian Mamluk Period (1384-1386)  
Carved stone  
O'Kane "Medium and Message" (2013), 102.

O'Kane "Medium and Message" (2013), 102.  
O'Kane, *The Mosques of Egypt* (2016), 147.

Figure 3.4-Minaret  
Egypt, Circassian Mamluk Period (1384-1386)  
Carved stone  
archnet.org

Behrens-Abouseif, *Islamic Architecture* (1989), 133-134.  
O'Kane, *The Mosques of Egypt* (2016), 147.

Figure 3.5-Lead Covered Wooden Dome Before 19<sup>th</sup> Century Reconstruction  
Egypt, Circassian Mamluk Period (1384-1386)  
Lead and plaster over a wooden frame  
Behrens-Abouseif, *Cairo of the Mamluks* (2007), 227.

Behrens-Abouseif, *Islamic Architecture* (1989), 133.

Figure 3.6-Brick Reconstruction

Egypt, (19<sup>th</sup> century)

Brick

O’Kane, *The Mosques of Egypt* (2016), 146.

Comité Bulletin (1892), 105.

Behrens-Abouseif, *Cairo of the Mamluks* (2007), 133.

Figure 3.7-Domed Vestibule

Egypt, Circassian Mamluk Period (1384-1386)

Stone

Author 2017

Rogers, "The Stones of Barquq" (1976), 308.

O’Kane, *The Mosques of Egypt* (2016), 148.

Figure 3.8-19<sup>th</sup> Century Painted Wooden Ceiling in Prayer Hall

Egypt, (19<sup>th</sup> century)

Painted wood

Author 2014

Comité Bulletin (1889), 101.

O’Kane, *The Mosques of Egypt* (2016), 148.

Figure 3.9-Painted Wooden Ceiling in Sultan Ashraf Barsbay’s Complex

Egypt, Circassian Mamluk Period (1423-1424)

Painted wood

O’Kane, *The Mosques of Egypt* (2016), 174.

Behrens-Abouseif, *Cairo of the Mamluks* (2007), 251-252.

O’Kane, *The Mosques of Egypt* (2016), 174-177.

Figure 3.10-Painted Wooden Ceiling in Amir Tashtimur’s Palace

Egypt, Bahri Mamluk Period (1376)

Painted wood

O’Kane, *The Mosques of Egypt* (2016), 140.

Williams, *Islamic Monuments in Cairo* (2002), 118.

O’Kane, *The Mosques of Egypt* (2016), 141.

Figure 3.11-Iwans

Egypt, Circassian Mamluk Period (1423-1424)

Stone

O’Kane, *The Mosques of Egypt* (2016), 148.

Behrens-Abouseif, *Islamic Architecture* (1989), 134-135.

O’Kane, *The Mosques of Egypt* (2016), 148.

Figure 3.12-*Mashrabiyya* Screen in the Mosque of Amir Altinbugha al-Maridani  
Egypt, Bahri Mamluk Period (1334-1340)  
Turned wood  
[archnet.org](http://archnet.org)

Behrens-Abouseif, *Islamic Architecture* (1989), 114.  
O’Kane, *The Mosques of Egypt* (2016), 148.

Figure 3.13-Qibla Wall  
Egypt, Circassian Mamluk Period (1384-1386)  
Stone inlay  
Thesaurus Islamicus Foundation- [islamic-art.org](http://islamic-art.org)

Rogers, "The Stones of Barquq" (1976), 308-310.  
O’Kane, *The Mosques of Egypt* (2016), 148.

Figure 3.14-Detail of Mihrab Voussoirs  
Egypt, Circassian Mamluk Period (1384-1386)  
Stone inlay  
Detail from O’Kane, *The Mosques of Egypt* (2016), 150.

Rogers, "The Stones of Barquq" (1976), 308-310.  
O’Kane, *The Mosques of Egypt* (2016), 148.

Figure 3.15-Floor of Qibla *Iwan*  
Egypt, Circassian Mamluk Period (1384-1386)  
Stone inlay  
Author 2017

Rogers, "The Stones of Barquq" (1976), 308-310.  
O’Kane, *The Mosques of Egypt* (2016), 148.

Figure 3.16-*Kursi*  
Egypt, Circassian Mamluk Period (1384-1386)  
Wood and ivory or bone inlay  
Thesaurus Islamicus Foundation- [islamic-art.org](http://islamic-art.org)

Comité Bulletin (1889), 103.

Figure 3.17-Tomb Chamber  
Egypt, Circassian Mamluk Period (1384-1386)  
O’Kane, *The Mosques of Egypt* (2016), 151.

Comité Bulletin (1889), 103-104.  
O’Kane, *The Mosques of Egypt* (2016), 151.



Figure 3.18-Ceiling of Western *Iwan*  
Egypt, Circassian Mamluk Period (1384-1386)  
Stone  
Rogers, "The Stones of Barquq" (1976), 311.

Rogers, "The Stones of Barquq" (1976), 311.

Figure 3.19-Stone Inlay Frieze from Sultan Barsbay's Funerary Complex in the  
Northern Cemetery  
Egypt, Circassian Mamluk Period (1432)  
Marble, mother of pearl, plaster  
O'Kane, *The Mosques of Egypt* (2016), 182.

Behrens-Abouseif, *Islamic Architecture* (1989), 142.  
O'Kane, *The Mosques of Egypt* (2016), 182.

Figure 3.20-Detail of Qur'an Box of Umm Sultan Sha'ban  
Egypt, Bahri Mamluk Period (c. 1369)  
Wood inlaid with ivory, brass inlaid with gold and silver  
Height: 28 cm, Width: 41 cm, Depth: 71 cm  
Museum of Islamic Art in Cairo 452  
Detail from O'Kane, *The Illustrated Guide* (2012), 149.

O'Kane, *The Illustrated Guide* (2012), 149.

Figure 3.21-*Tannur* of Amir Qawsun  
Egypt, Bahri Mamluk Period (c. 1330)  
Cast bronze  
Height: 260 cm, Diameter: 107 cm  
Signed by Badr al-Din Abu Ya'la  
Museum of Islamic Art in Cairo 509  
O'Kane, *The Illustrated Guide* (2012), 344.

O'Kane, *The Illustrated Guide* (2012), 344.

Figure 3.22-*Tannur* Suspended from Sultan Barquq's Qibla *Iwan*  
Egypt, Circassian Mamluk Period (1384-1386)  
Cast bronze?  
Author (2017)

Figure 3.23-Arabesque Grille in Courtyard  
Egypt, Circassian Mamluk Period (1384-1386)  
Cast brass  
Height: 96 cm, Width: 70 cm  
Author (2017)

Mols, *Mamluk Metalwork Fittings* (2006), 235, 413.

Figure 3.24-Star-Pattern Grille in Courtyard  
Egypt, Circassian Mamluk Period (1384-1386)  
Cast brass  
Height: 96 cm, Width: 70 cm  
Mols, *Mamluk Metalwork Fittings* (2006), 413.

Mols, *Mamluk Metalwork Fittings* (2006), 236, 413.

Figure 3.25-Entrance Door  
Egypt, Circassian Mamluk Period (1386)  
Carved wooden support, cast brass plaques inlaid with silver, engraved and punched, iron and brass nails  
Height: 432 cm, Width: 242 cm  
Thesaurus Islamicus Foundation- [islamic-art.org](http://islamic-art.org)

Comité Bulletin (1889), 106.  
Mols, *Mamluk Metalwork Fittings* (2006), 228-230, 410.

Figure 3.26-Entrance Door-Inscription on Lower Left Leaf  
Egypt, Circassian Mamluk Period (1386)  
Cast brass inlaid with silver, engraved and punched  
“Savior of orphans and the poor, support of the raiders and holy warriors, may his victory be glorious/ And its completion was in the beginning of *Rabi*<sup>c</sup> I in the year 788.”  
Thesaurus Islamicus Foundation- [islamic-art.org](http://islamic-art.org)

Comité Bulletin (1889), 106.  
Mols, *Mamluk Metalwork Fittings* (2006), 228-230.

Figure 3.27-Medallion Door in Courtyard  
Egypt, Circassian Mamluk Period (1384-1386)  
Carved wooden support, brass sheet inlaid with silver, pierced and engraved, iron nails  
Height: 327 cm, Width: 198 cm  
Author (2017)

Comité Bulletin (1889), 93.  
Mols, *Mamluk Metalwork Fittings* (2006), 232-234, 412.

Figure 3.28-Detail of Medallion Door in Courtyard  
Egypt, Circassian Mamluk Period (1384-1386)  
Carved wooden support, brass sheet inlaid with silver, pierced and engraved, iron nails  
Height: 327 cm, Width: 198 cm  
Author (2017)

Comité Bulletin (1889), 93.  
Mols, *Mamluk Metalwork Fittings* (2006), 232-234, 412.

Figure 3.29-Stable? Door of Amir Sunqur al-Tawil

Egypt, Bahri Mamluk Period (late 13<sup>th</sup> century)

Wooden Support, hammered brass sheet, cast brass plaques, engraved and punched, cast iron

Height: 371 cm, Width: 207 cm

O’Kane, *The Illustrated Guide* (2012), 177.

Comité Bulletin (1896), pls. IV and V; Comité Bulletin (1899), 11, 53, 64.  
Mols, *Mamluk Metalwork Fittings* (2006), 190-192, 395-396.

Figure 3.30-Binding of Multi-Part Qur’an Endowed to Barquq’s Complex

Egypt, Circassian Mamluk Period (1382-1399)

Leather, tooled, gilded and filigreed, green silk?

Qur’an Juz 29, 46 to Juz 33, 30

Height: 37.3 cm, Width: 26.4 cm

Bibliothèque nationale de France MS Arabe 5845

Figure 3.31-Binding of Multi-Part Qur’an Endowed to Barquq’s Complex

Egypt, Circassian Mamluk Period (1382-1399)

Leather, tooled, stamped and gilded

Qur’an Juz 17 and endowment inscription

Height: 37.4 cm, Width: 26 cm

Bibliothèque nationale de France MS Arabe 5844

Ohta, “Covering the Book” (2012), 207.

Figure 3.32-Binding of Multi-Part Qur’an Endowed to Barquq’s Complex

Egypt, Circassian Mamluk Period (1382-1399)

Leather, tooled, stamped and gilded

Qur’an Juz 26

Height: 37.4 cm, Width: 26.2 cm

Bibliothèque nationale de France MS Arabe 5846

Figure 4.1-Plan

Egypt, Circassian Mamluk Period (1472-1474)

archnet.org

Behrens-Abouseif, *Islamic Architecture* (1989), 144-147.  
O’Kane, *The Mosques of Egypt* (2016), 198-203.

Figure 4.2-Portal

Egypt, Circassian Mamluk Period (1472-1474)

Stone

Author (2017)

Behrens-Abouseif, *Islamic Architecture* (1989), 145.

Figure 4.3-Minaret

Egypt, Circassian Mamluk Period (1472-1474)  
Carved stone  
Author (2017)

Behrens-Abouseif, *Islamic Architecture* (1989), 145.  
O’Kane, *The Mosques of Egypt* (2016), 199.

Figure 4.4-Dome

Egypt, Circassian Mamluk Period (1472-1474)  
Carved stone  
Author (2017)

Behrens-Abouseif, *Islamic Architecture* (1989), 24.  
O’Kane, *The Mosques of Egypt* (2016), 199.

Figure 4.5-Dome of Amir Mahmud al-Kurdi’s Madrasa

Egypt, Circassian Mamluk Period (1393)  
Carved stone  
archnet.org

Kessler, *The Carved Masonry Domes of Medieval Cairo* (1976), 23.  
Warner, *Monuments of Historic Cairo* (2005), 117.

Figure 4.6-Detail of the Dome of Sultan Inal’s Funerary Complex

Egypt, Circassian Mamluk Period (1451-1456)  
Carved stone  
O’Kane, “Design of Cairo’s Masonry Domes” (2012), 11.

Kessler, *The Carved Masonry Domes of Medieval Cairo* (1976), 18.  
O’Kane, “Design of Cairo’s Masonry Domes” (2012), 11.

Figure 4.7-Dome of the Tomb of ʿAsfur

Egypt, Circassian Mamluk Period (1504-1507)  
Carved stone  
Wahby and Montasser, “The Ornamented Domes of Cairo” (2012), 4.

Wahby and Montasser, “The Ornamented Domes of Cairo” (2012), 4.

Figure 4.8-Detail of the Dome of Amir Qurqurmas’ Funerary Complex (1506-1507)

Egypt, Circassian Mamluk Period (1504-1507)  
Carved stone  
O’Kane, “Design of Cairo’s Masonry Domes” (2012), 14.

O’Kane, “Design of Cairo’s Masonry Domes” (2012), 14.

Figure 4.9-Dome of Amir Ganibek's Tomb  
Egypt, Circassian Mamluk Period (c. 1432)  
Carved stone  
archnet.org

Behrens-Abouseif, *Islamic Architecture in Cairo* (1989), 22-23.  
O'Kane, "Design of Cairo's Masonry Domes" (2012), 14.

Figure 4.10-Dome of Sultan Barsbay's Tomb  
Egypt, Circassian Mamluk Period (1435)  
Carved stone  
archnet.org

Behrens-Abouseif, *Islamic Architecture in Cairo* (1989), 22-23.  
O'Kane, "Design of Cairo's Masonry Domes" (2012), 14.

Figure 4.11-Interior  
Egypt, Circassian Mamluk Period (1472-1474)  
archnet.org

Behrens-Abouseif, *Islamic Architecture* (1989), 144-147.  
O'Kane, *The Mosques of Egypt* (2016), 198-203.

Figure 4.12-Minbar  
Egypt, Circassian Mamluk Period (1472-1474)  
Wood, ivory, carved and inlaid  
patterninislamicart.com

O'Kane, *The Mosques of Egypt* (2016), 202.

Figure 4.13-Entrance Door with Missing Metal Plaques  
Egypt, Circassian Mamluk Period (1475)  
Wood, cast brass, engraved, brass nails  
Height: 308 cm, Width: 163 cm  
Author (2017)

Mols, *Mamluk Metalwork Fittings* (2006), 283-284, 435.  
O'Kane, *The Mosques of Egypt* (2016), 201.

Figure 4.14-Stone Minbar Endowed by Sultan Qaitbay to the Funerary Complex of  
Faraj ibn Barquq (1398-1411)  
Egypt, Circassian Mamluk Period (1483)  
Carved stone  
archnet.org

Behrens-Abouseif, *Cairo of the Mamluks* (2007), 235.

Figure 4.15-Interior Courtyard Door

Egypt, Circassian Mamluk Period (c. 1475?)

Wood and metal

Author (2017)

Figure 4.16-Candlestick Endowed by Sultan Qaitbay to the Prophet's Mosque in Medina

Egypt, Circassian Mamluk Period (1482-1483)

Brass, hammered, engraved and inlaid

Height: 48 cm, Diameter at Base: 40 cm

Museum of Islamic Art in Cairo 4297

eternalegypt.org

Wiet, *Objets en cuivre* (1932), cat. 4297.

O'Kane, *The Illustrated Guide* (2012), 154.

Figure 4.17-Tannur of Asal Bay's Foundation in Fayyoun

Egypt, Circassian Mamluk Period (c. 1498-1499)

Brass inlaid with silver

Height: 131 cm, Diameter: 45 cm

Museum of Islamic Art in Cairo 384

Author (2017)

O'Kane, *The Illustrated Guide* (2012), 136.

Figure 4.18-Tannur with Sultan Qaitbay's Titles

Egypt, Circassian Mamluk Period (1468-1496)

Brass pierced, inlaid, and engraved

Height: 176 cm, Diameter: 74 cm

Victoria and Albert Museum 109-1888

Stanley, Rosser-Owen and Vernoit, eds., *Palace and Mosque* (2004), 24, 28, 98.

Figure 4.19-Endowment to Qaitbay's Complex in al-Ghazali's *Ihya' 'Ulum al-Din*

Egypt, Circassian Mamluk Period (1490)

Ink, gouache, and gold on paper

Height: 31.4 cm, Width: 21 cm

Los Angeles County Museum of Art M.73.5.516

Boehm and Holcomb, *Jerusalem: 1000-1400* (2016), 73.

Figure 4.20-Wooden Panel with Qaitbay's Titles from al-Azhar Mosque

Egypt, Circassian Mamluk Period (1495-1496)

Wood, painted and carved

Height: 169 cm, Width: 151 cm

Museum of Islamic Art in Cairo 482

O'Kane, *The Illustrated Guide* (2012), 136.

Figure 4.21-Detail of Carpet

Attributed to Egypt, Circassian Mamluk Period (Late 15<sup>th</sup> to early 16<sup>th</sup> century)

Wool, dyed, pile weave, asymmetrical knot

278.9 cm by 268.9 cm

Cavallo, *A Carpet from Cairo* (1962), front plate.

Cavallo, *A Carpet from Cairo* (1962), 69-74.

Figure 4.22-Detail of “Umbrella Leaves” from the Hirth Carpet

Attributed to Egypt, Circassian Mamluk Period (Late 15<sup>th</sup> century)

Wool, dyed, pile weave

220 cm by 195 cm

azerbaijanrugs.com

Suriano, "A Mamluk Landscape" (2004), 105.

Figure 4.23-The Simonetti Carpet

Attributed to Egypt, Circassian Mamluk Period (c. 1500)

Wool, dyed, pile weave, asymmetrical knot

Length: 896.6 cm, Width: 238.8 cm

Metropolitan Museum of Art 1970.105

Dimand and Mailey, *Oriental Rugs in the Metropolitan Museum* (1973), 154-155, 229.

Ekhtiar, Canby, Haidar, and Soucek, eds., *Masterpieces from the Department of Islamic Art* (2011), 140, 168-169.

Figure 4.24-The Simonetti Carpet

Attributed to Egypt, Circassian Mamluk Period (c. 1500)

Wool, dyed, pile weave, asymmetrical knot

Length: 896.6 cm, Width: 238.8 cm

Metropolitan Museum of Art 1970.105

Dimand and Mailey, *Oriental Rugs in the Metropolitan Museum* (1973), 154-155, 229.

Ekhtiar, Canby, Haidar, and Soucek, eds., *Masterpieces from the Department of Islamic Art* (2011), 140, 168-169.

Figure 4.25-Carpet with Sultan Qaitbay's Blazon

Attributed to Egypt, Circassian Mamluk Period (Late 15<sup>th</sup> to early 16<sup>th</sup> century?)

Wool, dyed, pile weave

210 cm by 220 cm

The Textile Museum, Washington D.C. 1965.49.1

azerbaijanrugs.com

Suriano, "A Mamluk Landscape" (2004), 103.

Figure 4.26-Barbieri Carpet

Attributed to Egypt, Circassian Mamluk Period (c. 1468-1496)

Wool

421.6 cm by 345.4 cm

Metropolitan Museum of Art 1970.135

azerbaijanrugs.com

Suriano, "A Mamluk Landscape" (2004), 134.

Figure 4.27-Coptic Textile Fragments

Egypt, Coptic Period (3<sup>rd</sup> to 7<sup>th</sup> century)

Top: Fragment of a Tunic Border (4<sup>th</sup> to 5<sup>th</sup> century)

Linen and wool?

59 cm by 36 cm

textilesasart.com

Bottom Left: Textile fragment (4<sup>th</sup> to 5<sup>th</sup> century)

Linen and wool

37 cm by 36 cm

The Vatican Museum 61430

Bottom Right: Textile Fragment (c. 6<sup>th</sup> to 8<sup>th</sup> century)

Linen and wool

Diameter: 17 cm

St. Mark's Coptic Museum 2004.1.1

Figure 5.1-The Vasselot Bowl

Attributed to Egypt, Bahri Mamluk Period (c. 1290-1310)

Signed by Muhammad ibn al-Zayn

Brass inlaid with silver and gold

Height: 10.3 cm, Diameter of Rim: 17.2 cm

The Louvre MAO 330

Wiet, *Objets en cuivre* (1932), 20, 66.

Atil, *Renaissance of Islam* (1981), 74-75.

Figures 5.2 and 5.3-The Baptistère de Saint Louis

Attributed to Egypt, Bahri Mamluk Period (c. 1290-1310)

Signed by Muhammad ibn al-Zayn

Brass inlaid with silver and gold

Height: 22.2 cm, Diameter of Rim: 50.2 cm

The Louvre LP 16

Wiet, *Objets en cuivre* (1932), 20, 66.

Rogers "Court Workshops Under the Bahri Mamluks" (2012), 252-262.



Figure 5.4-Detail of Baptistère de Saint Louis  
Attributed to Egypt , Bahri Mamluk Period (c. 1290-1310)  
Signed by Muhammad ibn al-Zayn  
Brass inlaid with silver and gold  
Height: 22.2 cm, Diameter of Rim: 50.2 cm  
The Louvre LP 16

Wiet, *Objets en cuivre* (1932), 20, 66.  
Rogers “Court Workshops Under the Bahri Mamluks” (2012), 252-262.

Figures 5.5 and 5.6-Detail of Baptistère de Saint Louis  
Attributed to Egypt , Bahri Mamluk Period (c. 1290-1310)  
Signed by Muhammad ibn al-Zayn  
Brass inlaid with silver and gold  
Height: 22.2 cm, Diameter of Rim: 50.2 cm  
The Louvre LP 16  
studyblue.com

Wiet, *Objets en cuivre* (1932), 20, 66.  
Rogers “Court Workshops Under the Bahri Mamluks” (2012), 252-262.

Figure 5.7-The Funerary Complex of Farag ibn Barquq by Émile Prisse D’Avennes  
Lithograph (1869-1877)  
Prisse D’Avennes, *L’art arabe Vol. I* (1869-1877), XVIII.

Prisse D’Avennes, *L’art arabe Vol. I* (1869-1877), XVIII.  
Prisse d’Avennes, Sheila Blair, Jonathan Bloom, James Augustus St. John, *Oriental art: the Complete Plates from L’Art arabe and the Oriental Album* (2016), 91.

Figure 5.8-Candlestick of Amir Zayn al-Din Kitbugha  
Egypt, Bahri Mamluk Period (c. 1290)  
Brass inlaid with silver and gold  
Neck: Height: 14.5 cm, Diameter of Lip: 8.5 cm  
Museum of Islamic Art in Cairo 4463  
islamicity.com  
Base: Height: 26 cm, Diameter of Base: 32.5 cm  
The Walters Gallery 54.459

Comité Bulletin (1922), 509.  
O’Kane, *The Illustrated Guide* (2012), 161.  
Atil, *Renaissance of Islam* (1981), 65-67.

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## **Introduction**

This study explores some of the connections between art objects and their architectural milieu in Mamluk Cairo. While we tend to evaluate art objects independently from architecture, they often have important relationships with their surroundings. These relationships are particularly significant in Mamluk religious foundations, where furnishings, fittings, and exquisite objects were specially commissioned and endowed to the buildings. In some cases, furnishings and fittings directly correlate to their architectural surroundings. These visual correlations suggest the presence of an artistic overseer who distributed designs across media. In other cases endowed objects inform the function of religious foundations. The presence and placement of such objects are important indications of function and intent, easily misconstrued when taken out of context.

By analyzing three important foundations and their furnishings, those of sultans Hasan, Barquq, and Qaitbay, I hope to illuminate some of the relationships between objects and their architectural setting. Taking a more inclusive approach may give insight into aesthetic, cultural, and practical aspects of Mamluk funerary foundations and the complex and obscure roles of patron, “designers,” and craftsmen. Finally, the placement of decoration, furnishings, and endowed objects informs their intent through accessibility and visibility. The intended audience, or lack thereof, is essential in understanding the intricacies of politics, ceremony, and ritual that drove the Mamluks to create a profuse and distinctive architectural and artistic tradition.

## Literature Review

The field of Mamluk studies is an extensive one and a great deal of literature has been devoted to the subject. As far as art and architecture, there are a multitude of books and articles from broad surveys to detailed studies of individual objects. Primary sources are not lacking, but composed almost entirely by non-Mamluks, affected by some unique issues of perspective. The most well known chroniclers of the Mamluks are Ibn Shaddad (1217-1285), Maqrizi (1364-1442), Ibn Taghribirdi (1411-1470), al-Sakhawi (1427-1497), al-Suyuti (1445-1505), and Ibn Iyas (1448-1524).<sup>1</sup> Maqrizi is probably the most oft cited in architectural studies.

Because Mamluk society was a closed one, a marginalized literati vented their frustrations in hostile and unflattering portrayals of their overlords as ignorant and brutish. They particularly emphasized the Mamluks' lack of fluency in Arabic language as a sign of barbarity, often recording conversations, probably fabricated, in the Arabic used by the lower classes. Nasser Rabbat points out the unusual nature of a ruling class that has no involvement in their own history.<sup>2</sup> Consequently, the motives and intentions of the Mamluk elite remain obscure and subject to much interpretation.

Contemporary historians did record architectural projects, but primarily in reference to costs of construction and size. Seeming to lack the necessary vocabulary to discuss the arts they occasionally describe buildings as strange or astonishing, (*gharib*, *‘ajib*), but without any aesthetic details as to what distinguished them. Maqrizi and Ibn

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<sup>1</sup> See Little, "Historiography of the Ayyubid and Mamluk Epochs" in *The Cambridge History of Egypt Vol. I* (1998), 412-444; Lev, Yaacov, "Ibn al-Shaddad" in *Saladin in Egypt* (1998), 33; Bauden, Frédéric, "Al-Maqrizi" in *Encyclopedia of the Medieval Chronicle I* (2010); Hamza, "Some Aspects of the Economic and Social Life of Ibn Taghribirdi" (2008), 139-172.

<sup>2</sup> Rabbat, *Mamluk History through Architecture* (2010), 15.

Shaddad are exceptions, and it appears their proximity to building projects and crafts lent them a more sophisticated understanding of how to describe them.<sup>3</sup>

Modern European records of Mamluk art and architecture begin with the *Déscription de l'Égypte*, detailing the expedition of Napoleon's savants (1798-1801), and spurring a series of French publications distinguished by exceptionally beautiful and detailed draftsmanship.<sup>4</sup> Most notable are Pascal Coste's *Architecture arabe ou monuments du Caire* (1839) and Émile Prisse d'Avennes *L'art arabe d'après les monuments du Kaire* (1877).<sup>5</sup> Max van Berchem established the field of Arabic epigraphy, publishing the *Corpus Inscriptionum Arabicarum (CIA): Première Partie:Égypte* (1894), which includes many of Cairo's inscriptions.<sup>6</sup> Van Berchem's protégé Gaston Wiet, director of the Museum of Islamic Art in Cairo from 1926 to 1951, added several valuable catalogues of its collection as well as a volume of the *CIA*.<sup>7</sup>

The 20<sup>th</sup> century saw the publication of Martin S. Briggs' *Muhammadian Architecture in Egypt and Palestine* (1924) and K.A.C Creswell's indispensable *The Muslim Architecture of Egypt Volumes I and II* (1952, 1959).<sup>8</sup> The latter is a comprehensive, if entirely descriptive, survey of Egypt's monuments from 1171 to 1340 with valuable plans and photographs. Covering the entire Mamluk period in a similar vein is Michael Meinecke's *Die Mamlukische Architektur in Ägypten und Syrien* (1992)

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<sup>3</sup> Ibn Shaddad served as a building inspector and Maqrizi a market inspector, which included crafts.

<sup>4</sup> Lane, *Déscription de l'Égypte* (1809). See Biblioteca Alexandrina online for a digitized version at <http://descegy.bibalex.org>.

<sup>5</sup> Prisse D'Avennes, *L'art Arabe d'après les Monuments du Kaire* (1877).

<sup>6</sup> Van Berchem, *Corpus Inscriptionum Arabicarum: Première Partie:Égypte* (1894).

<sup>7</sup> Wiet, *Lamps et Bouteilles en Verre Émaillé* (1929), *Objets en Cuivre* (1932). For biography see Rosen-Ayalon, "Gaston Wiet, 1887-1971" (1972).

<sup>8</sup> Briggs, *Muhammadian Architecture in Egypt and Palestine* (1924) and Creswell, *The Muslim Architecture of Egypt Volumes I and II* (1952 and 1959).

in two volumes. The first discusses the development of Mamluk architecture, while the second catalogues them with plans and photographs.<sup>9</sup>

More recent is Nicholas Warner's *The Monuments of Historic Cairo* (2005), which comprises a catalog, including descriptions of restorations undertaken from the 19<sup>th</sup> century on.<sup>10</sup> For more details of 19<sup>th</sup> to early 20<sup>th</sup> century restoration, the Islamic Art Network's online publication of the Comité de Conservation des Monuments de l'Art Arabe bulletins is essential.<sup>11</sup> The sometimes heavy-handed nature of restoration in Cairo led to the publication of an interesting, if sometimes pretentious, series of essays debating the authenticity and motivations of these efforts in *Making Cairo Medieval* (2005).<sup>12</sup>

Doris Behrens-Abouseif and Nasser Rabbat have written multiple books and articles on Mamluk architecture. Abouseif gives a comprehensive background of Mamluk culture in *Cairo of the Mamluks* (2007), followed by a catalog of monuments.<sup>13</sup> Rabbat is particularly insightful in his analyses of social and political concerns in reference to Mamluk architecture.<sup>14</sup> Laila 'Ali Ibrahim analyzes Mamluk residential architecture in a refreshingly clear and informative manner in "Residential Architecture in Mamluk Cairo" (1984), drawing on primary sources and extant residential buildings.<sup>15</sup>

Bernard O'Kane has published extensively on Cairene architecture as well as a more recent catalog of the Museum of Islamic Art in Cairo, *The Illustrated Guide to the Museum of Islamic Art in Cairo* (2012).<sup>16</sup> Esin Atil's 1981 catalog of a traveling

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<sup>9</sup> Meinecke, *Die Mamlukische Architektur in Ägypten und Syrien* (1992).

<sup>10</sup> Warner, *The Monuments of Historic Cairo* (2005).

<sup>11</sup> [www.islamic-art.org/comitte](http://www.islamic-art.org/comitte).

<sup>12</sup> Alsayyad, Bierman and Rabbat eds., *Making Cairo Medieval* (2005).

<sup>13</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007).

<sup>14</sup> Rabbat, *Mamluk History through Architecture* (2010).

<sup>15</sup> Ibrahim, "Residential Architecture in Mamluk Cairo" (1984).

<sup>16</sup> O'Kane, *The Illustrated Guide* (2012).

exhibition of Mamluk art published as *Renaissance of Islam: Art of the Mamluks*, is comprehensive in scope discussing each medium in considerable detail.

Numerous books and articles have been devoted to specific buildings, media or objects, far too many to mention here. Some of the more important ones include Amy Whittier Newhall's investigation into the patronage of Sultan Qaitbay and Abdallah Kahil's impressive and thoughtful study of Sultan Hasan's Complex, *The Sultan Hasan Complex in Cairo 1357-1364* (2008).<sup>17</sup> For Qur'ans, David James' *Qur'ans of the Mamluks* (1988) remains the authoritative source, although it covers only the 14<sup>th</sup> century.<sup>18</sup> Duncan Haldane published a volume on miniature painting, *Mamluk Painting* (1978), and Anna Contadini includes Mamluk book arts in her works on illustrated manuscripts.<sup>19</sup> Both of these fields would benefit from more recent publication and imaging as the archives in Cairo are notoriously inaccessible.

Mamluk metalwork has received a great deal of attention, particularly the Baptistère de Saint Louis and Vasselot Basin. Notably Rachel Ward, J.M. Rogers, James Allan, and D.S. Rice have analyzed these and Jonathan Bloom discusses a related piece in "A Mamluk Basin in the L.A. Mayer Memorial Institute" (1987).<sup>20</sup> Luitgard Mols has published an outstanding study of Mamluk metal fittings in their original context, the only disadvantage of which is the lack of colored plates.<sup>21</sup> Behrens-Abouseif catalogs Mamluk metal lamps in *Mamluk and Post-Mamluk Metal Lamps* (1995), although many

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<sup>17</sup> Newhall, *The Patronage of the Mamluk Sultan Qa'itbay* (1987); Kahil, *The Sultan Hasan Complex* (2008).

<sup>18</sup> James, *Qur'ans of the Mamluks* (1988).

<sup>19</sup> Haldane, *Mamluk Painting* (1978); Contadini, *A World of Beasts* (2012) and *Arab Painting* (2010).

<sup>20</sup> Rice, *Le Baptistère de Saint Louis* (1951) and "Arabic Inscriptions on a Brass Basin" (1956); Ward, "The Baptistère de Saint Louis" (1999); Rogers "Court Workshops Under the Bahri Mamluks" (2012); Allan, "Muhammad ibn al-Zayn" (1996); Bloom, "A Mamluk Basin" (1987).

<sup>21</sup> Mols, *Mamluk Metalwork Fittings* (2006).

remain in situ and therefore undocumented.<sup>22</sup> James Allan has devoted an insightful article to the decline in the Mamluk metalwork towards the end of the 14<sup>th</sup> century.<sup>23</sup>

Textiles, including the carpets mentioned in this study, have been the subject of books and articles, beginning with L.A. Mayer's piece on Mamluk attire, *Mamluk Costume: A Survey* (1952). A more recent piece published in the Mamluk Studies Review, "Rethinking Mamluk Textiles" (2000), by Bethany J. Walker, examines textiles in depth. Walker thoroughly examines the industry, its products, and the inevitable difficulties of assigning fixed meanings to terms used by contemporary historians to describe them.<sup>24</sup>

Mamluk carpets have been much debated due to their mysterious "appearance" in the 15<sup>th</sup> Century. Carl Johan Lamm was the first to attribute the type to Cairo in "The Marby Rug and some Fragments of Carpets Found in Egypt" (1934).<sup>25</sup> Subsequently Ernst Kühnel and Louisa Bellinger in *Cairene Rugs and Others Technically Related: 15th-17th Century*, (1951) argue for a foreign technology introduced by travelling workers, as does Atil in her 1981 catalog.<sup>26</sup> Julia Theologou and Jon Thompson support local origins in "Fustat Carpet Fragments" (2008) and "Late Mamluk Carpets: Some New Observations" (2012) respectively.<sup>27</sup>

Mamluk enameled glass has received some attention beginning with Gaston Wiet's 1929 catalog and Ward's more recent effort to properly date glass lamps,

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<sup>22</sup> Behrens-Abouseif, *Mamluk and Post-Mamluk Metal Lamps* (1995).

<sup>23</sup> Allan, "Decline of the Mamluk Metalworking Industry" (1984).

<sup>24</sup> Mayer, *Mamluk Costume* (1952); Walker, "Rethinking Mamluk Textiles" (2000).

<sup>25</sup> Lamm, "Fragments of Carpets Found in Egypt" (1937).

<sup>26</sup> Kühnel and Bellinger, *Cairene Rugs and Others Technically Related* (1951); Atil "Textiles and Rugs" in *Renaissance of Islam* (1981), 223-249.

<sup>27</sup> Theologou, "Fustat Carpet Fragments" (2008); Thompson, "Late Mamluk Carpets" (2012).



“Mosque Lamps and Enameled Glass: Getting the Dates Right” (2012).<sup>28</sup> Woodwork seems less inclined to inspire individual study, although there is an interesting analysis of two particular minbars, “Two Mamluk Minbars in Cairo” (2014), by Miriam Kühn.<sup>29</sup> Atil’s catalog devotes a chapter to woodwork.<sup>30</sup>

The growing number of published works, as well as the recent re-opening of the Museum of Islamic Art in Cairo, should lead to development in the field of Mamluk arts and architecture. More importantly, an increasing tendency towards taking a more comprehensive approach has led to greater interdisciplinary exchange in the larger field of Mamluk Studies. I hope by integrating the study of various media and considering the wider context of Mamluk funerary monuments to develop a greater understanding of intent and process by drawing on the rich literary tradition of the scholars mentioned above.

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<sup>28</sup> Ward, “Mosque Lamps and Enamelled Glass” (2012).

<sup>29</sup> Kühn, “Two Mamluk Minbars in Cairo” (2014).

<sup>30</sup> Atil, “Woodwork, Ivory, and Stone” In *Renaissance of Islam* (1981), 195-222.

## **1.0 Chapter 1-City of Sultans**

### *1.1 Introduction*

It is no doubt partially due to the unusual nature of the Mamluks themselves that they created a unique architectural and artistic tradition. Outsiders brought to a foreign land and indoctrinated into a new religion, these slave soldiers became the medieval Islamic world's heroic "Defenders of the Faith"; and at the same time gained a reputation for brutishness, violence and tyranny. They ruled from their capital in Cairo from 1250 until the Ottoman takeover in 1517. Their ascension to power just preceded the Mongol sack of Islam's ancient seat of power and culture, Baghdad, in 1258. In its place, Cairo became the center of the medieval Islamic world.

A florescence of architectural and artistic production followed. The Mamluks oversaw the construction of an astonishing number of monuments, in the thousands, and attendant art objects. We can understand this proliferation in terms of prevailing concepts of conspicuous consumption and monumentality as a display of power; but also in terms of the elaborate ceremonial and funerary culture developed by the Mamluks.

The foundations discussed in detail below form a part of this dynamic artistic tradition, illustrating the aesthetic, spiritual and political inclinations of the Mamluks expressed through art and architecture.

### *1.2 The Mamluks: Slaves as Elites*

The Mamluks were Turkic military slaves purchased, usually as children, in Central Asia and the Caucasus to fight for the Ayyubids. Once in Egypt, they were

schooled in warfare and Islam. When the Mamluks came to power, their status as slaves became a mark of elitism. Nominally, non-Mamluks were excluded from power, although in several cases, notably the Qalawunid dynasty, succession was hereditary.

From the outset Mamluk rule was unusual, briefly bringing the recently widowed wife of Ayyubid sultan Najm al-Din (r. 1240-1249), Shajar al-Durr, to the throne in 1250. While her rule was brief, less than three months, she was married to the new sultan, Aybak. In an ill-fated attempt to secure her position upon Aybak's marriage to a princess from Mosul, Shajar al-Durr ordered his assassination in 1257. Her execution summarily followed.<sup>31</sup>

Why the Mamluks chose a woman as their first ruler remains a mystery, as does to what extent she wielded political authority during and after her rule. Nevertheless, in 1250 Shajar al-Durr made an extremely important contribution to Mamluk funerary architecture by attaching a tomb for Najm al-Din Ayyub to his extant madrasa (1242-1244).<sup>32</sup> Tombs attached to religious foundations would come to characterize Mamluk architecture for the next two and a half centuries.

After a brief rule by a Mamluk named Qutuz, al-Zahir Baybars (r. 1260-1277) was the de facto founder of the Mamluk state and its elaborate ceremonial protocols. Baybars exemplified the title "Defender of the Faith" the Mamluks came to be associated with. They earned this reputation by driving back the Crusaders, and even more astonishingly, halting the crushing advance of the Mongol armies that had swept undefeated through Iran and Iraq. Before returning to Cairo to seize the throne, Baybars

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<sup>31</sup> Jackson, Peter . "Shajar al-Durr" in *The Oxford Encyclopedia of Islam and Women*. *Oxford Islamic Studies Online*, <http://www.oxfordislamicstudies.com/article/opr/t355/e0353>. See also Duncan, "Scholarly Views of Shajarat al-Durr" (2000).

<sup>32</sup> Behrens-Abouseif, *Islamic Architecture in Cairo* (1989), 15.

was victorious against the Mongols in the Battle of ‘Ayn Jalut, preserving Egypt and the Levant from Mongol invasion.<sup>33</sup>

Baybars brought the Levant and the Hijaz under Mamluk rule, continuing campaigns against the Crusaders and defending the eastern borders from Ilkhanid incursion.<sup>34</sup> Control over the holy cities of Mecca, Medina, and Jerusalem, however loose, was an important ideological factor in establishing Mamluk supremacy. To secure their legitimacy, the Mamluks established a "Shadow Caliphate" of puppet Abbasids. The first of these, al-Mutansir, came to Cairo in 1261 at Baybars’ behest receiving his obeisance and acknowledging his right to rule. As the Mamluks’ position became more secure, however the caliphs offered obeisance, otherwise living in relative obscurity as religious figureheads.<sup>35</sup>

Baybars fostered international trade, reorganized the *iqta*<sup>c</sup> system of land distribution to elites, and established the hierarchies and protocols that governed the Mamluk court.<sup>36</sup> Mamluks were organized in ranks, held court titles identified by blazons, and were pledged to higher-ranking Mamluks, at least nominally. Non-Mamluks were almost completely excluded from power, although or perhaps therefore, unusually free to voice criticisms of their rulers.

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<sup>33</sup> O’Kane, *The Illustrated Guide* (2012), 105-106.

<sup>34</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 3; Bloom, Jonathan M. and Sheila S. Blair, eds., "Mamluk." In *The Grove Encyclopedia of Islamic Art and Architecture*, online. <http://www.oxfordislamicstudies.com/article/opr/t276/e558>. For a comparison of primary sources on Baybars see Elbendary “The Sultan, The Tyrant, and The Hero” (2001). See also Petry, "Mamluk State" in *The Oxford Encyclopedia of the Modern Islamic World Online*. <http://www.oxfordislamicstudies.com/article/opr/t236/e0503>

<sup>35</sup> Holt, "Some Observations on the 'Abbāsīd Caliphate of Cairo." (1984), 501-502.

<sup>36</sup> *Iqta* refers to a system of land assignation to military officers and high-ranking civilians practiced throughout the Islamic world. See Meri, ed., “Establishment and Development of the ‘Iqta System” in *Medieval Islamic Civilization*, (2006), 448-449; Mujani, “Some Notes on the Iqta' System in Mamluk Period” (2011), 103-107. Behrens-Abouseif, *Cairo of the Mamluks* (2007), 3. Petry, "Mamluk State."

From its inception, Mamluk rule was characterized by factionalism and internecine competition. Ostensibly, any Mamluk amir with enough influence could, and often did, attempt to wrest the throne from the current sultan. Even powerful sultans sometimes had interrupted reigns. Despite the ideological ban on hereditary succession, the descendants of the seventh Mamluk sultan Qalawun (r. 1279-1290) reigned well into the 14<sup>th</sup> century. His son al-Nasir Muhammad (r. 1293–1341 with interruptions) was undoubtedly the most influential in architectural and artistic patronage. He established peace with the Ilkhanids in 1323, opening up trade to the east and fostered diplomatic relations with the Golden Horde, Byzantines, Delhi Sultanate, and Rasulids.<sup>38</sup>

The last of Qalawun's descendants to rule was one of al-Nasir Muhammad's sons, Hasan (r. 1347-1361 with interruptions). By the time he came to power the Mamluk state was suffering from depopulation due to plague and financial decline, the latter hastened by his extravagant spending on his own funerary complex. Sultan Hasan is best known for this impressive monument rather than any outstanding political achievements.

By 1382, Circassian Mamluks from the Northwest Caucasus, also called Burji Mamluks (1382-1517) replaced the Kipchak Mamluks.<sup>39</sup> Under the Circassians the Mamluk Sultanate continued many of the same traditions, but without the same military success or wealth. While the Mamluks defended their borders against incursion by the Ottomans, Qaraqoyunlu and Aqqoyunlu and maintained control over Mecca and Medina, their position was less secure. The Mongols, led by Timur, finally succeeded in invading

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<sup>38</sup> See al-Harithy, "The Patronage of al-Nasir Muhammad ibn Qalawun" (2000) and Levanoni, *A Turning Point in Mamluk History* (1995).

<sup>39</sup> Their name derived from *burj* or tower, referring to their base at Cairo's Citadel.

Syria. In 1400 they sacked Aleppo and Damascus, absconding with many skilled artisans.<sup>40</sup>

A declining economy led to increasingly draconian measures on the part of Mamluks to control what little resources remained. Sultan Barsbay (r. 1422-1438) instituted a monopoly over the Red Sea spice trade, one of the main sources of revenue throughout the Mamluk period. Confiscation and extortion on behalf of the Mamluks abounded.<sup>41</sup> In spite of such efforts, material shortages and continuing effects of depopulation led to a decline in artistic production.

The end of the 15<sup>th</sup> century saw a magnificent cultural revival during the long reign of Sultan Qaitbay (r. 1468-1496) but the sultanate was only to last another twenty years before falling to the Ottomans in 1517. Despite their loss of sovereignty, the Mamluks retained a significant power base in Egypt even as late as the 19<sup>th</sup> century.

Not one to brook opposition, in 1811 the Ottoman viceroy Muhammad ‘Ali invited some 500 of the most powerful Mamluks to a dinner party at the Citadel, sealed the gates and massacred them in the lower passage. This brutal maneuver effectively destroyed Mamluk power in Egypt, ending the centuries old military entity that once ruled from its magnificent capital of Cairo.<sup>42</sup>

### 1.3 Ceremony, Funerary Culture and Architectural Patronage

The city the Mamluks inherited from their Fatimid and Ayyubid predecessors had several features that would retain their importance through the Mamluk period. The

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<sup>40</sup> Bloom and Blair eds., "Mamluk" in *The Grove Encyclopedia of Islamic Art and Architecture*.

<sup>41</sup> Meloy, "The Red Sea Spice Trade and the Mamluk Sultanate" (2003), 2; See also Darrag, *Égypte Sous le Règne de Barsbay* (1961).

<sup>42</sup> Tignor, *Egypt: A Short History* (2011), 210.

oldest of these was Bayn al-Qasrayn, the area between the eastern and western palaces that made up part of the Fatimid walled city. From Fatimid times, the area served as a ceremonial parade ground.<sup>43</sup> The mosques of al-Azhar (begun 970), al-Hakim (990-1013) and al-Aqmar (1125) are set within its walls.<sup>44</sup> The Aqmar's offset orientation, allowing for a façade that conformed to the street and an interior that accommodated the qibla direction, would become an essential feature of Mamluk religious architecture.<sup>45</sup> The Ayyubids maintained the area's ceremonial importance, using it as the site of oath taking ceremonies.<sup>46</sup>

Of paramount importance to the militant Mamluks was Cairo's Citadel, begun by Salah al-Din Ayyub around 1176, perched atop a spur of the Muqattam Hills.<sup>47</sup> It became the seat of Mamluk governance. From here, royal and amiral palaces looked out over the domes and minarets of the city and the reigning sultan held court.<sup>48</sup> The northern enclosure was principally devoted to military buildings, constructed by the Ayyubids, while the southern, containing the residential buildings, was significantly adapted under al-Nasir Muhammad. In 1318 he ordered the construction of a mosque, possibly on the site of the Ayyubid mosque. Nearby was the audience and petition hall (the Great *Iwan*), hippodrome, stables, and a palace, the Qasr al-Ablaq. Further south was a residential park and harem.<sup>49</sup>

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<sup>43</sup> Russell, "Are There Any Remains of the Fatimid Palaces of Cairo?" (1964), 115.

<sup>44</sup> See Creswell, *The Muslim Architecture of Egypt Volume I* (1952); Rabbat, "Al-Azhar Mosque" (1996); Bloom, "The Mosque of Al-Hakim in Cairo" (1983); Behrens-Abouseif "The Façade of the Aqmar Mosque" (1992).

<sup>45</sup> Behrens-Abouseif, *Islamic Architecture in Cairo* (1989), 10.

<sup>46</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 25.

<sup>47</sup> Briggs, "The Architecture of Saladin" (1921), 11. See also Nasser, *The Citadel of Cairo* (1989) and *The Citadel of Cairo* (1995).

<sup>48</sup> Behrens-Abouseif, *Cairo of Mamluks* (2007), 25.

<sup>49</sup> Behrens-Abouseif, "The Citadel of Cairo" (1988), 5.

The third areas of importance were the cemeteries, the oldest of which was the Southern Cemetery, located just outside the walls of Fatimid Cairo. Fatimid royalty were buried within their palaces, but a significant funerary culture emerged surrounding the tombs of saints in the cemeteries. Scholars have emphasized the role of Fatimid Shi'ism and its cult of ʿAlid saints, descendants of the Prophet through his son in law ʿAli, in the development of Cairene funerary architecture.<sup>50</sup> However, the existence of funerary cults in Muslim Egypt pre-dates the arrival of the Fatimids. The Abbasid governor ʿUbad Allah ibn al-Sari ordered the construction of the tomb of Sayyida Nafisa there in 824.<sup>51</sup>

Although madrasas—institutions designed for the promulgation of Sunni doctrine—were not built by the Fatimids, Salah al-Din Ayyub (r. 1174-1193), the founder of the Ayyubid dynasty in Egypt, built the most important madrasa of the Ayyubid period, the Salahiyya (1178), next to or possibly adjoining the tomb of Imam Shafi'i (767-820).<sup>52</sup> This construction sets a precedent for Mamluk foundations adjoining tombs. It also calls into question purely Shi'i associations with saints' tombs in Egypt, as Salah al-Din styled himself a restorer of Sunnism. By the Mamluk period veneration for the dead and the belief that deceased holy persons could confer blessing (*baraka*) was well established. The Mamluks developed the Northern Cemetery which winds from the foot of the Citadel to the northeast, hemmed in by the Muqattam Hills and the ancient middens of Tilul al-Barqiya.<sup>53</sup>

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<sup>50</sup> See Williams, "The Cult of ʿAlid Saints" (1985). In *The Muslim Architecture of Egypt* (1952), Creswell argues that funerary monuments in Islam date only from the 9<sup>th</sup> century. See also Grabar, "The Earliest Islamic Commemorative Structures" (1966). For an interesting evaluation of the role of women in funerary culture see Bloom, "The Mosque of the Qarafa in Cairo" (1987).

<sup>51</sup> Taylor, "Reevaluating the Shi'i Role " (1992), 5.

<sup>52</sup> Mulder, "The Mausoleum of Imam al-Shafi'i" (2006), 20.

<sup>53</sup> El-Kadi and Bonnamy, *Architecture for the Dead* (2007), 173.



These areas became the locus of Mamluk ceremonial culture. Processions, beginning or ending at the Citadel, passed through the gates of Fatimid Cairo, through Bayn al-Qasrayn.<sup>54</sup> From the outset, Mamluk sultans appropriated this space for their tomb complexes. Al-Zahir Baybars built his madrasa (now ruined) over the site of the eastern Fatimid palace.<sup>55</sup> Qalawun ordered an extensive funerary complex, including a hospital, built across the street, adjoined by that of his son al-Nasir Muhammad. Shajar al-Durr reopened the old overland pilgrimage routes which grew into the main desert road through the Northern Cemetery, and became the setting of the Hajj processions.<sup>56</sup>

Mamluk foundations thus served as the backdrop for ceremonies and parades, which by all accounts were colorful occasions with music, lights, fireworks, and carpets spread along the route.<sup>57</sup> Lights bedecked minarets, facades, domes, and were strung across the streets.<sup>58</sup> Buildings were re-plastered to gleaming white when Sultan Barquq (r. 1382-1399 with interruption) entered the city after returning from battle or pilgrimage.<sup>59</sup> Historian Ibn Aybak al-Dawadari (c. 1289-1337) describes the city as “adorned like a bride” for al-Nasir Muhammad’s crossing.<sup>60</sup> The fabric of the city reflected the magnificence of the Mamluk court during such displays, delighting even the usually disdainful historians.

Practices of tomb visitation, encouraged by the growing popularity of Sufism, bloomed into a substantial funerary culture in Medieval Cairo. By placing their tombs facing the street with window access, the Mamluks hoped to gain the prayers of those

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<sup>54</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 25.

<sup>55</sup> [archnet.org/sites/2243](http://archnet.org/sites/2243)

<sup>56</sup> El-Kadi and Bonnamy, *Architecture for the Dead* (2007), 175.

<sup>57</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 28.

<sup>58</sup> Behrens-Abouseif, *Islamic Architecture in Cairo* (1989), 4-5.

<sup>59</sup> Ibrahim, "Residential Architecture in Mamluk Cairo" (1984), 52.

<sup>60</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 28; Northrup, *From Slave to Sultan* (1998), 47.

passing by; a blessing for the dead buried there.<sup>61</sup> Foundations in Cairo proper invariably included madrasas, *khanqahs*, and prayer halls to this effect, also employing Qur'an reciters for the interior of the tomb chambers, whose voices would have filtered out to the street through iron-grilled windows. Meanwhile the cemeteries grew into veritable cities, with residences, businesses, and gardens surrounding the magnificent domed tombs.

A combination of ceremonial and religious practices contributed to the proliferation of individual architectural patronage in Mamluk Cairo. The lack of cohesion in the Mamluk system led to the existence of personal rather than collective architectural endeavors. This adds a sense of foundations as an extension of the sultans and amirs who ordered their construction serving devotional purposes but also providing charitable functions to the wider community.

#### 1.4 *Foundations as Charity and the Waqf System*

In addition to their impressive appearance and funerary function, Mamluk religious foundations served the local population in various ways. They provided alms, food, medicine, and even clothes to the surrounding communities. *Khanqahs*, convents, sheltered local and foreign Sufis, and madrasas housed students from all over the Islamic world.<sup>62</sup> One of the more popular charitable buildings was the *sabil-kuttab*, a public water dispensary at street level with a primary school for boys above that was often included in one corner of a foundation. The most common endowments included madrasas, where one or more branches of Islamic jurisprudence were taught, Sufi convents, and congregational mosques. Such designations however are sometimes unclear in the

<sup>61</sup> Humphreys, "Expressive Intent" (1972), 93-94.

<sup>62</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 12.

sources or at odds with foundation inscriptions, and structurally the different functions often shared the same forms.

Equipped with libraries, foundations promoted the spread of literacy and learning, not only in the religious sphere but in astronomy, mathematics, medicine, and history.<sup>63</sup> They initially provided employment to artisans and then to the often sizeable staff needed to maintain the buildings.<sup>64</sup> Because religious scholars viewed elaborate tombs as impious, charitable functions added some legitimacy. Nonetheless, irate clerics occasionally issued fatwas demanding the demolition of “sumptuous” tombs “designed for the pursuit of leisure and ostentation,” but their complaints were consistently ignored by the rulers.<sup>65</sup>

Charitable endowment served as a means for the Mamluks to protect their wealth through the *waqf* system. In the case of foundations, this entailed a donation of property to maintain the buildings in perpetuity for charitable purposes. Generally, Mamluk foundations were supported by *iqtaʿ* revenues from other properties owned by the patron.

In the extremely volatile climate of Mamluk politics, endowments were a way to protect wealth from being confiscated. Patrons could designate heirs as beneficiaries or employees of foundations, ensuring a secure but limited inheritance from the foundation’s income.<sup>67</sup> In Mamluk circles however, nothing was completely safe. Powerful Mamluks could and did confiscate *waqf*-designated properties; another way to

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<sup>63</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 5.

<sup>64</sup> Mols, *Mamluk Metalwork Fittings* (2006), 17.

<sup>65</sup> The words of a 12<sup>th</sup> century cleric referring to building in the Northern Cemetery. Humphreys, “Expressive Intent” (1972), 67.

<sup>67</sup> Mols, *Mamluk Metalwork Fittings* (2006), 17.

earn the ire of historians, who often evaluated the morals of amirs and sultans based on how they acquired land and materials for their foundations.<sup>68</sup>

The endowment deeds themselves are an extremely valuable resource in detailing the plans of buildings as well as furnishings, services, and employees. Descriptions are practical rather than aesthetic but useful nonetheless. Such documents include teaching curriculums, Qur'an recitation, and Sufi rites giving insight into functionality. Objects, particularly books, were endowed to particular foundations with stipulations regarding their use or removal.<sup>69</sup>

Mamluk religious foundations were multifunctional, acting as monuments, tombs, religious and charitable organizations. Just as their functions were manifold, the motivations behind their construction probably blended political, spiritual, practical, and aesthetic concerns.

Artistic patronage under the Mamluks was somewhat unusual in its lack of distinction between royal and amiral projects. An amir could order buildings or objects as lavish as those of the sultans.<sup>70</sup> High-ranking amirs could amass large personal fortunes from *iqta*<sup>c</sup> revenues, and directly compete for the throne. Blazons and inscriptions helped distinguish patrons and their rank where size and quality did not. Perhaps this was one reason for their widespread application in all media.

Nonetheless, the reigning sultan's level of interest in architectural patronage was influential. Sultans Baybars, al-Nasir Muhammad and Qaitbay exhibited a direct interest in architecture and decoration, making them the most important sultans regarding the

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<sup>68</sup> Maqrizi notably called Mamluk building practices "thieves stealing from thieves." O'Kane, *The Mosques of Egypt*, (2016), 196.

<sup>69</sup> See AlHamzah, *Late Mamluk patronage* (2009).

<sup>70</sup> Mols, *Mamluk Metalwork Fittings* (2006), 161.

promotion and shaping of the arts in the Mamluk Period. Reportedly, they involved themselves in the planning, and construction of their monuments, personally visiting the sites and possibly overseeing design.<sup>71</sup> A sultan's patronage of architecture in turn inspired amirs and sometimes wealthy non-Mamluks to follow suit.<sup>72</sup>

Royal projects sometimes reflected individual interests or related to personal events. Al-Nasir Muhammad reportedly founded his *khanqah* at Siryaqus, outside of Cairo, because of the sudden alleviation of a pain he had been suffering while riding near the site. His predecessor Lajin (r. 1296-1299) restored the mosque of Ibn Tulun after taking refuge there due to his part in al-Ashraf Khalil's (r. 1290-1293) assassination. Al-Mu'ayyad Shaykh founded a mosque on the site of where he was jailed, having sworn an oath to do so if freed. He also loved the Nile, spending the bulk of his time sailing and swimming. As sultan, he had the Nilometer mosque rebuilt and when the branch of the Nile between Fustat and Rawda dried up, he closed the city down so everyone, including amirs, could come re-dig it.<sup>73</sup>

The individual nature of patronage differs from that of former dynasties, particularly the Fatimids, where architecture was a manifestation of a collective ideology. The Fatimids used patronage to promote their image as royals and imams, and the Ayyubids underwrote the restoration of Sunnism in Egypt.<sup>74</sup> Contemporary medieval cathedrals in Europe were generally collective projects.<sup>75</sup> It may be the volatile nature of

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<sup>71</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 17.

<sup>72</sup> Rabbat, *Mamluk History through Architecture* (2010), 26.

<sup>73</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 17.

<sup>74</sup> Lapidus, "Mamluk Patronage in Egypt" (1984), 179-180.

<sup>75</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 17.

the Mamluk political system that encouraged the construction of so many individual monuments.

#### 1.4 *Mamluk Architecture*

Mamluk architecture initially adopted Fatimid and Ayyubid forms but developed them into a distinctive style. The practice of aligning the mosque's façade with the street originated with the Fatimids and led to some of the more creative Mamluk mosque plans. While the façades present a uniform front, the interiors are sometimes set at an extreme angle in order to accommodate the qibla. The resulting plans are intricate puzzle boxes of rooms connected by twisting halls and punctuated by tall light shafts suddenly revealing a square of sky. These layouts allowed for dense urban construction, simultaneously accommodating the necessity of uninterrupted street frontage for processions and parades.

The Ayyubids adopted certain Fatimid architectural details, which persisted until the end of the Mamluk period. The most prominent are keel-arched niches with fluted interiors found on the first known decorated Cairene mosque façade, that of al-Aqmar (1125), to the last great Mamluk monument, the mosque of al-Ghuri (1504) (Figure 1.1). Fatimid and Ayyubid decoration had relied heavily on carved stucco. The Ayyubids developed more abstracted and intricate arabesques.<sup>76</sup> In the 12<sup>th</sup> century, the *mabkhara*,

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<sup>76</sup> Behrens-Abouseif, *Islamic Architecture in Cairo* (1989), 14; Humphreys, "Expressive Intent" (1972), 103. For Fatimid art and architecture see Bloom, *Arts of the City Victorious* (2007) and "The Origins of Fatimid Art" (1985).

or “incense burner,” minaret appears characterized by a rectangular base supporting an octagonal shaft that terminates in a ribbed top.<sup>78</sup>

Several features came to distinguish Mamluk architecture from its predecessors. The Bahri period saw the arrival of most of the innovation in Mamluk architecture, and the Circassian period developed and in some cases refined these themes. The two-and then the four-*iwan* plan replaced the hypostyle mosque.<sup>79</sup>

*Iwans* probably originated in residential *qa'as*, or reception halls, where they had occurred earlier. The *iwans* usually comprised the central unit of religious foundations, arranged around an open courtyard in the Bahri Period, replaced by smaller covered halls under the Circassians.<sup>80</sup> Lacking the open central courtyard, covered mosques have more windows to allow in light and ablution fountains became an adjoining feature rather than a central one.<sup>81</sup> Rooms and halls adjoin in often ingenious ways to accommodate the qibla, street alignment, and increasing scarcity of urban space.

Domes set over tomb chambers became another distinctive feature as their profiles grew in height and elegance. Early Mamluk domes were made primarily of brick ornamented with ribs, possibly based on the tops of Ayyubid minarets. The Mamluks increasingly used stone in construction including domes. Carved masonry domes come to distinguish Mamluk funerary architecture. The earliest examples replicate ribbed brick domes, using plaster to conceal the masonry joints. As masons grew more adept, an amazing array of geometric and arabesque motifs appear.<sup>82</sup>

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<sup>78</sup> Behrens-Abouseif, *Islamic Architecture in Cairo* (1989), 10.

<sup>79</sup> *Iwans* are vaulted recesses, often arranged around a courtyard.

<sup>80</sup> Behrens-Abouseif, *Islamic Architecture in Cairo* (1989), 20.

<sup>81</sup> *Ibid.*

<sup>82</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 20.

Until the mid 14<sup>th</sup> Century, dome profiles either curved from the base and tended to be plain, as in the funerary *khanqah* of Amir Sunqur al-Sa<sup>c</sup>di (1315-1321) or were set on a high drum, as in the twin ribbed brick domes of Amirs Sanjar and Salar's tomb complex (1303-1304) (Figures 1.2 and 1.3).<sup>83</sup> Higher profiles grew in popularity, coinciding with the introduction of the stone dome. A tendency towards slenderness and height characterizes Cairene Mamluk architecture.

The typical Mamluk minaret also developed in the mid 14<sup>th</sup> century, and its graceful form comes to characterize the skyline of Cairo, "City of 1000 Minarets." The tomb of Sanjar and Salar exhibits a transitional minaret, still in the *mabkhara* style, but elongated with a square base, octagonal second section and circular upper section. A few decades later, the first extant minaret in the new style adorns the mosque of Altinbugha al-Maridani (1339-1340).<sup>84</sup> It has a plain octagonal shaft topped with the pavilion and bulb that came to be used exclusively by the end of the 14<sup>th</sup> Century (Figure 1.4).<sup>85</sup>

The stories are divided by elaborate tiers of muqarnas transitioning into balconies with pierced stone panel railings. Minarets often were elaborately carved, particularly in the later Circassian period. Their effect is incredibly aerial; the height, carving, and open space at the top lending a feeling of weightlessness. Metal finials topped with a crescent crown the bulbs.

Along with the Mamluk style of minaret, the muqarnas portal became the favored type. It usually consists of a trilobed or conical recess with a muqarnas vault (Figure 1.5). Portals are massive in scale, nearly reaching the top of façades, which are crowned with crenellations. As in Fatimid and Ayyubid monuments, they were punctuated with

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<sup>83</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007) 80, 167.

<sup>84</sup> *Ibid*, 183.

<sup>85</sup> Behrens-Abouseif, *Islamic Architecture in Cairo* (1989), 17.



recessed windows, even when not purely functional.<sup>86</sup> Windows are rectangular, arched, tripartite, or round and served to both allow in light and provide contact with the street outside. Sometimes, due to the offset plans of Mamluk buildings, shafts were built through thicker sections of walls to reach the exterior. Other times, as in the Madrasa of Umm Sultan Shaʿban (1368), blind windows appear in the façade merely to uphold the aesthetic (Figure 1.6).<sup>87</sup>

The most common exterior decorations included muqarnas, striped masonry, joggled marble voussoirs, and inscriptions. Muqarnas were primarily used in the portal hood and often as cornices running above recessed windows. Muqarnas in façades create a visual correlation to the smaller bands of muqarnas beneath minaret balconies. Ablaq masonry, alternating courses of lighter and darker stone, occurs on the exterior and inside.<sup>88</sup> Usually the darker courses were red or black and often a combination of red and black with white occur in the same building.

Joggled voussoirs in alternating colors began under the Ayyubids, but grew in complexity in the Mamluk period. Joggling appears in interior and exterior door and window voussoirs and lintels, portals, and mihrabs. Portals often used a combination of ablaq and joggling and the technique grew in popularity from the mid 14<sup>th</sup> Century into the Circassian Period (Figure 1.7).

Inscriptions were a major decorative form of the Mamluk period. The Mamluks preferred *thuluth* for inscriptions, usually Qurʾanic or titular (Figure 1.8). Some verses

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<sup>86</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 84.

<sup>87</sup> *Ibid.*

<sup>88</sup> Specifically, *ablaq* refers to courses of black and white stone and *mushahar* red and white but the former term quite often appears for both.

appear consistently in certain locations, but the placement remains fluid.<sup>89</sup> Royal foundations consistently have more inscriptions than non-royal ones. Inscription bands appear most often on the façade, the drums of domes, beneath the muqarnas tiers on minarets, and above the portal. The latter almost universally is the foundation inscription.<sup>90</sup> While some inscriptions nominally indicate the function of the building, these are often contradicted by their endowment deeds or the histories.

Interiors use colored stone dados and marble pavements as decorative features. Invariably decoration is concentrated in the qibla *iwan* and in tomb chambers (Figure 1.9). Painted wooden ceilings and friezes also appear in *iwans* or tomb chambers. Stone and stucco carving occur both inside and out with the same motifs; ribbed keel arches, rosettes, looped bands, medallions, and geometric or arabesque borders. Window grilles are metal or stucco set with stained glass, colorfully filtering the strong light.

Doors are wood, adorned with metal plaques and inscription bands. The most elaborate are allover star-pattern doors. This design appears in the early Bahri period and is close in appearance to the late Fatimid door of the mosque of al-Salih Tal'ai<sup>c</sup> (1160) and the Ayyubid shrine of Imam Shafi'i. Medallion doors use less metal and consist of central medallions with corner ornaments and inscription bands populated with arabesques. Some are simply decorated with metal bands. Generally, star-pattern doors only appear at entrances while medallion or metal band doors are used both as entrances and in interiors.<sup>91</sup>

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<sup>89</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 97. See also Van Berchem, *Corpus Inscriptionum Arabicarum: Première Partie: Égypte* (1894); O'Kane, "Medium and Message in the Monumental Epigraphy of Medieval Cairo" (2014); Blair, *Islamic Inscriptions* (1998).

<sup>90</sup> *Ibid.*

<sup>91</sup> Mols, *Mamluk Metalwork Fittings* (2006), 35, 55.

The interiors of religious foundations, and residences, were furnished with a rich array of beautifully decorated objects in all media. Mamluk artisans in Egypt and Syria created stunning objects in wood, metal, glass, fabric and paper to be housed in religious foundations. While the vast majority have been removed to museums, they can still be considered in reference to their original setting and function.

### 1.6 *Decorative Arts*

Mamluk decorative arts vary by media but share certain characteristics and design elements that render them recognizable. Perhaps the most distinctive is a masterful use of geometric pattern.<sup>92</sup> The use of figural imagery sharply declined during the reign of al-Nasir Muhammad, encouraging geometric and arabesque motifs with prominent inscriptions. At the same time Chinese-style lotuses and peonies gained popularity interspersed through patterns of twining arabesques.

The ubiquitous star-patterns reached their zenith in the hands of Mamluk artisans. Blazons appear in all media, highlighting the importance of court hierarchy. Monumental Qur'ans were meticulously crafted for placement near the tombs of sultans. Delicate glass lamps bearing the Light Verse were crafted to illuminate prayer halls and the darkened recesses of tomb chambers. Exquisitely inlaid metal ewers, candlesticks, lamps, boxes, and door plaques would have adorned foundations and residences. Textiles and carpets in luminous jewel tones softened and added richness to interiors.

As well as commonalities, each of these media had its own artistic conventions combining in different ways to create Mamluk interiors. A recognizable Mamluk aesthetic expresses itself in a variety of materials.

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<sup>92</sup> Atil, *Renaissance of Islam* (1981), 195.

### 1.6.1 Wood

Larger furnishings like minbars, *kursis*, and chairs were usually made of wood, as were screens and cabinets. The Ayyubids created carved screens, doors, shutters cenotaphs and minbars, often using star-patterns, in different kinds of wood. Mamluk artisans introduced ivory to this inlay technique, highlighting the intricate patterns against their backgrounds (Figures 1.10 to 1.12).

Like Mamluk buildings, minbars tended to height, some reaching 24 feet.<sup>93</sup> They have framed double doors at their base, crowned with muqarnas cornice and small crenellations. At the top of the stairs are small pavilions topped with bulbs recalling those of Mamluk minarets. Their sides are adorned with magnificent star patterns created by wood and ivory inlay. *Kursis*, stands made to hold monumental Qur'ans, are similarly decorated. These have large square bases surmounted by a cradle to hold the open holy book and a shelf for the reader to sit before it. Qur'an boxes and hexagonal tables, also called *kursis* but probably not related in function, were sometimes decorated with wooden inlay.<sup>94</sup>

*Mashrabiyyas*, screens of turned wood, were used in foundations and residences. In foundations, they surround cenotaphs and in some instances were used to screen off the prayer hall (Figure 1.13). In domestic settings, they covered windows, providing privacy, reducing the amount of strong light that entered, and acted as a cooling system. Containers filled with water placed in front of the screens helped to cool the air as it was

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<sup>93</sup> *Ibid.*

<sup>94</sup> The function of these tables remains unclear but it is unlikely due to their shape and dimensions they ever held Qur'ans. For a discussion of these *kursis* see Makariou and Juvin, "The Louvre Kursi: Function and Meaning of Mamluk Stands" (2012).

drawn in. The *mashrabiyya* technique is also found in minbar railings and the wooden awnings above *sabil-kuttab*s in the Circassian Period.<sup>95</sup>

### 1.6.2 Metal

There is a wide range of Mamluk metal objects from large window grilles and doors to delicate inlay pieces. Iron, copper alloys (brass and bronze), silver and gold were used. Techniques include casting, fabrication from sheet metal, piercing, engraving, chasing, and metal inlay. Mamluk metalwork flourished until the end of the 14<sup>th</sup> century when a combination of plague and material shortages seem to have caused a marked decline. A brilliant revival of metalwork occurs under Sultan Qaitbay in the following century. While precious metals were still plentiful, Mamluk amirs and sultans wore metal inlay belts, spurs, and even adorned their saddles with silver and gold.<sup>96</sup> Other popular metal objects include various boxes, ewers, basins, incense burners, candlesticks, hanging lamps, tables, arms, armour and horse trappings.

Extensive examples of superb metal inlay pieces exist in many museum collections. Early Mamluk inlay drew on Ayyubid themes with human and animal figures surrounded by vegetal arabesques or geometric pattern. Court scenes were popular, depicting hunting and feasting. Early inscriptions occur in *kufic*, *naskh*, or *thuluth*, sometimes using animal or human figures to enliven the letters. This style of inlay was popular enough that several pieces were made for the Rasulid Sultans of Yemen from 1275 to 1282.<sup>97</sup>

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<sup>95</sup> Atil, *Renaissance of Islam* (1981), 197.

<sup>96</sup> Allan, "Decline of the Mamluk Metalworking Industry" (1984), 85. See also Newhall, "The Patronage of Sultan Qaitbay" (1987).

<sup>97</sup> Atil, *Renaissance of Islam* (1981), 50, 58.

A brass basin, now in the Victoria Albert Museum, illustrates the early style (Figures 1.14 and 1.15). The exterior has an inscription band in *thuluth* glorifying an unnamed sultan surrounded by upper and lower bands of interlocking vegetal arabesque terminals. On the interior rim are roundels filled with mounted hunters and cross-legged astrological figures representing the moon. A tangle of human and animal figures alternating with a geometric field of diamonds containing ducks fill the interstices.

In the 1320s, metalwork follows the wider trend in Mamluk arts of diminishing figural imagery and increasing use of inscriptions. Thuluth becomes the most common script and radial inscriptions appear. An incense burner, now in the Metropolitan Museum, made during the 14<sup>th</sup> century with al-Nasir Muhammad's titles, illustrates the new style (Figure 1.16). Footed cylindrical incense burners with domed lids probably derived from Byzantine models, at least in Egypt and Syria.<sup>98</sup> Brilliant golden radial inscriptions in lobed cartouches dominate, surrounded by lively bands of thuluth and looped borders containing epigraphic blazons.

The commission of a basin by the King of Cyprus, Hughes IV de Lusignan (r. 1324-1359) and another made between 1323 and 1350 for Elizabeth of Carinthia, Queen of Sicily, attest to the continued popularity of Mamluk metal inlay. Interestingly, figural decoration continued on objects destined for use outside of the Mamluk court.<sup>99</sup>

Metal fittings and polycandelons make up another group of Mamluk metal wares. Similar fabrication techniques and design motifs suggest they may have been made in the same workshops. Metal fittings include those applied to doors, discussed briefly above,

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<sup>98</sup> For a discussion of incense burners see Baer, *Metalwork in Medieval Islamic Art*, 45-61; Mehmet, "About a Type of Islamic Incense Burner" (1945), 28-45.

<sup>99</sup> See Ward, "Brass, Gold and Silver from Mamluk Egypt" (2004), 59-73; De Hond and Mols, "A Mamluk Basin for a Sicilian Queen" (2011), 6-33.

and window grilles. Grilles most often are made of iron bars, joined by round or cubed bosses, or sometimes cast geometric patterns and arabesques. They feature titular inscriptions or decorative inlay.<sup>100</sup>

Polycandelons, like footed incense burners, have Byzantine origins. Mamluk polycandelons are large tiered hexagonal affairs that resemble pagodas or smaller pyramidal forms topped by bulbs. Also like incense burners, they bear a resemblance to architectural forms. The polygonal group has feet, the purpose of which is unclear as they are suspended and far too heavy to take up and down. Many of these are still in situ, hanging from *iwans*, prayer halls, or tombs, where they would have provided a more brilliant light than their glass counterparts.<sup>101</sup>

### 1.6.3 Book Arts

The greatest of Mamluk book arts are the illuminated Qur'ans produced for religious foundations. Secular illustrated books never became particularly popular, possibly due to the decline in figural imagery at the height of Mamluk artistic patronage. An exception is the *furusiyya* genre, manuals of horsemanship and martial arts, which had obvious appeal to Mamluk sensibilities.<sup>102</sup>

Qur'ans endowed to religious foundations in Cairo are datable from the beginning of the 14<sup>th</sup> century, although there may have been earlier examples. Thirty-volume Qur'ans were popular, particularly in the 13<sup>th</sup> and 14<sup>th</sup> centuries. Mamluks commissioned single volume and two volume Qur'ans as well. There is a singular example of a seven

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<sup>100</sup> Mols, *Mamluk Metalwork Fittings* (2006), 210, 143.

<sup>101</sup> See Behrens-Abouseif *Mamluk and Post-Mamluk Metal Lamps* (1995); Baer, *Metalwork in Medieval Islamic Art* (1983), 39-41.

<sup>102</sup> For an overview, see al-Sarraf, "Mamluk Furusiyyah Literature and Its Antecedents" (2004).

volume Qur'an ordered by Sultan Baybars al-Jashangir (r. 1309-1310) in 1304 while he was still an amir. In the late 14<sup>th</sup> century massive single volume Qur'ans are introduced, some over a meter in height.<sup>103</sup>

Mamluk scribes preferred *muhaqqaq* and *rayhan* scripts for the text, with *kufic* or sometimes *thuluth* headings.<sup>104</sup> Illuminations consist of elaborate frontispieces as well as decorative surah and *ayah* markers for recitation. Star-patterns often appear in magnificently rendered form and color. Delicate arabesques bring life to the edges, headings and page markers. Braided borders divide the sections and elegant trefoils extend from the borders of illuminations, allowing the eye to move over the page.

Blue often dominates the palette, with white, gold, muted reds or pinks, black and green. A monumental Qur'an (c. 1370) has a magnificent star pattern double frontispiece (Figure 1.17). A central sixteen-pointed star radiates into a star polygon pattern executed in gold against a vibrant blue ground. The interstices contain lively arabesques and lotus buds. A border of alternating lotuses and peonies, reflecting the continued popularity of Chinoiserie floral motifs, frames the central panel.

Upper and lower headings are in foliated *kufic* surrounded by spiraling vegetal arabesques. The typically tripartite central panel is contained by braided borders and surrounded by another lotus-peony band against a gold ground. Trefoil finials frame an outer blue border containing arabesques and palmettes. In the center, a single medallion filled with the same pattern draws the eye to the edge of the page.

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<sup>103</sup> Atil, *Renaissance of Islam* (1981), 24. See also James, *Qur'ans of the Mamluks* (1987).

<sup>104</sup> Atil, *Renaissance of Islam* (1981), 26.



#### *1.6.4 Glass and Ceramics*

The Mamluks produced lovely enameled glassware, the most iconic of which are the vase-shaped lamps produced to light interiors. As well as lamps, cups, flasks, and bottles bear designs in an enamel technique developed in Syria in the late 12<sup>th</sup> or early 13<sup>th</sup> century (Figure 1.18).<sup>105</sup> In the 14<sup>th</sup> century, Mamluk enameled glass was exported to Central Asia and as far as Northern Europe. Nineteenth-century European copies demonstrate the enduring appeal of the technique.

Mamluk glass lamps typically have an ovoid body, with a foot and flared neck. Earlier examples are smaller and squat, from 24.7 to 29.6 cm tall, with three suspension loops. Decoration includes arabesques, blazons, braided borders and inscriptions. Gold, blues and reds dominate the color palette, particularly before the 1330s when secondary hues emerged. Artists used pinks, pale blues and greens primarily as gradients, maintaining the essential color scheme.<sup>106</sup>

Glass lamps grew larger over time, reaching up to 42 cm by the end of the century, with enamel covering more of the surface area. A taller foot began to replace the simple ring. In the 1340s and 1350s, artists developed a new technique of applying lead based enamels on the interior as a ground for exterior gilding.<sup>107</sup> Inscriptions related to the patron and often included the Light Verse (Qur'an 24:35) from Surat al-Nur. Lettering is usually in reserve against a blue background or painted in blue. The first technique allowing the light to illuminate the outlined inscription and the second providing an inscription in blue silhouette. These are often referred to as “mosque lamps” but probably

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<sup>105</sup> Ward, “Mosque Lamps and Enamelled Glass” (2012), 56.

<sup>106</sup> Ward, “Mosque Lamps and Enamelled Glass” (2012), 59.

<sup>107</sup> *Ibid*, 62, 65, 71.

had residential counterparts. Because of their fragility, it is unlikely they would survive the more tumultuous context of palace architecture.

Qawsun (d. 1342), an amir of al-Nasir Muhammad, commissioned lamp, now in the Metropolitan Museum (Figure 1.19). It has a sloped ovoid body with a tall flared neck. His blazon, representing the cupbearer or *saqi*, appears prominently in crimson on the neck. Titular inscriptions against a blue ground surround the blazon. On the body, his titles are inscribed in blue, punctuated by suspension loops. Both the content and color reversal in the body and neck inscriptions are typical. Blue medallions with lotuses and lobed triangles filled with arabesques decorate the area below the neck. Lightly traced floral patterns frame the colored elements.

Ceramics consisted of an equal mixture of domestic ware and imports from China or Central Asia. Some domestic products imitated the popular Chinese celadon ware or blue and white ware.<sup>108</sup> The latter became extremely popular in the late Bahri and Circassian Period possibly due to, or a result of, the decline in metalwork. In the 15<sup>th</sup> century Mamluk sultans presented Chinese porcelains to the Venetians and Florentines as diplomatic gifts, some of the earliest examples introduced to Italy.<sup>109</sup>

Quite a few fragments have blazons, a collection of which is in the Museum of Islamic Art in Cairo (Figure 1.20).<sup>110</sup> Their bright bold colors are typically Mamluk. One fragment has the blazon of the cupbearer surrounded by a partially surviving inscription (Figure 1.21). Interestingly, blazons appear on all types of objects from the humble to the grandiose, underlining the importance of hierarchal identity in Mamluk society.

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<sup>108</sup> Scanlon, "Mamluk Pottery: More Evidence from Fustat" (1984), 115.

<sup>109</sup> Mack, *From Bazaar to Piazza* (2002), 23.

<sup>110</sup> Some are published in O'Kane *The Illustrated Guide* (2012), 116.

### 1.6.5 Textiles

Textiles played a pivotal role in the Mamluk world as economic commodities and as part of ceremonial culture. Fabric was one of the sultanate's largest exports in the 14<sup>th</sup> and 15<sup>th</sup> centuries. Of particular importance are *tiraz*, or inscribed textiles, used locally and exported internationally.<sup>111</sup> Shimmering silks were valued throughout the medieval world for their beauty and versatility, inspiring long distance trade by land and sea. The complexities of the silk trade are beyond the scope of this study, but notably the Yüan were pivotal in producing silks for the Mamluk court. In addition, a remarkable number of Mamluk silks were sewn into European church vestments with no concern for their bearing titular inscriptions dedicated to sultans. Surprisingly, considering the mild Egyptian climate, the Circassians developed a taste for sable lined velvet coats in winter partaking in the fur trade.<sup>112</sup>

The Mamluks by all accounts were quite flashy dressers. In his volume on the Mamluks, al-Qudsi describes Mamluk costume as “more beautiful and sumptuous than any other,” also praising their luxurious and beautiful palaces and horses.<sup>113</sup> They wore colorful coats, long and adorned with jewels, *sallari*, or striped and fastened across the chest from left to right in the Mongol fashion. Costume, like the majority of the arts, reached new levels during al-Nasir Muhammad's third reign.<sup>114</sup>

The sultan instituted a rigorous and elaborate dress code attached to court ceremony and Mamluk historians were positively ruthless when it came to breaches in

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<sup>111</sup> Walker, “Rethinking Mamluk Textiles” (2000), 168. For *tiraz* see Golombek and Gervers, “Tiraz Fabrics in the Royal Ontario Museum” (1977). See also Sokoly, “Between Life and Death: The Funerary Context of Tiraz Textiles” and “Towards a Model of Early Islamic Textile Institutions in Egypt” (1997).

<sup>112</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 26.

<sup>113</sup> *Ibid.*

<sup>114</sup> Walker, “Rethinking Mamluk Textiles” (2000), 170-171. For costume see Mayer, *Mamluk Costume* (1952).

dress protocol. Maqrizi and Ibn Taghribirdi expressed outrage when sultans Barsbay, Faraj, and al-Mu'ayyad Shaykh wore their audience outfits in procession. Ibn Taghribirdi was particularly upset when Jaqmaq moved the inauguration of the winter season to the Citadel instead of the traditional hippodrome Mat'am al-Tayr, while wearing the wrong colors.

Dress codes based on social position extended to the local population as well.<sup>115</sup> Court ritual incorporated clothing in the official distribution of robes of honor, *khil'a*, as well as ceremonial changes of attire for each season. Common textile motifs include crescents, lotuses, rosettes, lozenges, inscriptions, arabesques, and animal figures. A particularly beautiful fragment has turquoise stripes with alternating bands of stylized lotuses and lozenges containing what may be an abbreviated form of "al-Sultan" (Figure 1.22).<sup>116</sup>

Textiles rarely survive in any architectural context, but in some cases their use is recorded. Banners, silk horse trappings, decorative hangings, and ceremonial tents featured in displays. One of the most significant ceremonial uses of Mamluk textile production was the manufacture of the majestic black and gold *kiswa*, which covers the Ka'aba.<sup>117</sup> Carpets were used in processions to line the streets. In one instance, Sultan Barquq had to throw coins to distract people who attempted to steal the carpets laid out for his parade.<sup>118</sup>

Carpets were used in palaces and foundations, although few details of their placement or appearance are recorded. Maqrizi states that carpets with a mihrab motif

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<sup>115</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 26.

<sup>116</sup> Atil, *Renaissance of Islam* (1981), 225.

<sup>117</sup> *Ibid.*

<sup>118</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 28.

were put down on Fridays in the madrasa of Amir Taybars (1309).<sup>119</sup> During the reign of Qaitbay, the Mamluk carpet industry appeared, or was revived, contributing to the export economy.<sup>120</sup> The carpets produced in this period are distinctive jewel-toned pieces dominated by abstracted vegetal motifs and geometry. Their luminous quality rendered them luxury export items, adorning Medici palaces and featured in Renaissance painting (Figure 1.23).

This description of art objects and architecture intends to provide a glimpse of Mamluk foundations in their entirety, not simply empty halls of stone. By combining diverse media, motifs, and textures Mamluk foundations were meeting places of artistry, luxury, and belief. The placement of objects in their architectural setting reveals relationships between media and insight into intent. The following chapters examine some possible relationships between architecture and furnishings in three key foundations.

I chose to study the complexes of sultans Hasan, Barquq, and Qaitbay for their architectural and artistic elements, as well as their construction at important junctures of the history of Mamluk art. All three foundations have endowed furnishings and fittings either in situ or documented, which provide an opportunity to assess their relationship to architecture. They also have high-ranking overseers or patrons, allowing for a more in depth evaluation of construction and patronage.

The establishment of Sultan Hasan's complex occurs during a protracted power struggle among the highest echelons of the Mamluks. Barquq reigned just before a period of financial and artistic decline. His complex helps answer questions regarding material

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<sup>119</sup> *Ibid.*, 95.

<sup>120</sup> Newhall, "The Patronage of Sultan Qaitbay" (1987), 177.

availability. Sultan Qaitbay oversaw a brilliant revival of the arts and his foundation exemplifies the apogee of Mamluk stone carving. By examining these three foundations and their endowed objects, a more complete picture of patronage, intent, aesthetics, and the role of designers and craftsmen emerges.

## 2.0 Chapter 2-Sultan Hasan's Complex

### 2.1 Introduction

Sultan Hasan's Complex is probably the most famous of Cairo's Mamluk monuments. It is certainly the most imposing and has some magnificent features. While often used as a comparison point for later monuments, the structure is singular in its design, its intent, and its extremely high cost of construction. The unusual foundation manifests some of the central debates regarding Mamluk art and architectural history, regarding monumentality and the impact of exchange with the Ilkhanate and Golden Horde in Central Asia and Seljuq Anatolia.<sup>121</sup>

The last son of al-Nasir Muhammad to reign, Sultan Hasan (r. 1347-1361 with interruption) became sultan in name at age thirteen in 1347, yet only came to power in 1350 after removing Amir Manjaq and his brother Baybugha. Sultan Hasan never successfully curbed the amirs' power, perhaps accounting for his desire to build an impressive monument. His rule was turbulent and he remained unpopular with the amirs, historians and even his own Mamluks.<sup>122</sup>

Upon gaining authority, Sultan Hasan immediately displeased the Mamluk amirs by promoting fellow members of the *awlad al-nas*, sons of Mamluks. After imprisoning Hasan, the Mamluks replaced him with his more biddable brother, al-Salih Salih. Hasan regained the throne in 1354, but only ruled another seven years until his army

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<sup>121</sup> In the 14<sup>th</sup> Century the Seljuq Empire no longer existed, vassals to the Mongols ruled a fractured Anatolia, but the architectural style remained distinctive.

<sup>122</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 201.

commander, Yalbugha al-ʿUmari, assassinated him in the desert in 1361. Sultan Hasan's body was never found and his magnificent tomb never served its intended purpose.

Al-Nasir Muhammad's generosity towards his amirs had allowed them to grow increasingly wealthy and powerful. When Sultan Hasan ascended the throne as a child ruler, he was given an allowance of 100 dirhams per day, while the revenue from the powerful Amir Shaykhu's holdings exceeded 200,000 dirhams per day. Possibly, the wealth of amirs prompted Sultan Hasan to excess in an attempt to compete.<sup>123</sup>

Sultan Hasan's funerary foundation elicited the admiration of historians for its impressive scale and beauty, and their ire for its cost. Maqrizi reported that the wood in the eastern *iwan* alone cost 10,000 dirhams and that the sultan would have stopped construction if not for the loss of honor.<sup>124</sup>

Famed Sunni scholars Ibn Kathir of Damascus (c. 1300-1373) and Ibn Hajar (1372-1449) both accused the Sultan of being a despot and wastrel whose extravagance was at the expense of a suffering population.<sup>125</sup> Luxurious construction would have appeared exceedingly profligate as Hasan ruled after a particularly vicious bout of the plague had decimated Cairo's population. In spite of the revenue generated from holdings reverting to the state through depopulation, Sultan Hasan nearly drained the coffers.

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<sup>123</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 203.

<sup>124</sup> Kahil, *The Sultan Hasan Complex in Cairo* (2008), 2.

<sup>125</sup> Kahil, *The Sultan Hasan Complex in Cairo* (2008), 3; Behrens-Abouseif, *Cairo of the Mamluks* (2007), 201. See also Mirza, Younus Y., "Ibn Kathir" in Brill *Encyclopaedia of Islam Online*. [http://dx.doi.org/10.1163/1573-3912\\_ei3\\_COM\\_30853](http://dx.doi.org/10.1163/1573-3912_ei3_COM_30853); "Asqalani, Ahmad ibn Hajar" in *The Oxford Dictionary of Islam*, online. <http://www.oxfordislamicstudies.com/article/opr/t125/e224>



## 2.2-The Complex

Because of its prominence, nearly every discussion of Mamluk monuments mentions Sultan Hasan's foundation. Doris Behrens-Abouseif includes descriptions in *Islamic Architecture in Cairo* and *Cairo of the Mamluks*.<sup>126</sup> Warner has an entry in his descriptive catalog and maps of its location in *Monuments of Historic Cairo*.<sup>127</sup> More recently, Bernard O'Kane published a section on Sultan Hasan's Complex in *The Mosques of Egypt*. Finally, there is a wonderfully comprehensive study of the foundation, Abdallah Kahil's *The Sultan Hasan Complex in Cairo 1357-1364*, that describes the entire site in meticulous detail as well as discussing cross media exchange and the role of the architects.<sup>128</sup> Given the wealth of information available, I focus here primarily on the heart of the complex, which remains mostly intact, and its furnishings.

Unusually, the building is freestanding and set facing the Rumayla Maidan beneath the Citadel (Figure 2.1). It was the first royal religious complex built outside of the old city walls and the first madrasa that also served as a Friday mosque, a feature that became standard in royal foundations through the Circassian period.<sup>129</sup> Sultan Hasan clearly chose the location as a political statement. It was not only directly below the seat of Mamluk power, but on the site of former amiral palaces.

Before beginning construction, Hasan had the palace of one of his father's amirs and son in law, Yalbugha al-Yahawi, demolished. In his generous fashion, al-Nasir Muhamamd had sponsored the construction cost of more than 21 million dinars. Likely, much of the complex's materials were appropriated from the ruins and re-used, possibly

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<sup>126</sup> Behrens-Abouseif, *Islamic Architecture in Cairo* (1989), 122-127 and *Cairo of the Mamluks* (2007), 201-213.

<sup>127</sup> Warner, *Monuments of Historic Cairo* (2005), 110.

<sup>128</sup> Kahil, *The Sultan Hasan Complex in Cairo* (2008), 73-75, 80, 152, 172-186.

<sup>129</sup> *Ibid*, 1.

even some of the foundations.<sup>130</sup> It may have been a symbolic, yet relatively safe, move to destroy the palace of a once powerful amir, and build the largest tomb in Cairo from its bones.

In spite of the expansive space, only restricted by the presence of streets to the north and south, the complex's plan retains a peculiarly Mamluk asymmetry (Figure 2.2).<sup>131</sup> The complex's four *iwan* courtyard and area surrounding the tomb chamber is symmetrical, but the southern side of the building sheers off after this point to accommodate the angle of the grand entrance. The massive muqarnas portal projects at an angle, seeming to boldly stare up at the Citadel. Maqrizi called the complex, *diddan li qalʿat al-jabal*, the “anti-Citadel” as it became the favored vantage point for renegade amirs to launch attacks later in the 14<sup>th</sup> century (Figure 2.3).<sup>132</sup>

Several features of the portal have led scholars to propose Seljuq or Ilkhanid prototypes, assumedly brought by foreign builders.<sup>133</sup> The intended double minarets above the portal have precedents in Anatolia and areas ruled by the Ilkhans. These were never completed, as the first one collapsed in 1361. Rogers discusses Anatolian parallels, and Behrens-Abouseif mentions resemblances to the Seljuq Gök Medrese (1271-1272) in Sivas. (Figure 2.4). Ilkhanid architecture uses double minarets above portals as well, but as Rogers and Kahil point out the construction methods at Sultan Hasan differ from both traditions, as does the use of stone rather than brick.<sup>134</sup> Rogers mentions the precipitant collapse of the minaret of Sultan Hasan's complex suggests imitation rather than the

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<sup>130</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 204-205.

<sup>131</sup> Kahil, *The Sultan Hasan Complex in Cairo* (2008), 49.

<sup>132</sup> From *Khitat II*, 316 Kahil, *The Sultan Hasan Complex in Cairo* (2008), 3, 61.

<sup>133</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 207-209; Rogers, “Seljuk Influence” (1970), 46.

<sup>134</sup> Rogers, “Seljuk Influence” (1970), 47; Kahil *The Sultan Hasan Complex in Cairo* (2008), 64.

presence of foreign workers familiar with portal minarets.<sup>135</sup> Alternatively, it could indicate an unsuccessful attempt to render a familiar design in an unfamiliar material, however the construction and precarious positioning of the bases near the top of the cornice make this unlikely.<sup>136</sup> A more likely scenario, proposed by Rogers and Behrens-Abouseif, is that Mamluk artisans may have been attempting to imitate an Anatolian design.<sup>137</sup>

An earlier Cairene model, unfortunately no longer extant, that of the Mosque of Amir Qawsun (1229-1230) had paired minarets above one of its portals decorated with faience. Allegedly they were built by a Tabrizi architect, brought to Cairo by Amir Aytamish who so admired the Mosque of ʿAli Shah, he took its architect with him when he returned from visiting the Mongol court.<sup>138</sup> More pertinently, the two foundations of Amir Shaykhu, on opposite sides of Saliba Street, give the impression of twin minarets.<sup>139</sup>

The portal's decoration is incomplete, but includes geometric and floral patterns. Flanking the muqarnas hood are rectangular panels, which assumedly would have received decoration. Oddly, only the square panels halfway up have been carved, with a star and knot motif, perhaps carving was begun in the middle to give the prominent entrance a more finished appearance (Figure 2.5). At first glance, this would give a more polished appearance while the building was in progress than starting at one end.

On the northern and southern facades are six recessed rows of windows (Figure 2.6). Each row has eight windows, four smaller and four larger, with metal grilles. The

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<sup>135</sup> Rogers, "Seljuk Influence" (1970), 47.

<sup>136</sup> Anatolian models spring from bases set beneath the porch cornices, providing stability and relieving lateral stress. Rogers, "Seljuk Influence" (1970), 45-46.

<sup>137</sup> Rogers, "Seljuk Influence" (1970), 48; Behrens-Abouseif, *Cairo of the Mamluks* (2007), 207-209.

<sup>138</sup> Kahil, *The Sultan Hasan Complex in Cairo* (2008), 64-65.

<sup>139</sup> Kahil, *The Sultan Hasan Complex in Cairo* (2008), 67.

tomb facades are more decorative, with two lower windows surmounted by a stepped conical relief sheltered inside pointed arches and two upper tripartite windows surrounded by red and white joggled masonry (Figure 2.7). In between are oculi windows, also with red and white patterns. A singular, wide muqarnas cornice runs around the top of the structure beneath trefoil crenellations. Originally, four minarets were intended; the two above the portal and two on the corners of the building flanking the projecting tomb chamber.<sup>140</sup>

When the first portal minaret collapsed, it catastrophically killed 300 people, mostly young boys studying in the attached school. Cairenes interpreted this as an omen of the sultan's imminent fall from power.<sup>141</sup> Equating the fate of the building with that of the sultan demonstrates foundations were closely associated with their patrons in public imagination, acting as an extension of their founder. The varied nature of their decoration, particularly the domes and minarets that render them recognizable at some distance, emphasizes their status as personal monuments.

The original dome over the tomb in Sultan Hasan's complex was made of wood and described by the Italian traveller, Pietro Della Valle, in 1616 as 'egg shaped', perhaps resembling the fountain dome.<sup>142</sup> The closest counterparts may have been the plastered wood domes of Amir Shaykhu's *khanqah* (1355) and Amir Sirghatmish's madrasa (1356).<sup>143</sup> A sketch from the 19<sup>th</sup> century shows the wooden frame of the dome above Sirghatmish's mihrab (Figure 2.8).<sup>144</sup> Kahil plausibly suggests that Fatimid brick domes,

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<sup>140</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 206.

<sup>141</sup> Kahil, *The Sultan Hasan Complex in Cairo* (2008), 3-4.

<sup>142</sup> O'Kane, *The Mosques of Egypt* (2016), 129.

<sup>143</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 206.

<sup>144</sup> Now there is an unfortunate concrete "reconstruction" that has a closer resemblance to Brutalist architecture than anything Mamluk.

like those in the cemetery in Aswan and the Mosque of al-Juyushi (1085) possibly inspired the bulbous profile.<sup>145</sup> The present dome is a 19<sup>th</sup> century reconstruction (Figure 2.9).

After passing through the portal, the visitor enters a heavily decorated vestibule with a small dome surrounded by half domes, all filled with muqarnas (Figure 2.10). The arrangement is the first extant instance of stone pendentives combined with a muqarnas transition zone and dome. Possible precursors are the stone squinches of Sirghatmish's portal and the vestibule of Amir Qawsun's palace.<sup>146</sup>

The drum of the dome is pierced with eight windows, above is brickwork pattern of an eight-pointed star. Immediately facing the entrance is an elaborate colored marble panel flanked by carved stone medallions and star-polygon panels (Figure 2.11).

Strapwork borders characterized by lozenges and a distinctive eye shape decorate the marble panel, the surrounding stone, as well as the carved panels in the portal façade and the oculus on the northern façade (Figure 2.12). The considerable amount of decoration involved suggests designs conveyed to teams of carvers for execution.

The courtyard, reached through a set of hallways, has an elaborate marble pavement stretching across the extensive space (Figures 2.13 and 2.14). Its pattern consists of a variety of squares, octagons and rectangular panels with braided or geometric borders, typical of pavements in building of the Bahri period.<sup>147</sup> The fountain in the center of the courtyard is particularly elegant, with a bulbous dome and octagonal eaves, closest to that of Sarghitmish's madrasa, now missing its dome (Figure 2.15).<sup>148</sup>

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<sup>145</sup> Kahil, *The Sultan Hasan Complex in Cairo* (2008), 131.

<sup>146</sup> *Ibid.*, 109.

<sup>147</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 95.

<sup>148</sup> Kahil, *The Sultan Hasan Complex in Cairo* (2008), 131.

The four *iwans* are the largest in Cairo, and Mamluk historians bragged that the largest east *iwan* exceeded the legendary *Iwan-i-Kisra* built by the Sasanians in Ctesiphon, although it is smaller (Figures 2.16 and 2.17).<sup>149</sup> It was dedicated to the Shafi'i rite and served as the Friday prayer hall. Opposite, the western *iwan* belonged to the Hanafi and the northern the Maliki.

The southern wing of the complex was dedicated to the Hanbalis and is noticeably smaller, possibly reflecting the rite's unpopularity or the sultan's disinclination towards it. Neither the endowments of the sultan or his wife's complexes designated any Sufi rites, suggesting a preference for orthodoxy, or an attempt to gain favor with members of the *ʿulama* (scholarly religious community), since he lacked strong backing elsewhere.<sup>150</sup>

Two doors flanking the northern and southern *iwans* lead to the Shafi'i and Maliki madrasas. In the western *iwan* both side doors lead into hallways connecting to the main hallway leading to the portal. The recessed madrasa doors are set off in tall frames of black and white *ablaq* masonry (Figure 2.18). Above the doors are joggled yellow and black, lintels framed by marble mosaic star-patterns and topped by joggled voussoirs. The hallway doors on the western side differ slightly, perhaps to distinguish them from the more decorative madrasa doors. They are not recessed, have black and yellow striped frames surrounded by a thin outer band with looped terminals near the floor (Figure 2.19).

As was traditional, the qibla *iwan* is the most elaborately decorated, with a colored marble dado of rectangles and niches that panels the far wall (Figure 2.20). The mihrab is lined with three tiers of small arcades and the hood filled with a chevron pattern

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<sup>149</sup> Rabbat, *Mamluk History through Architecture* (2010), 107.

<sup>150</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 204.

(Figure 2.21). Two joggled voussoirs top the pairs of white marble columns with Crusader capitals flanking the niche.<sup>151</sup> A joggled masonry frame with roundels in the spandrels and an outer gilded inscription band fill the upper section. Above the dado are two tripartite windows, with a slightly higher central oculus.

Unusually for Mamluk funerary monuments, the tomb chamber is located directly behind the qibla wall. Assumedly there was nothing unorthodox about the placement as none of the contemporary historians remarked on it. Scholars either explain the unusual placement as an adaptation of foreign plans or refer to a few local models. Meinecke suggests precedents in Iran and southeastern Anatolia, where the synthesis of *iwans* and domes was popular, although not invariably with tombs.<sup>152</sup>

Sheila Blair makes an interesting correlation to the Rab-i Rashidi of vizier to Ilkhanid sultans Ghazan and Öljeytu, Rashid al-Din. She refers to the Mamluks' admiration of Ilkhanid arts in the 14<sup>th</sup> century and suggests Sultan Hasan may have known of Ilkhanid examples.<sup>153</sup>

Kahil argues that the *iwān*-dome configuration Meinecke had discussed is more integrated in Ilkhanid models than in Sultan Hasan and refers to local precedents for tombs behind the qibla, including the Mosque of Amir Husayn (1319), and the now ruined foundations of Fatima Khatun (1283-1284) and Sultan al-Ashraf Khalil (1288).<sup>154</sup>

While the Mamluks likely were aware of and possibly wished to rival Ilkhanid examples, the complete lack of objection in the sources may imply the arrangement

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<sup>151</sup> Kahil, *The Sultan Hasan Complex in Cairo* (2008), 141.

<sup>152</sup> Meinecke, *Die Mamlukische Architektur in Ägypten und Syrien* (1992), 121-122. He cites the Turbat-i Shaykh Jam (c. 1330) in Iran and Ulu Cami (1247) and Koc Cami (1349-1350) in Anatolia. In the latter two the domes are not above tombs. Kahil, *The Sultan Hasan Complex in Cairo* (2008), 54.

<sup>153</sup> Blair, "Ilkhanid Architecture and Society" (1984), 77.

<sup>154</sup> Kahil, *The Sultan Hasan Complex in Cairo* (2008), 56.

derived from local examples. Considering the size and elaboration of the tomb, plausibly Sultan Hasan merely took the correlation between the Mamluks' status as holy warriors and veneration of the dead to its extreme by placing his tomb behind the qibla wall. It seems to fit with the complex's tendency to try and surpass all others and increase its visibility from the Citadel.

The tomb chamber is elaborate, with painted wood muqarnas descending from the dome,<sup>155</sup> a tall marble dado, and an outsized inscription band (Figure 2.22). Two arched windows pierce each wall, with joggled yellow, white, and black voussoirs. An elaborate colored stone panel faces the entrance, and its design of trefoils radiating from a circle resembles the unusual crenellated border around the oculus above.

The mihrab closely resembles the one in the prayer hall, but has a zigzag pattern in the hood and the upper row of arcades in the niche has faience columns. Set above the dado, the inscription band has a typically Mamluk blue background. The stucco inscription in the prayer *iwān* is more unusual brings up questions of stucco workers in Cairo and foreign craftsmen.

### 2.3 Carved Stucco

Stucco is remarkable for its ability to be so delicately carved it resembles lace and yet lasts for centuries. While the Mamluk patrons grew to prefer stone and employed virtuoso stone carvers, some lovely examples of stuccowork still exist in Mamluk buildings in Cairo. Because of its unique style, scholars debate whether the stucco band in the eastern *iwān* of Sultan Hasan's Complex is the work of foreign, in this case a group of Tabrizi, artists. Meinecke had speculated that Ilkhanid artists made both the Sultan

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<sup>155</sup> Possibly later restorations since the original dome collapsed.



Hasan band and that in the Mosque of Yalbugha al-Yahyawī (1356) in Damascus. Both are characterized by *kufic* script against a background of scrolling vegetal arabesque.<sup>156</sup>

While the Fatimids and Ayyubids had developed stucco carving in Cairo, both Laila Ibrahim and Dina Isaac Bakhoun identify a certain technique, raised hollow appliqué bosses, as Iranian and possibly related to the Tabrizi stucco carvers.<sup>157</sup> The most notable example in Cairo is in the stucco mihrab of al-Nasir Muhammad's madrasa (1295-1303). Similar bosses occur in the mihrab made in 1310 for the Ilkhanid Sultan Öljeytü in the Friday Mosque of Isfahan.<sup>158</sup> Bakhoun compares the design of al-Nasir Muhammad's mihrab to that of the Pir i-Bakran Mausoleum (1299-1312), which has a circular gap at the apex of the mihrab. Was this where an appliqué boss fell off? <sup>159</sup>

Rogers mentions blank areas in the spandrels of the Fatimid mihrab in Ibn Tulun, as well as two circular marks on the 10<sup>th</sup> century mihrab in al-Azhar, one in apex of the hood and the other in the same location on the outer arch.<sup>160</sup> The only Fatimid example of appliqué is the domed piece above the mihrab of Masjid al-Juyushi (1085), which has the word "Allah" inscribed in the same location as the space in the mihrab of Pir i-Bakran. Otherwise, it does not resemble the pierced components in al-Nasir Muhammad's mihrab or the other examples.

The stucco carving in the eastern *iwan* of the Sultan Hasan Complex however, bears a closer resemblance to manuscript illuminations than contemporary Ilkhanid or

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<sup>156</sup> As explained later by Kahil, *The Sultan Hasan Complex in Cairo* (2008), 149.

<sup>157</sup> Ibrahim, "Four Cairene Mihrabs and Their Dating" (1970), 36; Bakhoun, "The Foundation of a Tabrizi Workshop in Cairo" (2016), 26.

<sup>158</sup> Ibrahim cites the mihrab at the jami mosque of Urmia (13<sup>th</sup> century) and Arslanhane Camii in Ankara (1289). "Four Cairene Mihrabs and Their Dating" (1970), 36.

<sup>159</sup> Bakhoun "The Foundation of a Tabrizi Workshop in Cairo" (2016), 26-27.

<sup>160</sup> Rogers, "Evidence for Mamluk-Mongol Relations" (1969), 387.

even Cairene architectural inscriptions (Figure 2.23 ).<sup>161</sup> The inscription in the eastern *iwān* of the Hanafi madrasa even bears the signature of the overseer, *shadd*, Muhammad ibn Bilik al-Muhsini, who also was a calligrapher.<sup>162</sup>

## 2.4 Furnishings

Furnishings are as varied as the foundations they adorn and while often considered solely in light of their aesthetics and materials, they can also be informative about the function and design processes of foundations. For example, the Sultan Hasan complex retains a fantastic star-pattern *kursi*, probably originally intended for the tomb chamber or prayer *iwān* (Figures 2.24 and 2.25). Its good condition suggests it at least was elsewhere when the dome collapsed, although it is now in the tomb chamber.

The *kursi* is made from wood with a reddish hue and has an all over 16-pointed star-pattern of ivory or bone inlay on three sides. The sides of the *kursi* beneath the cradle only has narrow twisted borders on either side, although the bare central panel may be part of a restoration. Small rectangular frames line the bottom and decorative metal straps protect the edges. A similar 16-pointed star pattern decorates the brass minbar door (Figure 2.26). *Kursis* and minbars generally coordinate, and here the use of the same pattern in different media, wood and metal, suggests a convention not bound by media.

The minbar, usually wood, is here made of marble. Mamluk minbars use scaled down architectural motifs and have a close relationship with architecture. Other than the unconventional materials, the form of Sultan Hasan's minbar is typical. It has a metal

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<sup>161</sup> For the band's resemblance to contemporary Qur'anic illumination see Kahil, *The Sultan Hasan Complex in Cairo* (2008), 151; Blair and Bloom, *Islamic Arts* (1997), 179; Behrens-Abouseif, *Islamic Architecture in Cairo* (1989), 127.

<sup>162</sup> Kahil, *The Sultan Hasan Complex in Cairo* (2008), 172-173.

star-pattern door, at the base crowned with a muqarnas cornice and trefoil crenellations.<sup>163</sup> At the top of the stairs is a pavilion and bulb, the former resembling those of minarets but square. The bulb of carved wood may provide a clue to the decoration of the original minarets, as it has a distinctive teardrop motif also found on the minarets of Shaykhu's two foundations and Sarghitmish's madrasa (Figure 2.27).

The resemblance illustrates some interesting parallels with the foundations of Shaykhu and Sarghitmish, exemplifying some of the ways furnishings relate to their architectural context. Architectural elements, the dome and possibly the double minarets, as well as the minbar relate to design of the amirs' complexes.

The resemblance of minbar bulbs to those of minarets brings up questions as to how architectural motifs translated into furnishings and crossed media. There are two equally intriguing possibilities for this similarity in the decoration of bulbs. First, some or all of the minarets at Sultan Hasan's Complex had the teardrop motif, and the bulb matched them. Second, the minbar bulb alone matches the motif used at Shaykhu and Sarghitmish's foundations.

Neither of their original minbars seems to be extant, but it seems more likely in the latter case that maybe the minbars rather than minarets were the prototypes for Sultan Hasan's. Kahil suggests these three foundations, as well as the funerary khanqah of Khwand Tughay (1348), the madrasa of Tatar al-Hijaziyya (1360), and the mosques of amirs Aslam al-Silahdar (1344-1345) and Aqsunqur (1346-1347) all had the same *mu<sup>c</sup>allim*, the *muhandis al-sultan*, al-Hujayj ibn <sup>c</sup>Abdallah al-Salihi.<sup>164</sup>

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<sup>163</sup> Most minbar doors are carved or inlaid wood.

<sup>164</sup> Khwand Tughay also called <sup>c</sup>Umm Anuk, was al-Nasir Muhammad's favorite wife and Sultan Hasan's adopted mother, and Tatar al-Hijaziyya one of his sisters. Kahil, *The Sultan Hasan Complex in Cairo* (2008), 185.

The repetition of the motif implies a close connection between furnishings and foundations and raises questions as to the relationship between minaret bulbs and minbar bulbs. Their forms, and in this case decoration, are almost identical, but their material and placement very different. As it seems highly unlikely enterprising carpenters climbed to the top of minarets to copy the bulbs, there must have been another method of transmission.

Artisans who worked in multiple media are well known in the medieval period, as shown by the discussion of Barquq's architect in the next chapter, and may have made both. In this case, if al-Hujayj participated in designing all three foundations, he may have transmitted the motif through drawings or verbal instruction. The resemblance may demonstrate, at least in the case of royal foundations, that overseers determined the design of furnishings not just the buildings, possibly even the complex's extraordinary metal fittings

### *2.5 Metal Fittings of Sultan Hasan's Complex*

Like the rest of the foundation, the metal doors of Sultan Hasan's Complex are more elaborate than any others produced for the Mamluks. Generally, there was a hierarchy of metal doors, with the more elaborate star pattern doors only at the entrance. Sultan Hasan's Complex, however, has star pattern doors throughout, in the *iwans* and even on the minbar. The doors in the qibla *iwana*, leading to the tomb chamber, are the most richly inlaid Mamluk example known.<sup>165</sup> Sultan al-Mu'ayyad Shaykh took the

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<sup>165</sup> Mols, *Mamluk Metalwork Fittings* (2006), 120.

massive bronze entrance doors, along with a *tannur* for good measure, to adorn his own funerary mosque (1416-1420).<sup>166</sup>

Each of the two leaves in the entrance door is decorated with 16 and 12-pointed star-polygon pattern formed by raised bosses pierced with foliate designs (Figure 2.28). The complex is unusual in having knockers made in concert with the doors. The two knockers, with a pierced star and trefoil pattern, relate to the sixteen- and twelve-pointed stars on the door.<sup>167</sup> They also closely resemble the carved stone medallions used on the vestibule walls, flanking the central colored medallion.

As was typical for star-polygon doors, these have upper and lower inscriptions in rectangular panels. In the lower inscription, a reference to the sultan as *shahid* indicates they were completed after his death. The word “shahid” has associations with martyrdom, or dying in battle defending Islam.<sup>168</sup> This ties in to the Mamluks identity as defenders of the faith who like prophets and saints it was appropriate to venerate after death.<sup>169</sup> Sultan Hasan built the largest tomb in Cairo and the entrance inscription promotes his image as a holy warrior worthy of the prayers and blessings of others.

The qibla *iwan* once had four plated doors, but the one leading to the tomb on the left is now missing its plaques.<sup>170</sup> In the north and south side walls of the *iwan* are two smaller star-polygon doors with a 12-pointed star pattern and a lovely wooden frame carved with scrolling arabesques (Figure 2.29). On the right, the door leading to the tomb chamber has a 12-pointed star-polygon pattern, but uses flat plates rather than raised bosses (Figure 2.30). Fluted nails cover the entire surface, giving it a rather militaristic

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<sup>166</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 241.

<sup>167</sup> Mols, *Mamluk Metalwork Fittings* (2006), 126-127.

<sup>168</sup> *Ibid.*, 215.

<sup>169</sup> Humphreys, “Expressive Intent” (1972), 94.

<sup>170</sup> Mols, *Mamluk Metalwork Fittings* (2006), 221.

look to the modern viewer of the door, but the effect was probably quite different when the colorful copper, silver and gold inlay was highly polished. Lovely arabesques and lotuses adorn the surface (Figure 2.31). Lozenge-shaped knockers match the door design; set with six hemispherical bosses with star shaped forms resembling jasmine blossoms springing from their centers. The intricate inlay on the tomb doors and knockers displays chinoiserie peonies and lotuses.

## 2.6 *Chinoiserie*

The emergence of Chinese style floral elements in Mamluk art in the 1320s contributed to the development of a new style under the auspices of possibly the greatest patron of Mamluk art and architecture, Sultan al-Nasir Muhammad. The foundation for his successor Sultan Hasan probably has the most occurrences of such designs. Such coordination implies either a strong preference on the part of the sultan or his designers. I will discuss some of the theories behind how the Mamluks first saw and appropriated the motifs and then describe how they occur in the lamps and architecture of the complex.

Scholars usually discuss chinoiserie in Mamluk arts in relation to the Ilkhanids, as it appeared around the time of the peace treaty between al-Nasir Muhammad and Abu Sa'id in 1323. Rogers argues against a direct transmission through trade with the Yüan, the dynasty established by Kublai Khan in China, or the intermediary Golden Horde, identifying the Ilkhanids as transmitters. He cites the presence of Sultanabad ware, produced by the Ilkhanate, and relative lack of Golden Horde pottery in Cairo. Rogers mentions the architectural chinoiserie in Sultan Hasan's Complex specifically relates to

designs on ceramic tiles found in Bolgar probably produced in Kashan. Yüan silks and ceramics may also have played a part in transmitting motifs.<sup>171</sup>

The appearance of Chinese floral motifs coincides with the arrival of al-Nasir Muhammad's Mongol wife in 1320. A descendant of Genghis Khan and princess of the Golden Horde, she was met in Alexandria by Amir Karim al-Din, with two other amirs, and brought to Cairo.<sup>172</sup> Almost certainly, she brought luxury items and gifts from her homeland, which could have introduced chinoiserie motifs.

Rachel Ward suggests Karim al-Din (d.1323 or 1324), who brokered the Mamluk-Ilkhanid peace treaty, may have been instrumental in bringing the fashion to the Mamluk court.<sup>173</sup> Under al-Nasir Muhammad he served as a *vizier*, *qadi* (judge), and *nazir al-khass* (majordomo), until his banishment in 1323.<sup>174</sup> One of his glass lamps displays the earliest known example of chinoiserie in Mamluk Egypt. The lamp was endowed to his funerary *ribat*<sup>175</sup> sometime before his death, and is one of the earliest extant footed lamps.<sup>176</sup>

Karim al-Din's lamp exemplifies the conventional style that developed (Figure 2.32). Here, the glass has a pinkish hue overlaid with blue, white, red and green enamel. The titular inscription on the body is reserved in blue against a background of vegetal scrolls, and the Light Verse on the neck is painted in blue with white vegetal scrolls and green accents. Just above the body's inscription is a delicate lotus scroll, the first known example of its kind.

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<sup>171</sup> Rogers, "Evidence for Mamluk-Mongol Relations" (1969), 397-398.

<sup>172</sup> Schroeder, "The Lamp of Karim Al-Din" (1938), 2.

<sup>173</sup> Ward, "Mosque Lamps and Enamelled Glass" (2012), 67, 62-63.

<sup>174</sup> Schroeder, "The Lamp of Karim Al-Din" (1938), 2.

<sup>175</sup> A Sufi hostel, the word originally referred to fortified buildings but in this case it probably is similar to the more common *khanqah*.

<sup>176</sup> The use of his titles and wording of blessings in the inscription indicate he was alive at the time of its manufacture. Ward, "Mosque Lamps and Enamelled Glass" (2012), 62-63.

Lotuses and peonies abound on objects endowed to Sultan Hasan's Complex, echoing the floral chinoiserie in the surrounding architecture. One of the most beautiful and impressive sights in Sultan Hasan is the multitude of lamps suspended from the vast shadowy arches of the *iwans*. Over two hundred glass lamps were made for the site.<sup>177</sup>

Two particularly lovely examples, one in the British Museum and one the Islamic Museum in Cairo, are covered with lotuses, delicate leaf sprays and flowers with five or six heart-shaped petals against a blue background (Figure 2.33 and 2.34). The Cairo example also has a large peony on its side. While they have almost identical designs, the execution varies, suggesting several artists worked from a pattern or an example.

Almost the same pattern, lotuses interspersed with the petalled flowers, occurs in stucco in the tomb chamber (Figure 2.35 and 2.36). Possibly these lamps, being the most elaborate, were suspended in the tomb chamber, corresponding visually with the stucco carving. A variety of surviving lamps with surprisingly different profiles and decoration are attributed to the complex. It would be interesting to know if the styles were location specific, and could be tentatively placed by the amount and style of decoration as related to the surrounding architecture.

The prevalence of lotuses and peonies in multiple media suggests that one of the complex's architects likely oversaw their design. Sultan Hasan's foundation has the only extant examples of architectural chinoiserie. Much of it is concentrated in the unfinished portal decoration. On the inner sides of the portal, the strapwork bands have partially finished peony scrolls filling their interiors, and these wrap around the lower part of the portal façade to frame stone medallions (Figure 2.37). Above the strapwork bands, the

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<sup>177</sup> O'Kane, *The Illustrated Guide* (2012), 120. See Wiet, *Catalogue général du Musée Arabe du Caire: Lampes et bouteilles en verre émaillé* (1929).



chamfered edge of the upper part of the façade has a lively and unusually naturalistic peony and lotus scroll (Figure 2.38). A similar, but much more stylized, scroll adorns the chamfered edges surrounding the lateral niches. On either side of the portal, a palmette band runs all the way up to the height of its apex (Figure 2.39).

## 2.7 From Page to Stone: Book Arts and the Role of Muhammad ibn Bilik

Ibn Bilik signed the stucco inscription band in the Hanafi madrasa following the end of the Qur’anic text: “This was written by the ennobled one in [the sultan’s] reign and the supervisor of its construction Muhammad ibn Bilik al-Muhsini.” (Figure 2.40). Because Ibn Bilik was a high-ranking “Amir of One Thousand,” we have a more detailed record of an architect than usual. Historians Ibn Hajar and Maqrizi penned biographical entries on his works. Like al-Hujayj he worked first for al-Nasir Muhammad.

In 1331, he rebuilt the old hippodrome constructed under Sultan al-Zahir Baybars (r. 1260-1277), completing the project in only two months and earning an honorary robe (*khil’a*) at its inauguration ceremony.<sup>178</sup> Another historian, Ibn Fadallah al-‘Umari recorded in 1338 that the “learned” Ibn Bilik provided a description of Barqa for his geographical volume, describing “uninhabited cities with still standing buildings, among them high palaces and ruins.”<sup>180</sup> In 1330, Ibn Bilik signed a Qur’an dedicated to Sultan al-Nasir Muhammad, now in the Keir Collection (Figures 2.41 and 2.42).<sup>181</sup>

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<sup>178</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 204; Kahil, *The Sultan Hasan Complex in Cairo* (2008), 176.

<sup>180</sup> The Libyan Plateau, site of Pentapolis, five Greek cities founded beginning in the 7th century BCE. Kahil, *The Sultan Hasan Complex in Cairo* (2008), 176.

<sup>181</sup> The signature was initially transcribed Muhammad ibn Bilbek al-Muhsini al-Nasiri, but the colophon’s spelling has been confirmed as Bilik. Kahil, *The Sultan Hasan Complex in Cairo* (2008), 173, 176; James, *Qur’ans of the Mamluks* (1988), 179, 181, 189; Boehm and Holcomb ed., *Jerusalem, 1000–1400* (2016), 253.

James speculates that a large Qur'an endowed to Umm Sultan Sha'ban's funerary madrasa (1368-1369) had actually been made for Sultan Hasan in 1356 (Figure 2.43).<sup>182</sup> He categorizes it as part of the star-polygon group, characterized by star-pattern frontispieces populated with chinoiserie floral arabesques. The frontispiece has a central 12-pointed star in gold. Dark blue fills the interstices, which have gilded lotuses and palmettes. Most of the page is painted in gold with delicate fields of lotuses and peonies lightly applied over the surface. The pages have upper and lower inscription cartouches in white thuluth script and braided borders throughout. On the outer edge pinks, reds, and greens appear in an elegant palmette border.

While James labels this as the earliest of the group made in Cairo, but ascribes an earlier one to Damascus dating to 1338-1339 (Figure 2.44).<sup>183</sup> The latter is the first example of chinoiserie in a Mamluk manuscript. The frontispiece has a 12-pointed star with delicate chain link strapwork. In the interstices are palmettes against a blue background and blue and pink lotuses appear in the corners. Like the Sultan Hasan manuscript, a pattern of chinoiserie flowers is lightly applied over the gold.

James lists one Ahmad ibn al-Muhsini as the scribe and possibly the illuminator. Ibn Bilik's brother, a writer and poet, was named Shihab al-Din Ahmad ibn al-Amir Badr al-Din Bilik al-Muhsini and is referred to as Ahmad. After his exile, Ahmad lived in Damascus with their father in the late 1334.<sup>184</sup> Perhaps, like his brother, Ahmad had an interest in calligraphy and maybe painting, adopting certain Damascene stylistic markers, noted by James, during his stay in Syria. He died in 1352-1353 so could not have

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<sup>182</sup> James, *Qur'ans of the Mamluks* (1988), 179, 181, 189.

<sup>183</sup> James, *Qur'ans of the Mamluks* (1988), 147, 227.

<sup>184</sup> Kahil, *The Sultan Hasan Complex in Cairo* (2008), 175.

illuminated the Sultan Hasan Qur'an. Is it possible that Ibn Bilik also illuminated Qur'ans?

If Ibn Bilik had drawing abilities, it would explain the repetition and transfer of motifs common to book arts. The other connection is the chinoiserie flowers, which appear throughout the complex and in these two Qur'ans. The Damascene Qur'an is the first Mamluk manuscript to use chinoiserie and the Sultan Hasan Complex the first to do so in stone; perhaps they are the work of the same hand.

Sultan Hasan's complex demonstrates an ingenuity and an attention to detail that suggests creative and meticulous overseers. Assuming al-Hujayj and Muhammad ibn Bilik worked together, the combined presence of two experienced and artistic builders might have produced new designs. The involvement of a high-ranking Mamluk, potentially with drawing abilities like Ibn Bilik could explain the transmission of motifs across media. He would not only have been capable of producing designs, but also have had the authority to distribute them as he saw fit.

Like architecture, Qur'ans took on monumental proportions in the second half of the 14<sup>th</sup> century. Sultan Hasan's Qur'an is a massive 75 by 50 cm, a type of monumentality common in Mamluk art and architecture and well displayed in Sultan Hasan's Complex.<sup>185</sup>

## 2.8 Monumentality

In terms of its size and extravagance, Sultan Hasan's Complex is by far the most ambitious in Cairene Mamluk architecture. Scholars often discuss Mamluk foundations as attempts to impress the local population and legitimate their rule. O'Kane points out

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<sup>185</sup> James, *Qur'ans of the Mamluks* (1988), 179, 181, 189.

the monumentality in architecture is reflected in artwork, particularly the large scale Qur'ans.<sup>186</sup> He mentions a similar tendency in Ilkhanid lands and attributes both partly to the desire of the foreign and converted rulers to legitimate their rule and express their dedication to Islam.<sup>187</sup>

This idea and the closely related concepts that focus on the status of the Mamluks as slaves and outsiders with a need to visually integrate themselves and express wealth, power and piety, is by no means a new or isolate one. Albert Gayet, the 19<sup>th</sup>-century French Egyptologist, described the Mamluks as retaining the 'souls of slaves' who used art and architecture solely as a means to display wealth and power.<sup>188</sup> Humphreys emphasizes the Mamluk's use of religious architecture as a way of expunging their 'pagan' background and associating themselves with Sunni Islam.<sup>189</sup> Behrens-Abouseif perpetuates the concept of Mamluk legitimation and connection to the local ulema through constructing pious foundations.<sup>190</sup> Rabbat discusses Sultan Hasan's monumentality as an attempt to demonstrate piety in the wake of the plague and fill urban space, facilitated by the concentration of wealth.<sup>191</sup>

But the primary motivation behind the most monumental of all Mamluk architecture appears to be not a need to establish legitimacy or outdo the Ilkhanids, but competition with powerful amirs. Sultan Hasan struggled against scheming amirs throughout his reign. As Daniel Beaumont points out, Mamluk rule consisted of powerful amirs who took over after assassinating the reigning sultan, or puppet sultans. The latter

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<sup>186</sup> O'Kane, "Monumentality" (1996), 513.

<sup>187</sup> *Ibid*, 514.

<sup>188</sup> Gayet, *L'art arabe* (1893), 117.

<sup>189</sup> Humphreys, "Expressive Intent" (1972), 80.

<sup>190</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 9-11.

<sup>191</sup> Rabbat, *Mamluk History through Architecture* (2010), 108.

usually young successors only left in place until the amirs' behind-the-scenes power struggle resulted in a victory.<sup>192</sup>

During his first "reign" as a child, Sultan Hasan certainly was a puppet ruler. Amir Shaykhu's mosque and adjacent *khanqah* (1349 and 1355), were the largest buildings outside the Fatimid city before Sultan Hasan's foundation. It was commonly believed the sultan ordered his murder, which took place the Hall of Justice in 1357, with Hasan in attendance.<sup>193</sup> Kahil mentions the scale of Sultan Hasan's Complex was an attempt to eclipse those of contemporary amirs.<sup>194</sup>

The location of Sultan Hasan's Complex, near amiral palaces and facing the Citadel, seems to support internal competition as the motivating factor for its foundation. In addition, it was traditionally the staging area for amiral rebellions and attacks on the Citadel. The complex's location and fortified appearance probably either represented a reclaiming of space used to stage revolts. A Mamluk's greatest threat was always other Mamuks. In many ways, the Mamluk world was a closed one, and amirs and sultans were probably most concerned with their peers.

While pious foundations served public functions and connected the Mamluks to the population, the Mamluks themselves probably cared very little for public opinion. They routinely ignored fatwas against building elaborate tombs, and seemingly allowed historians to criticize and even insult them. The Mamluks' neglect of such religious rulings and written reports show little concern with the *ʿulema* or literati's opinion of them, and surely, they cared even less what common Egyptians thought about their rule.

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<sup>192</sup> Beaumont, "Political Violence" (2004), 205-206. See also Irwin, "Factions in Medieval Egypt" (1986).

<sup>193</sup> A Mamluk named Qutluquja carried out the attack, citing a personal grievance. *Ibid*, 208.

<sup>194</sup> Kahil, *The Sultan Hasan Complex in Cairo* (2008), 67-68.

The Mamluks' documented history of bullying, extortion, and waging internecine wars in the streets of Cairo does not portray a regime carefully cultivating a pious image. The Mamluks may have been slaves, but they were *elite* slaves, widely regarded as "Defenders of the Faith" by the medieval Muslim world and probably viewed their right to rule accordingly.

Sultan Hasan was a weak ruler whose expenditures contributed to the sultanate's decline, but his monument supports the historians' lyrical claims that buildings ensure legacy. It survives as one of the most famous and frequently visited foundations in Cairo. Its unusual incorporation of motifs from book arts and introduction of chinoiserie into an architectural setting may have occurred due to the role of the overseer and calligrapher Ibn Bilik. The varied nature of the building's decoration may indicate the presence of foreign craftsman, particularly stucco carvers, and highlights the eclecticism that characterizes Mamluk architecture

### 3.0 Chapter 3-Sultan Barquq's Complex

#### 3.1 Introduction

Sultan al-Zahir Barquq initiated the Circassian Period (1384-1517) of rule, importing Mamluks from the Caucasus and displacing the former Kipchaks. Al-Zahir Barquq (d. 1399) was a Circassian Mamluk purchased by the amir who killed Sultan Hasan, Yalbugha al-<sup>c</sup>Umari. Following a period of instability, he took the throne in 1382.<sup>195</sup> Like many Mamluk sultans, he lost it temporarily, while suppressing an uprising in Syria in 1389, regaining power the following year and ruling until his death.

While his reign lacked the great military victories of the Bahris, he must have had a formidable reputation. In 1394, the feared warlord Timur retreated from meeting Barquq's armies in battle, deferring his damaging invasion of Syria until after the sultan's death and succession by his weaker son Faraj.<sup>196</sup>

Alongside his military abilities, Barquq showed a marked interest in Sufism. He built a lavish monument in Bayn al-Qasrayn, but chose to be buried near esteemed Sufi shaykhs in the Qarafa.<sup>197</sup> His respect for one Shaykh Akmal al-Din was such that his amirs had to restrain him from carrying the Sufi's coffin in his funeral procession!<sup>198</sup> Although seemingly not personally involved in the arts, like sultans al-Nasir Muhammad

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<sup>195</sup> Schultz, Warrenc., "Barquq b. Anas al-Malik al-Zahir" in *Encyclopaedia of Islam, THREE*, Edited by: Kate Fleet, Gudrun Krämer, Denis Matringe, John Nawas, Everett Rowson. [http://dx.doi.org/10.1163/1573-3912\\_ei3\\_COM\\_24303](http://dx.doi.org/10.1163/1573-3912_ei3_COM_24303) (July 2, 2017).

<sup>196</sup> Fischel, "A New Latin Source on Tamerlane's Conquest of Damascus" (1956), 201.

<sup>197</sup> Williams, "Urbanization and Monument Construction in Mamluk Cairo" (1984), 41.

<sup>198</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 28.

and later Qaitbay, Barquq had a familial connection to the building trade, marrying a daughter and a sister (or possibly a niece) of his *mu'allim* Ahmad ibn Tuluni.<sup>199</sup>

While many of the same artistic and architectural styles persisted, the period saw the refinement of Bahri elements. Recurrent plague outbreaks, beginning in 1347, and famines affected artistic production and availability of materials, notably fine marbles and precious metals. The effect on metalwork will be examined in more detail along with a discussion of the type of metal lamps called *tannurs*, and metal fittings, as Barquq's foundation has outstanding examples of both. Finally, I will discuss contemporary book arts and their possible relationship to designs for doors.

### 3.2 *The Complex*

Barquq's complex has received extensive analysis from different angles in several books and articles. These include Behrens-Abouseif descriptions in *Islamic Architecture in Cairo*, and *Cairo of the Mamluks*.<sup>200</sup> Bernard O'Kane has a chapter with recent photographs in *The Mosques of Egypt*.<sup>201</sup> In "The Stones of Barquq," Rogers examines the relationship between materials and decorative elements.<sup>202</sup> Details of the complex's state before and after restoration can also be found in the online archives of the Comité.<sup>203</sup>

Sultan Barquq's funerary foundation in Bayn al-Qasrayn was built between 1384 and 1386 (Figure 3.1). The endowment deed indicates the foundation was a Friday mosque, madrasa, and *khanqah*. He built it beside al-Nasir Muhammad and Qalawun's

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<sup>199</sup> Behrens-Abouseif, "Craftsmen, Upstarts and Sufis" (2011), 377.

<sup>200</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 225-230; Behrens-Abouseif, *Islamic Architecture in Cairo* (1989), 133-134.

<sup>201</sup> O'Kane, *The Mosques of Egypt* (2016), 146-151.

<sup>202</sup> Rogers, "The Stones of Barquq" (1976), 307-313.

<sup>203</sup> <http://www.islamic-art.org/Comitte>



complexes probably to associate himself with the illustrious Qalawunid dynasty that had retained power for over a century.<sup>204</sup>

Barquq's Complex is particularly elegant and has some unique features. In order to stand out from its illustrious neighbors, the tall muqarnas portal projects from the façade (Figure 3.2).<sup>205</sup> Its recess is decorated with a complex pattern of black and white joggled masonry, dominated by a square panel with an unusual truncated braid on the border. A Qur'anic inscription framing the entrance is executed in a particularly beautiful and lively hand; the terminals of the letters forming a chain of three petalled knots (Figure 3.3).

Trefoil crenellations top the façade, which is divided asymmetrically by six window recesses with muqarnas cornices: two wider ones beside the portal and two narrower ones on the opposite end with the dome and minaret. On the interior, these flank the oculi above the main mihrab and that of the smaller tomb chamber. At street level is a row of grilled windows with joggled voussoirs and above, a row of pointed arch windows set with stucco and colored glass. The oculi are slightly higher, just beneath a foundation inscription that is oddly difficult to read due to its height. Foundation inscriptions are usually intended to be readable rather than ritualistic like Qur'anic verses.<sup>206</sup>

The minaret shaft is decorated with a striking pattern of interlocking circles and marble inlay (Figure 3.4). Originally, the dome was lead-covered wood, reconstructed in brick in the 19<sup>th</sup> century (Figures 3.5 and 3.6). As in Sultan Hasan's complex, the vestibule has a bi-chrome domed vault (Figure 3.7), and Rogers suggests that Barquq

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<sup>204</sup> archnet.org

<sup>205</sup> O'Kane, *The Mosques of Egypt* (2016), 147.

<sup>206</sup> Rogers, "The Stones of Barquq" (1976), 308.

intentionally imitated many of the earlier mosque's basic features, including the four-*iwan* plan, monumental portal, and doors in each corner of the courtyard.<sup>207</sup>

While the interior follows the four-*iwan* plan, Barquq chose to roof the prayer *iwan* with a ceiling of painted wood, the largest wooden ceiling in Mamluk Cairo (Figure 3.8).<sup>208</sup> In its current state, rosettes cover the surface, with radial inscriptions in each of the four corners. The use of vibrant blue and gold recalls manuscript illumination. Behrens-Abouseif points out the “mushroom” shape used in some of the medallions is only found on Mamluk carpets.<sup>209</sup> Unfortunately, this lovely ceiling is almost entirely the work of the Comité after the original collapsed.

A better preserved example in the nearby Complex of Sultan al-Ashraf Barsbay (1423-1424) has a similar medallion and sunken medallion pattern, which suggests the reconstruction was based on other examples (Figure 3.9). With its gold palette, it more closely recalls door revetments than the manuscript illuminations evoked by the Comité's reconstruction, although blue appears in earlier ceilings, such as that of Amir Tashtmitur's palace (1376), later turned into a mosque (1486) by Sultan Kushqadam (Figure 3.10).

The remainder of Barquq's *iwans* are vaulted stone (Figure 3.11). Initially there was a wooden screen across the entrance to Barquq's prayer *iwan* but the Comité removed it during restorations because it impeded the view of the room from the courtyard.<sup>210</sup> Unfortunately, the only extant example of this placement of a wooden *mashrabiyya* screen is now that of the mosque of Amir Altinbugha al-Maridani (1334-

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<sup>207</sup> *Ibid.*

<sup>208</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 228-229.

<sup>209</sup> *Ibid.*, 229.

<sup>210</sup> <http://www.islamic-art.org/Comitte-1889>, 121.

1340) (Figure 3.12). Both the reconstruction of the ceiling and the removal of the rare wooden partition exemplify the heavy handed and aesthetically motivated restorations the Comité sometimes performed, although they must be duly credited with saving many of Cairo's endangered monuments.

The ablution fountain in the courtyard is a 19<sup>th</sup>-century reconstruction based on that of Sultan Hasan, suggesting the Comité was aware of the resemblance between the two foundations.<sup>211</sup> Surrounding the fountain is a marble pavement of simple red, white, and black squares, circles, and polygons, with more elaborate paving in the qibla *iwan*.

While the layout of Barquq's complex resembles that of Sultan Hasan's, it has a sense of austerity the older foundation lacks completely. Perhaps the purpose of the wooden screen was to maintain this sense of simplicity by closing off the more elaborate prayer *iwan*.

### 3.3 Stone Inlay

The polychrome marble decorating the qibla *iwan* and tomb chamber is extremely colorful and dynamic. The colored marble pavements and dados in Barquq's Complex raise interesting questions about design and materials, how the designs relate to those of other Mamluk monuments, and exchange between media, in this case wooden objects. Interlocking black and white trefoils set with small red and turquoise teardrops fill the mihrab niche (Figure 3.13). Above the level of the flanking columns is a band of carved niches with small turquoise faience columns surrounded by delicate arabesques. The hood has a radial striped pattern transitioning into joggling on the inner and outer

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<sup>211</sup> O'Kane, *The Mosques of Egypt* (2016), 148.

arches.<sup>212</sup> All of the pieces are red, white, and black, except for two strips of yellow. On the inner arch, the joggling repeats the trefoil pattern, but the outer has an unusual central motif of three addorsed crescents (Figure 3.14)

On the floor in front of the mihrab are inlay panels that closely resemble the marquetry on Barquq's *kursi* (Figure 3.15). They have mihrab shapes, filled with a black, rust, and white star polygon pattern set in black and white borders and alternate across the floor; one primarily black and the next rust, creating a sense of movement. The *kursi* (Figure 3.16) is beautifully inlaid with a star-polygon pattern in brown, ivory and rust.

Unlike most *kursis* and minbars, the pattern is flat inlay and relies on contrasting colors created by a variety of woods and ivory or bone. A zigzag border divides the surface into square and rectangular compartments and below the main star-polygon panel are smaller compartments with simple inlaid squares and twisted braids. A foundation's wooden furnishings, *kursi*, minbar, *dikka*, were typically designed in the same style, but it is rare for them to so closely match their surroundings.<sup>213</sup> The *kursi*'s unique design suggests the resemblance is deliberate.

Unfortunately, the original minbar is missing but it may have had the same marquetry pattern as the *kursi*. Sixty years later Sultan Jaqmaq (r. 1438-1453) donated a minbar, but the one now there is either a modern replacement or it has been refinished with rather garish gilded inscriptions.<sup>214</sup> The loss of the minbar makes it impossible to determine the precise relationship of the wooden furnishings to the surrounding

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<sup>212</sup> O'Kane, *The Mosques of Egypt* (2016), 151.

<sup>213</sup> A *dikka* is a platform in the prayer hall for someone, often the *muezzin* (caller), to repeat the words of the *imam* (prayer leader) so they can be heard by the congregation. Behrens-Abouseif, *Cairo of the Mamluks* (2007), 97.

<sup>214</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 229; Rogers, "The Stones of Barquq" (1976), 312.

decoration. If both the minbar and *kursi* were so closely coordinated to the marble inlay, it would be a unique example.

The complex is the first to use the kind of marble roundels, generally found in pavements, on the surface of the wall.<sup>215</sup> Several appear in the spandrels above the arches of the mihrabs, flanking niches, and window voussoirs. Circles with flanking teardrops also appear above niches in Barsbay's three foundations (1423, 1432, 1437), and al-Mu'ayyad Shaykh's funerary mosque (1416-1420). Between the double windows on either side of the mihrab are panels of framed arches with trefoil arabesques above which is a set of black roundels. The composition of the two circles is somewhat static, but perhaps meant to echo the placement in the spandrels.

In the tomb chamber, two windows flank a narrow mihrab. (Figure 3.17). The niche has a double row of elongated niche forms, and the hood has a radial zigzag pattern with joggled arches. The spandrels have a delicate trefoil arabesque, in black and white, while those above the window niches have the circle and teardrop pattern. In the corners adjacent to the windows are two square panels set with marble roundels. Small turquoise accents appear throughout the stonework. The vault of the west *iwan* has an unusual black and white stone trefoil pattern (Figure 3.18) arching overhead, a design imitated in paint in Faraj ibn Barquq's Complex in the Northern Cemetery (1400-1410).

In Rogers' article, "The Stones of Barquq," he addresses up issues of obtaining building materials, particularly marble, that were scarce in Egypt. Colored marble seems to have come from the classical and Byzantine spolia collected by the Fatimids.<sup>216</sup> The Mamluks had a well-established tradition of hoarding precious building materials. When

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<sup>215</sup> These roundels are generally thought to be slices of re-used columns.

<sup>216</sup> Rogers, "The Stones of Barquq" (1976), 310.

al-Nasir Muhammad began his building campaign in the 1320s, he established the Dar al-<sup>‘</sup>Ama’ir which had storage space for architectural materials, including Pharaonic and Crusader spolia. Sultans and amirs collected building materials, giving them to each other as valuable gifts. According to the 15<sup>th</sup>-century chronicler Maqrizi, amirs and wealthy civilians gave precious materials, including marble, to Sarghimish to construct his palace.<sup>217</sup> These probably came from personal caches.

Even the massive marble Crusader portal that serves as the entrance to al-Nasir Muhammad’s foundation, was stored in Amir <sup>‘</sup>Alam al-Din Sanjar al-Shuja’i’s residence for several years.<sup>218</sup> Mamluks often demolished older buildings in order to use their components, and marbles would have been prize acquisitions.

Along with the ideological symbolism of building on the site of a rival or predecessor’s building, this practice eliminated the need to transport heavy materials. The capricious nature of material availability inspired creative and sometimes morally dubious solutions. Maqrizi scathingly describes Mamluk construction as “thieves stealing from thieves,” and indeed Mamluks resorted to bullying, extortion, circumventing or outright ignoring endowments to get what they desired.<sup>219</sup>

By Barquq’s reign, colored marbles may have been in short supply.<sup>220</sup> Marble dados seem to appear less frequently, although they were never constant features. There are still some impressive pavements and mihrabs from the Circassian period. Rogers argues that the use of smaller pieces in inlay and substitution with faience and glass

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<sup>217</sup> Kahil, *The Sultan Hasan Complex in Cairo* (2008), 82.

<sup>218</sup> *Ibid.*

<sup>219</sup> Maqrizi from O’Kane, *The Illustrated Guide* (2012), 165.

<sup>220</sup> Rogers, “The Stones of Barquq” (1976), 309.

pastes indicates a shortage, and that while black and white marble may have been in ready supply, colored marble was scarce.

Rogers cites the use of small chips in the more intricate inlay in the floor of Barquq's qibla *iwan*. However, his supporting argument that the placement of marble paneling mostly in the qibla *iwan*, and the interior of the tomb chamber, while the "forecourt" of the latter is "bare," actually reflects common practice.<sup>221</sup> Marble wall decoration was always concentrated near the mihrab and in tomb chambers, and is not necessarily indicative of a shortage.

How much of the innovation in inlay found in Barquq's foundation was due to a shortage of marble and how much to artistic experimentation or imitation cannot be determined, as a decline in stonework is less apparent than the contemporary decline in metalwork, discussed below.

There are some earlier examples of more intricate patterns of the type found on the qibla floor, notably in the hood of the mihrab of the Mosque of Amir Altinbugha al-Maridani (1334-1340), son in-law of Sultan al-Nasir Muhammad.<sup>222</sup> The mihrab has small faience colonettes supporting trilobed niches and uses turquoise accents in the surrounding stonework. Panels similar to those of Barquq, with niche profiles contained by looped white borders, flank the mihrab.<sup>223</sup> Both foundations had screened prayer halls, although al-Maridani has a hypostyle rather than four-*iwan* plan.

Sultan Hasan's complex has faience columns in the tomb mihrab, and parts of the impressive marble pavement use designs similar to those filling the niche shapes in

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<sup>221</sup> Rogers, "The Stones of Barquq" (1976), 308. Amir Sayf al-Din Sarghitmish's foundation (1356) and the madrasa of Yusuf ibn Ahmad Jamal al-Din al-Ustadar (1408) have had marble dados added to the courtyards during modern restorations but there are no Mamluk examples.

<sup>222</sup> See Behrens-Abouseif, *Cairo of the Mamluks* (2007), 183-184.

<sup>223</sup> Sultan Hasan's qibla dado has the same type of panels.

Barquq's qibla pavement. The marble panel in Sultan Hasan's tomb chamber has turquoise accents like some of the stonework in Barquq's foundation. The designer may have been drawing on motifs from previous foundations and combining them in new ways. The Funerary Complex of Amir Aqsunqur (1346 and 1652) has an incredibly skillful star pattern frieze that uses marbles, faience and mother of pearl.<sup>224</sup> Possibly these imply imitation or revival rather than limited materials.

Some of the stonework motifs from Barquq's foundation set the precedent for later buildings. In al-Mu'ayyad Shaykh's funerary mosque (1416-1420) small trilobed niches with faience columns run across the entire qibla wall. Delicate stone inlay friezes are found in Barsbay's foundation in the Northern Cemetery (1432), both in the tomb mihrab and around the windows.<sup>225</sup> The mihrab has a frieze of striped arcades, filled with alternating star and polygon patterns and two star pattern panels just behind the mihrabs (Figure 3.19). A similar arcade motif occurs on the Qur'an box and matching table from Umm Sultan Sha'ban's Complex (1369) (Figure 3.20).

Patterns seem to have been exchanged between the two media, and some artists possibly worked in both mediums to facilitate such transmission. There are not enough of the small scale inlay panels to suggest their manufacture could support a specialized profession. The resemblance of the marble pavement in Barquq's qibla *iwan* to the *kursi* is more complicated as this kind of inlay appears, usually as an accent rather than entire section of floor, in other foundations. It does however suggest an exchange or deliberate coordination of designs, especially if shared with the vanished minbar.

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<sup>224</sup> O'Kane, *The Mosques of Egypt* (2016), 109.

<sup>225</sup> *Ibid*, 181.



Significantly, the architect of Barquq's Complex, Ahmad ibn al-Tuluni, began his career as a mason, carpenter, and *muhandis*.<sup>226</sup> Al-Tuluni's skills as both a mason and carpenter could explain the resemblance of the *kursi* to the marble pavement. Overseers who were multi-talented and artistic seem to encourage a greater coordination of parts, as seen in Sultan Hasan's complex. Whether or not the craftsmen who actually made the wooden furnishings and stone components were also versed in both media, al-Tuluni could have designed and overseen both.

Al-Tuluni also illustrates the eclipse of the elite position of *shadd*, usually a Mamluk overseer, which almost disappears in the later Mamluk period in favor of the civilian *mu'allim* (master).<sup>227</sup> Al-Tuluni aligned his family with the sultan through marriage, securing his descendants success for generations; six known family members acted as head *mu'allims* through the end of al-Ghuri's reign. The last, another Ahmad ibn al-Tuluni, was among the elites taken to Istanbul by Sultan Selim I after the Ottoman conquest.<sup>228</sup>

Unlike marble, the disappearance of metal and metalworkers from Cairo beginning in the late 14<sup>th</sup> century is a well documented, albeit somewhat mysterious occurrence. The impressive metal fittings and furnishings in Barquq's Complex may have marked a last display of grandeur.

### 3.4 Mamluk Metalwork in Decline

There is a noticeable decline in the Mamluk metalwork towards the end of the 14<sup>th</sup> century. Rogers and Allan discuss the phenomenon, as does Newhall in reference to

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<sup>226</sup> Behrens-Abouseif, "Craftsmen, Upstarts and Sufis" (2011), 377.

<sup>227</sup> Rabbat, *Mamluk History through Architecture* (2010), 37.

<sup>228</sup> *Ibid.*

the later revival under Sultan Qaitbay (r. 1468-1496), discussed in the next chapter.<sup>229</sup>

Two factors contributed to the decline: a shortage of silver and copper and the effects of plague, famine, and infighting.

One of the first indications of a looming shortage was Sultan Sha‘ban’s order to the Governor of Damascus to supply all of the metal fittings for the sultan’s foundation (1375-1376).<sup>230</sup> When Barquq came to power, he issued only two types of silver dirhams, and during his second reign (1390-1399) none was even issued. Under his son Faraj those few that remained were replaced by copper *fulus* or gold dinars. In 1405, copper also seems to have been scarce; *fulus* were adulterated or replaced with iron or lead substitutes.

In the early 15<sup>th</sup> century, an enterprising piratical French nobleman, Maréchal Boucicault, conducted a series of raids on Alexandria, Tripoli, and Beirut. Nominally, the Frenchman was “Crusading” against the Muslims, however his ransacking of Venetian warehouses makes this a dubious claim.<sup>231</sup> As the Venetians were the Mamluks’ primary partners in the metal trade, and precious metals would be an obvious target for looting, perhaps these raids further depleted stores.<sup>232</sup>

By 1435, Maqrizi reports a ban on civilians commissioning silver objects, as all of the precious metal would go towards minting dirhams. Strangely, the initial shortage seems to have been restricted to Egypt, while Syria’s metalworking trade continued to prosper, at least up until the invasion of Timur in 1401.<sup>233</sup>

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<sup>229</sup> Rogers, “The Stones of Barquq” (1976), 308; Allan, “The Decline of the Mamluk Metalworking Industry” (1984), 85-94; Newhall, “The Patronage of the Mamluk Sultan Qa’itbay” (1987), 177.

<sup>230</sup> The building was destroyed in 1411. Rogers, “The Stones of Barquq” (1976), 308.

<sup>231</sup> See Ashtor, *Levant Trade in the Middle Ages* (2016), 157-160.

<sup>232</sup> Lane, *Venice: A Maritime Republic* (1973), 199.

<sup>233</sup> Allan, “The Decline of the Mamluk Metalworking Industry” (1984), 91.

The second issue is the disappearance of craftsmen. How exactly the metal shortage and dearth of craftsmen interrelate is unclear. In 1348 the first outbreak of plague occurred, killing approximately 200,000 of Cairo's estimated population of 500,000. Outbreaks recurred roughly every seven years until 1380. Craftsmen were obviously affected, for example in 1394, there were a recorded 13,000 weavers in Alexandria but only 800 by 1434.<sup>234</sup> The plague itself may not have been the cause, as the disappearance of metalworkers from the markets seems to have occurred in the beginning of the 15<sup>th</sup> century, not the end of the 14<sup>th</sup>.

Maqrizi describes all the Mamluks under Barquq as having opulent saddles plated with silver and gold and matching gold belts set with gemstones, however the situation changes with the accession of Faraj ibn Barquq (r.1399-1412). After 1403, a year the historian ruefully portrays as one of massive inflation and famine, luxury items like gold and silver saddles were limited to the highest Mamluk elites. He mentions that craftsmen were in short supply having died in large numbers, assumedly from plague or famine, making the continuing prosperity of Damascene metalworkers mysterious.<sup>235</sup>

Damascus also was struck by the plague, yet in 1384-1385 an Italian traveler, Simono Sigoli, describes inlaid basins and ewers.<sup>236</sup> A colorful account of Timur's invasion, *Vita Tamerlani*, by Italian adventurer Bertrando de Mignanelli, paints a picture of a prosperous city with "official master craftsmen for every craft, for gold, silver, iron, cotton, linen, glass, copper, brass, and almost every craft under the sun."<sup>237</sup> Both the later

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<sup>234</sup> Byrne, *Encyclopedia of the Black Death* (2012), 107.

<sup>235</sup> Allan, "The Decline of the Mamluk Metalworking Industry" (1984), 90.

<sup>236</sup> *Ibid.*

<sup>237</sup> Fischel, "A New Latin Source on Tamerlane's Conquest of Damascus" (1956), 201.

decline in Cairo described by Maqrizi and the continuing prosperity in Damascus indicate the plague may only have been a contributing factor in the industry's decline.

Perhaps the combined economic crisis and Timur's invasion of Damascus affected metalwork in Cairo in ways that are not yet understood. It seems possible that Cairene metalworkers had migrated to Damascus due to the shortage or lack of buyers and that Damascus was supplying Cairo until the invasion of Timur. Assumedly, by 1403 the circulation of extant metalware would have begun to dwindle contributing to the crisis and inflating prices. However events transpired, Barquq's reign represents the last high point in the metal industry for almost a century, and his foundation has some beautiful metal lamps and fittings.

### 3.5 *Metal Lamps*

In addition to the ethereal glass lamps discussed in the previous chapter, the other major category of Mamluk lamps are the larger metal *tannurs*, which take a different form and hang alone rather than in groups. These relate more closely to other metalwork than glass lamps and lack Qur'anic inscriptions.<sup>238</sup> *Tannurs* take architectural forms, but fantastic ones. Some resemble tiny domed pyramids; others are tiered pagodas topped by crenellations and projecting branches to hold the lights. While the bodies are pierced, these massive lamps held lighting implements, oil filled glass containers or possibly smaller lamps, solely on their exteriors.

Metal lamps in Cairo go back to the Fatimid period. Al-Hakim endowed two *tannurs* of silver along with twenty-seven *qandils* (small lamps) to al-Azhar. In spite of contemporary descriptions, no examples of silver or gold Mamluk lamps exist. Likely,

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<sup>238</sup> There are vase shaped metal lamps, although their function must have been primarily decorative.

they were melted down or stolen, like those the Crusaders took from the Dome of the Rock in Jerusalem.<sup>239</sup> Maqrizi claims one of the silver *tannurs* commissioned by al-Hakim was so massive that the threshold of the Mosque of ‘Amr had to be dismantled for it to pass. He describes possibly the same lamp as having ten rings with holders and branches like “palm trees.” “One hundred star-shaped *qandils* were suspended all around the lower part of the *tannur*.”<sup>240</sup> They must have been incredibly brilliant when lit, providing a different quality of light than the diffuse glow of glass lamps.

Except for the largest examples, which artisans fabricated from pierced sheet, *tannurs* were made of cast copper alloy.<sup>241</sup> Inscriptions are titular, sometimes containing blazons or the artist’s signature. The earliest dated example, 1329-1330, now in the Islamic Museum in Cairo, is signed by *mu‘allim* Badr al-Din Abu Ya‘la. It was commissioned by Amir Qawsun and probably hung in his mosque until the structure was destroyed by Muhammad ‘Ali in the 19<sup>th</sup> Century (Figure 3.21).<sup>242</sup>

The polygonal lamp has four tiers, alternating between pierced panels of twelve-pointed stars and a delicate fish scale pattern. At the bottom are legs with scalloped arches between, more decorative than architectural in appearance. The top tier is crowned with fleur-de-lis crenellations topped by a dome and crescent finial. The dome is inscribed with the amir’s titles and the signature of the artist Badr al-Din, who boasts that he completed the piece in only fourteen days!

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<sup>239</sup> Behrens-Abouseif, *Mamluk and Post-Mamluk Metal Lamps* (1995), 8-9.

<sup>240</sup> *Ibid*, 11.

<sup>241</sup> Most of the metal has not been analyzed for alloy content, but is sometimes described as brass or bronze. I prefer the latter as the metal generally lacks the strong yellow undertones of brass and copper alloy is too technical for a general reader to be able to envision.

<sup>242</sup> It was found in the Sultan Hasan complex nearby with a drip tray inscribed with “Glory to our Master the Sultan” added later. O’Kane, *The Illustrated Guide* (2012), 344.

Crenellations, domes, and finials, the only components that resemble Mamluk architecture, occur on most examples. They often have curious anthropomorphic feet, which occur on incense burners (See Figure 1.16). Since the *tannurs* spent most, if not all, of their time suspended, the addition of feet is enigmatic, although from directly below they read more like rays. Either the lamps developed from a standing object or the feet are a convention reproduced by artisans irrespective of functionality.

In Barquq's foundation, *tannurs* hang from the vestibule, at the apex of each *iwan*, in front of the mihrab, and from the dome in the tomb chamber.<sup>243</sup> They all appear to be the same; octagonal with three tiers (Figure 3.22). The bottom and top tiers consist of pierced star-patterns, but unusually the middle tier is solid. All have the traditional bulbous top with crescent finials. When seen from below, the one hanging in the vestibule has a lovely resonance with the octagonal lantern dome. While the *tannurs* are now missing their lamps, they would have held a multitude of small lights acting as bright points in each *iwan*.

Perhaps architectural forms were chosen for *tannurs* to invoke Mamluk buildings covered with lights during ceremonies. For royal celebrations and rituals; lights were hung from the minarets, facades, domes and strung across the streets in brilliant displays.<sup>244</sup> Another possible reason for the choice of form is the association of light with faith. Medieval correlations between the two probably derived from the inherent necessity of providing artificial light in and around buildings and metaphorical ideas

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<sup>243</sup> As of my last visit in 2017, the lamps, including the modern glass ones, in the qibla iwan had been removed.

<sup>244</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 28.

equating light with faith. When the 15<sup>th</sup>-century scholar al-Suyuti writes of the restoration of shrines in Lower Egypt, he says, “the lamps of Islam were thus made eternal.”<sup>245</sup>

*Tannurs* and metal fittings are very closely related, particularly star-pattern doors. They use a similar geometry and are fabricated in the same way; a combination of casting and pierced sheet. While star-patterns are common in most media, the more rare openwork fish scale pattern found on some window grilles also appears on *tannurs*.<sup>246</sup> Both tend to use titular inscriptions, unlike glass lamps which usually have Qur’anic verses, and Mols suggests both *tannurs* and metal fittings were made in the same workshops.<sup>247</sup>

### 3.6 Metal Fittings: The Reappearance of the Medallion Door

The metal fittings in Barquq’s foundation are some of the most elaborate and unusual. Window fittings on the rectangular windows in the lower part of the façade, the courtyard, and the tomb chamber of Barquq’s complex are plain bosses and bars, while more unusually, the smaller rectangular windows above the doors in the courtyard are cast metal star patterns and arabesques (Figures 3.23 and 3.24). The grilles above the doors flanking the northern *iwan* have a pattern of interlocking 10-pointed stars and match the round grille in the oculus above the portal. In the southern and western walls the grilles are arabesques, with a central tripartite blazons inscribed in *naskh* script and reading: “Sultan al-Malik/al-Zahir/may his victory be glorious.”<sup>248</sup> Medallions with trefoil terminals set in a frame of vine scrolls and trefoils surround the blazons.

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<sup>245</sup> Newhall, “The Patronage of the Mamluk Sultan Qa’itbay” (1987), 10.

<sup>246</sup> Mols, *Mamluk Metalwork Fittings* (2006), 106.

<sup>247</sup> *Ibid.*, 83.

<sup>248</sup> Mols categorizes them as the “geometric type” like the star pattern grilles.

The entrance door has a central star-polygon pattern with 18 and 12-pointed stars formed by raised bosses with silver inlay (Figure 3.25). Barquq's name adorns the center of the 18-pointed stars. Lotuses, arabesques, or stylized flowers resembling jasmine cover the other bosses. A delicate scrolling foliate pattern surrounds upper and lower titular inscription bands in Mamluk *naskh* (Figure 3.26).<sup>249</sup> Openwork arabesques frame the central pattern and inscription bands, and another raised polygon motif serves as the outer frame. An arabesque doorknocker, now in the David Collection, coordinates with the door design.<sup>250</sup>

The five surviving doors to the courtyard doors are identical two-leafed medallion doors with upper and lower titular inscription bands (Figures 3.27 and 3.28). In the endowment deed, the wood is specified as *khasab juz* (walnut).<sup>251</sup> The fittings form a round central medallion with upper and lower trefoil finials, bisected by the opening. Trefoils extend from corner panels, almost meeting the medallion. On either side of the upper trefoils are intricate arabesque knockers with pointed tips that just touch the outlines of the medallion beneath. Panels set with star polygon patterns decorate the wooden reverse, resembling the foundations wooden shutters, which have the addition of upper and lower metal inscription bands.

While not the first medallion doors, the type seems to have only gained popularity after this point. Amir Sunqur al-Tawil commissioned the earliest extant example in the late 13<sup>th</sup> century, possibly as a stable door, later taken by Sultan al-Ashraf Barsbay for his *khanqah* in Siryqus (1437) (Figure 3.29). Its arabesques contain birds, dogs, harpies,

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Mols, *Mamluk Metalwork Fittings* (2006), 228-238.

<sup>249</sup> *Ibid*, 228.

<sup>250</sup> David Collection 32/1997. <http://www.davidmus.dk>

<sup>251</sup> *Ibid*, 147.



panthers, hares and a donkey.<sup>252</sup> If earlier doors were prototypes for those of Barquq's Complex, perhaps they appeared primarily in secular architecture, whose poor survival would explain the lack of intermediary examples. The layout and style of al-Tawil's door and Barquq's is too similar to suggest that the design was transferred through other mediums, although medallions are common.

Both Allan and Rogers suggest the sudden adoption of this door type may reflect the growing metal shortage or lack of funds. While this argument has some merit, they both use Sultan Hasan's complex's multiple inlaid star pattern doors as a reference point, which the previous chapter showed was anomalous. Allan points out the disappearance of fully plated metal doors and their replacement with medallion doors as the Circassian period progressed, a chronology that supports a relationship to the shortage.<sup>253</sup> The only later example of a fully plated door is the entrance door of al-Mu'ayyad Shaykh's funerary foundation, which he illegally took from the Sultan Hasan Complex.<sup>254</sup>

Another fascinating question is the doors' possible relationship to the bindings of a multi-part Qur'an commissioned for Barquq's *khanqah*. Allan and Mols note the medallion design's similarity to bookbinding motifs. Mols suggests that the relationship is probably not mere coincidence as the medallion design on the binding is quite similar to the doors', and both combine star-pattern bindings and medallions. Because Barquq's foundation is the first to use both types of doors, there may be a deliberate resemblance.<sup>255</sup>

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<sup>252</sup> Mols, *Mamluk Metalwork Fittings* (2006), 190.

<sup>253</sup> Allan, "The Decline of the Mamluk Metalworking Industry" (1984), 87; Rogers, "The Stones of Barquq" (1976), 308.

<sup>254</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 241.

<sup>255</sup> Allan, "The Decline of the Mamluk Metalworking Industry" (1984), 87; Mols, *Mamluk Metalwork Fittings* (2006), 111.

### 3.7 Mamluk Bookbindings

Like other less durable materials, leather bindings have a less consistent record of development under the Mamluks. In contrast to Barquq's complex, there is only a sporadic history of publication on bindings. Perhaps the most in depth is Gulnar Bosch, John Carswell and Guy Petherbridge's *Islamic Bindings and Bookmaking* (1981).<sup>256</sup> Johannes Pedersen penned a chapter on Arabic bookbinding in his work *The Arabic Book*.<sup>257</sup> Alison Ohta published an article specifically on Mamluk filigree bindings, in which she traces their development and regional counterparts.<sup>258</sup>

Although Mamluk bindings that use filigree appear in the late 14<sup>th</sup> century, bookbinding has a long history in Egypt.<sup>259</sup> Maqrizi rather colorfully describes the sad fate of the beautiful bindings of the Fatimid library, turned into shoes for Turkish soldiers after Salah al-Din's conquest.<sup>260</sup> He writes a few centuries after the fact, likely with some embellishment; many early bindings probably suffered the more mundane effects of time.

Mamluk bindings have similarities to Coptic prototypes, using a rectangular central field framed by borders, divided by compartments with linear patterns and dots. Bookbinders stamped or blind-tooled patterns, sometimes highlighting them with colors and gold. Medallions have some Coptic precedents, while star-patterns probably developed independently, likely from other media.<sup>261</sup>

Bosch and Petheridge propose Ethiopian craftsmen introduced the binding craft to Arabia. Because Ethiopian and Coptic bindings closely resemble each other, it may be

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<sup>256</sup> Bosch, Carswell and Petherbridge, *Islamic Bindings and Bookmaking* (1981).

<sup>257</sup> Pedersen, *The Arabic Book* (1984).

<sup>258</sup> This refers to cutting out parts of the leather, allowing a background, often of colored textile to show through. Ohta, "Filigree Bindings of the Mamluk Period" (2004).

<sup>259</sup> Ohta, "Filigree Bindings of the Mamluk Period" (2004), 268.

<sup>260</sup> Pedersen, *The Arabic Book* (1984), 103.

<sup>261</sup> Blind tooling uses heated metal instruments to create indented lines in the leather without the use of color. *Ibid.*

difficult to produce a definitive evolution of bookbinding in North Africa.<sup>262</sup> Probably both traditions had some impact on its development.

Three bindings from a multi-part Qur'an manuscript made for Barquq's foundati illustrate some important relationships.<sup>263</sup> Two are medallion bindings of different types, and the third has a star pattern. One medallion, filled with floral arabesques, most closely relates the medallion doors (Figure 3.30). Like the fittings, the medallion is round and has trefoil finials, as do the corner decorations. The leather is dark brown, while a green background shows through the pierced floral pattern and gold outlines the edges. Scalloped borders outline the medallion and corner elements and the whole is framed by a set of braided borders.

The second medallion binding uses a geometric rather than an arabesque pattern (Figure 3.31). Here the leather is a rich reddish hue with a slightly darker color used for the pattern. The medallion is round and has a scalloped border and trefoil finials, like the one above. A six-pointed star divided by small octagons rests in the center and the corner motifs are round with petals and trefoil finials. Intricate knots and a fish scale pattern fill the corner designs, the latter seemingly stamped. Small gold dots and spiky lines embellish a surface framed by two borders. The inner braided border resembles those used in manuscript illumination. Interestingly, a very similar binding adorns a Qur'an endowed to the madrasa of Barquq's amir, Aytmiş al-Bajasi (d. 1400) in Tripoli and one made for his son Faraj's madrasa.<sup>264</sup>

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<sup>262</sup> Bosch, Carswell and Petherbridge, *Islamic Bindings and Bookmaking* (1981), 23. See also Petersen, "Early Islamic Bookbindings and Their Coptic Relations" (1956).

<sup>263</sup> Mols, *Mamluk Metalwork Fittings* (2006), 111.

<sup>264</sup> Ohta, "Filigree Bindings of the Mamluk Period" (2004), 268. Chester Beatty Library ms. 1495. For Faraj's binding see Raby and Tenindi *Turkish Bookbinding* (1993), 10.

The last binding is an all over star-polygon pattern on dark brown leather (Figure 3.32). The center has a 10-pointed star and the corners are the same, but truncated by the braided border. The pattern itself is unusually asymmetrical and disjointed, with the upper section oriented at a right diagonal and the lower a left. It is nearly impossible for the eye to find a resting point and difficult to discern the pattern's underlying structure. A reddish color fills the polygons, while gold outlines and dots highlight the design.

The pattern has a similar structure to the pattern in the star window grilles, and resembles the carved star-polygon panels in the vestibule of the Sultan Hasan Complex.<sup>265</sup>

While star-pattern bindings were common, this particular format only developed during Barquq's reign, perhaps derived from stone or metal.<sup>266</sup>

Mols points out some of the similarities between book arts and door fittings, including the compartmentalized layout, the use of fields of star patterns, the medallions, and the upper and lower inscriptions. The sudden appearance of the medallion door and medallion binding simultaneously in the same foundation strongly suggests a relationship.<sup>267</sup> As does the repeated star-pattern on the binding and window grille noted above.

What part the star pattern binding might have played is less clear due to its unusual composition, although it does have the same underlying structure of the patterns used in the metal window grilles. Like many other arts, filigree bindings seem to disappear after Faraj ibn Barquq's reign. They return during Sultan Qaitbay's arts revival, a subject explored in the next chapter.

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<sup>265</sup> Ohta also noticed the resemblance to the grilles. Ohta "Covering the Book" (2012), 362.

<sup>266</sup> *Ibid.*

<sup>267</sup> Mols, *Mamluk Metalwork Fittings* (2006), 111.

## 4.0 Chapter 4-Sultan Qaitbay's Complex

### 4.1 *Introduction*

The reign of Sultan Qaitbay (r. 1468-1496) is one of the high points in Mamluk art and architectural development. His renewal of architectural patronage stimulated a brief artistic revival towards the end of Mamluk rule in Egypt exemplifying how the personal interests of a powerful ruler could shape Cairene culture. As the dome of his mausoleum is widely regarded as the apex of Mamluk carved masonry, possible methods of applying designs to masonry domes in Cairo will be discussed. The effect of the revival on metal and other media will be examined in the context of objects endowed by Sultan Qaitbay, as well as the Mamluk carpet industry.

Qaitbay ascended the throne following a period of instability and artistic decline caused by the devastation of plague and lack of revenue. The social and political changes that accompanied Circassian rule may have contributed to the loss of stability. While the Circassian Period lacked the relative security of succession of the Bahri, both saw almost the same number of sultans in a similar time span.

There was an increase in social mobility, but at the same time, elites markedly favored fellow Circassians. Rewarding race above merit contributed to decline, as did wars on the northern borders. Qaitbay was a remarkably well-loved ruler, who fostered revival and creativity through patronage.<sup>268</sup> Like al-Nasir Muhammad, it was the sultan's personal interest and involvement in arts and architecture that catalyzed and directed this flowering.

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<sup>268</sup> Newhall, "The Patronage of the Mamluk Sultan Qa'itbay" (1987), iii, 3, 25.

## 4.2 The Complex

As a major monument of the period, Qaitbay's foundation has been covered extensively. Behrens-Abouseif includes sections describing Qaitbay's Funerary Complex in *Cairo of the Mamluks* and *Islamic Architecture in Cairo*.<sup>269</sup> O'Kane devotes an entry to the Complex in *The Mosques of Egypt*.<sup>270</sup> Mayer discusses his endowment deeds, although Newhall's dissertation is by far the most comprehensive study of the sultan's artistic patronage.<sup>271</sup>

The presence of monumental religious architecture served as a visible reminder of the sultan's power, piety, and charitable works. Foundations employed not only religious scholars but also various caretakers and artisans, alleviating economic woes.<sup>272</sup> Qaitbay's foundation in Cairo's Northern Cemetery (1472-1474) (Figure 4.1) is his largest surviving work, and would have required a large staff to maintain.

The complex was extensive, including living quarters, two funerary mosques, *maq'ad* (reception hall), *hawd* (water trough for animals), *sabil* (water fountain) and gate.<sup>273</sup> The endowment deed also notes stables, a waterwheel, and residences but these are no longer extant. Set on the desert road, the complex served as a hub for trading routes to the Red Sea and Levant. The 17<sup>th</sup>-century Ottoman adventurer, Evliya Çelebi portrayed the area as a summer retreat with a large triangular garden that took him three hours to explore.<sup>274</sup> Still elegant, Qaitbay's foundation would have been even more striking set amidst lush gardens.

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<sup>269</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 273-277 and *Islamic Architecture in Cairo* (1989), 144-147.

<sup>270</sup> O'Kane, *The Mosques of Egypt* (2016), 198-203.

<sup>271</sup> Newhall, "The Patronage of the Mamluk Sultan Qa'itbay" (1987).

<sup>272</sup> *Ibid.*, iii.

<sup>273</sup> The adjacent mosque was constructed for the Sultan's sons.

<sup>274</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 275.

The mosque at the complex is small and covered, but exquisitely decorated on both the interior and exterior. It has a tri-lobed groin vaulted portal, filled with red and white striped masonry, with muqarnas only in the lower corners (Figure 4.2). The surface is painted, making it difficult to determine to what extent it is the work of restorers, particularly in view of the rather clumsy execution of the trefoils in the apex of the hood.

In the recess, black replaces red with a joggled voussoir beneath a grille topped by the sultan's blazons. A rectangular border of loops frames the portal, the spandrels of which are filled with arabesques. On the northeastern corner is a *sabil-kuttab* and the minaret rises to the west of the entrance. The minaret (Figure 4.3) is intricately carved with an octagonal first story of keel arches and round second story with a strapwork star pattern set with petalled rosettes. Its star-pattern closely resembles that of the dome, contributing to the complex's harmonious composition.

The dome in Qaytbay's Complex is exquisitely covered with a geometric star-pattern overlaying scrolling floral arabesques (Figure 4.4). The star pattern has been masterfully adapted to its curvature. Its point of origin is the apex of the dome where a sixteen-pointed star is centered, covering the top section of the dome. Lines extend to form seventeen-pointed stars, which are slightly irregular to accommodate the pattern. At the base are halved ten-pointed stars, the whole interwoven by the arabesques.<sup>275</sup> While the star pattern is cut in hard lines, the arabesque has beveled edges, emphasizing the contrast between the tension of the geometry and the scrolling nature of the floral pattern.<sup>276</sup> Looped borders surrounding the windows and blazon panels divide the faces of

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<sup>275</sup> Behrens-Abouseif, *Islamic Architecture in Cairo* (1989), 24.

<sup>276</sup> Ateya, "Madrasa and Mosque of Sultan Qaytbay" (2001), 101.

the transition zone into small compartments. On the chamfered corners are scrolling waves with incised chevrons, descending to an upright trefoil.

#### 4.3 *Applying Pattern to Masonry Domes: Questions of Construction and Geometry*

The dome of Qaitbay's Complex illustrates the skill and creativity of medieval Cairo's stone workers, but their working processes remain obscure. The main questions scholars have raised are whether artisans carved designs before or after assembling the domes, and how they applied the patterns.

Christel Kessler conducted the first comprehensive study of Mamluk domes, *The Carved Masonry Domes of Medieval Cairo*. She proposed that the carving was done before assembly and the joints served as a grid for applying patterns.<sup>277</sup> Kessler mentions that one of earliest domes with a zigzag motif, that of Barquq's majordomo Mahmud al-Kurdi's madrasa built nearly a century earlier in 1393 (Figure 4.5), uses the vertical joints to align the chevrons.<sup>278</sup> O'Kane however points out that except in the case of Sultan al-Ashraf Inal's chevron dome at his funerary in the Qarafa (1451-1456), the horizontal joints generally do not align (Figure 4.6).<sup>279</sup> In the case of Inal, the unusually high point at which the dome's curve begins may account for the ashlar's alignment, rather than an attempt to create a grid.

Other scholars have discussed the issue of grid construction in geometric patterns. Barbara Cipriani conducted a study of construction techniques and describes patterning in terms of repeating slices and tiling. She asserts such patterns were based on a drawing of "at least one of the slices" which would have allowed carvers to layout designs before

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<sup>277</sup> Kessler, *The Carved Masonry Domes of Medieval Cairo* (1976), 23.

<sup>278</sup> O'Kane, "Design of Cairo's Masonry Domes" (2012), 11; archnet.

<sup>279</sup> O'Kane, "Design of Cairo's Masonry Domes" (2012), 11.



construction; however there is some evidence that decoration was executed after assembly.<sup>280</sup>

Ahmed Waby and Dina Montasser mention unfinished floral carving at the base of the dome of <sup>c</sup>Asfur (1504-1507) (Figure 4.7), indicating at least some decoration was added later.<sup>281</sup> O’Kane observes irregularities where the chevron patterns line up on the dome of Amir Qurqurmas’ Funerary Complex (1506-1507), and suggests the blocks were carved first and, for some reason, put in place before being properly finished (Figure 4.8).<sup>282</sup> The irregularities appear to occur only where the lines transect the corners of the ashlar, leaving a small raised triangle just on the edge, and probably were necessary for carvers to avoid chipping them off.

Qurqurmas (d. 1510) lived for several years after the construction of his domed tomb, so there is no apparent reason to assemble the dome with unfinished blocks. While irregularities may support carving on the ground, cutting too close to the mortared edges would have been risky even once the ashlar were in place. If the irregularities do indeed occur only on corners, it must have been deliberate, where as uncorrected misalignment of the pattern should appear randomly. O’Kane also presents evidence for carving in situ by referencing the use of scaffolding for the decoration of the façade of Sultan Hasan’s complex. Unfinished areas in its façade show that decoration was lightly traced onto the stone before carving (See Figure 2.31).

If we consider the different processes involved, decorating before assembly seems unnecessarily complicated and would make correcting errors, inevitable in any artistic endeavor regardless of the artisans’ skill, more difficult. The pattern’s application over a

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<sup>280</sup> Cipriani, “Development of Construction Techniques” (2005), 31.

<sup>281</sup> Wahby and Montasser, “The Ornamented Domes of Cairo” (2012), 4.

<sup>282</sup> O’Kane, “Design of Cairo’s Masonry Domes” (2012), 13.

curved surface would need to be calculated beforehand and any adjustment that occurred during a dome's construction ostensibly would require correcting the already carved stone. Carving after assembly would necessitate some of the same calculations, but the pattern itself could be laid out directly on the surface and any irregularities in the masonry absorbed into the design. Similarly, lightly outlining the design before construction would accommodate later adjustments.

Restorers discovered wooden pegs set in between the ashlar of Khayrbek and other domes, the earliest documented that of Amir Ganibek's tomb (c. 1432) in Sultan Barsbay's Funerary Complex (Figure 4.9).<sup>283</sup> Those described by Cipriani in the dome of Khayrbek occur on both the exterior and interior, but in different locations. She speculates masons may have used them in the joints to level the ashlar, but they may have been markers for decoration as they sometimes emerge from the external design.<sup>284</sup>

Perhaps masons used them as markers for laying out designs radially from points. If Ganibek's dome is indeed the earliest example of their use, it could support this interpretation; it has the first extant star pattern successfully applied to a stone dome.<sup>285</sup> Barsbay's dome (1425) in the same foundation has a similar pattern, but it lacks the continuity of Ganibek's, having a more rigid banded appearance (Figure 4.10).

Generating and applying geometric patterns to a curved surface requires some knowledge of geometry. Obviously not every craftsman was a moonlighting mathematician, but some exchange between the two fields occurred. Montasser and Wahby illustrate the use of tessellation to create patterns and suggest the joints may have been used as guides for the underlying polygonal patterns, which do not conform to

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<sup>283</sup> O'Kane, "Design of Cairo's Masonry Domes" (2012), 17.

<sup>284</sup> Cipriani, "Development of Construction Techniques" (2005), 23.

<sup>285</sup> Behrens-Abouseif, *Islamic Architecture in Cairo* (1989), 22-23.

rectangular units. They assert that making and implementing tessellations on a domed surface requires a “basic understanding and utilization of spherical geometry.”<sup>286</sup> The latter term is more apt, as the ability to implement such patterns could be learned. Artists would simply need to be skilled at measuring and replicating, and have an excellent grasp of spatial relations.

The fact that Mamluk historians, however inaccurately, considered craftsman to be far beneath their lofty intellectual realm, suggests the majority were not spherical geometers. Nonetheless, a relationship between craft and geometry was recognized. The famous historian Ibn Khaldun (1332-1406) writes: “carpentry needs a good deal of geometry of all kinds. It requires either a general or specialized knowledge of proportion and measurement in order to bring the forms from potentiality to actuality in the proper manner, and for the knowledge of proportions, one must have recourse to the geometrician.”<sup>287</sup>

These scholars agree that the patterns were first worked out two dimensionally. Cipriani asserts drawings of slices of the pattern would be necessary.<sup>288</sup> Wahby and Montasser reference the use of two-dimensional drawings for tessellating a sphere by the 10<sup>th</sup>-century Persian mathematician Abu’l Wafa al-Buzjani (940-998).<sup>289</sup> Al-Buzjani who wrote a treatise on geometry for artisans entitled *Kitab fima yahtaju ilayhi al-sani<sup>c</sup> min a<sup>c</sup>mal al-handasa* (The book on what the artisan requires of geometric constructions).<sup>290</sup>

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<sup>286</sup> Wahby and Montasser, “The Ornamented Domes of Cairo” (2012), 10.

<sup>287</sup> *Ibid.*

<sup>288</sup> Cipriani, “Development of Construction Techniques” (2005), 31.

<sup>289</sup> See Pingree, David, “Abu'l-Wafa Buzjani,” in *Encyclopædia Iranica*, I/4, (2011), 392-394; Hockey, Thomas et al., eds., “Ibrahim ibn Sinan ibn Thabit ibn Qurra” in *The Biographical Encyclopedia of Astronomers*. New York: Springer (2007), 54.

<sup>290</sup> Biblioteca Ambrosiana, Arab 68, first seven chapters. According to the *Encyclopædia Iranica* entry for Abu’l Wafa al-Buzjani another complete copy survives in Istanbul, but no record is provided.

Both al-Buzjani and the Baghdadi mathematician and astronomer, Ibrahim Ibn Sinan (c. 909-946) refer to meeting with craftsmen to explain geometric principles. The latter wrote a book specifically for artists, *baʿd al-sunnaʿ*, using “different” language than that of his purely mathematical writings.<sup>291</sup> While there are obvious issues of timing and location in extrapolating these examples, evidence indicates al-Buzjani’s treatise may have been incorporated into medieval European works, making its circulation in Egypt certainly possible.<sup>292</sup>

That artisans met with these two well-known mathematicians illustrates the paramount importance of geometric pattern as an art form. Likely the use of drawings, and any exchange with geometers, was limited to a select group of craftsmen who passed the knowledge on. It is essential to understand the difference between theoretical geometry and its practical artistic application.

The latter is more intuitive and visual. Skillfully replicating a complex pattern is possible without understanding how it was created or the abstract mathematical rules behind its behavior; and this does not diminish the role of artists or imply that none of them were capable of such understanding. Those who showed an aptitude for measuring, proportion, and geometry were probably more involved in creating designs, while others may only have been part of the execution. In the case of stone domes, the pattern was almost certainly worked out on paper or a model before carving.

Qaitbay’s funerary dome displays an unmistakable elegance in both its proportion and its patterning. The combination of geometry and arabesque is so successful it is rather astonishing it was never repeated. O’Kane suggests the Sultan may have forbidden

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<sup>291</sup> Wahby and Montasser, “The Ornamented Domes of Cairo” (2012), 10-11.

<sup>292</sup> Raynaud, “Abu al-Wafa’ Latinus?” (2012), 32.

his amirs from copying it.<sup>293</sup> More simply, the confluence of Qaitbay's wealth and interest in the arts may have inspired a unique creation that circumstances never recreated.

Cipriani points out that the variety of Mamluk domes individualized monuments, causing them to be easily recognized and associated with their patron. She makes a fascinating argument for an experiential method of building that allowed for the creation of dome structures that appear impossible in theory, but developed gradually as knowledge passed from builder to builder.<sup>294</sup> This fits with practices used in Egypt today, unfortunately by an ever-dwindling group of skilled craftspeople, requiring years of apprenticeship.

#### 4.4 *Interior and Furnishings*

The interior of the mosque in Qaitbay's Complex is equally elegant, with four *iwans*, two large and two reduced, all framed in black and white *ablaq* (Figure 4.11). Set in the center of the covered interior is an exquisite lantern dome with a gilded star pattern recalling that of the minaret. Black and white *ablaq* masonry and loop borders frame the *iwans* and an inscription band runs along the walls. The prayer *iwān* has two sets of windows flanking the mihrab, the lower set with metal grilles and the upper colored glass set in stucco, with a central oculus directly above the mihrab. These openings relieve the darkness of the covered interior and draw attention to the prayer *iwān*, the brightest area in the mosque.

Beside the mihrab is a star-pattern minbar, once heavily set with ivory (Figure 4.12). The mihrab sadly illustrates one of the reasons items often have to be removed

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<sup>293</sup> O'Kane, "Design of Cairo's Masonry Domes" (2012), 9.

<sup>294</sup> Cipriani, "Development of Construction Techniques" (2005), 34.

from their original location. In 2011 a large portion of the ivory inlay was stolen, as were the metal plaques decorating the entrance door (Figure 4.13). Unfortunately, this is not an isolated occurrence and other door fittings as well as glass lamps have been stolen from Cairo's historic buildings in recent years.<sup>295</sup>

This brings up questions as to whether the original furnishings of foundations can be preserved in situ or they should be removed to museums or other safe areas for storage. Besides preservation, museums allow a greater number of people to visit and see art objects up close. However, museums are not always refuges but sometimes destinations for looted objects. Even if safety or environmental factors demand an object be removed in order to preserve it, scholars have the task of preserving the memory of its original context and function.

Another minbar commissioned by Qaitbay for the prayer hall of Faraj ibn Barquq in 1483 illustrates some interesting connections between medium and design (Figure 4.14). While it retains the classic form, the minbar is of carved stone rather than wood. Remnants of color indicate it was once painted. The sides have a star pattern, typical of carpentry minbars, but also loop moldings and arabesques usually used on architecture. Even more interestingly, the kind of stone arabesque found on Circassian domes has been transferred to the minbar bulb and some of the railing panels. Possibly, the same craftsmen who worked on dome carving produced designs on the stone minbar. This exemplifies the fluidity of design motifs and cross media transfer characteristic of Mamluk art forms and also a certain conservatism of their placement. Minbars relate to architecture, yet a star-pattern on the sides is ubiquitous even if the media changes.

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<sup>295</sup> <http://weekly.ahram.org.eg/Archive/2012/1116/eg11.htm>

Mols argues that like those of Barquq and Sultan Hasan's Complexes, Qaitbay's doors and fittings show more innovation or coordination than is typical in the design and placement of fittings.<sup>296</sup> All of the doors leading off the covered courtyard and shutters follow the same simple scheme, shared with the door to the *sabil* (drinking fountain) (Figure 4.15).<sup>297</sup> They have an upper and lower metal band with titular inscriptions and are otherwise plain. Doors and shutters generally were not matching, but here they are only distinguished by the addition of knockers to the doors.

While the three foundations of sultans Hasan, Barquq and Qaitbay show an unusual level of corresponding elements, they illuminate some of the determining factors in design and the role of patrons and architects. Mols argues that wealth alone does not account for the innovation and fine quality of fittings nor does royal status. Amirs could commission the same, or even higher, quality fittings and evidently used the same workshops.

Identical border bands appear on the medallion doors of al-Mu'ayyad Shaykh (1415-1420) and Amir Janibek al-Ashrafi (1427), probably attributable to the same workshop. Amirs used new designs or placements. The funerary madrasa of Amir Mahmud al-Ustadar (1394-1395) has four unusually elaborate and diverse metal inlay grilles in the façade, which equal any ordered by a sultan.<sup>298</sup>

These parallels suggest that the presence of highly placed overseers with artistic expertise may have played a large role in determining not only the architectural design, but that of fittings and furnishings. It also illustrates that artists were commissioned by amirs, sultans, and sometimes wealthy civilians for similar projects. In the case of

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<sup>296</sup> Mols, *Mamluk Metalwork Fittings* (2006), 160.

<sup>297</sup> *Ibid.*, 277-282.

<sup>298</sup> Mols, *Mamluk Metalwork Fittings* (2006), 161.

Qaitbay, the personal interest of the sultan in architecture, as well as his desire to create a recognizable style that drew both on the glorious Bahri past and new forms, was the impetus behind the renaissance of Mamluk arts.

The initial blossoming of art and architecture under al-Nasir Muhammad, as well as Qaitbay's revival demonstrate the paramount importance of patronage. Cairo's urban fabric was partly an expression of the will of powerful sultans and amirs. The motives, beliefs, and preferences of powerful individuals, from patrons to highly placed overseers contributed to its architectural development. Taking this into account, foundations and their furnishings cannot be regarded as monolithic either in aesthetic or intent.

#### 4.5 *Metalwork*

One of the more mysterious aspects of the revival that occurred under Qaitbay is the sudden refinement of workmanship. Three arts in particular thrived alongside the resurgence of architecture: metalwork, book arts, and carpets. Newhall claims the quality of artwork under Qaitbay and its appearance "ex nihilo" is puzzling, but it could be an indication of artist migration.<sup>299</sup> The renaissance of Mamluk arts either could have attracted skilled foreign craftsmen or inspired the return of native Cairene artists who had gone where they could more easily find employment. The presence of poorly executed metalwork from the beginning of the 15<sup>th</sup> Century to Qaitbay's reign suggests proficient artisans were absent rather than employed in other professions. Even as metalwork became less desirable, due to the growing popularity of *sini* ware (Chinese porcelains)

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<sup>299</sup> Newhall, "The Patronage of the Mamluk Sultan Qa'itbay" (1987), 177. For a discussion of artist migration see Meinecke *Patterns of Stylistic Changes in Islamic Architecture* (1996).



and a lack of materials, if skilled artists were available patrons would have employed them instead of accepting inferior work.<sup>300</sup>

Challenge to Mamluk sovereignty over the Holy Cities, particularly by the Aq Qoyunlu warlord Uzun Hasan and the Ottoman sultan Fatih Mehmed, may have partly inspired the return of fine metalwork. Newhall suggests it was Qaitbay's desire to send "traditional high quality objects," particularly metal lamps, to the mosques in the Haramayn that sparked the revival. Egyptian *fiqh* scholar al-Samhudi (1440-1505) reports that between 1476 and 1479, Qaitbay sent 99 lamps to Medina.<sup>301</sup>

A brass candlestick commissioned for the Prophet's mosque illustrates some of the stylistic markers of Qaitbay's patronage, the most distinctive of which is a wide flat looking script that terminates in hooked "pincer" or "flame" tips (Figure 4.16).<sup>302</sup> The script is lively with letters that weave in and out of one another, relieving their flatness. On the body are titular inscriptions and the Sultan's blazon, while the neck and socket have smaller inscriptions dedicating the piece to Medina.

Vegetal arabesques, popular in the Bahri Period, return but in a more stylized form as seen around the inscriptions.<sup>303</sup> There is less distinction between floral forms and leaves, and a balance between curved and angled forms creates an effective aesthetic tension. Behind the arabesque, an even more intricate pattern of spirals fills the space, and the whole has been nielloed to create contrast. The raised bands dividing the parts

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<sup>300</sup> For a discussion of Chinese ceramics in Mamluk Egypt see Scanlon, "Egypt and China: Trade and Imitation" (1970) and "Mamluk Pottery: More Evidence from Fustat" (1984).

<sup>301</sup> Qaitbay was involved extensively in projects in the Holy Cities in the 1480s. Newhall, "The Patronage of the Mamluk Sultan Qa'itbay" (1987), 180; Atil, *Renaissance of Islam* (1981), 101.

<sup>302</sup> O'Kane, *The Illustrated Guide* (2012), 155.

<sup>303</sup> Newhall, "The Patronage of the Mamluk Sultan Qa'itbay" (1987), 182.

have a delicate fishbone pattern of leaves, and the base a band of stylized peonies and lotuses.

The same pincer inscriptions decorate two *tannurs* dedicated to the foundation by Qaitbay's wife, Asal Bay, at Fayyoun (1498-1499). Unlike polygonal *tannurs*, discussed in the previous chapter, pyramidal *tannurs* are tapered, six sided, and topped by domes or descending bulbs. They have small arched doors for placing glass oil burners that would hang from the bottom. Inscription bands at the base and the top, often on the bulb as well, and a central medallion resembling those used on bookbindings. Apparently, this form developed quite early. A record exists of a four-sided pyramidal lamp in the name of Sultan al-Zahir Baybars' daughter in Gaston Wiet's 1932 catalog of the Islamic Museum in Cairo, but the lamp itself has since disappeared.<sup>304</sup>

These elegant lamps demonstrate the full revival of metal mosque furnishings. They are six-sided and tapered, topped with descending bulbs. Titular inscription bands wrap around the tops and bottoms, as well as the bulbs and even the small cylindrical holders at the base. In the center of each side panel are arabesque medallions with elaborate finials. (Figure 4.17)

A similar lamp in the Victoria Albert Museum bears Qaitbay's titles and possibly once belonged to his funerary mosque, constructed a decade before Asal Bay's. Unlike the *tannur* above, the inscription uses a more rounded script lacking pincer finials, suggesting they developed later. The piece was burned and then later buried, losing its original domed top, but still displays the same graceful tapered form and pierced medallions (Figure 4.18).

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<sup>304</sup> Behrens-Abouseif, *Mamluk and Post-Mamluk Metal Lamps* (1995), 67.

#### 4.6 Book Arts and the Sultan's Library in the Desert

Like other arts, manuscripts appeared to decline in quality after the reigns of Barquq and Faraj. Interestingly the art of illumination deteriorated, but not calligraphy. Economic restrictions probably played a role, as the quality of pigments dropped.<sup>305</sup> This shift suggests calligraphers found employment more easily than other artisans during the downturn, either because of continuing demand or the relatively low cost of their materials. Qaitbay's attempt to promote learning included commissioning religious, poetic, historical, and scientific manuscripts, both new and translated.

Newhall emphasizes his rule as an outstanding example of erudition following the ignorance of previous Circassian sultans. She cites historians criticism of Barsbay's inability to read Arabic, while at the same time mentioning he was known for religious learning, and Inal's poor recitation and pronunciation.<sup>306</sup> While Qaitbay may have been exceptionally learned, historians were known to deride the Mamluks, particularly as non-native Arabic speakers.

Complaints by historians regarding the dark times they were living in and the ignorance of their Turkic rulers should be taken with a grain of salt. Qaitbay certainly supported learning both by restoring venerable institutions like al-Azhar, and founding new ones. He endowed his desert complex with an extensive library, donated a book collection to Faraj ibn Barquq's *khanqah* as well as a Qur'an and *kursi* to one of Sultan Jaqmaq's foundations.<sup>307</sup>

Among the volumes Qaitbay endowed to his madrasa was a copy of *Ihya' 'Ulum al-Din* (Revival of the Islamic Sciences) by the famed Islamic philosopher, al-Ghazali (c.

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<sup>305</sup> Newhall, "The Patronage of the Mamluk Sultan Qa'itbay" (1987), 197.

<sup>306</sup> *Ibid.*, 77.

<sup>307</sup> *Ibid.*, 77, 93.

1056-1111).<sup>308</sup> The illuminated opening of the eighth section, now in the Los Angeles County Museum of Art, contains an endowment inscription dedicating it to the madrasa for the use of students (Figure 4.19). It reads:

Endowed by His Majesty al-Malik al-Ashraf Abul-Nasr Qaitbay helped by God  
this section and the previous section and the next section for the students of the  
holy science to benefit from and it is dedicated to his madrasa which he built in  
the desert under the condition that it may not be borrowed except by a  
documented pledge  
On the date of 6 Dhu al-qa<sup>c</sup>da 895 (1490)  
This documentation is witnessed by the poor before God Muhammad (unclear)  
Witnessed from the side of His Majesty by Abd al-Razik Ahmed al-Baqly.<sup>309</sup>

Due to the absence of an assigned rite or teaching program in the main endowment deed, Behrens-Abouseif contested the foundation's designation as a madrasa. The above inscription demonstrates the complex indeed functioned as a madrasa, perhaps in a separate document undiscovered or no longer extant. Commonly a foundation's endowment deeds, foundation inscription, and historical descriptions assign multiple functions, leading to debates among scholars.

Qaytbay's inscription designates it as a madrasa, while the endowment deed and historian Ibn Iyas refer to it as a Friday mosque with a Sufi rite. Undoubtedly it had multiple functions. Endowed objects add to our understanding of the building's history. Here the presence of a collection of books, too expensive for frivolous production, indicates an educational function, regardless of the lack of formally designated classes outlined in the endowment deed. Perhaps the description as a madrasa reflects the growing informality of education in the Circassian period and an alternative use of the already loosely applied term. This example illustrates the importance of considering

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<sup>308</sup> See Griffel, Frank, "Al-Ghazali," *The Stanford Encyclopedia of Philosophy* (Winter 2016 Edition), Edward N. Zalta (ed.). <https://plato.stanford.edu/archives/win2016/entries/al-ghazali/>.

<sup>309</sup> Translated by Ahmed Eishra, Cairo University

endowed objects as integral to understanding foundations, which were not empty buildings but living institutions.

The illuminated page from the al-Ghazali volume has an eight lobed central medallion, common in Mamluk Qur'ans, which resembles a motif used to display the sultan's titles marking his restoration of al-Azhar in 1495-1496 (Figure 4.20). Possibly the literary sultan, who composed prayers and poems in Arabic and Turkish, deliberately chose the pattern for the famous scholarly institution.<sup>310</sup> His blazon roundel forms the center, surrounded by lobes. The lobes terminate in the kind of loops commonly found in architecture, showing a transfer of designs to different media, surely begun on paper. The wood was once painted and it would be interesting to note if the colors correspond to those commonly used in manuscripts.

Newhall also mentions Ilkhanid and Timurid elements in mid 15<sup>th</sup>-century manuscript production, particularly in floral sprays and the use of blue, gold, and green.<sup>311</sup> Deep blue and gold are quite common, but greens, pinks, and mixed blues as well as peonies and lotuses already occur in 14<sup>th</sup>-century manuscripts, notably by Ibrahim al-Amidi, illuminator of the famous monumental Qur'an endowed to Umm Sultan Sha'ban's foundation and several others.<sup>312</sup>

James proposes that Ibrahim came to Cairo from Amid, now Diyarbakir, in Anatolia during the reign of Sultan Sha'ban (r.1363-1377), but Shelomo Dov Goitein speculates the name "al-Amidi" often referred to involvement in the production or selling

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<sup>310</sup> Newhall, "The Patronage of the Mamluk Sultan Qa'itbay" (1987), 78.

<sup>311</sup> *Ibid.*, 198.

<sup>312</sup> James, *Qur'ans of the Mamluks* (1988), 197-204.

of “Amidi” textiles rather than city of origin.<sup>313</sup> Baer compares the designation to “al-Mawsili” adopted by metalworkers working in the style hailing from Mosul.<sup>314</sup> A connection to textiles is intriguing as Maqrizi uses *al-rassamun* (designers, from *rasm* “to draw”) in reference to textile production in the market. Nevertheless, the style of al-Amidi’s illuminations suggests he indeed trained outside of Cairo.

The introduction of a new style brings up questions as to how motifs are transferred and to what extent constant renewal of contact is required to ensure they remain in use. While there may have been continued exchange, Newhall refers to a copy of a Timurid-style Qur’an made for Amir Mughlatay al-Malik al-Zahiri (d. 1468), so some of these elements had been present since the previous century.<sup>315</sup>

Were 15<sup>th</sup>-century Qur’an illuminators still being exposed to Eastern styles, or did Ibrahim al-Amidi establish a style that was passed on or imitated? The two are not mutually exclusive. Qaitbay revived book arts through commission and ostensibly importing higher quality materials. Whether this encouraged the immigration or return of artists, or access to quality pigments simply allowed for illuminators already in Cairo to exercise their skills is unknown.

#### 4.7 Mamluk Carpets: Revival or New Art?

Carpets comprise one of the most fascinating and enigmatic elements of Mamluk art. Mamluk carpets make up a distinctive group of jewel-toned medallion-patterned textiles whose origin and manufacture remain obscure. Because none survive from before

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<sup>313</sup> James, “The Mamluks of Egypt and Syria” (1992), 172, 175; Goitein, *A Mediterranean Society* (1967), 50.

<sup>314</sup> Baer, *Metalwork in Medieval Islamic Art* (1983), 301.

<sup>315</sup> Newhall, “The Patronage of the Mamluk Sultan Qa’itbay” (1987), 200.

the late 15<sup>th</sup> century, their history in Egypt is poorly understood. As with other arts, Qaitbay encouraged production, but some question remains as to whether he was reviving an established tradition or introducing a new one. Like metal lamps, Qaitbay sent carpets to Medina following the fire at the Prophet's mosque (1481), and perhaps this gift played a similar role in inspiring Cairene carpet production.<sup>316</sup> Historical records refer both to local and imported carpets in medieval Cairo. Under Qaitbay and into the 16<sup>th</sup> century, carpets were exported from Egypt to Italy and feature in some Renaissance paintings as exotic luxury items.

Initially the group of carpets was attributed to Damascus, but Carl Johan Lamm helped establish a Cairene origin after some fragments were unearthed in Fustat.<sup>317</sup> Several scholars, notably Ernst Kühnel, Louisa Bellinger, and Esin Atil, claim that Mamluk carpets represent a foreign technology, probably introduced to Egypt by Iranian or Central Asian workers.<sup>318</sup> Kühnel and Bellinger primarily based this on the presence of some Z-spun yarns in Mamluk carpets, while the native technique is S-spun, the presence of four-ply yarns and the use of the Persian (asymmetrical) knot in samples unearthed at Fustat.<sup>319</sup>

A more recent study by Julia Theologou proposes that both S- and Z-spun yarns may be found in the same carpet if two different types of wool, longer and shorter haired, are used. She notes a progression, with asymmetrical knots appearing later, inferring a native tradition that developed over time.<sup>320</sup> Jon Thompson supports this, proposing a

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<sup>316</sup> Suriano, "A Mamluk Landscape" (2004), 100.

<sup>317</sup> Lamm, "Some Fragments of Carpets Found in Egypt" (1937), 51-130. JonT-115

<sup>318</sup> Kühnel and Bellinger, *Cairene Rugs and Others Technically Related* (1957), 80-82; Atil, *Renaissance of Islam* (1981), 226-227.

<sup>319</sup> S-spun yarns are twisted to the left, a technique that developed in Egypt due to flax's natural tendency to bend to the left.

<sup>320</sup> Theologou, "Fustat Carpet Fragments" (2008), 7.

technological and stylistic evolution in Cairene workshops established by Qaitbay rather than the earlier grouping based on two distinct production centers. He proposes both native and foreign, likely Turkmen, workers collaborated accounting for the two kinds of knots.<sup>321</sup> Carlo Maria Suriano attributes most of the carpets published in his article “A Mamluk Landscape: Carpet Weaving in Egypt and Syria under Sultan Qaitbay” (2004), including the famous Simonetti carpet now in the Metropolitan, to Syria due to their technique and similarity to Anatolian carpets.<sup>322</sup>

Surviving Mamluk carpets have certain distinctive features. Red usually predominates, with accents in blues, yellows, and greens (Figure 4.21). While made of wool, they have a surprisingly luminous quality usually associated with silk, and are almost uniformly decorated with patterns of medallions.<sup>323</sup> Generally, there is a central medallion, most often made of two interlocked squares, surrounded by smaller medallions of the same type or ovoid. Abstracted vegetal ornament fills both the medallions and fields; suggesting flowers, stars, or pure pattern. One of peculiarities of their vegetal designs is a profusion of what scholars refer to as “umbrella” leaves, small sprays of flared leaves on slender stalks (Figure 4.22). Flared or knotted linear elements recall decorative *kufic*.

The Simonetti carpet is one of the best preserved and magnificent of the group (Figures 4.23 and 4.24).<sup>324</sup> Attributed to the latter half of the 14<sup>th</sup> century or circa 1500 it was made either under Qaitbay or certainly by one of the workshops he established. Red dominates, overlaid with shimmering hues of green, blue, and gold. The central

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<sup>321</sup> Thompson, "Late Mamluk Carpets" (2012), 129-130.

<sup>322</sup> Suriano, "A Mamluk Landscape" (2004), 94-105. Both Suriano and Thompson have published an interesting prayer rug that strongly resembles Anatolian examples, but typically Mamluk carpets do not.

<sup>323</sup> For a rare Mamluk garden rug see Suriano, "A Mamluk Landscape" (2004), 97.

<sup>324</sup> <http://www.metmuseum.org/art/collection/search/452100>.



medallion consists of two interlocking squares forming a latticed jade green octagon. Above and below are petalled oval medallions with central octagons, and towards the ends two octagonal medallions. Alternating oblong and round red medallions punctuate a green border.

Each shape rests inside or contains another shape, shifting from one perspective to another. Small abstracted vegetal and knotted elements make up the larger pattern. The delicacy of these elements gives the rugs their kaleidoscopic quality, allowing the eye to blend adjacent colors so they appear almost transparent.

A few examples of carpets, or fragments, contain a blazon used by Qaitbay and his amirs. One in the Textile Museum in Washington, is primarily red with green, yellow and cream accents (Figure 4.25). It lacks the iridescent quality of some other examples and the forms are more rigid, with clear outlines. The second, the so-called Barbieri Carpet is extremely unusual, although there could have been more examples that have not survived (Figure 4.26). Executed in red, dark blue, and gold, with cream accents, the central oval field of red is set with an octagonal medallion. A band of blue with a series of mushroom-like umbrella leaves surrounds the oval. Outside of this is an astoundingly complex combination of interlocked squares, braiding, and even star-patterns with blazons set in each corner.

While Thompson argues the presence of blazons is proof for a “court sponsored” workshop, these two examples are extremely clumsy compared to the Simonetti and other Mamluk carpets.<sup>325</sup> The central medallion of the Barbieri carpet is asymmetrical and the small lobes on its border do not match perfectly. If Qaitbay established a royal workshop,

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<sup>325</sup> Thompson, “Late Mamluk Carpets” (2012), 128.

it surely would produce only the highest quality designs. Perhaps lower-ranking Mamluks commissioned carpets with the blazon for the sultan.

One of the acknowledged, but as of yet unexplained, aspects of Mamluk carpet designs is their reliance on motifs found in Coptic textiles. The umbrella leaves, interlocked squares, cups, and palms occur in Coptic and earlier Pharonic designs.<sup>326</sup> (Figure 4.27). Interestingly many Coptic textile fragments also use wool dyed in reds, blues, greens, and yellows, usually in concert with un-dyed linen or flax. This tonality may reflect an aesthetic or be due to the availability of dyes.

Regardless of the carpets' origin, an accurate impression of Mamluk interiors is incomplete without them. Thompson asserts that we know the most about Turkish carpets partly because many were “preserved in Turkish mosques.”<sup>327</sup> If so, why is the Mamluk case different? Many furnishings were preserved in continuously working mosques, but there are no records of the brilliant carpets. Either they did not survive as well as Turkish examples or they were primarily used in residences.

Sultan Qaitbay is second only to al-Nasir Muhammad in influencing Mamluk arts. That two sultans shaped so much of the urban fabric and art objects emphasizes the personal nature of Mamluk patronage. The revival of the arts under Qaitbay illustrates the close connection between architecture, metalwork, book arts, and carpets. As demonstrated by *tannurs* and the endowment of the al-Ghazali volume, context informs architecture and furnishings and vice versa. Without being able to place carpets, their use, patronage and our ability to envision a fully furnished Mamluk foundation are lost.

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<sup>326</sup> Cavallo “A Carpet from Cairo” (1962), 70.

<sup>327</sup> Thompson, “Late Mamluk Carpets” (2012), 121.

## 5.0 Chapter 5-Questions of Context

### 5.1 *Introduction*

The three foundations discussed in the chapters above illustrate some of the essential ways in which objects relate to their architectural context in the Mamluk world. Sultans Hasan and Barquq's complexes reveal relationships between furnishings and architecture that may be due to their designers' direction. These relationships suggest that in certain cases the designs of foundations and furnishings were complementary. Sultan Qaitbay inspired a revival of Mamluk arts and established a style that was both unique and firmly situated in the Mamluk aesthetic.

These relationships bring up questions as to how designers and craftsmen worked and how motifs were transmitted across media, including the mysterious lack of drawings on paper or other media from medieval Egypt. Finally, how does the patron affect design and inform intent?

Questions of intent become more complex when considering context and the relationship of art objects and architecture to the viewer. Taking a more comprehensive approach can uncover the role of the viewer and its relationship to function. Considering the viewer takes into account how analyzing architecture and art objects abstractly and typologically alters our perceptions of them.

### 5.2 *Designers and Craftsmen in the Mamluk Period*

One of the most intriguing aspects of Mamluk art and architecture is the question of how designers and craftsmen functioned. Historians looked askance at artists and

rarely included them in biographies. The few exceptions are artists who gained prestige through the religious or scholarly avenues historians approved of. For example, the histories tend to mention calligraphers more often, due to their association with scholarship and distance from manual crafts. *Mu'allims al-mua'llimin* (literally, “master of masters”) whom in reality acted as administrators rather than artists, are also included.<sup>328</sup>

As the spread of education fostered by Mamluk religious foundations allowed craftsmen and merchants to gradually penetrate higher social circles, historians grew particularly hostile towards Sufi and artisan social climbers, whom they regarded as “upstarts.”<sup>329</sup> A general mistrust or condescension towards artisans, particularly certain groups like weavers, caused a stark line to be drawn between craftsman and other groups. In addition to histories, *hisba* literature, the manuals of market inspectors, provide insights into how craftsmen worked.

Artists that make it into the histories exemplify the versatility of medieval Cairenes. Ibn Hajar (1372-1449) reported one Ibrahim al-Mi'mar not only worked as a builder and craftsman but was also a poet. The Sufi shaykh, Muhammad al-Maltuti (d.1468), in charge of *dhikr* rituals at the mosque of al-Hakim, also was a metal inlayer, decorator, and hat maker. Similarly, a Muhammad ibn Ahmad Fakhr al-Din was a *faqih*, musician, poet, tailor, carpenter, and builder and as discussed Ibn al-Tuluni worked in multiple media.<sup>330</sup> Even the sand-casting technique used in manufacturing window grilles required the use of carved wooden molds.<sup>331</sup>

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<sup>328</sup> Rabbat, *Mamluk History through Architecture* (2010), 39.

<sup>329</sup> Behrens-Abouseif, "Craftsmen, Upstarts and Sufis" (2011), 378.

<sup>330</sup> Behrens-Abouseif, "Craftsmen, Upstarts and Sufis" (2011), 383-384.

<sup>331</sup> Mols, *Mamluk Metalwork Fittings* (2006), 85.

Not all artisans worked at more than one task or in multiple media, but some certainly did. While artists working in more than one medium would make exchange between media inevitable, the close proximity of the various markets would have facilitated transmission even when this was not the case. In some instances, multiple artists worked at specific tasks on the same project. Qur'an manuscripts often had separate calligraphers, illuminators, and gilders. What is most apparent however is there are no strict rules when it comes to how artisans worked or which titles and terminology historians applied to describe their activities.

Relying on descriptive terminology in the sources is difficult as there is no standardization of terms. Fixed meanings appear to be virtually non-existent, and scholarly attempts to assign them are more indicative of a mania for taxonomy than historical evidence. In Mamluk literature, the most common titles associated with building are *muhandis*, *banna<sup>c</sup>*, and the supervisory *shadd al-<sup>c</sup>ama'ir*.

A *muhandis* seems to have acted as a sort of engineer and possibly architect. Generally, it refers to someone skilled in surveying, geometry, construction, hydrology, building inspection and valuing real estate. In Mamluk Egypt *muhandisun* also engineered bridges. There is some debate over whether the designation applies to a hands-on role in building or one restricted to surveying and design.<sup>332</sup>

*Banna<sup>c</sup>* 'and *mi<sup>c</sup>mar* refers to builders, whether they were involved in planning and design or only execution is unclear.<sup>333</sup> Al-Nasir Muhammad created the position of *shadd al-<sup>c</sup>ama'ir*, a supervisor of royal construction projects, reserved for amirs. Because

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<sup>332</sup> Rabbat, "Design Without Representation in Medieval Egypt" (2008), 148.

<sup>333</sup> See Ghabin, "Hisba, Arts and Crafts in Islam" (2009).

of their amiral status, historians recorded the name of the *shadd* when discussing building projects regardless of the level of involvement.

While role of *shadd* may have been primarily administrative, or even ceremonial, in some instances it included design, as in the case of Ibn Bilik. The *shadd* supervised the project's budget as well as the activities of the various craftsmen. Assumedly, their level of artistic or building experience determined to what extent they intervened in design. Qalawun's amir, ʿAlam al-Din al-Shuja'i, oversaw and designed several projects, including the Sultan's large funerary complex (1284-1285).<sup>334</sup> Ibn Bilik is another example of a Mamluk with artistic expertise involved in architecture. In building and other crafts, *muʿallim* seems to designate a skilled or master artisan.

The majority of extant practical information relates to civilian arts and architecture. As elites, the Mamluks were not subject to casual scrutiny and their artistic patronage was beyond the restrictions imposed by the market inspectors.<sup>335</sup> Several questions remain as to if, and how, the commission of elaborate architecture and art objects for Mamluks differed from that of civilians. The first is whether skilled artisans were employed in royal ateliers; the second is how were complex designs were conceived and transmitted.

Documentation of directly controlled royal ateliers in the medieval Islamic world is scant. While scholarly, and non-academic, writing is peppered with the term "court workshop," conjuring images of rows of painters busily ensconced in palaces, there are few concrete examples of such an institution. In its absence, questions arise as to how

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<sup>334</sup> Rabbat, "Architects and Artists in Mamluk Society" (1998), 32.

<sup>335</sup> Ghabin, "Hisba, Arts and Crafts in Islam" (2009), 295.

dynastic styles were developed across media and how standardized calligraphic inscriptions were circulated.

Mamluk Egypt's particular lack of extant descriptions, drawings, and plans for artistic endeavors, necessitates situating its artistic processes in a wider regional context. Examining contemporary trends will help to illuminate possible methods employed by Cairene artisans as well as explain why the Mamluk record is incomplete.

Perhaps the most compelling evidence for direct court control over artistic production comes from Iran and Central Asia under the control of the Ilkhanids (1256-1353) and then the Timurids (1370 to 1507). Ilkhanid sultans Ghazan (1295-1304), Öljeytü (1304-1316), and Abu Sa'id (1316-1335) brought the region's premier ateliers under royal jurisdiction. Vizier to the first two, Rashid al-Din, attached a scriptorium to his tomb complex.<sup>336</sup> While little remains to document Timur's patronage (1370-1405), that of his successors reveals the production and deliberate dissemination of designs across media. The impetus behind incorporating artisans into the court may have been the mobility of Timurid rulers and to establish a dynastic style.<sup>337</sup>

Timur's forceful removal of skilled craftsman from the cities he sacked to his new capital at Samarqand supports court management of artists, who assumedly were drafted into royal projects. Artist relocation continued as the Timurids constantly moved capitals. In the 15<sup>th</sup> century, one of the Timurid princes, Baisunghur (1397–1433), established an atelier in Herat known for luxury manuscript production.

A manual written by its overseer, known as the *Arzadasht*, describes employees engaged in a variety of tasks related to book arts and drafting designs, including

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<sup>336</sup> Carboni, "Continuity and Innovation in Ilkhanid Art" (2002), 197.

<sup>337</sup> Canby, "Art of Iran and Central Asia" (2011), 171.

references to workers involved in architectural decoration: interior painting, tiling and tent-making. Assumedly, the master oversaw the proper execution of designs generated in the atelier. He mentions the completion of an atelier for scribes and painters in the “old palace.”<sup>338</sup>

Nonetheless, there is a certain flexibility in the concept which defies standardization. For example, in the Safavid period when *kitabkhanas* (ateliers associated with book production) are well documented, a copy of the *Haft Awrang* commissioned by Sultan Ibrahim Mirza in 1556 was only partially completed in the Mashhad atelier. One scribe, Malik al-Daylami began a section in Mashhad and completed it in Qazvin. Safavid artists could even work for more than one patron simultaneously.<sup>339</sup>

In Egypt and Syria there is far less evidence for court controlled workshops. Reportedly, *tiraz* production occurred in the palace in the Fatimid Period for both elites, *tiraz al-khassa*, and the rest of the population, *tiraz al-‘amma*.<sup>340</sup> However, the majority of artistic activity seems to center around the markets where craftsmen offered luxury items such as carved rock crystal, metalwork, and enameled glass.<sup>341</sup>

Under the Mamluks, the Cairene *tiraz* factory was located in the marketplace with sporadic state control, sometimes reverting to private ownership by amirs or wealthy merchants. The manufacture and sale of textiles was lucrative and therefore subject to appropriation and confiscation by amirs and sultans. On several occasions, high-handed Damascene amirs moved entire textile markets into their private palaces.<sup>342</sup>

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<sup>338</sup> Thackston, *A Century of Princes: Sources on Timurid History and Art* (1989), 323-327. See also Simpson, *Sultan Ibrahim Mirza's Haft Awrang* (1997), 318-319.

<sup>339</sup> Simpson, *Sultan Ibrahim Mirza's Haft Awrang* (1997), 326.

<sup>340</sup> Walker, “Rethinking Mamluk Textiles” (2000), 169; Contadini, *A World of Beasts* (2012), 158.

<sup>341</sup> Contadini, *A World of Beasts* (2012), 158.

<sup>342</sup> Walker, “Rethinking Mamluk Textiles” (2000), 170.



Of four instances where Mamluk manuscripts record the location of their production, scribes worked on two in the private homes of Mamluks, one possibly in the original author's home, and one in the private library of a judge.<sup>343</sup> None of these however are Qur'an manuscripts and whether illuminators and illustrators worked in similar settings is unclear. Because their trade utilizes easily transportable materials, patrons may have provided scribes, and possibly painters, places to work.

A great deal of activity related to crafts took place in Cairo's markets. Maqrizi reports that patrons or craftsmen in other markets recruited skilled workers, such as gilders and inlayers, for specific tasks. The grouping of crafts led to areas named after their primary activities or wares; "Street of the Coppersmiths" or "Bazaar of the Blacksmiths."<sup>344</sup> Manuals record the appointment of liaisons, called *'arifs*, to act as intermediaries between each craft and the market inspectors, inside men who informed the inspector on items, pricing, practices and means of cheating.<sup>345</sup>

Ibn al-Ukhuwwa (d. 1329) writes in a *hisba* manual that often someone who ordered the construction of a building was driven into debt by misquoting on behalf of those involved in the building trades.<sup>346</sup> It seems unlikely a Mamluk patron would tolerate swindling, assuming a craftsman or builder was bold enough to try.

To what extent did Mamluk patronage follow civilian practices? Ahmad Ghabin suggests that not only was elite patronage beyond the jurisdiction of market inspectors, but that artists producing prohibited items for elites (figural imagery, gold and silver

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<sup>343</sup> Contadini, *A World of Beasts* (2012), 162-163.

<sup>344</sup> Goitein, *A Mediterranean Society* (1967), 83.

<sup>345</sup> Ghabin, *Hisba, Arts and Crafts in Islam* (2009), 176-179.

<sup>346</sup> *Ibid*, 198.

vessels) would have actively avoided them.<sup>347</sup> Nonetheless, different practices on behalf of artists working for elite patrons does not presuppose direct court control over artists or royal ateliers.

Rogers argues in favor of royal Mamluk ateliers based on the high quality of work, use of titular inscriptions, and presence of blazons. He suggests that shared socio-economic conditions among the Mamluks, Timurids, Turcomans, and later the Ottomans would lead to similar practices.<sup>348</sup> There are several issues with these assertions, beginning with the lack of evidence for widespread reliance on court ateliers in Central Asia and Anatolia.

Taking the Timurid case, where there seems to be the most evidence of state control, it was the mobile nature of the ruling class as well as the establishment of new capitals that drove such measures. The Mamluks in contrast inherited a capital city with an established artistic tradition already in place. Travelers describe high quality luxury items in the marketplaces, outside the court's jurisdiction. In addition, the constant shifts in power would make maintaining the organization of royal ateliers extremely difficult.

Rogers does bring up an important point about the distribution and proper execution of inscriptions, although it seems unlikely this required direct supervision of the court. The use of blazons and titular inscriptions is so widespread that it would have necessitated a vast network of court ateliers in different media, which surely would be recorded by the historians, had it existed. If such did not come under the direct supervision of the court, then the designs must have been distributed among media.

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<sup>347</sup> Ghabin, "Hisba, Arts and Crafts in Islam" (2009), 192.

<sup>348</sup> Rogers, "Court Workshops Under the Bahri Mamluks" (2012).

Unfortunately, no plans on paper, or in any other media, remain from Mamluk Egypt to illuminate how builders and craftsmen executed architectural and artistic designs. As discussed, the *Arzadasht* references the distribution of designs from an atelier and the famed Timurid Topkapi Scroll contains examples of paper plans for architectural elements in Central Asia.<sup>349</sup> As demonstrated by Jonathan Bloom in "Paper: The Transformative Medium in Ilkhanid Art" the increasing availability of paper led to its use for the drafting and distribution of designs and inscriptions from the 13<sup>th</sup> century on.<sup>350</sup>

Why there are no pattern books or even fragments of drawings on paper or other media from Mamluk Egypt is a mystery. Either they have been lost to time or Mamluk artisans did not rely heavily on plans to transmit ideas. Strangely, there are no records of drafted building plans in Egypt before the 19<sup>th</sup> century.

An astonished 12<sup>th</sup>-century visitor from Baghdad, °Abd al-Latif al-Baghdadi (1162-1231) describes a process of Egyptian building without the use of plans. He writes:

Should someone want to build a *dar*, a caravanserai, or a *rab*<sup>°</sup>, he would hire a *muhandis* who would then divide the empty lot in his mind and arrange the laying out of its parts as commissioned. The *muhandis* would then proceed to construct those parts one by one in a way so that he would complete each part in its entirety and deliver it to the occupants before moving on to the next part, until the whole was finished, without distortion or revision [of the original plan].<sup>351</sup>

This obviously was a departure from Iraqi techniques, as al-Baghdadi seems to find it remarkable! Whether this method would work for more complex building projects is extremely uncertain.

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<sup>349</sup> Topkapi Sarayi MS H. 1956. See Gülrü Necipoglu, *The Topkapi Scroll: Geometry and Ornament in Islamic Architecture* (1995) and "Geometric Design in Timurid/Turkmen Architectural Practice" in *Timurid Art and Culture: Iran and Central Asia in the Fifteenth Century* (1992).

<sup>350</sup> Bloom, "Paper: The Transformative Medium in Ilkhanid Art." In *Beyond the Legacy of Genghis Khan* (2006).

<sup>351</sup> Rabbat, "Design without Representation" (2008), 149.

Rabbat suggests this description only applies to the specific kinds of monuments mentioned, and builders probably used plans for more elaborate constructions, especially as stone became the preferred building medium.<sup>352</sup> While this may be true, al-Baghdadi may have omitted them from his list because he had no knowledge of how their designers' worked. It is unlikely the Ayyubids allowed foreign doctors to access royal building projects simply to satisfy their curiosity.

Maqrizi describes the presentation of a plan drawn on animal skin to Ibn Tulun before the construction of his mosque. Interestingly, Maqrizi refers to the Christian builder as a *nasrani* rather than *qubti*, implying he was foreign, probably Iraqi.<sup>353</sup> While Maqrizi lived long after the construction of the Mosque of Ibn Tulun (884), drawing architectural plans on paper or parchment may have had foreign associations as expressed in his early 15<sup>th</sup>- century report.

It appears the Mamluks sometimes relied on a method of transmitting architectural ideas. In 1345 *shadd* Amir Aqbugha and a *muhandis*, called Abjij, led a team of craftsmen to Hama on a kind of architectural scouting mission. Their aim was to replicate the palace of local ruler Malik al-Mu'ayyad for Sultan al-Salih Isma'il (r. 1342-1345).<sup>354</sup> Obviously, they must have had some means of preserving what they saw there and presenting it to the Sultan. This story demonstrates an intense interest in architecture on the part of the Mamluks as well as an architectural dialogue on the part of travelers.

Plans were not necessarily restricted to paper. The Ilkhanids used plaster tablets, as exemplified in a plan for muqarnas vaulting found at the palace at Takht-i Sulayman

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<sup>352</sup> *Ibid.*, 149.

<sup>353</sup> *Ibid.*, 151.

<sup>354</sup> Behrens-Abouseif, *Cairo of the Mamluks* (2007), 201.

(late 1270s).<sup>355</sup> Possibly Mamluk designers used materials besides paper to delineate designs, or to temporarily convey a familiar plan.

Another element that may account for the non-existence of Mamluk designs is the extreme secrecy of craftsmen regarding their trades.<sup>356</sup> In a 16<sup>th</sup>-century *hisba* manual from Damascus, Ibn al-Mubarrid al-Dimashqi refrains from going into detail specifically to avoid exposing secrets of the trades.<sup>357</sup> Similarly, the architect and director of several museums, including the Metropolitan, Caspar Purdon Clarke (1846-1911), expressed admiration at the “jealous care” with which Persian architects continued to protect their methods from scrutiny.<sup>358</sup>

Clarke goes on to describe the use of tracing boards on which architects made scaled representations, then replicated them in plaster on a workroom floor on the building site. The master builder distributed plaster tablets to the workers with plans of the components they assigned them. Both the design on the reusable board and the plaster tracings were temporary. Clarke mentions that when first beginning work on the site, the architect lays the plan out on leveled ground by sprinkling gypsum to demarcate the walls.<sup>359</sup>

This method gives the appearance that the architect is working spontaneously, relying solely on foot measurements, when in actuality he is replicating previously determined a scaled plan.<sup>360</sup> It seems likely the *muhandis* al-Baghdadi questioned also used a similar method, but desired to conceal it. While several centuries later, the

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<sup>355</sup> Necipoglu, “Geometric Design in Timurid/Turkmen Architectural Practice” (1992), 48. See also Dold-Samplonius, and Harmsen. “The Muqarnas Plate Found at Takht-I Sulayman” (2005).

<sup>356</sup> Necipoglu, “Geometric Design in Timurid/Turkmen Architectural Practice” (1992), 54; Cipriani, “Development of Construction Techniques in the Mamluk Domes of Cairo” (2001), 30.

<sup>357</sup> Ghabin, “Hisba, Arts and Crafts in Islam” (2009), 118.

<sup>358</sup> Clarke, “The Tracing Board in Modern Oriental and Medieval Operative Masonry” (1893), 100.

<sup>359</sup> Clarke, “The Tracing Board in Modern Oriental and Medieval Operative Masonry” (1893), 100.

<sup>360</sup> *Ibid.*

persistence of design scrolls through the 19<sup>th</sup> century shows a remarkable continuity in practice.

Iranian architects used design scrolls exhibiting geometric patterns, constructed using the point of a compass, as late as the 19<sup>th</sup> century. An example, procured by Clarke, and now in the Victoria and Albert Museum, contains the skeletal tracery of familiar star-polygon patterns.<sup>361</sup> Necipoglu describes these designs as an *aidé-mémoire* rather than a strict plan and mentions they could have been reconstructed three dimensionally in multiple ways.<sup>362</sup>

Drawings in the scrolls tended to contain details the architect put together rather than extensive plans. By generating diagrams of details, rather than entire schemes, architects could rely on a repertoire of design elements which could be combined and reinterpreted. Ostensibly, an architect could use such designs to direct the ornamentation of a foundation's furnishings and fittings as well.

Craftsmen probably executed the majority of their designs directly on the working surface. Many of the elaborate geometric patterns that adorn Mamluk art and architecture rely on a radial framework or sectional grids. The Mamluks named the technique for creating star and polygon patterns *darb khayt*, "hit of a thread," referring the use of radial measurements defined by a length of string.<sup>363</sup> Such a method would be far more efficient and effective than pounces or cartoons particularly for applying designs to irregular or curved surfaces. As the unfinished carving on the façade of Sultan Hasan's Complex indicates, details were often applied in situ.

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<sup>361</sup> Victoria and Albert Museum AL.8292:4.

<sup>362</sup> Necipoglu, "Geometric Design in Timurid/Turkmen Architectural Practice" (1992), 50.

<sup>363</sup> Kahil, *The Sultan Hasan Complex in Cairo* (2008), 86.

Considering most artists inherited a repertoire of designs directly from their master (*mu<sup>c</sup>allim*), the need for sketches would be limited. Artistic apprenticeship probably relied on a great deal copying and repetition on the part of the students. A modern day Damascene metalworker reported having hundreds of designs in his memory from which he worked.<sup>364</sup>

An exception to direct application may be inscriptions, particularly architectural ones. Text is continuous and directional unlike repeating and multi-directional patterns; therefore it requires precise spacing before execution. Examples of inscriptions which begin smoothly only to have several jumbled words stacked on top of each other at the end attest to the necessity of careful planning. While a pattern can absorb mistakes to a certain extent, a text cannot. As discussed by Bloom, it is likely calligraphers drafted elaborate inscriptions on paper, which artisans proficient in the respective medium executed. The example of the stucco inscription signed by Ibn Bilik in Sultan Hasan's Complex supports calligrapher designed inscriptions, probably scaled up from paper designs.

It seems unlikely however, that with the growing reliance on inscription as the major decorative feature of Mamluk art that specialized artisans would not have grown proficient in their design and application. Portable metal objects in particular, from the third reign of al-Nasir Muhammad on, are dominated by inscriptions. Radial inscriptions, used extensively in metal inlay, do not appear to derive from book arts. Craftsmen ostensibly executed their own signatures, sometimes poorly, when they appear.

The signatures of metal inlayer Muhammad ibn al-Zayn seem to be in his own hand. Because he signed more than one piece, we may glean some information on how

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<sup>364</sup> Mols, *Mamluk Metalwork Fittings* (2006), 9-38.

craftsmen functioned from his work. Any discussion of Mamluk artisans would hardly be complete without mentioning him.

Ibn al-Zayn signed two of the most famous pieces of Mamluk figural inlay in the Mawsili style, the Baptistère de Saint Louis and Vasselot Basin (c. 1320-1340). In addition, Bloom convincingly proposes he worked on the Mayer Basin.<sup>365</sup> The same name appears on an iron grille installed in the Is<sup>c</sup>ardiyya madrasa-*khanqah* in Jerusalem (1359), which raises the question whether the same artist could be responsible for inlay and ironwork.

Mols asserts Ibn al-Zayn is responsible for all three works, which are so different that their relationship would be impossible to detect without his signatures.<sup>366</sup> Assuming the same person was involved in all of these projects, there are several possibilities that account for their differences and mode of manufacture. In “Muhammad ibn al-Zayn: Craftsman in Cups, Thrones and Window Grilles?” Allan proposes Ibn al-Zayn might have worked in more than one medium producing metal inlay vessels and ironwork thrones and window grilles. In a later article, “Court Workshops under the Bahri Mamluks,” Rogers discusses his work as representative of that produced in royal ateliers, and theorizes Ibn al-Zayn executed but did not produce the designs for the two metal vessels.<sup>367</sup> He also posits the designer may have worked from Benedictine or Cistercian manuscripts, a creative but overly complicated explanation for certain figural similarities.<sup>368</sup>

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<sup>365</sup> Bloom, “A Mamluk Basin” (1987), 18.

<sup>366</sup> Mols, *Mamluk Metalwork Fittings* (2006), 152.

<sup>367</sup> Rogers “Court Workshops Under the Bahri Mamluks” (2012), 249-262.

<sup>368</sup> Allan, “Muhammad ibn al-Zayn: Craftsman in Cups, Thrones and Window Grilles?” (1996), 200, 203-205.



Examining the two signed pieces, there are certain stylistic differences, but also differences in execution. Both depict courtly scenes, with seated figures holding cups, huntsmen, and animal figures and use a continuous looped line to create roundels. The exterior decoration of Vasselot Bowl is composed of three roundels with enthroned figures holding cups, surrounded by figures holding symbols of Mamluk rank, musicians, and huntsmen (Figure 5.1). An arabesque band with spear shaped terminals rests below the figures, and the same band is repeated on the Baptistère.

The design on the much larger Baptistère is similar but far more complex. Figural bands adorn the outside and the interior rim (Figures 5.2 and 5.3). Four medallions on the exterior contain riders on wonderfully rendered horses. Surrounding the roundels, vividly engaged figures populate a hunting scene. Some seem to be looking at the mounted figure, others at their neighbor; one cranes his neck in astonishment at a duck that flies above his shoulder (Figure 5.4).

On the interior two roundels contain enthroned figures holding cups, as on the bowl, and two, the French coat of arms, obviously a later addition. Borders of leaping animals appear on the rim and beneath the figural bands (Figures 5.5 and 5.6). Lifelike, some jump, some run; the elephant lumbers and the lion ambles, confident of its superiority among beasts. Interestingly, the faces and attire illustrate different groups; Mongols, Turks, and Franks. Perhaps the most remarkable aspect is the wonderful variety and expressiveness of the human and animal figures, which reaches an apogee in the Baptistère.

While there is an unmistakable personal style emerging in the Vasselot Bowl, the figures are stiffer, the execution somewhat clumsy and there is far less detail. The smaller

size of the bowl could account for the poorer execution, but considering the meticulous nature of metal inlay an experienced craftsman probably would have no difficulty working on smaller pieces. It seems plausible the Vasselot bowl is an earlier work, which appears to be borne out by the signatures.

On the bowl, there is one small signature reading “work of (*ʿamal*) ibn al-Zayn.” In contrast, the basin has no less than six signatures. The two on the thrones of the seated rulers and their upraised cups, one on a cup held by another figure read as above. A larger calligraphic signature on the rim reads “Work (*ʿamal*) of the master (*muʿallim*) Muhammad ibn al-Zayn, may he be forgiven by God.”<sup>369</sup>

While Rogers argues the word *ʿamal* denotes execution rather than design, the continuity in figural representation in both pieces, as well as the use of *muʿallim* in the Baptistère contradicts this assertion. The use of the term *muʿallim* is somewhat unclear but its meaning, “master,” likely denotes an artisan capable of conceiving of designs independently rather than merely copying them. Finally, in addressing how artists applied designs, Rogers proposes the use of pounces, which would work well for such a complicated scene.<sup>370</sup> It is also possible metalworkers used a ground, such as bitumen, scratching designs directly on the surface.

The question of the iron grille in Jerusalem, if created by the same Ibn al-Zayn, is more complex. The grille is of the plain bar and bosses type and, unusually, functions as a screen for an arched doorway leading to the tomb. Ibn al-Zayn’s signature is inscribed on an iron strip that makes part of a larger piece, once attached to the lintel above the grille’s gate.

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<sup>369</sup> Bloom, “A Mamluk Basin” (1987), 16; Atil, *Renaissance of Islam* (1981), 76.

<sup>370</sup> Rogers “Court Workshops Under the Bahri Mamluks” (2012), 264, note 20.

As discussed above, artists were (and still are) entirely capable of working in more than one medium. In this case, however, it seems far more likely that Ibn al-Zayn created decorative elements no longer extant. Nothing outstanding about the iron grille itself that would warrant commissioning a talented inlayer from another city for its production. More plausibly, some missing part included inlay designs, perhaps in the form of an inscription set above the gate or a repurposed piece removed from an earlier structure. During the later metal shortage, door fittings made easy targets for stripping.

How do these pieces fit in to an understanding of Mamluk artistic patronage? Their patrons obviously intended them for secular use as demonstrated by the figural imagery and court scenes. Since the market inspectors prohibited such imagery, the artist could not have sold them on the open market but made them on commission. Nevertheless, inlayers and other skilled artisans probably worked out of Cairo's marketplaces, not in court ateliers, keeping forbidden items out of sight.

Assuming Ibn al-Zayn worked on some aspect of the grille in Jerusalem, it suggests his repertoire extended beyond figural depictions, almost entirely avoided in the Mamluk religious sphere. A limited exception would be repurposed fittings, like the stable door mentioned above. The dating of the Vasselot Bowl and Baptistère may land Ibn al-Zayn in the midst of the decline of figural imagery, in which case he would have had to adapt.

If elites tended to specially commission objects, the question remains as to who became involved in design. Patrons possessed varying levels of interest in the arts. sultans al-Nasir Muhammad and Qaitbay directly shaped trends in artistic and architectural design, suggesting powerful patrons could direct the flow of creativity. On

the other hand, many Mamluks may not have had the slightest interest in the arts. Likely, the relationship between patrons, overseers, and craftsmen varied according to interest and expense.

### 5.3 Mamluk Patronage

Mamluk patronage is distinct in its scope. The court's highly competitive and factionalized nature allowed individual patronage to attain priority. While the Mamluks were strictly hierarchal, the most powerful amirs were in direct competition with the reigning sultan. Such high stakes competition manifested itself not only in open warfare between factions, but through architectural campaigns. Mamluk ceremony demanded a certain elaboration of costume, arms, horse trappings, and furnishings that further drove artistic patronage. Finally, funerary practices necessitated the construction and furnishing of extensive tomb complexes.

As Mols points out in reference to metal fittings, an amir's patronage could rival a sultan's in extravagance.<sup>371</sup> According to historical accounts, al-Nasir Muhammad broke away from the strict military hierarchy of Baybars and Qalawun. Through favor, gifts, and *iqta*<sup>c</sup> distribution, he arbitrarily raised amirs to unprecedented levels of standing and wealth. No longer was the only route to success a painstaking ascent through rank and the trappings of power ceased to be sole property of the sultan.

Al-Nasir Muhammad allowed high-ranking amirs to possess ten eagles for hunting and even promoted Amir Tankiz as leader of the hunt on one occasion. In contrast, his father Qalawun retained a single eagle as a symbol of his status and both he

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<sup>371</sup> Mols, *Mamluk Metalwork Fittings* (2006), 161.

and Baybars were more distant and feared figures.<sup>372</sup> There was however a dark side to al-Nasir Muhammad's spontaneous generosity which manifested as a streak of paranoia and vicious capriciousness.

He sometimes granted gifts and favors only to turn around and remove the recipient from power or even assassinate them. For example, he lavished gifts on Amir Baktamur for his *khanqah* and invited him on pilgrimage to Mecca in 1331. On the return journey the sultan suddenly grew suspicious that the amir intended to poison him, at which point he assassinated his subordinate. Similarly, the sultan granted Amir Tughay his father Qalawun's former palace and during an illness reportedly expressed his wish Tughay succeed him. As soon as the sultan recovered, he unceremoniously removed Tughay from power.<sup>373</sup>

Al-Nasir Muhammad's changes in political structure may have had a direct impact on the arts by allowing amirs to become wealthy and powerful patrons, encouraging the broadening of patronage and also necessitating distinguishing markers like titular inscriptions and blazons on artwork. The simultaneous restructuring of Mamluk politics and emergence of a wave of architectural and artistic florescence is significant.

Al-Nasir Muhammad took a direct interest in architectural projects and seemingly discouraged figural imagery, changing the face of Mamluk art. This level of involvement probably was unusual, until the reign of Qaitbay, but even in these cases intermediaries acted on the sultans' behalf. Architectural patronage probably was channeled through a series of overseers.

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<sup>372</sup> Levanoni, *A Turning Point in Mamluk History*, 59.

<sup>373</sup> *Ibid*, 57.

In the foundations of Barquq, Sultan Hasan, and Qaitbay the coordination of parts, and emergence of new styles illustrates how interested patrons and talented overseers could raise a project above the ordinary. The uniqueness of matching or elaborate doors and window grilles in the Sultan Hasan Complex and Barquq's foundation suggests that the production of most metal fittings was standard. Probably, metalworkers received an order by type and made the pieces accordingly without much supervision. The repetition in form of doorknockers and handles makes them good candidates for production between larger projects. Metalworkers could cast them from scrap metal and store them.

The presence of a skilled overseer would not be enough to guarantee a creative use of resources. The patron, particularly a sultan, would need to give them free reign to commission more expensive pieces and distribute designs. In the case of Qaitbay, the sultan himself may have participated in the design process. If we consider why these foundations are unique, three different answers emerge.

Sultan Hasan may not have shown a personal interest in the arts but had access to his father's talented architect/book artist, Ibn Bilik. His desire to build a foundation that exceeded those of the powerful amirs whose shadow fell over his reign, led him to grant the project a vast amount of resources. Freed from the close interest of al-Nasir Muhammad, Ibn Bilik possibly had a chance to implement his own ideas, inspired by his involvement in book arts.

In Barquq's case, the close connection of the architect, Ibn al-Tuluni, to the sultan's family may have given him more freedom to exercise his creativity and the

authority to implement his ideas. In addition, Ibn al-Tuluni's personal knowledge of masonry and carpentry gave him the means to closely oversee multiple tasks.

Qaitbay personally involved himself in the design process.<sup>374</sup> Like al-Nasir Muhammad before him, this intervention led to the adoption of a distinctive style with repeat elements. In the case of his foundation in the Northern Cemetery, it inspired the execution of a singular and wondrously elegant carved masonry dome.

The proliferation of monuments devoted to individual Mamluks reflects a new pattern of patronage inspired by politics, trade, belief and funerary practices. Relationships between patrons, overseers, and craftsmen unfortunately are not well documented enough to determine specifics. However, the interaction between the three impacts the evolution of regional and dynastic styles across media.

Extrapolating from some of the relationships between media in the three foundations discussed above, we may examine some of the effects of considering art objects outside of their context. In doing so, we can consider the placement of objects and decoration to better understand the role of the viewer and the intent behind Mamluk foundations.

#### *5.4 Mamluk Art Objects and Decoration in their Architectural Context*

Removing art objects and furnishings from their context affects our perception of not only their aesthetic value, but their function. While there are practical and idealistic reasons for moving objects to museums, in undertaking any kind of cultural study scholars need to consider the original context. Several issues arise from the loss of context and narrow categorization of objects by arbitrary criteria.

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<sup>374</sup> Rabbat, *Mamluk History through Architecture* (2010), 26.

First is the contrast between the visual impact of an object in situ and in a museum setting. Second is the loss of relationship caused by dividing items by size, material, or technique. Third is the obscured sense of buildings as a whole rather than a series of parts. Assessing art and architecture through classification is a useful tool for its discussion, but only that. Taking it as a stopping point distorts perceptions of original meaning and intent.

As demonstrated above, furnishings and endowed objects sometimes have aesthetic or conceptual relationships to foundations and their design. In Sultan Hasan, the presence of Chinese floral motifs and decorative patterns derived from book arts imparts a sense of visual unity across media, perhaps inspired by its novelty. Examining these and considering the building's designer reveals a possible relationship to Qur'anic illumination. This connection not only contributes to understanding the foundation, but also opens an avenue to explore a particular family of artists, style of illumination, and artistic transmission between Mamluk Syria and Cairo.

Studying Barquq's foundation and its architect illustrates the capability of the master builder to work in more than one media and possibly coordinate designs in wood and stone. The connection between these explains the use of muqarnas in both media and the replication of minaret bulbs, sometime with specific designs, on minbars. Close repetition in patterns of wood and stone inlay indicates further exchange, which masters or craftsmen versed in both would facilitate. These intersections challenge neat categorizations by media and object type and erroneous perceptions that artisans could only perform limited tasks in one medium.



The foundation of Qaitbay and its furnishings shed light on a revival that permeated all media and the capability of a sultan with artistic appreciation to combine new ideas with traditional Mamluk aesthetics. The construction of masonry domes of complex and unique design, as exemplified in Qaitbay's foundation, draws attention to the personal nature of his foundations and the practices of builders. While not directly linked to his foundation, the question of the origin of Mamluk carpets needs to be considered in context of revival to assess whether it represents a resurrection of an old industry or the import of a foreign technology. Finally, the endowment in the al-Ghazali volume highlights the necessity of considering endowed objects in determining how a foundation may have functioned.

Often aesthetics, historical accounts, endowment deeds, inscriptions, and art objects present seemingly contradictory functions. The historical terminology can be vague or have multiple meanings. In many ways, such a nuanced depth of meaning is asking us as scholars to resist narrow interpretations. By combining information from a variety of specializations, a more complete picture of Mamluk foundations may emerge.

### *5.5 Missing Links: Objects out of Context*

Taking furnishings and objects from their setting affects our perception of them and alters their original environment. Arguably removing art objects to prevent theft or damage is often necessary, but their removal should not relegate their original context and *raison d'être* to a single line on a museum plaque. While the presentation of art objects in museums aims to be both aesthetically pleasing and conscious of conservation necessities, a great deal is lost in translation.

Studying or viewing art objects up close is fascinating and can yield important information about materials, dating, artistic styles, and technique. Analyzing pigments, metals, dyes, woods, stone, and paper contributes to our understanding of the movement of materials locally and through trade. Investigating style and fabrication techniques aids in dating, determining relationships between objects, and the transmission of technology and styles.

Generally, for close study objects are categorized by media and type and rarely is their original setting or relationship to other objects closely considered. A more inclusive approach is required in the case of Mamluk foundations, where patrons commissioned the building and many of its contents simultaneously as funerary endowments. Mamluk construction and furnishing occurred rapidly, most foundations reached completion within a few years.<sup>375</sup> By removing furnishings and objects and then attempting to neatly categorize, we miss connections within and across media.

For example, the magnificent star-pattern screens in Faraj ibn Barquq's foundation in the Northern Cemetery (1398-1411) appear to match the decoration on a *kursi* depicted by Prisse D'Avennes in the 19<sup>th</sup> century (Figure 5.7). In addition, the smaller inlay panel on its side resembles a six-pointed star-pattern on the doors set in the screen. The latter is a common motif on wooden doors and shutters. While Prisse D'Avennes may have been taking artistic liberties, considering furnishings in their setting may reveal such resemblances.

Scholars may overlook these types of relationships in studies that either isolate objects by type or incorporate doors and shutters under the aegis of architectural study

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<sup>375</sup> Construction was often completed within a year. Abouseif, *Cairo of the Mamluks* 16

while neglecting portable furnishings and art objects, many of which are in museum collections.

Museum galleries with mazes of glass cases, filled with an astonishing array of artifacts provide glimpses into the past. They allow us to access art in a vivid and beautiful setting. However, this close view of objects is an aesthetic and cultural presentation that is largely artificial. Likely, no one but the artist who made an object ever observed it as closely as museum visitors and art historians. In the latter case, such observations can be useful in the ways mentioned above, but not in determining the intent behind the object. Because we can access objects in isolation, in high resolution, arranged by category; our perceptions are inevitably distorted.

These distortions extend to architecture as well. Without considering both the physical and historical context, such access creates an artificial sense of the role of the viewer. Because the Mamluks left no accounts of their own, the intent in creating religious foundations derives entirely from the opinions of an external audience. By considering the placement of architecture and art objects and the role of the viewer in relation to Mamluk art and architecture, perhaps new concepts of intent will emerge.

### *5.6 Mamluk Architecture: Piety and Propaganda*

Few scholarly works have focused exclusively on the intent behind Mamluk foundations, although most mention in passing their political, economic, and pious benefits. In “The Expressive Intent of Mamluk Architecture,” R. Stephen Humphreys addresses some of the ideological motivations behind Mamluk construction, focusing on its intent to convey secular worldly power combined with local funerary traditions. In the

latter case, he maintains an emphasis on the secular, citing the use of palatial elements in architecture, the use of the minaret as an “advertisement,” and the dome’s association with royalty.<sup>376</sup>

Often scholars emphasize the need for the Mamluks as foreigners and slaves to legitimize their rule and show off their wealth through extravagant building and furnishings.<sup>377</sup> Rabbat describes Mamluk endowments “propaganda” and the use of religious inscriptions and titles an attempt to convey their status as “the ideal Muslim ruler” who was pious and fought in the name of Islam.<sup>378</sup>

Rogers concedes the Mamluk sultans probably had some genuine interest in promoting Sufism and learning, but were primarily motivated to secure their descendants inheritance by naming them the beneficiaries of foundations. He concludes, “To this legalized self-interest, therefore, we owe most of the magnificent architecture of Mamluk Cairo.”<sup>379</sup>

Another motivation, dealt with extensively in O’Kane’s article on monumentality was a desire to outdo rivals or exceed past glories in producing works of art and architecture on a grand scale. He refers to lavishness on the part of both the Mamluks and Mongols as means of garnering prestige, pointing out their shared status as foreigners, and converts who needed to establish legitimacy.<sup>380</sup>

These explanations probably have some validity, but fall short when location and access are carefully considered. There is an emphasis on purely secular motives,

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<sup>376</sup> Humphreys, “Expressive Intent” (1972), 112-115.

<sup>377</sup> Gayet, *L’art arabe* (1893), 117; Humphreys, “The Expressive Intent of the Mamluk Architecture” (1972), 119.

<sup>378</sup> Rabbat, *Mamluk History through Architecture* (2010), 60, 64.

<sup>379</sup> Rogers, “The Stones of Barquq” (1976), 307. See also Bloom and Blair, eds., “Mamluk.” In *The Grove Encyclopedia of Islamic Art and Architecture*.

<sup>380</sup> O’Kane, “Monumentality” (1996), 512-514.

reflecting wider trends in current scholarship that more accurately reflect modern ideals than historical context. An exception may be Bloom and Blair who assert the majority of Mamluks “practiced Islam with all the zeal of the newly converted.”<sup>381</sup>

Contemporary sources support some of the ideas presented above, but to what extent these issues preoccupied the Mamluks themselves is far more complicated. Other rulers looked down on the Mamluks due to their slave origins. Histories have colorful accounts of such interactions. Reportedly, the Armenian king, Het’um, called al-Zahir Baybars a “dog and a slave,” prompting the Mamluk sultan to ask Het’um’s son, after his capture, “am I the slave now or you?” The Mongols derided the Mamluks’ slave origins, even after suffering defeat at their hands. Timur, who carefully avoided facing Barquq in battle, nonetheless expressed contempt for his slave roots.<sup>382</sup>

Anne F. Broadbridge, in “Mamluk Legitimacy,” cites examples of historians recording “questionable” esteemed lineages for Mamluk sultans Qutuz (r. 1259-1260) and al-Mu’ayyad Shaykh (1412-1421) as evidence that the issue of Mamluk ancestry troubled contemporary writers.<sup>383</sup> However, vaunting glorious ancestries, real or imagined, was a tactic used more extensively by other Muslim dynasties.<sup>384</sup> The Buyids and Samanids traced their lineages to pre-Islamic Persian kingship, and historians attempted to create past links to Islam for the Mongols. In contrast, the Mamluks relied primarily on their status as “Defenders of the Faith” to justify their rule.<sup>385</sup>

Some Mamluk contemporaries shared the view that funerary foundations were essentially ostentation. Historians and clerics criticized the Mamluk tombs for their

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<sup>381</sup> Bloom and Blair, eds., “Mamluk.” In *The Grove Encyclopedia of Islamic Art and Architecture*.

<sup>382</sup> Broadbridge, “Mamluk Legitimacy” (2001), 93-94.

<sup>383</sup> *Ibid*, 95.

<sup>384</sup> Zoltán, “Motives and Techniques of Genealogical Forgery” (2014), 24.

<sup>385</sup> Aigle, *The Mongol Empire Between Myth and Reality* (2015), 39.

decadence. Maqrizi agrees with the words of Andalusian poet Yahya ibn Hakam al-Bakri (d. 864): “They desire naught but vainglory. Lording it over the lowly even from the tomb.”<sup>386</sup> Throughout the Mamluk Period, irate clerics issued fatwas calling for the demolition of large tomb structures.<sup>387</sup>

The most obvious issue affecting these perspectives is their origin in hostile outside parties. Such views cannot be extrapolated as the Mamluks’ own or inform their motivation for patronage. It remains highly unlikely the Mamluks suffered from inferiority complexes driving them to build extravagantly in compensation. While outsiders, may have viewed the Mamluks’ status as slaves with disdain, in their own closed society it was a mark of distinction. Nominally, being purchased conferred legitimacy for the throne.

Overemphasis on the Mamluks’ need to legitimate their rule to the local population and compete with the rival Ilkhanids underestimates their confidence in their position and disregards pressing internal competition. That virulent criticisms or unflattering caricatures from religious leaders and historians went largely unchecked implies local opinion was a low priority. Mamluks had a reputation for confiscating goods and property from, extorting, and even terrorizing Cairenes, not appeasing them.

### 5.7 “No Stranger Could Enter”: Mamluk Tomb Chambers and Accessibility<sup>388</sup>

Considering the location of extravagant architectural decoration, inscriptions and objects, the issue of intent is more complex. Maqrizi repeated the quote above in exasperation at his inability to enter the tomb chamber in Qalawun’s Complex. The

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<sup>386</sup> Marmon, *Eunuchs and Sacred Boundaries in Islamic Society* (1995), 19.

<sup>387</sup> Humphreys, “Expressive Intent” (1972), 67.

<sup>388</sup> Maqrizi on the Nasiriyya in Marmon, *Eunuchs and Sacred Boundaries in Islamic Society* (1995), 16.

Mamluks completely restricted access to royal tombs, setting eunuchs as guards. The eunuchs, who lived in or around the chambers, and Qur'an reciters were the only ones allowed inside.<sup>389</sup>

Setting eunuchs as guards reflected a tradition, probably begun under the Ayyubids, from the Prophet's tomb in Medina. This connection supports Humphrey's assertion that the Mamluks status as "Defenders of the Faith" gave them license to implement funerary practices reserved for holy persons.<sup>390</sup> Limited access changes perceptions of tomb chamber interiors. Their interior decoration, often the most elaborate along with qibla walls, no longer has a viewer.

Banning casual visitors explains the ubiquitous presence of windows, or shafts if the angling of the tomb chamber created thicker walls, to provide contact with the outside world. Domes, while undoubtedly possessing certain royal connotations, also have remarkable acoustic effects; amplifying and multiplying the sounds of Qur'anic recitation beneath them.<sup>391</sup> This effect probably aided in transmitting the sound to the streets, drawing the passerby to participate in prayers for the dead warriors of Islam.

Objects endowed to tomb chambers likewise would have remained out of sight, except to guards and Qur'an reciters. These probably included Qur'ans, their elaborate boxes and *kursis*. Assuming people could approach the windows, possibly large scale Qur'ans were designed greater visibility. In 1326, Amir Sayf al-Din Baktimur, a onetime favorite of al-Nasir Muhammad, endowed a Qur'an to his tomb chamber. The Qur'an

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<sup>389</sup> *Ibid*, 15-28.

<sup>390</sup> Marmon, *Eunuchs and Sacred Boundaries in Islamic Society* (1995), 26-28; Humphreys, "Expressive Intent"(1972), 94.

<sup>391</sup> I had the surprise pleasure of experiencing this while visiting the tomb chamber in Sultan Hasan's complex in 2017. Kahil presented a lecture entitled "Light, Water and Sound in Mamluk Architecture" in 2013 at John Cabot University in Rome, discussing experiential aspects of Mamluk architecture, but it remains unpublished.

itself dates to 1313 and originally belonged to the Ilkhanid sultan, Öljaytü. Al-Nasir Muhammad probably gave it to his amir as a gift.<sup>392</sup>

Baktimur's inscription reveals a superstitious insistence the holy book remain in the tomb chamber. It first names the Qur'an as in trust to Baktimur, his descendants, unless they prove unworthy and then the tomb's shaykh. It goes on to say, "He [Baktimur] declares that the above-mentioned Qur'an should not be taken out of the tomb ever, except for repair. Woe to anyone who changes or alters these stipulations!"<sup>393</sup>

Ibn Iyas reported that al-Ghuri had removed a Qur'an belonging to 'Uthman from the Ribat al-Athar shrine along with relics from the Prophet.<sup>394</sup> His foundation's (1503-1505) endowment deed states: "and he established two cases to the right and left [of the tomb's] mihrab to house the noble Qur'an of 'Uthman and the honorable Relics of the Prophet."<sup>395</sup>

Placing "luxury" Qur'ans, prestigious relics, and elaborate furnishings in areas where no one (besides their attendants) would see them challenges the notion they were intended to impress. Instead, such objects probably served devotional purposes attached to Mamluk funerary culture. The use of eunuchs emulated traditions practiced at the Prophet's tomb, emphasizing the Mamluks' piety and status as holy warriors.

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<sup>392</sup> James, *Qur'ans of the Mamluks* (1988), 116.

<sup>393</sup> *Ibid.*

<sup>394</sup> O'Kane, *The Illustrated Guide* (2012), 148.

<sup>395</sup> AlHamza, *Late Mamluk patronage* (2009), 81.



### 5.8 *A Candlestick for the Laundry Room? Art Objects in Domestic Settings*

In domestic settings as well as foundations, access to the interiors of homes was limited; guests generally only made it into the vestibule.<sup>396</sup> Visitors may never have seen many of the lavish furnishings adorning Mamluk palaces. For example, a metal inlay candlestick commissioned by Zayn al-Din Kitbugha (r. 1294-1296) while he was still an amir was dedicated to his *tishtkhana*, or laundry room (Figures 5.8 and 5.9).<sup>397</sup>

Wealthy as they were, it seems improbable that Mamluks placed lavish objects in working areas inside their homes. Possibly, items such as the candlestick decorated the entrances outside of service rooms, where the amirs could enjoy them. As much as they loved clothes, it remains extremely unlikely Mamluks frequented laundry rooms.

It nonetheless brings up questions as to who would have seen such an object. Did lower-ranking Mamluks work in the palace pantries of amirs? Perhaps as in the court, high-ranking Mamluks assigned their underlings ceremonial posts within their household. The elaboration of the candlestick and specificity of the inscription seems to indicate a substantial transfer of court protocol to domestic settings. *Tishtkhana* referred to the sultan's laundry room and it seems plausible amiral palaces were based on the structure of the court. Perhaps lacking a cultural background and restricted socially, ritual and protocol came to dominate Mamluk domestic life.

Candlesticks also played a part in ceremony. Maqrizi describes a ceremony in 1334 where amirs, arranged by rank, presented over three thousand candles to Sultan al-Nasir Muhammad. He claims the most beautiful of which were Amir Sanjar al-Jawli's, made in Damascus. Maqrizi's estimation of their weight, over three thousand pounds

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<sup>396</sup> Marmon, *Eunuchs and Sacred Boundaries in Islamic Society* (1995), 4.

<sup>397</sup> *Tishtkhana* has been improperly translated as pantry.

(3060 *qintars*), may be an exaggeration, but clearly he was describing large inlay candlesticks like Kitbugha's.<sup>398</sup> Precious objects may have served as ceremonial gifts as well as domestic decoration.

### 5.9 *Inscriptions and Blazons*

Inscriptions on architecture and objects, often unreadable due to elaborate calligraphy or placement, may have instead served devotional or ritual purposes. Robert Hillenbrand remarked on the paradox of the proliferation of inscriptions in Islamic architecture in contrast to their relative lack of information and readability. The majority are Qur'anic, and he posits their purpose was to please God, not provide the earthly observer with pious reading material.<sup>399</sup>

Kahil makes a similar observation in reference to the Light Verse inscribed on glass lamps dedicated to foundations.<sup>400</sup> The inclusion of titular inscriptions served to tie the patron to the devotional object, and in the case of sultans, reaffirm their religious legitimacy.<sup>401</sup> Titles even if illegible, would have identified the patron. Repeated use would create familiarity. Window grilles often have titular inscriptions or blazons, even if they are too small, or placed in areas they cannot be seen.<sup>402</sup> Strangely, in the mosque of Qijmas al-Ishaqi (1479-1481), the grilles have composite blazons on the bosses installed upside down!<sup>403</sup> The most legible inscription in the Sultan Hasan Complex is in the least

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<sup>398</sup> Blair and Bloom, *The Art and Architecture of Islam* (1994), 97.

<sup>399</sup> Hillenbrand, "Islamic Monumental Inscriptions Contextualized" (2012), 19-21.

<sup>400</sup> Kahil, "Light in Mamluk Architecture" in *God is the Light of the Heavens* (2015), 255.

<sup>401</sup> Kahil, "Light in Mamluk Architecture" (2015), 255; Hillenbrand, "Islamic Monumental Inscriptions Contextualized" (2012), 22.

<sup>402</sup> Mols, *Mamluk Metalwork Fittings* (2006), 143.

<sup>403</sup> *Ibid*, 206.

visited area; the tomb chamber.<sup>404</sup> It seems the presence of blazons and inscriptions was more important than their visibility or proper placement.

Another consideration is the ceremonial language of blazons. While included in all media, it remains uncertain to what extent non-Mamluks were privy to their meaning. Mamluk society exemplified its closed nature through adherence to Turkic language, special manner of dress, and exclusive horse culture. Blazons were a visual language best understood by other Mamluks. The intricacies of court hierarchy probably would have been of little interest to outsiders.

By assuming elaborate decoration or art objects are intended solely to exhibit wealth or impress the audience with the patron's conspicuous piety or rank, genuine devotional or purely ceremonial aspects go unremarked. In addition to acting as impressive displays and evidence of piety, objects and inscriptions may have served ceremonial or ritualistic functions unrelated to a viewer.

Overemphasizing reception injects an artificial sense of self-consciousness into intent. It gives a sense that the Mamluks were play-acting rather than genuinely believing in their status as "Defenders of the Faith" and the necessity of their ceremonial and funerary practices.

#### 5.10 *Mamluk Funerary Culture Expressed through Architecture*

The universality and centrality of tombs in foundations indicates their primary importance. The section of the endowment deed of Sultan Hasan's Complex describing function, gives the tomb primacy. In spite of its soaring *iwans*, this section describes the

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<sup>404</sup> Kahil, *The Sultan Hasan Complex in Cairo* (2008), 162.

central area of the massive complex simply as “the great place, adjacent to the western side of the domed tomb chamber (*qubba*).”<sup>405</sup>

Placing valuable devotional items, setting guards, and hiring Qur’an reciters supports the essential function of tombs. If indeed secluded funerary chambers were the foremost *raison d’être* for Mamluk foundations, it changes the perception of Mamluk architecture as a merely a vehicle for political propaganda.

In his article about the impact of Shi’ism on Egyptian funerary culture, Taylor points out the limits of considering cultic beliefs as part of a state apparatus, used to manipulate the public. Using the tomb of Imam Shafi’i as an example he states it, “might be reasonably interpreted as simply a genuine expression of piety, reflecting traditional norms, rather than as a calculated attempt to exploit the cult of the saints for specific political or doctrinal objectives.”<sup>406</sup>

His statement neatly addresses some of the issues affecting Mamluk scholarship. Egypt had a longstanding funerary tradition and the Mamluks’ status as converts and “Defenders of the Faith” uniquely situated them to absorb such a culture. Rather than viewing foundations purely as political propaganda, expounded by an alien group of slaves desperately attempting to legitimize their right to rule, it would be useful to consider the Mamluks actually believed in their status as holy warriors of Islam.

The spread of religious patronage and the emphasis on funerary rites illustrate not only a desire to imitate or compete, but also a consciousness of the fleeting nature of power and mortality. As warriors living in an extremely volatile society, the Mamluks

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<sup>405</sup> Kahil, *The Sultan Hasan Complex in Cairo* (2008), 53.

<sup>406</sup> Taylor, "Reevaluating the Shi’i Role " (1992), 6.

were aware of the necessity of ensuring they had a tomb built while they had the opportunity.

Contemporary sources stress the use of architecture as legacy, although self-aggrandizingly determine books are superior in preserving memory. Maqrizi records a poem that reads: “If Kings wish their power to be remembered, they should speak the language of architecture. Do you not see how the pyramids remain while so many kings have vanished?”<sup>407</sup>

### 5.11 *An Architectural Hierarchy*

A final consideration is the timing of the proliferation of individual foundations and their placement in the urban fabric. The blossoming of the arts and establishment of a recognizable Mamluk style that occurs in the third reign of al-Nasir Muhammad is extremely important to the development of Mamluk architecture. Simultaneously there seems to have been a disruption in the strict military hierarchy that characterized the earlier Mamluk period leading to increasing levels of wealth and power among amirs.

Greater distribution of wealth and resources and the establishment of a court style explain the increase in patronage. The rise of internal competition may have culminated in the colossal Sultan Hasan Complex, built during a period of excessive amiral power. A dissolution of hierarchy not only would allow for a greater dispersal of wealth and competition, but perhaps led the Mamluks to try to re-establish a sense of status through building. Up to that point, military rank acted as the sole means of Mamluk identity within a social order.

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<sup>407</sup> Behrens-Abouseif, *The Minarets of Cairo* (2010), 1.

The development of carved masonry domes and multiplication of minarets in the 14<sup>th</sup> century may point to a Mamluk audience for foundations. In Cairo's narrow streets, it is extremely difficult to get a good look at either a dome or a Mamluk minaret, although the situation is slightly better in the cemeteries. By far the best place to view the domes and minarets is from the lofty heights of the Citadel (or another minaret).

While parades and displays included the local population in the streets below, it was the privilege of the Mamluk elite to look out over the many domes and minarets of their city. These acted not only as emblems of Mamluk sovereignty and expressions of Cairo's status as the magnificent center of the medieval Islamic world, but powerful reminders of social identity, faith, and mortality.

## Conclusion

By examining Mamluk art and architecture in its context, I hoped to reveal some of the underlying relationships between media, the role of patrons and designers, and the intent behind Mamluk foundations. Taking an inclusive approach to both the material and abstract elements of Mamluk architecture, we can reach a more complete understanding of its function and execution. The foundations I focused on here are just examples and further study and comparison to non-royal foundations would be useful.

Using all available information may help fill in the gaps in Mamluk history regarding the role of architects, designers, and patrons. It also may create a greater dialogue between the study of art and material culture and other branches of Mamluk scholarship. While the necessity and value of highly focused studies by experts is inarguable, the increasing awareness of the possibilities of interdisciplinary scholarship applies to considerations of context and cross media transfer.

Such an approach requires a greater flexibility in approach and interpretation. While it may be useful to rely on categorization and apply known models, sometimes these are limited. The unreliability of historical terminology and co-existence of contradictory descriptions alone preclude strict definitions of roles and activities in the medieval Cairene artistic sphere.

Outside historical accounts of the Mamluks are also limited. Theirs was a closed and in many ways unusual society. The reports of an excluded upper class and foreign enemies cannot accurately portray the Mamluks' own views of either their society or architecture.

By studying furnishings, objects, and decoration in their architectural context, a more multifaceted and flexible understanding of their functions emerges. Rather than applying broad interpretations, the role of each within an aesthetic and cultural framework yields a complex network of intent and meaning. Considering the relationship of furnishings and art objects to each other, their setting, and the viewer reveals more about their intent and perception than studying them individually.

The widespread understanding of art objects as pieces in museum collections and unlimited access to detailed photographs alters our perceptions of art and architecture in many ways. Not to say these are not worthwhile resources, they contribute greatly to both study as well as public access and appreciation. However, as this study demonstrates, context can have important connotations for appreciating art and architecture. Questions of accessibility have to be included to gain an understanding of intent. In the case of the Mamluks, studying foundations and their endowments as a whole may yield a greater understanding of an enigmatic political entity and their contribution to art and architectural history.



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## Image Appendix

Figure 1.1-Façade of al-Aqmar (1125)



Figures 1.2 and 1.3- Funerary *Khanqah* of Amir Sunqur al-Sa<sup>c</sup>di (1315-1321)  
Tomb of Amirs Sanjar and Salar (1303-1304)

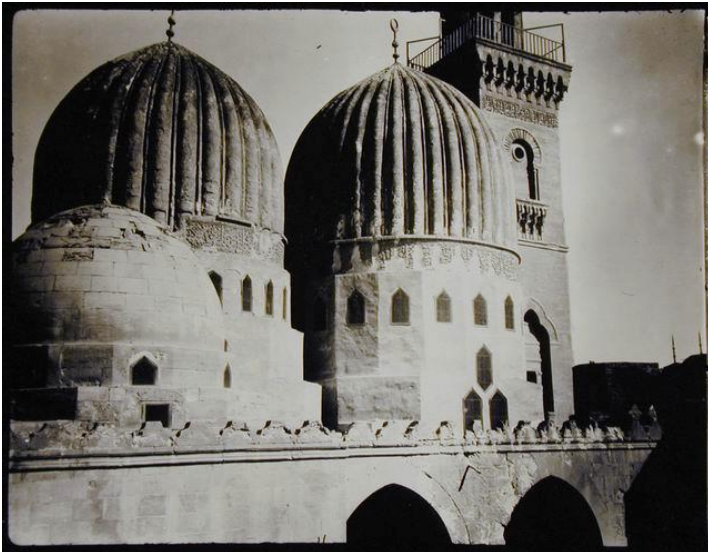
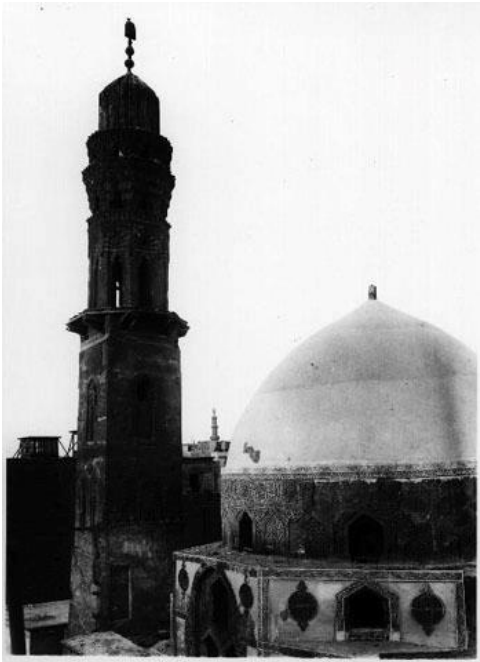




Figure 1.4-Mosque of Amir Altinbugha al-Maridani (1339-1340)



Figure 1.5- Muqarnas Portal  
Mosque of Sultan al-Mu'ayyad Shaykh (1415-1421)



Figure 1.6-Blind windows in the Madrasa of Umm Sultan Sha'ban (1368)

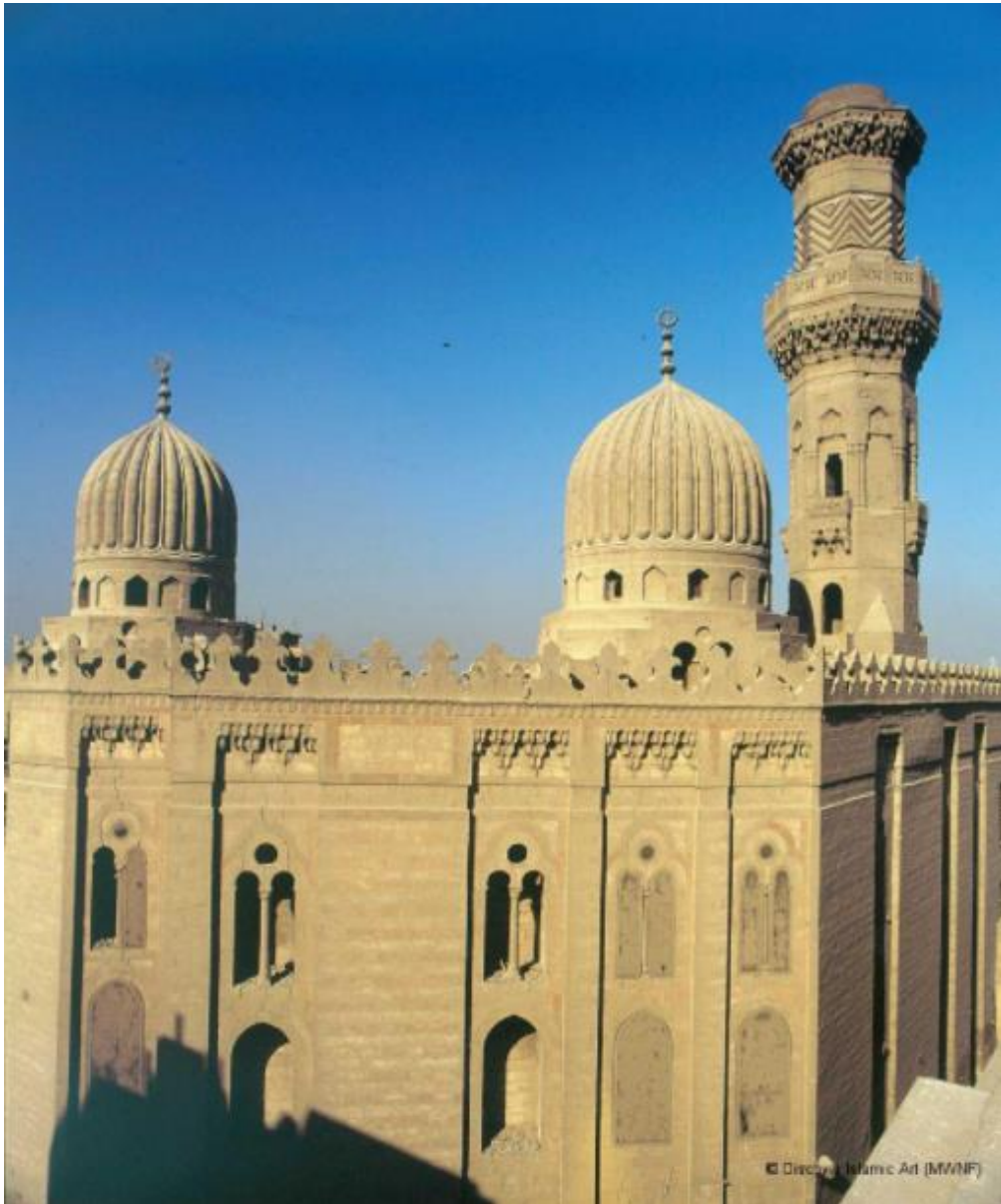


Figure 1.7-Striped Masonry and joggling in the Sultan Qalawun Complex (1284-1285)





Figure 1.8- Qur'anic Inscriptions in *Thuluth* from the Mosque of Amir Aslam al-Silahdar (1344-1345)

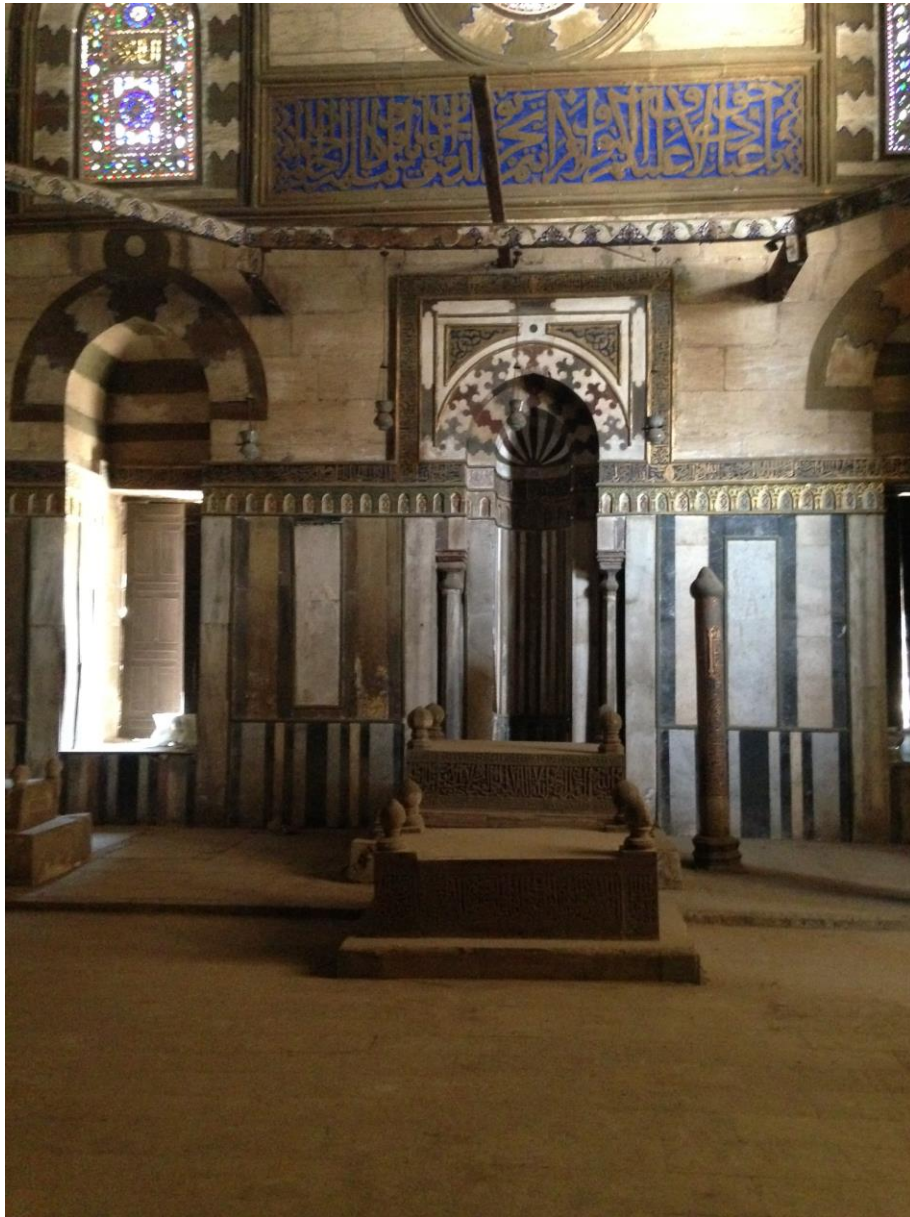
Top: Southern Portal

Bottom: Western Portal



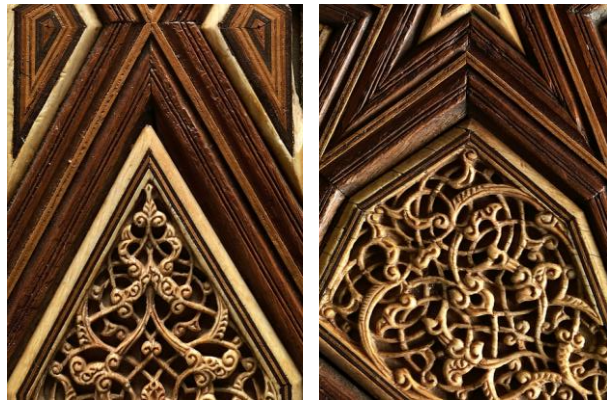
O'Kane

Figure 1.9- Marble Dado and Mihrab in the Complex of Faraj ibn Barquq in the Northern Cemetery (1398-1411)



Author

Figures 1.10, 1.11 and 1.12-Above: Minbar from the Reign of Sultan Qaitbay (1468-1496)  
Below: Detail of Ivory Plaques from a pair of Minbar Doors (c. 1325)



Victoria and Albert Museum  
Metropolitan Museum of Art



Figure 1.13-*Mashrabiyya* surrounding Sultan Qalawun's cenotaph in his complex in Bayn al-Qasrayn (1284-1285)





Figures 1.14 and 1.15-Brass Basin (c.1300)



Victoria and Albert Museum

Figure 1.16-Brass Incense Burner (14<sup>th</sup> century)



Metropolitan Museum of Art

Figure 1.17-Left Frontispiece of a Qur'an (c. 1370)





Figure 1.18-The Luck of Edenhall Beaker-Egypt or Syria (c. 1350)



Victoria and Albert Museum

Figure 1.19-Lamp of Amir Qawsun (c. 1329-1335)



Metropolitan Museum of Art

Figure 1.20-Ceramic Fragments with Blazons from left: The Polo-Master, *jukandar*, The Bow-Master, *bunduqdar*, a lion resembling that of al-Zahir Baybars blazon, The Sword-Bearer, *silahdar*.



Author



Figure 1.21-Ceramic Fragment with the Blazon of the Cupbearer, *saki*, surrounded by an inscription



Author

Figure 1.22-Textile Fragment (15<sup>th</sup> century)



Atil



Figure 1.23-Mural in Palazzo Montenengo-Salvadego Brescia, Italy (before 1543). By the school of Alessandro Moretto. Ladies seated on Mamluk style carpets.



Figure 2.1-Area Surrounding the Sultan Hasan Complex

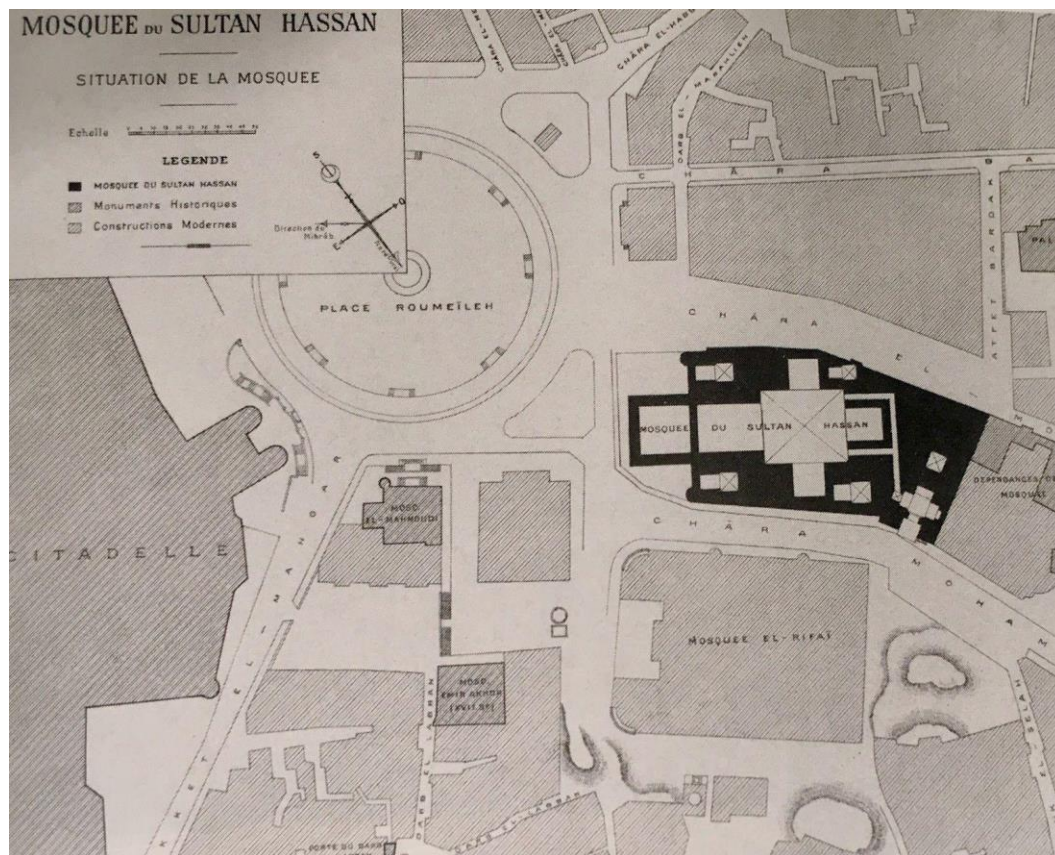


Figure 2.2-Plan of the Sultan Hasan Complex

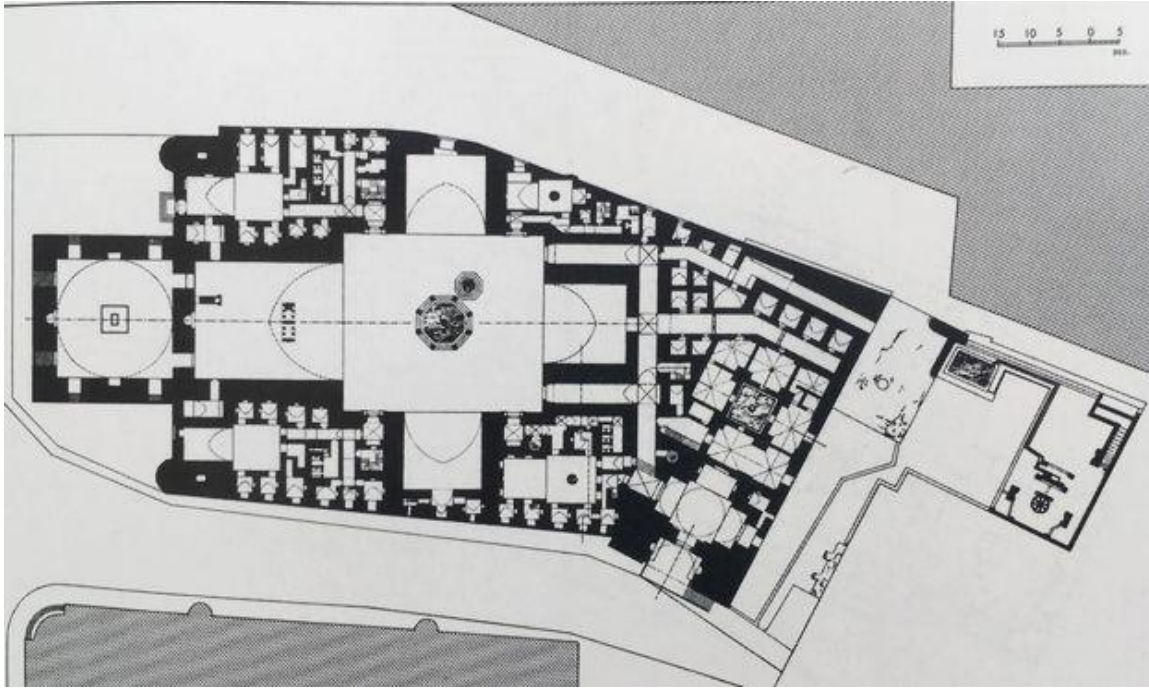




Figure 2.3-Portal



Author

Figure 2.4-Portal of the Gök Medrese in Sivas (1271-1272)



Behrens-Abouseif



Figure 2.5-Portal Decoration



Author

Figure 2.6-Northern Façade



Kahil



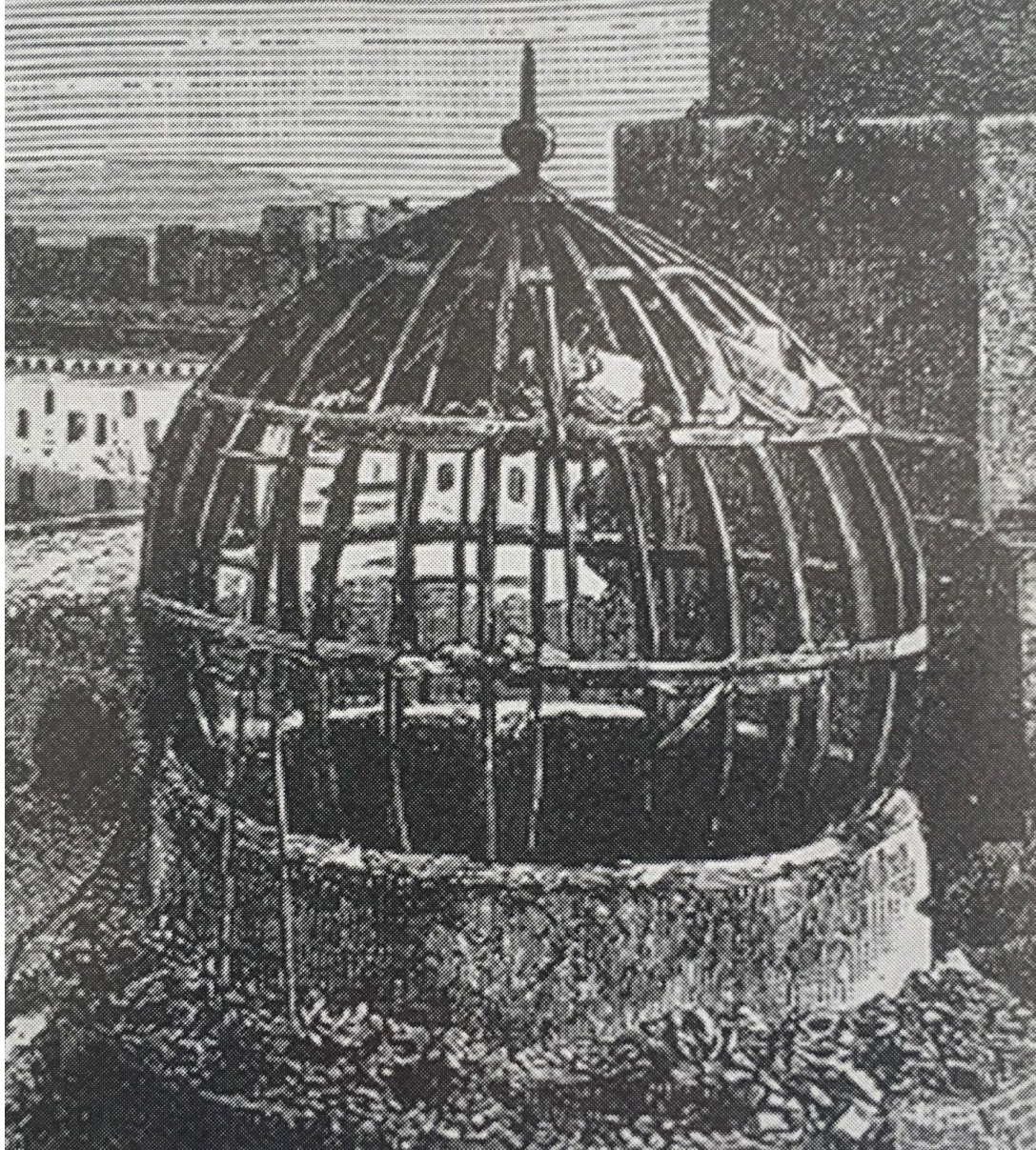
Figure 2.7-Exterior of Tomb Chamber



Kahil



Figure 2.8-19<sup>th</sup> Century Sketch of the Dome of Amir Sirghatmish's Madrasa (1356)



Kahil



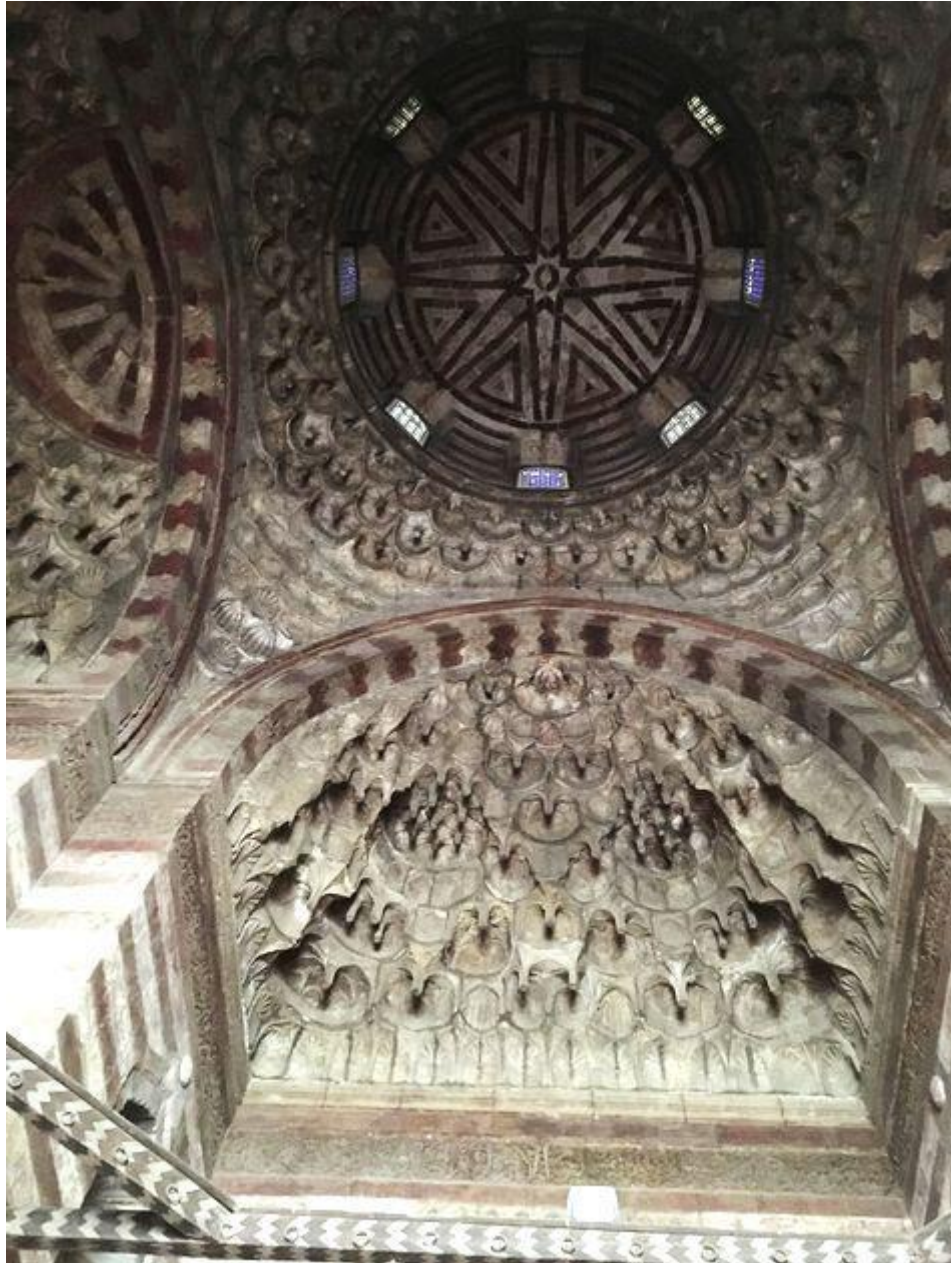
Figure 2.9-19<sup>th</sup> Century Photograph of Reconstructed Dome over the Tomb Chamber



Kahil

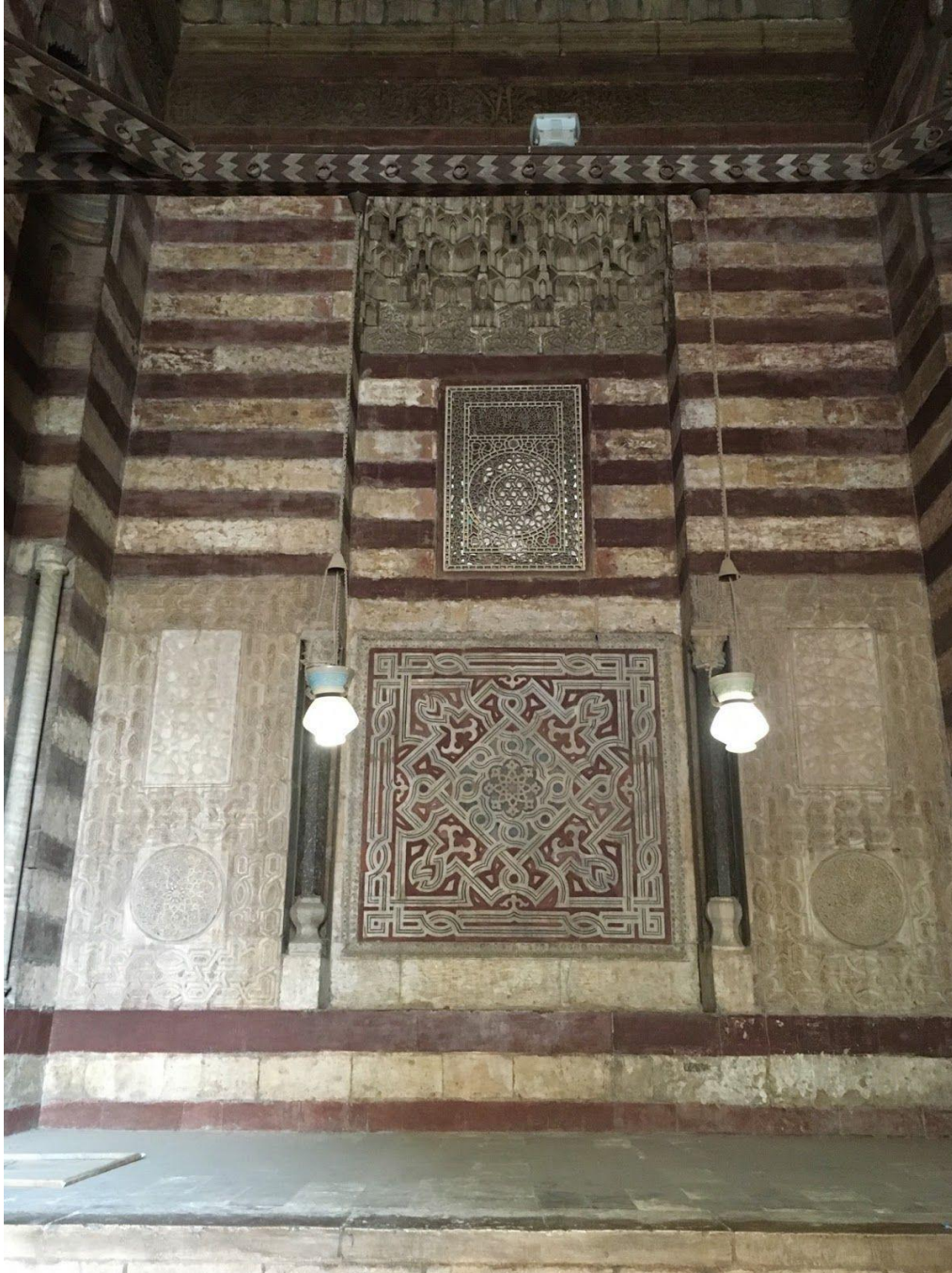


Figure 2.10-Vestibule Dome



Author

Figure 2.11-Wall of Vestubule with Colored Marble Panel



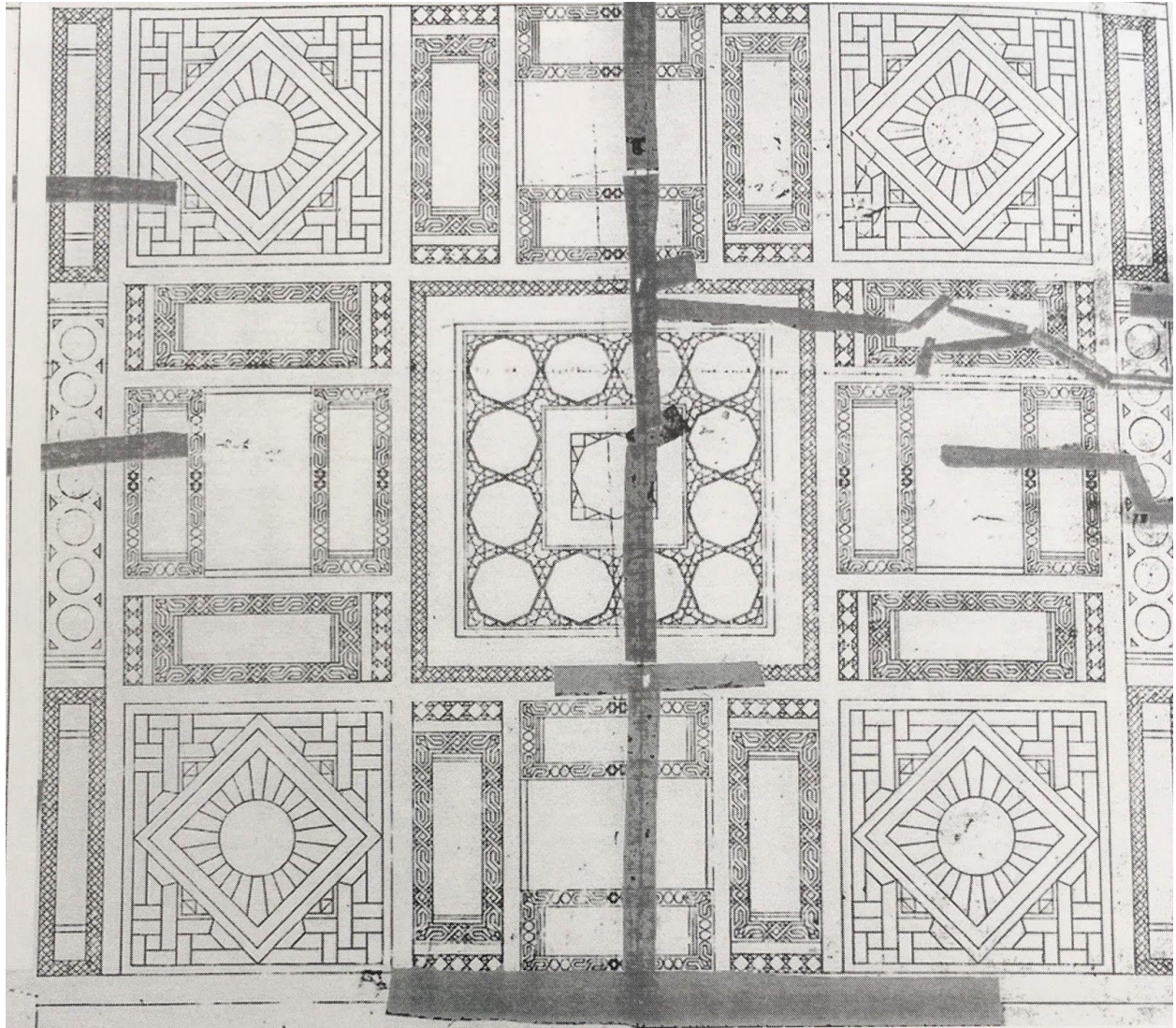
Author



Figure 2.12-Above: Detail of Vestibule Decoration  
Below: Oculus in Northern Façade



Figure 2.13-Sketch of Marble Pavement



Kahil

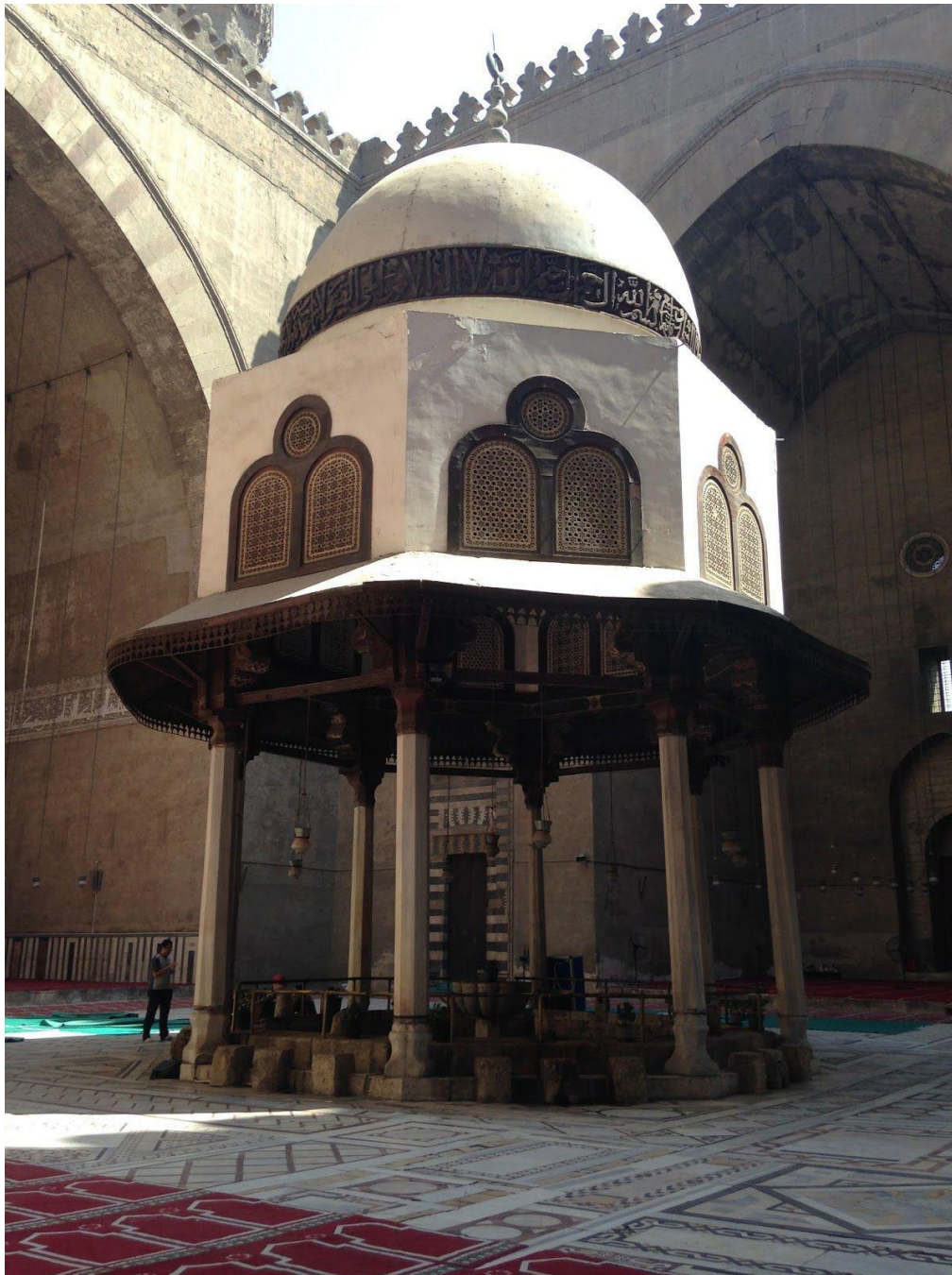


Figure 2.14-Views of Marble Pavement



Author

Figure 2.15-Ablution Fountain



Author



Figure 2.16-Eastern *Iwan*

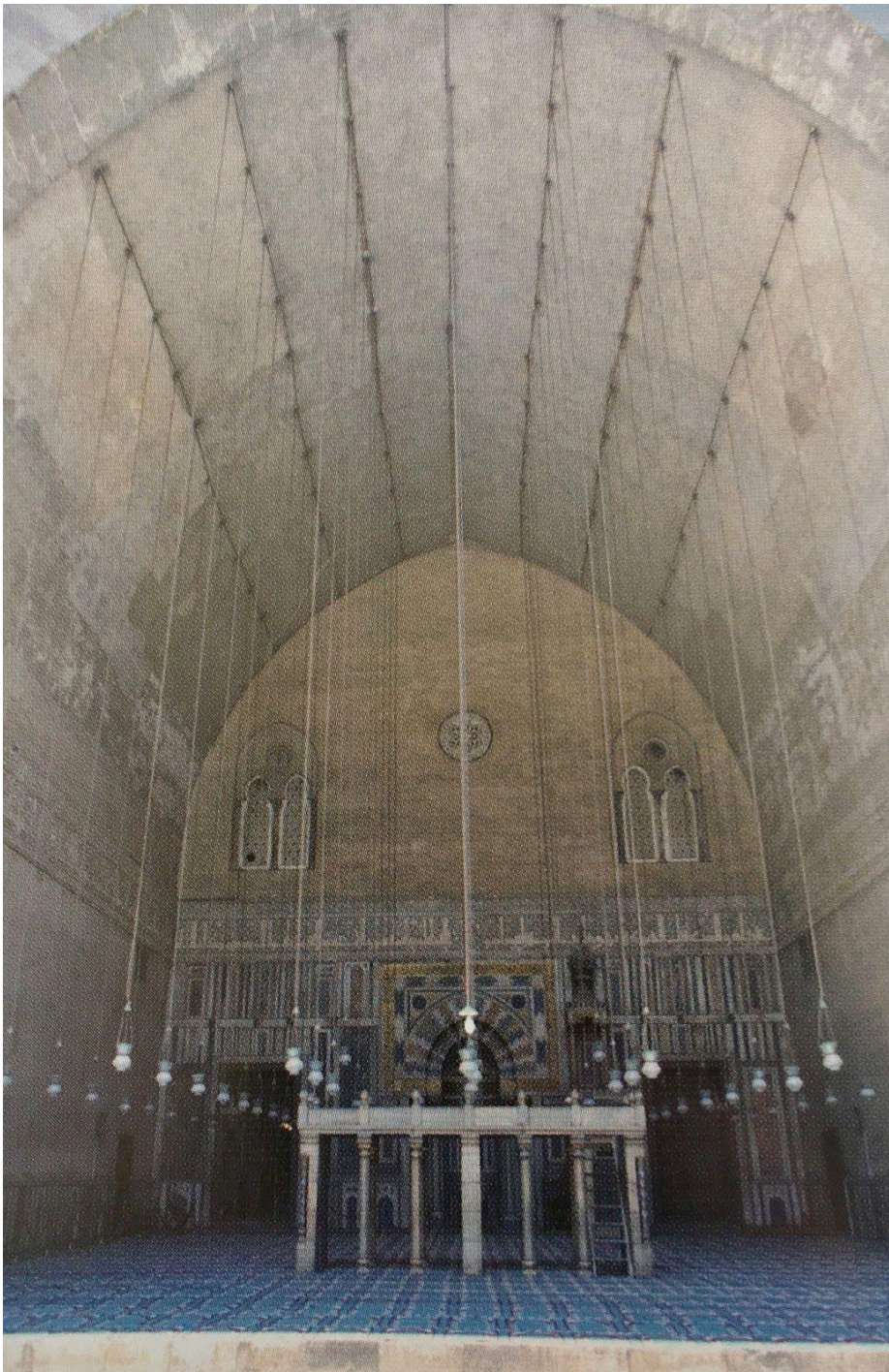


Figure 2.17-View from Eastern *Iwan*



Author



Figure 2.18-Door to Shafi'i Madrasa Flanking Eastern *Iwan*





Figure 2.19-Door to Hallway Flanking Western *Iwan*





Figure 2.20-Qibla Wall





Figure 2.21-Mihrab



Author

Figure 2.22-Tomb Chamber



Kahil



Figure 2.23-Stucco Inscription in Eastern *Iwan*

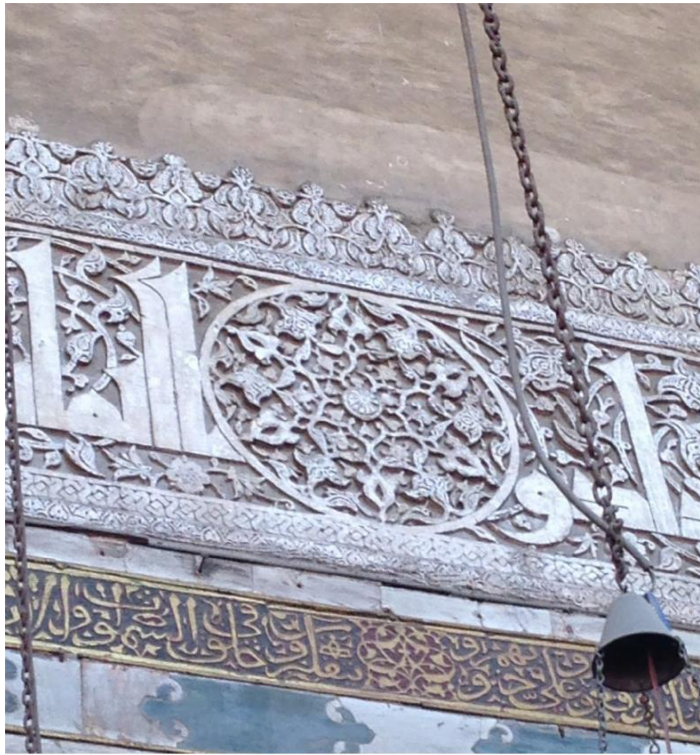




Figure 2.24-*Kursi*



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Figure 2.25-*Kursi*



Thesaurus Islamicus Foundation

Figure 2.26-Minbar



Author



Figure 2.27-Minaret Bulb of the Mosque of Amir Shaykhu (1349)



Figure 2.28-Entrance Doors

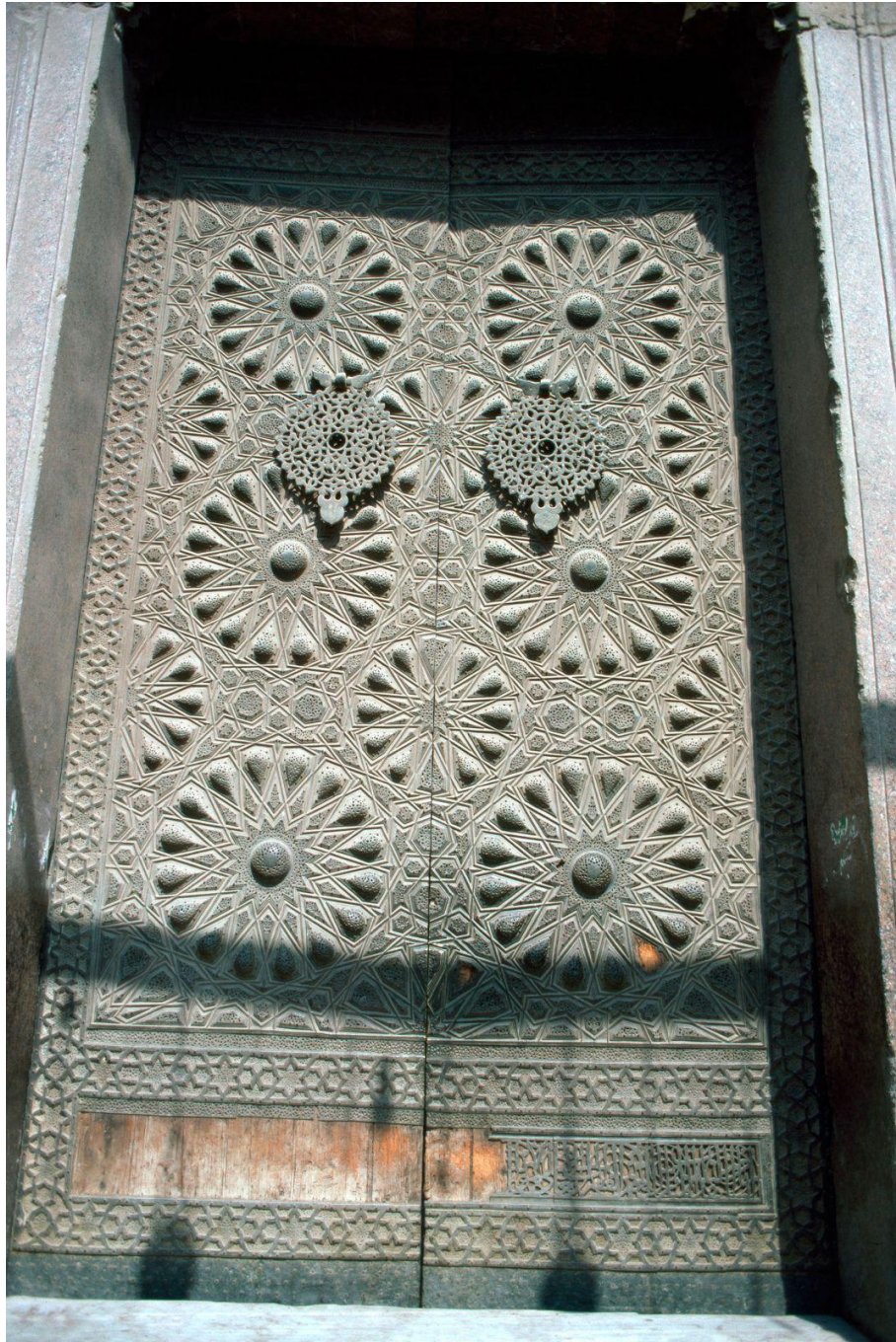




Figure 2.29-Door in Southern Wall of Eastern *Iwan*



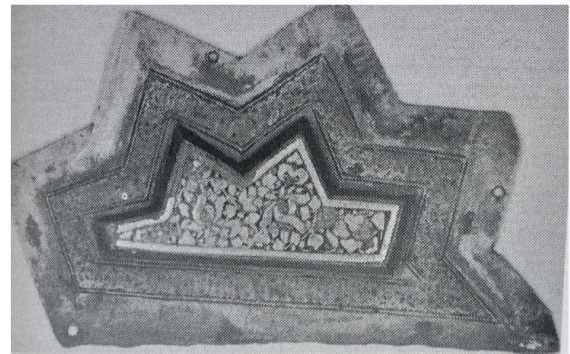
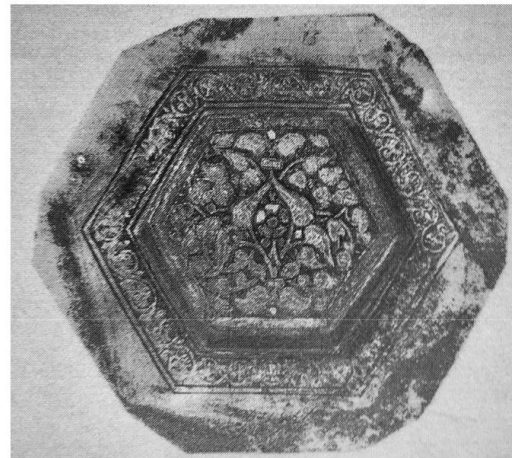


Figure 2.30-Door to Tomb Chamber





Figure 2.31-Detail of Bosses from Tomb Chamber Doors



Mols



Figure 2.32-Lamp of Amir Karim al-Din with Detail of Lotus Scroll



Figure 2.33-Lamp from the Sultan Hasan Complex



The British Museum

Figure 2.34-Lamp from the Sultan Hasan Complex



Author

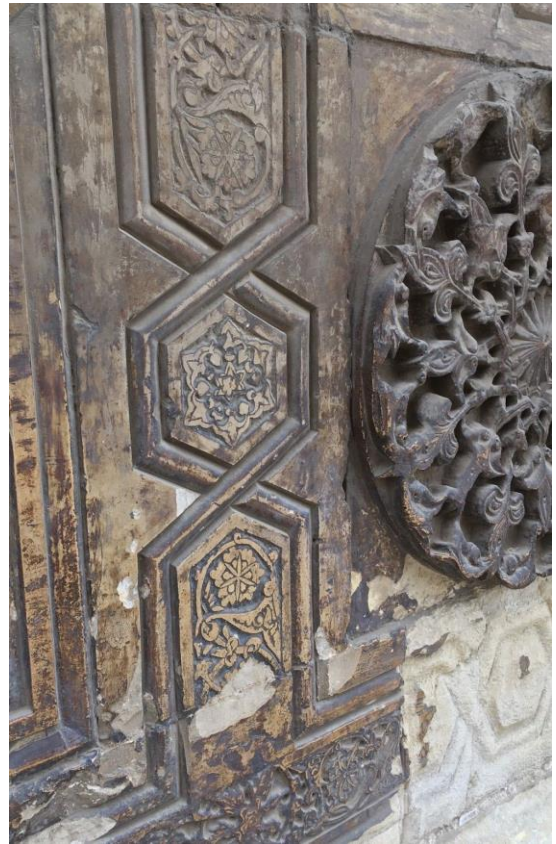


Figure 2.36-Above: Detail of Lamp (Figure 2.35)  
Below: Stucco Frame in Tomb Chamber Wall



Author  
Kahil

Figure 2.37-Portal Decoration



Author



Figure 2.38-Portal Façade-Peony and Lotus Scrolls



Author

Figure 2.39-Portal Façade-Palmette Band



Author



Figure 2.40- Signature of Muhammad ibn Bilik al-Muhsini in Hanafi Madrasa





Figure 2.41-Qur'an Copied by Muhammad ibn Bilik al-Muhsini for Sultan al-Nasir Muhammad (1330)

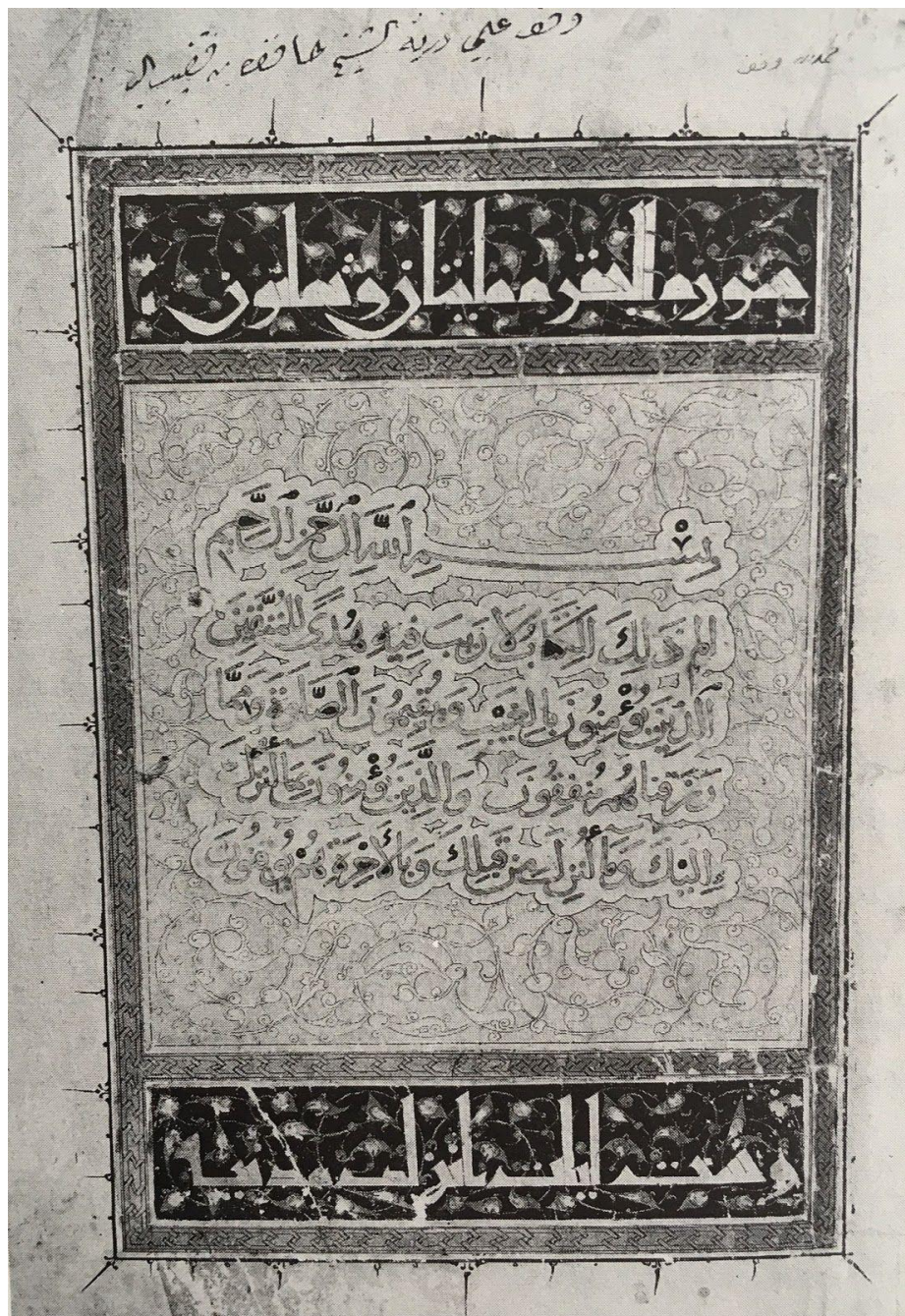


Figure 2.42-Qur'an Copied by Muhammad ibn Bilik al-Muhsini for Sultan al-Nasir Muhammad (1330)





Figure 2.43-Qur'an Endowed to the Funerary Madrasa of Umm Sultan Sha'ban (1368-1369)





Figure 2.44-Qur'an Attributed to Damascus (1338-1339)



James

Figure 3.1-Plan of Sultan Barquq's Complex

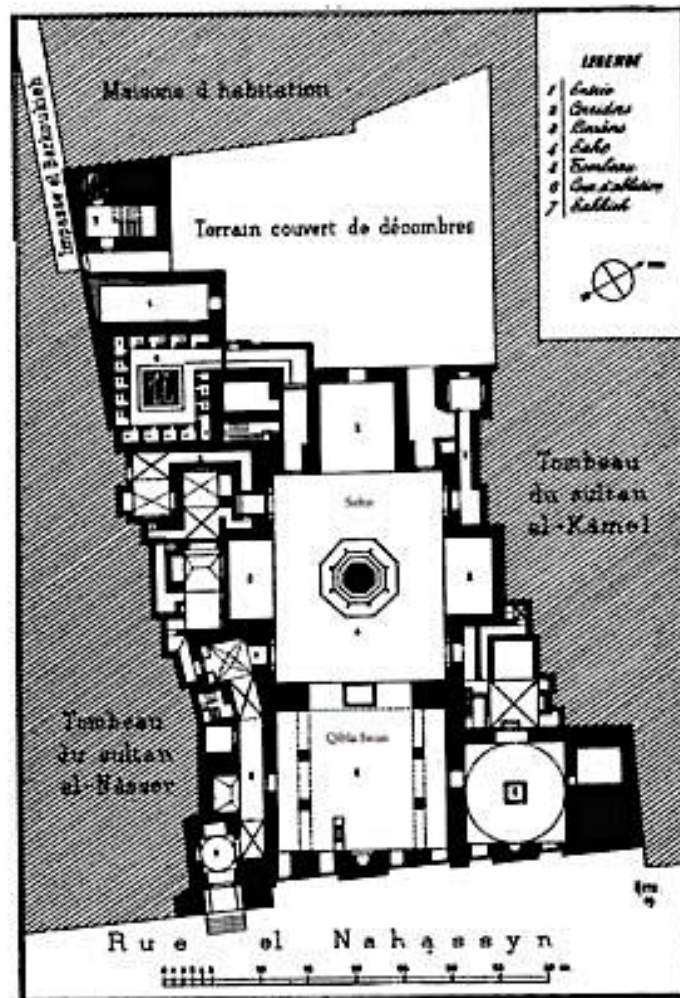
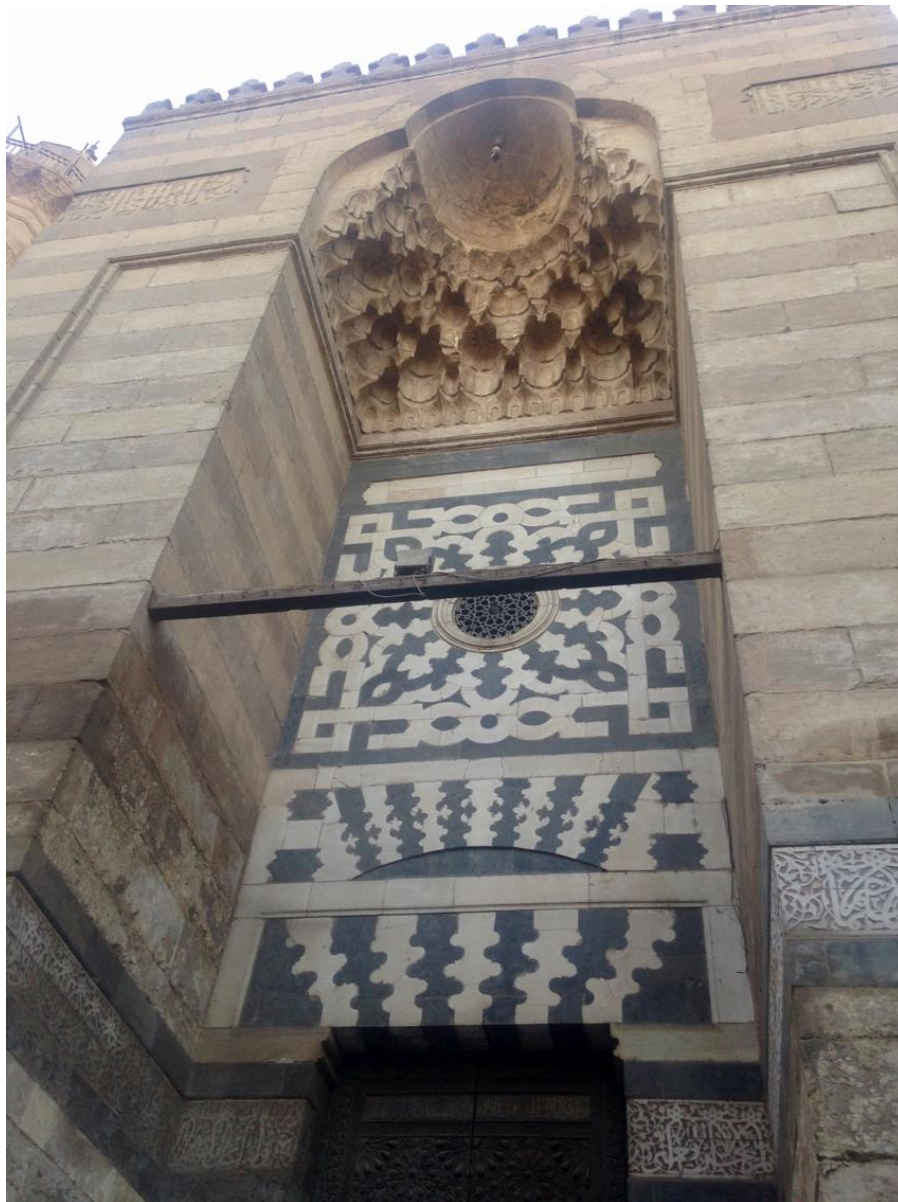




Figure 3.2-Portal



O'Kane

Figure 3.3-Qur'anic Inscription on Portal



Figure 3.4-Minare

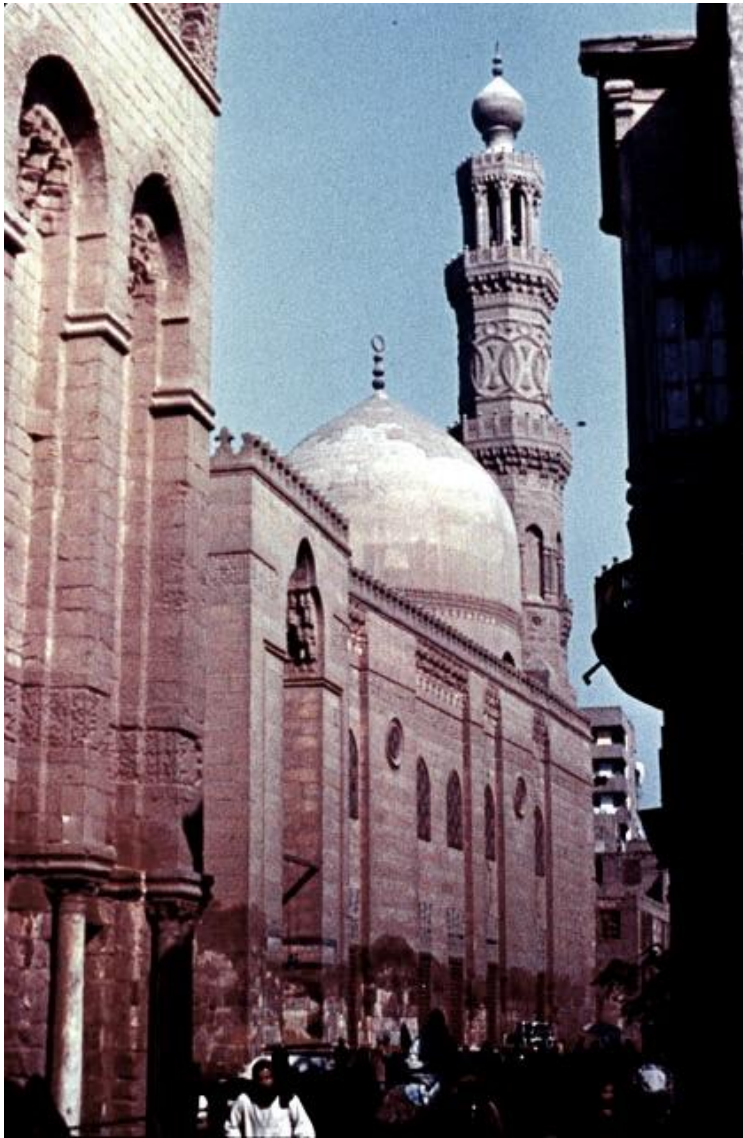
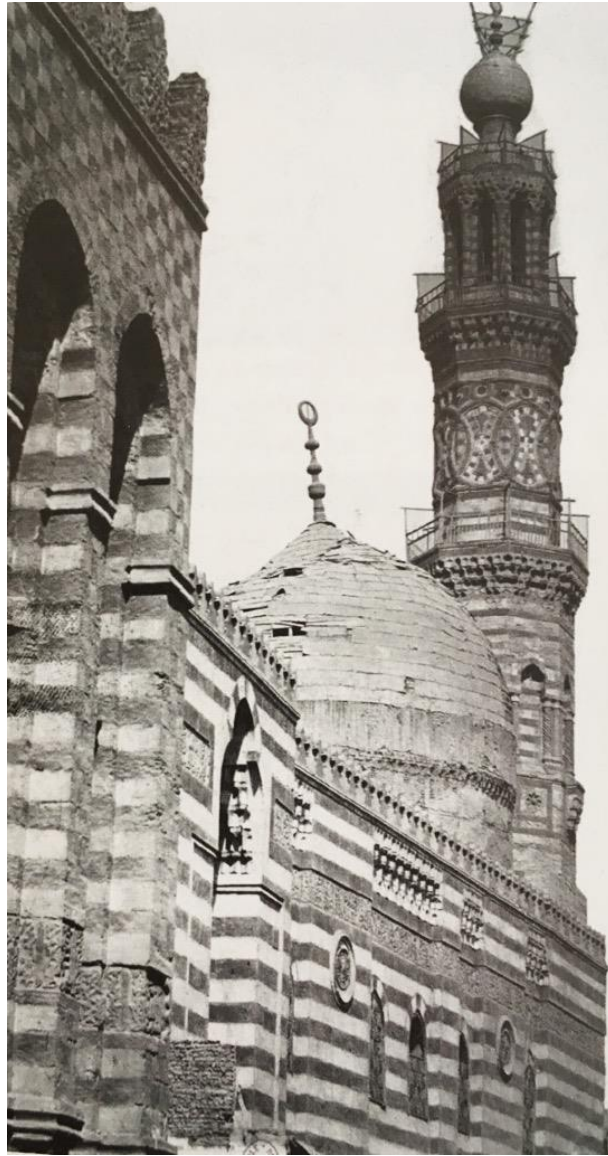




Figure 3.5-Lead Covered Wooden Dome Before 19<sup>th</sup> Century Reconstruction



Behrens-Abouseif

Figure 3.6-Brick Reconstruction



O'Kane

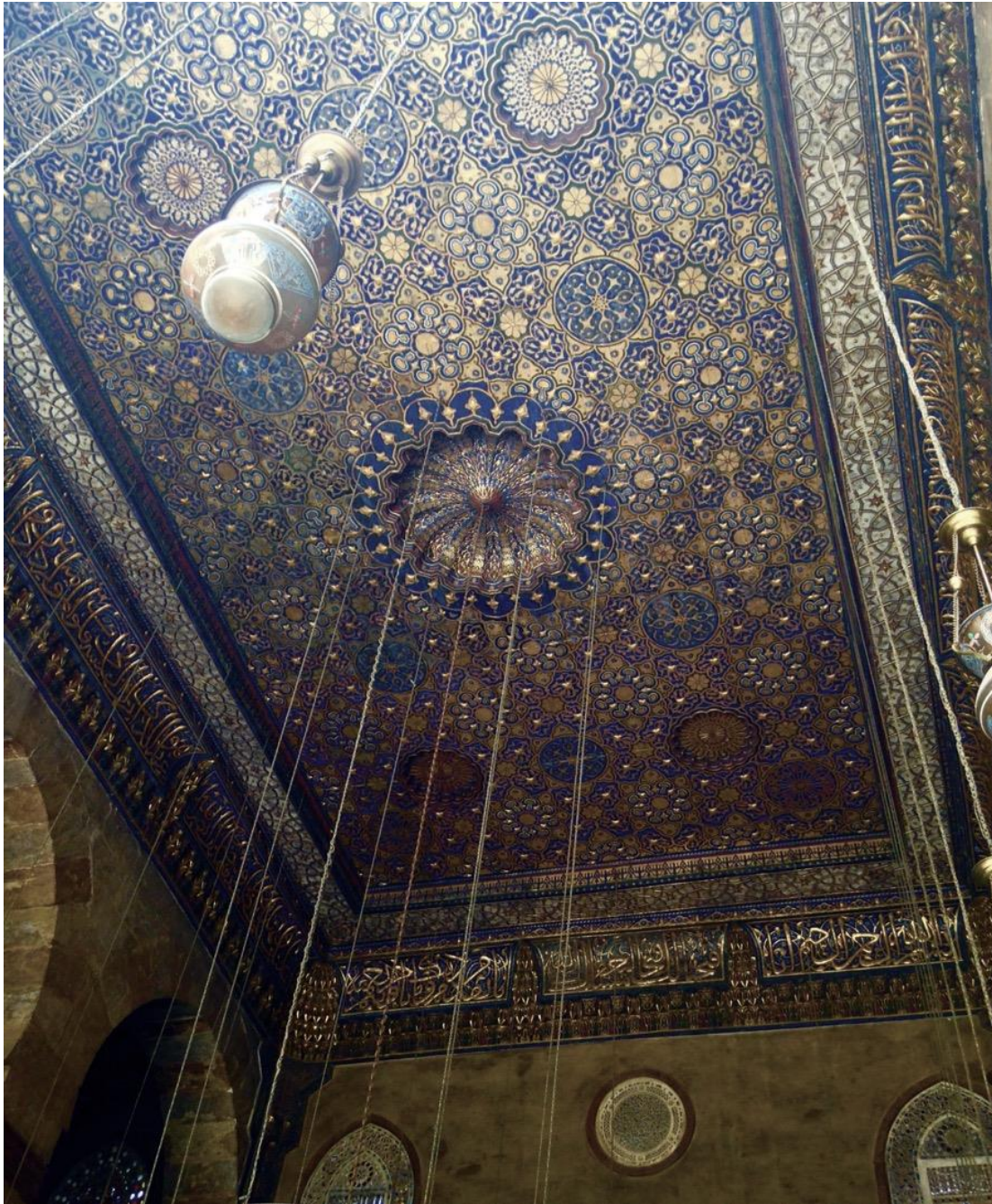
Figure 3.7-Domed Vestibule



Author



Figure 3.8-19<sup>th</sup> Century Painted Wooden Ceiling in Prayer Hall



Author



Figure 3.9-Painted Wooden Ceiling in Sultan Ashraf Barsbay's Complex (1423-1424)

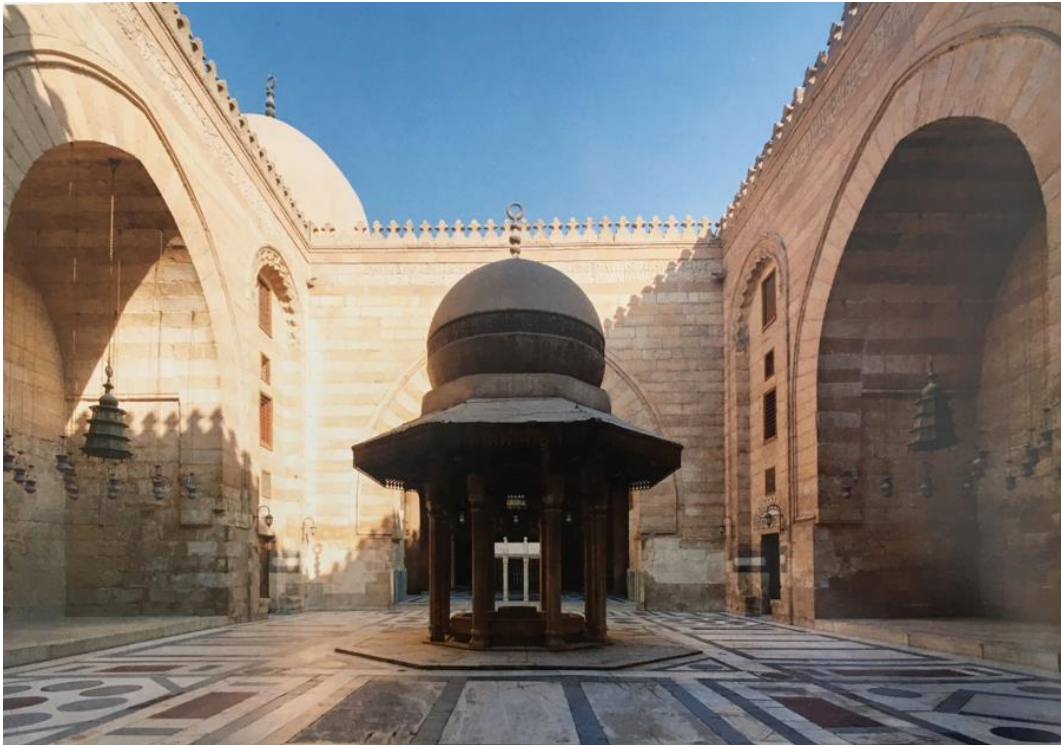




Figure 3.10-Painted Wooden Ceiling in Amir Tashtimur's Palace (1376)



Figure 3.11-*Iwans*



O'Kane



Figure 3.12-*Mashrabiyya* Screen in the Mosque of Amir Altinbugha al-Maridani (1334-1340)



Figure 3.13-Qibla Wall





Figure 3.14-Detail of Mihrab Voussoirs



O'Kane-Detail

Figure 3.15-Floor of Qibla *Iwan*



Author



Figure 3.16-*Kursi*



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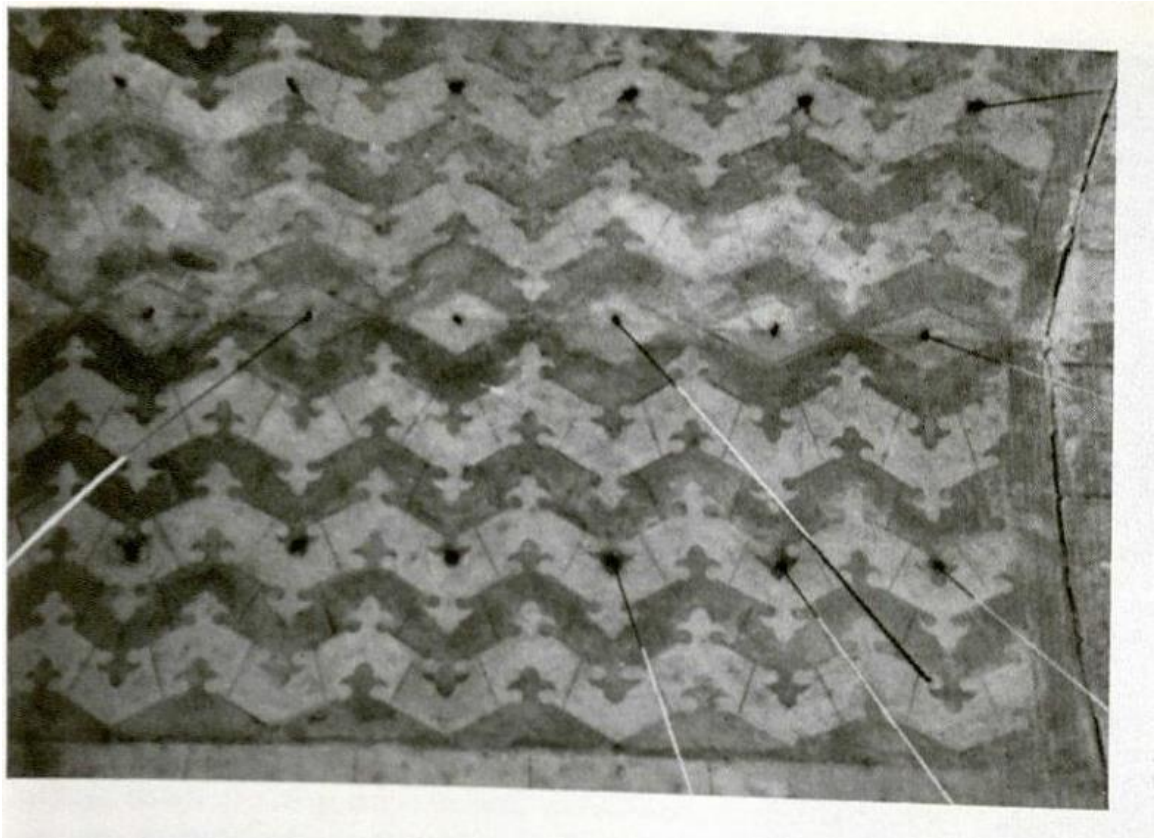
Figure 3.17-Tomb Chamber



O'Kane



Figure 3.18-Ceiling of Western *Iwan*



Rogers

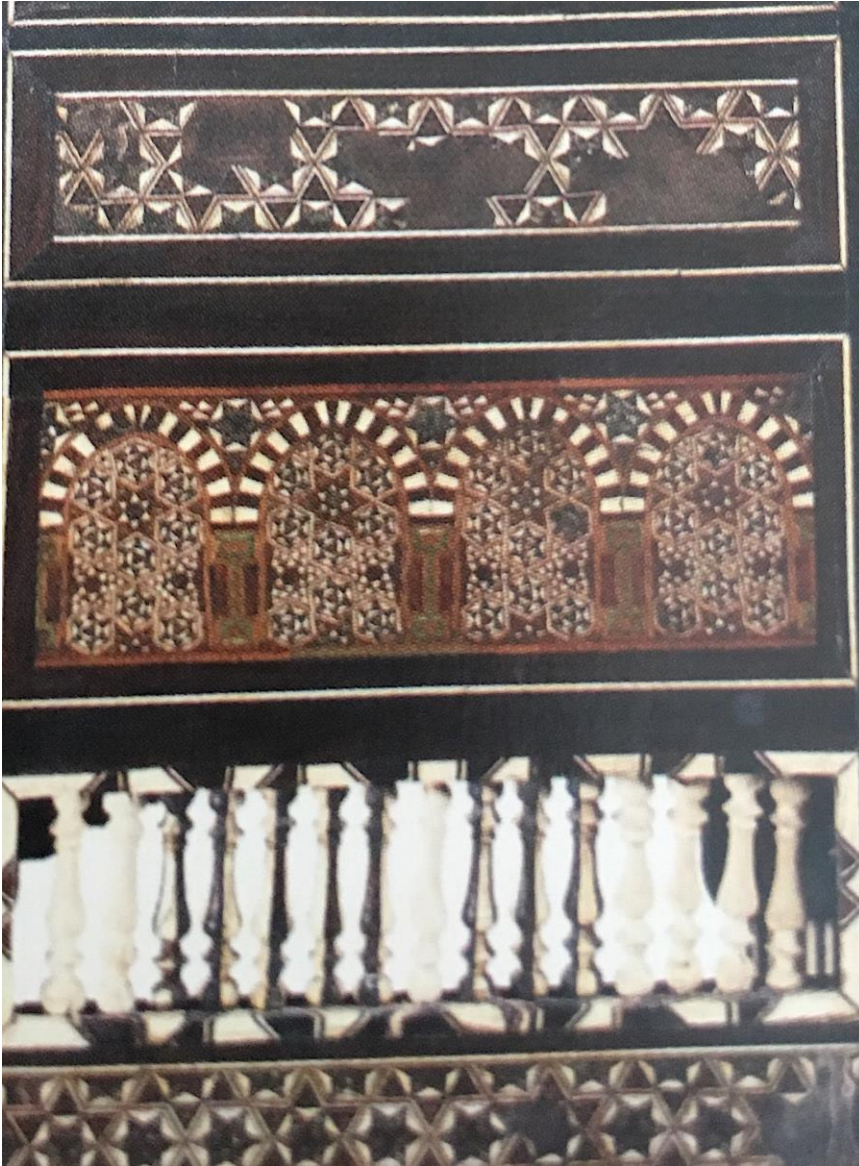


Figure 3.19-Stone Inlay Frieze from Sultan Barsbay's Funerary Complex in the Northern Cemetery (1432)



O'Kane-Detail

Figure 3.20-Detail of Qur'an Box of Umm Sultan Sha'ban (c. 1369)



O'Kane-Detail

Figure 3.21-*Tannur* of Amir Qawsun



O'Kane



Figure 3.22-*Tannur* Suspended from Sultan Barquq's Qibla *Iwan*



Author

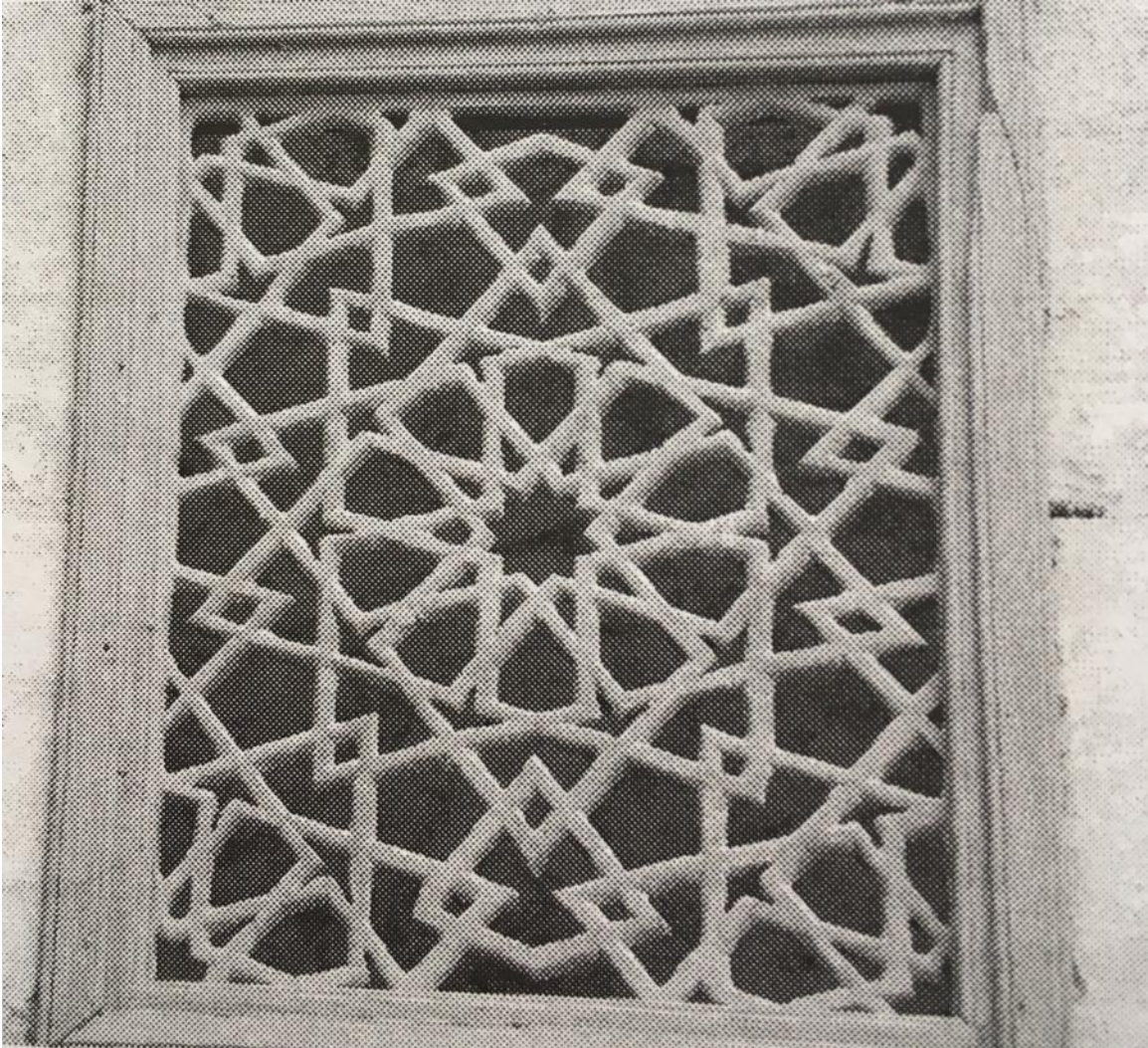
Figure 3.23-Arabesque Grille in Courtyard



Author



Figure 3.24-Star-Pattern Grille in Courtyard



Mols



Figure 3.25-Entrance Door



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Figure 3.26-Entrance Door-Inscription on Lower Left Leaf





Figure 3.27-Medallion Door in Courtyard



Author



Figure 3.28-Detail of Medallion Door in Courtyard



Author

Figure 3.29-Stable? Door of Amir Sunqur al-Tawil (late 13<sup>th</sup> century)



O'Kane



Figure 3.30-Binding of Multi-Part Qur'an Endowed to Barquq's Complex

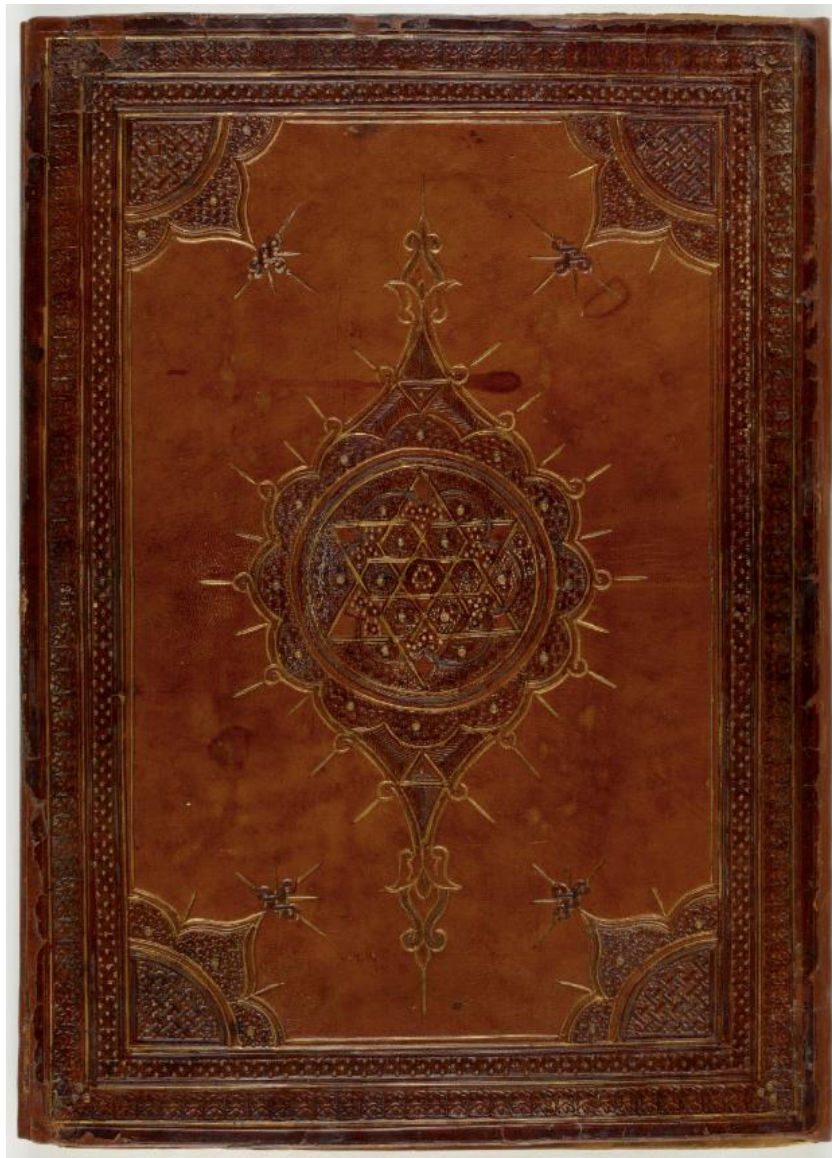


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Bibliothèque Nationale de France

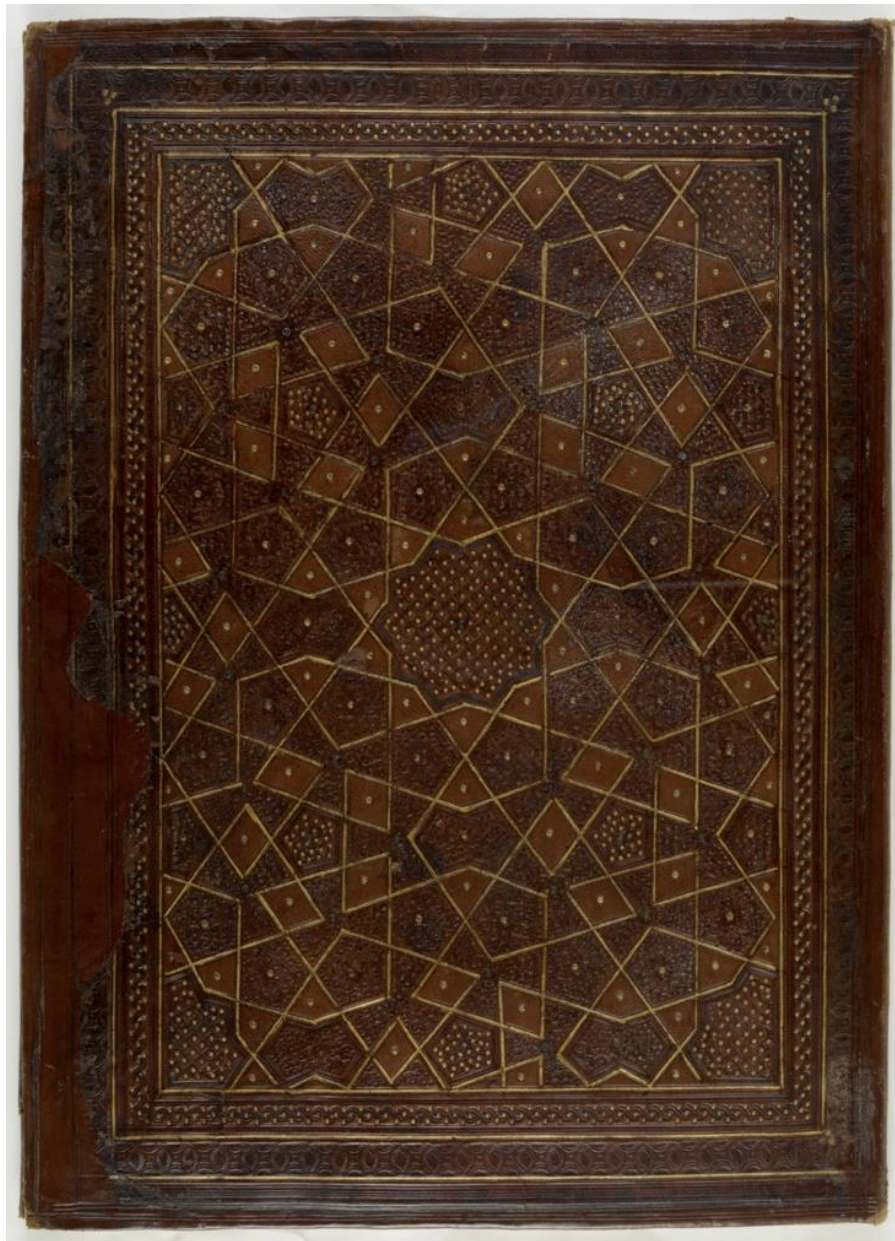


Figure 3.31-Binding of Multi-Part Qur'an Endowed to Barquq's Complex



Bibliothèque Nationale de France

Figure 3.32-Binding of Multi-Part Qur'an Endowed to Barquq's Complex



Source gallica.bnf.fr / Bibliothèque nationale de France

Bibliothèque Nationale de France

Figure 4.1-Plan

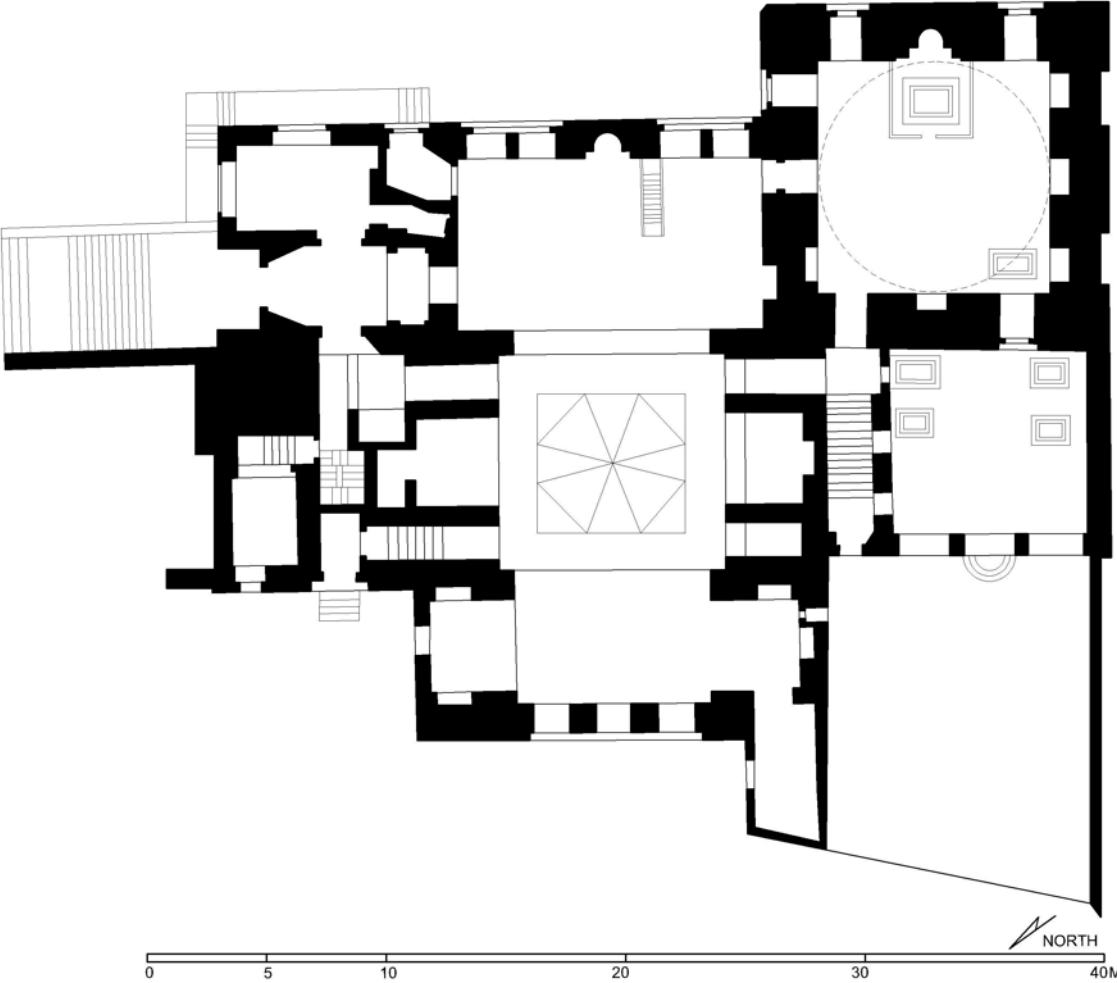




Figure 4.2-Portal



Author

Figure 4.3-Minareret



Author

Figure 4.4-Dome



Author



Figure 4.5-Dome of Amir Mahmud al-Kurdi's Madrasa (1393)



Figure 4.6-Detail of the Dome of Sultan Inal's Funerary Complex (1451-1456)



Figure 4.7-Dome of the Tomb of °Asfur (1504-1507)



Wahby and Montasser

Figure 4.8-Detail of the Dome of Amir Qurqurmas' Funerary Complex (1506-1507)



O'Kane

Figure 4.9-Dome of Amir Ganibek's Tomb (c. 1432)





Figure 4.10-Dome of Sultan Barsbay's Tomb (1435)





Figure 4.11-Interior



Figure 4.13-Minbar

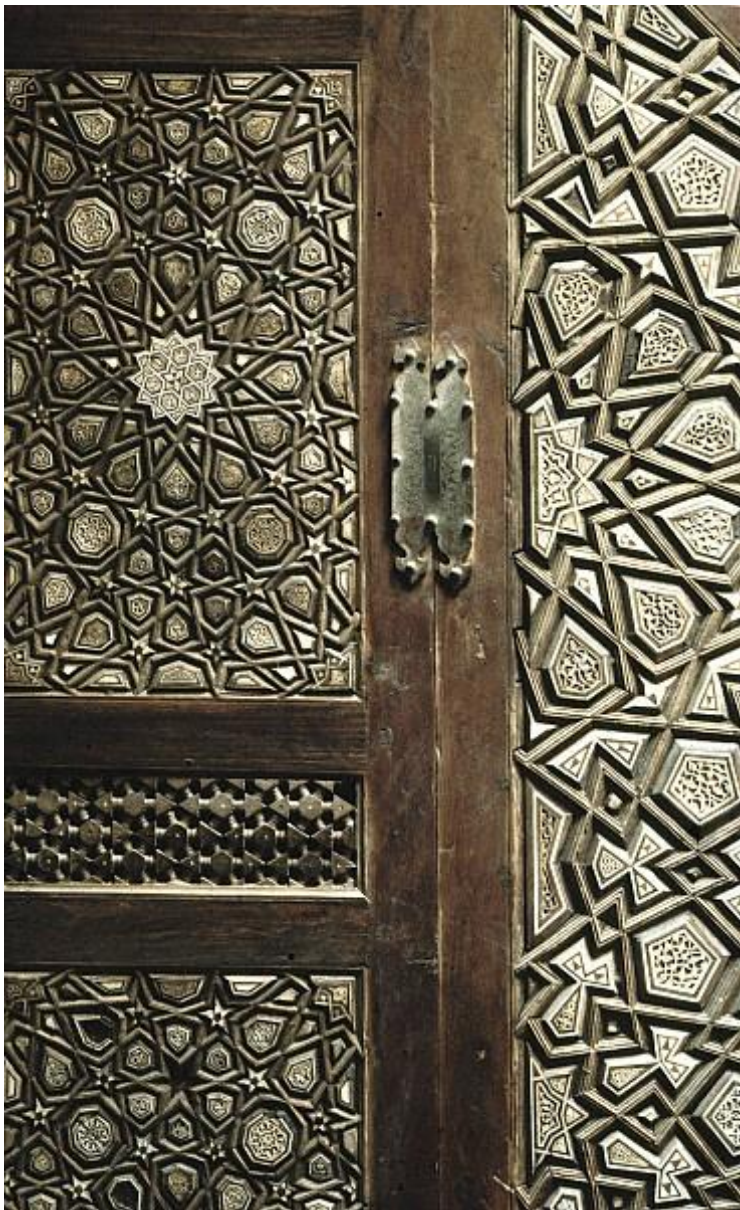




Figure 4.13-Entrance Door with Missing Metal Plaques



Author

Figure 4.14-Stone Minbar Endowed (1483) by Sultan Qaitbay to the Funerary Complex of Faraj ibn Barquq (1398-1411)



Figure 4.15-Interior Courtyard Door



Author



Figure 4.16-Candlestick Endowed by Sultan Qaitbay (1482-1483) to the Prophet's Mosque in Medina





Figure 4.17-*Tannur* of Asal Bay's Foundation in Fayyoun (1498-1499)



Author

Figure 4.18-*Tannur* with Sultan Qaitbay's Titles (1468-1496)



Victoria and Albert Museum

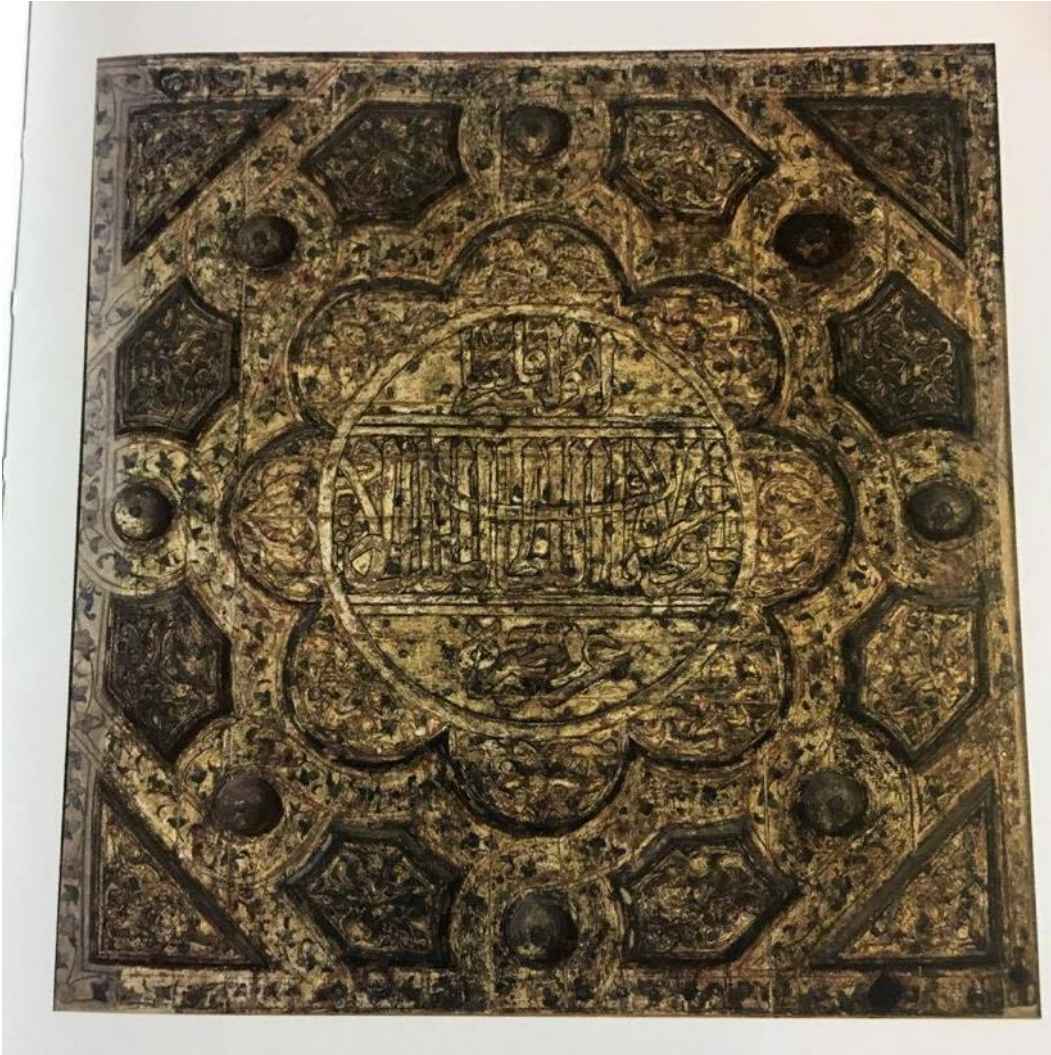
Figure 4.19-Endowment to Qaitbay's Complex in al-Ghazali's *Ihya' 'Ulum al-Din* (1490)



Los Angeles County Museum of Art



Figure 4.20-Wooden Panel with Qaitbay's Titles from al-Azhar Mosque (1495-1496)



O'Kane

Figure 4.21-Detail of Mamluk Carpet



Cavallo



Figure 4.22-Detail of “Umbrella Leaves” from the Hirth Carpet

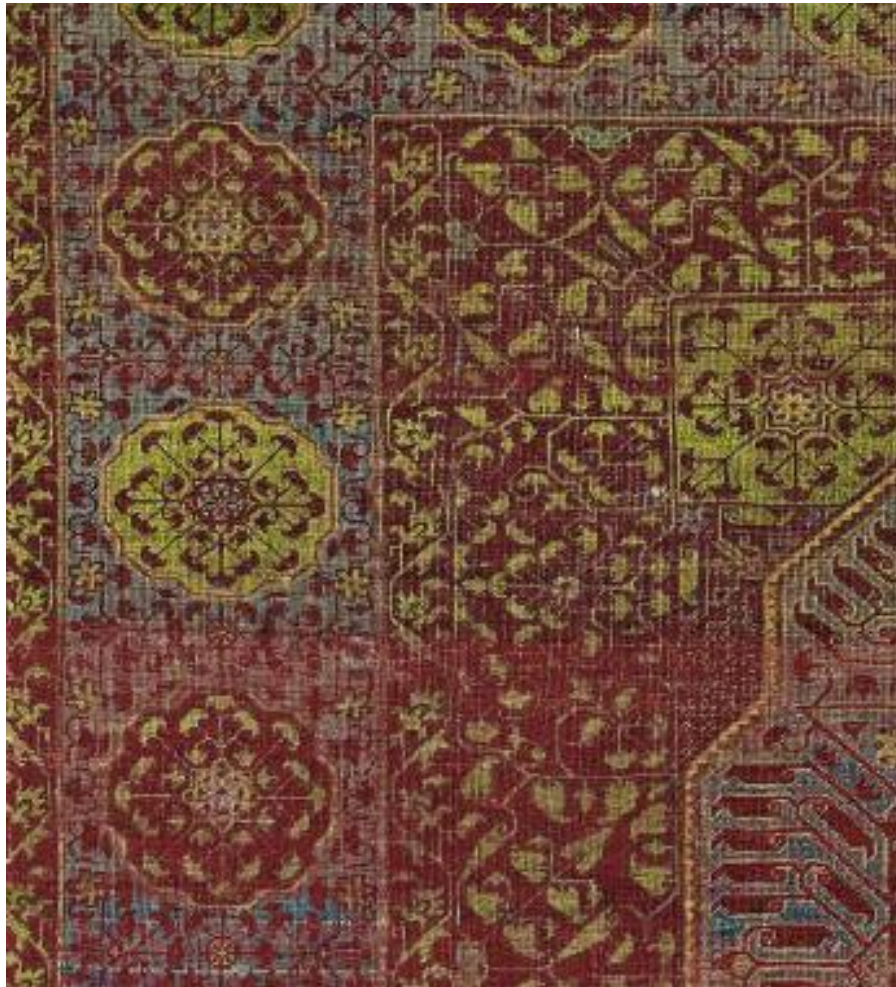




Figure 4.23-The Simonetti Carpet (c. 1500)



Metropolitan Museum of Art

Figure 4.24-The Simonetti Carpet



Metropolitan Museum of Art

Figure 4.25-Carpet with Sultan Qaitbay's Blazon





Figure 4.26-Barbieri Carpet



Figure 4.27-Coptic Textile Fragments



Coptic Museum in Cairo  
The Vatican  
Coptic Museum Ontario



Figure 5.1-The Vasselot Bowl



The Louvre



Figures 5.2 and 5.3-The Baptistère de Saint Louis (c. 1290-1310)



The Louvre

Figure 5.4-Detail of Baptistère de Saint Louis (c. 1290-1310)



Figures 5.5 and 5.6-Detail of Baptistère de Saint Louis





Figure 5.7-The Funerary Complex of Farag ibn Barquq by Émile Prisse D'Avennes



XVIII. MOSQUÉE SÉPULCRALE DE SOULTAN BARQOUQ. PORTE DU TOMBEAU. XIV<sup>e</sup> SIÈCLE.

Figure 5.8-Candlestick of Amir Zayn al-Din Kitbugha (c. 1290)

