

## Migration persischer Manuskripte: Untersuchung der Zerstreuung und uneinheitlichen Katalogisierung der *Muraqqa'-e Gulshan*-Folios

Fatemeh Shafiee Sarvestani

Fachbereich Geschichts- und Kulturwissenschaften, Freie Universität Berlin, Deutschland

Empfangen: 11.05.2025; Akzeptiert: 11.06.2025

### Zusammenfassung:

Das *Muraqqa'-e Gulshan* ist ein historisch bedeutendes persisches Album mit Miniaturmalereien, Kalligraphien und Gravuren, dessen Blätter heute über Institutionen weltweit verstreut sind. Während frühere Forschungen sich mit der künstlerischen und historischen Bedeutung dieses Werks befassten, wurde bislang kein substantieller Versuch unternommen, eine Netzwerk-Analyse anzuwenden, um die Zusammenhänge zwischen den verstreuten Folios nachzuverfolgen. Dieser Artikel untersucht das Ausmaß und die Struktur dieser Zerstreuung anhand von Katalogeinträgen, Provenienzdaten und Erwerbshistorien. Zudem werden Zugangsbarrieren für persischsprachige Wissenschaftler sowie die Rolle der Digitalisierung im Sinne eines gerechteren wissenschaftlichen Austauschs thematisiert. Die Forschung verwendet graphbasierte Netzwerkanalyse und das Paradigma der Linked Open Data, um die Verbreitung der Folios zu verfolgen und die Variabilität der Katalogisierung zu quantifizieren, die vergleichende Manuskriptforschung erschweren kann. Ziel ist es, Lücken in der Zugänglichkeit und in der Metadatenorganisation zu identifizieren. Die Ergebnisse tragen zur Manuskriptforschung bei, indem sie die Nützlichkeit computergestützter Methoden in der Provenienzforschung sowie bei benutzerorientierten Digitalisierungsinitiativen aufzeigen. Damit werden bestehende Schwächen der bisherigen Forschung adressiert und ein umfassendes Modell zur Untersuchung der Migration der *Muraqqa'-e Gulshan*-Folios in globalen Sammlungen bereitgestellt.

**Schlüsselwörter:** Manuskriptmigration, *Muraqqa'-e Gulshan*, Staatsbibliothek zu Berlin, Jahangir Album

---

<https://orcid.org/0000-0001-5764-5019>

E-Mail: [fatemeh.shafiee@fu-berlin.de](mailto:fatemeh.shafiee@fu-berlin.de)

### How to Cite this Article:

Shafiee Sarvestani, F. (2025). Migration persischer Manuskripte: Untersuchung der Zerstreuung und uneinheitlichen Katalogisierung der *Muraqqa'-e Gulshan*-Folios [Migration of Persian Manuscripts: Examining the Dispersal and non-Identical Indexing of *Muraqqa'-e Gulshan* Folios]. *Spektrum Iran*, 38(1), 31-53.

<https://doi.org/10.22034/spektrum.2025.522813.1034>



Copyright © Der/die Autor(en); Dieses Werk ist lizenziert unter einer Creative Commons Namensnennung – Nicht kommerziell – Keine Bearbeitungen 4.0 International (CC-BY-NC) Lizenz. Homepage: [www.spektrumiran.com](http://www.spektrumiran.com)

## مهاجرت نسخه‌های خطی فارسی: بررسی پراکندگی و فهرست‌نویسی غیر یکسان اوراق مرقع گلشن

فاطمه شفیعی سروستانی

دانشکده تاریخ و مطالعات فرهنگی، دانشگاه آزاد برلین، آلمان

دریافت: ۲۰۲۵/۰۵/۱۱؛ پذیرش: ۲۰۲۵/۰۶/۱۱

### چکیده:

مرقع گلشن یک آلبوم فارسی تاریخی و ارزشمند شامل نگاره‌ها، خوشنویسی‌ها و کنده‌کاری‌هایی است که امروزه صفحات آن در میان نهادهای مختلف در سراسر جهان پراکنده شده‌اند. اگرچه پژوهش‌های پیشین به بررسی جنبه‌های هنری و تاریخی این اثر پرداخته‌اند، تاکنون تلاشی جدی برای تحلیل شبکه‌ای به‌منظور ردیابی پیوندهای میان این برگ‌های پراکنده صورت نگرفته است. این مقاله میزان و ساختار این پراکندگی را از طریق تحلیل سوابق فهرست‌نویسی، اطلاعات منشأ و تاریخچه‌ی تملک مورد بررسی قرار می‌دهد. همچنین، چالش‌های دسترسی پژوهشگران فارسی‌زبان و نقش دیجیتال‌سازی در تسهیل تبادل علمی عادلانه‌تر را در نظر می‌گیرد. این پژوهش با بهره‌گیری از تحلیل شبکه‌ای مبتنی بر گراف و الگوی «داده‌های پیوندی باز» (Linked Open Data)، پراکندگی برگ‌ها را ردیابی کرده و ناهماهنگی‌های فهرست‌نویسی را که ممکن است مانع پژوهش تطبیقی نسخه‌های خطی شود، کمی‌سازی می‌کند. هدف آن شناسایی خلأهای موجود در دسترسی و سازماندهی فراداده‌ها است. یافته‌های این پژوهش به حوزه‌ی نسخه‌پژوهی کمک می‌کند، زیرا نشان می‌دهد که چگونه روش‌های محاسباتی می‌توانند در تحقیق منشأ آثار و ابتکارات دیجیتال‌سازی مبتنی بر نیاز کاربران مفید واقع شوند. این پژوهش کاستی‌های مطالعات پیشین را برطرف کرده و مدلی جامع برای بررسی مهاجرت برگ‌های مرقع گلشن در میان مجموعه‌های جهانی ارائه می‌دهد.

**واژگان کلیدی:** مهاجرت نسخ خطی، مرقع گلشن، کتابخانه دولتی برلین، آلبوم جهانگیر

*Original Research Paper*

## **Migration of Persian Manuscripts: Examining the Dispersal and non-Identical Indexing of Muraqqa‘-e Gulshan Folios**

Fatemeh Shafiee Sarvestani

*Department of History and Cultural Studies, Free University of Berlin, Germany*

Received: 11.05.2025; Accepted: 11.06.2025

### **Abstract**

The *Muraqqa‘-e Gulshan* is a historically significant Persian album of miniature paintings, calligraphy, and engravings, whose fragments are now dispersed across institutions worldwide. While earlier research has examined its artwork and historical significance, no substantial attempt has been made to apply network analysis to trace the interconnectedness of its scattered folios. This article explores the extent and structure of this dispersal through an analysis of catalog records, provenance data, and acquisition histories. It also considers the access challenges faced by Persian-speaking scholars and the role of digitization in facilitating more equitable scholarly exchange. This research employs Graph-Based Network Analysis and the Linked Open Data paradigm to trace the dispersal of folios and quantify cataloging variability that may hinder comparative manuscript research. It aims to identify gaps in accessibility and metadata organization. The results will contribute to manuscript studies by demonstrating the utility of computational approaches in provenance research and user-directed digitization initiatives, addressing shortcomings in current scholarship and offering a comprehensive model for studying the migration of *Muraqqa‘-e Gulshan* folios among global collections.

**Keywords:** Manuscript Migration, Muraqqa‘-e Gulshan, State Library of Berlin, Jahangir Album

---

<https://orcid.org/0000-0001-5764-5019>

E-Mail: [fatemeh.shafiee@fu-berlin.de](mailto:fatemeh.shafiee@fu-berlin.de)

#### **How to Cite this Article:**

Shafiee Sarvestani, F. (2025). Migration of Persian Manuscripts: Examining the Dispersal and non-Identical Indexing of Muraqqa‘-e Gulshan Folios. *Spektrum Iran*, 38(1), 31-53.

<https://doi.org/10.22034/spektrum.2025.522813.1034>



Copyright © The Author(s); This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International (CC-BY-NC) License. Homepage: [www.spektrumiran.com](http://www.spektrumiran.com)

## **Introduction**

The dispersal and transnational migration of the Muraqqa‘-e Gulshan, a renowned Persian album of calligraphic and visual beauty, is one of the more egregious examples of manuscript disintegration and global dispersal. Formerly in the Mughal imperial library, its leaves are now fairly dispersed in institutions around the world, including the Staatsbibliothek zu Berlin (Berlin State Library). This dispersal, resulting from collection purchases, private sales, and institutional collecting policies, has scattered the album and is hard to examine as a discrete entity. Its dispersal provides valuable information regarding historic collecting habits, institutional cataloging policies, and issues of the means of digital reconstruction of dispersed manuscripts.

The recreation of the dispersal of the Muraqqa‘-e Gulshan demands an interdisciplinary implementation of historical provenance research in conjunction with digital mapping and visualization techniques. Holdings are safeguarded by each institutional repository but are not tracked in any systematic program across the course of time and space. The challenge of the dispersed archival record and nonstandardized cataloging practices heightens the urgency of novel digital strategies to rebuild manuscript migration.

This study begins with a survey of the literature on Muraqqa‘-e Gulshan, an explanation of the data collection and modeling procedure, and the organizational challenges of the historical data within Nodegoat. The ensuing section provides the overall findings in the form of trends in the transmission of manuscripts, institutional impact on access, and methodological limitation of digital visualization. Finally, the study discusses the broader implications of digital tools for manuscript research, keeping in mind both their potential to enable provenance research but also their limitations.

The key research questions are: What were the main historical channels through which the Muraqqa‘-e Gulshan folios were scattered? In what ways have cataloging practices within institutions affected the accessibility and reconstruction of this dispersed collection? What are the pitfalls of attempting to visualize manuscript movement through digital means? More broadly, in what ways can computational methodologies aid manuscript provenance research, and what are the implications of this case for ethical cataloging and

digital repatriation? In this article, "ethical cataloging" refers to the creation of cataloging procedures that recognize provenance gaps, take into account colonial acquisition contexts, and support equitable access in cooperation with source communities, rather than the deletion or revision of historical records.

## **Literature Review**

### **1. Artistic Origins and Stylistic Analysis**

The Muraqqaʿ-e Gulshan's paintings are typically dated to the late 16th and early 17th centuries, which correspond to the reigns of Shah Jahan, Jahangir, and Akbar, the Mughal emperors. Despite the fact that many folios lack precise dates, stylistic analysis and inscriptions on certain miniatures enable scholars to link them to well-known artists from this era, including Govardhan and Basawan. The cosmopolitan artistic milieu of the Mughal court is reflected in the paintings' varied stylistic influences, which include Safavid, Deccani, and European engravings. The subjects are diverse and include Christian iconography, allegorical and devotional scenes, courtly portraits, and naturalistic studies of plants and animals. There is also variation in the style and execution of the calligraphic pages. While a single master calligrapher may have produced some pages, others exhibit differences in script, layout, and ornamentation, indicating the participation of multiple scribes, possibly working over different periods or under different royal commissions.

The stylistic bias of the Muraqqaʿ-e Gulshan paintings is typically Mughal Indian in style. However, they are richly incorporated with Persian (Safavid) aesthetic norms, particularly in compositional balance, stylization of forms, and framing ornaments. This kind of syncretic visual vocabulary reflects the syncretic cultural environment of the Mughal court, where artists trained in Iran were routinely patronized. While rooted in Indian material culture and imperial iconography, the aesthetic influence of Safavid Iran is one of the features that neither detracts from nor overshadows the album's Mughal identity – it rather strengthens the impression of its cross-cultural origins.

The Muraqqaʿ-e Gulshan is notable for its unique structural arrangement, in which two illustrated pages are consistently followed by two calligraphic

pages. On every folio, there is elaborate marginal decoration: figural compositions—among them, portraits—are on the calligraphy pages, while floral, faunal, and abstract themes are on the illustrations. Such design tastes were common to Mughal tastes for visual balance, which was achieved by either adjusting illustration sizes, adding decorations, or trimming oversized pieces to accommodate their duplicates (Ātābāy, 1974, p. 12).

## **2. Historical Provenance and Ownership Theories**

The album, no.1663, was owned by Nāṣer al-Din Shah Qājār when he was crown prince in Tabriz, as suggested by inscriptions with dates in 1847. Its earlier provenance is unknown, however. Others believe Nāder Shah Afshār may have introduced it to Persia following his 1741 Indian campaign, although there is no conclusive evidence to prove such a notion (Iranica, 2001, p. 104; Stříbrná, 2021).

Still another hypothesis presented by Aḥmad Sohayli K̄vānsāri is that the album was originally owned by Mirzā Moḥammad-Ḥosayn Wafā Farāhāni, a book-loving vizier of the Zand dynasty, whose prized collection of rare and magnificently illuminated manuscripts was confiscated by Āgā Moḥammad Khan Qājār (Brydges, introd., pp. cxlviii, cliii–clvii, cxc). This speculation reflects the broader uncertainties surrounding the album's trajectory before it entered Qajar royal collections (Iranica, 2001, p. 105).

The Muraqqa'-e Gulshan was later combined with a similar album, the Muraqqa'-e Golestān (no. 1664), both of which were initially stored separately—one in the Royal Library and the other in the private quarters (andarun) of the Golestan Palace—until Nāṣer al-Din Shah ordered them rebound as a single volume (Moḥiṭ Ṭabāṭabā'i, 1967, pp. 40–41). However, their original bindings and five folios were removed and have since appeared on the art market for sale (Beach, personal communication, 26 March 2001; Soudavar, 1 April 2001). Differences in original size (Golestān leaves are slightly larger at 42 × 26 cm compared to Gulshan's 40 × 25 cm) suggest they were once separate albums, though some folios were later resized, further complicating efforts to reconstruct their original format (Iranica, 2001, p. 106).

Art historians, including Welch (1979) and Titley (1983), discuss the complexities of the album's miniatures and calligraphy and the impact of Mughal patronage. The album's artwork encompasses Persian and Mughal

influences and European and Deccani styles. Christian imagery is also prevalent, including Jesus, the Virgin Mary, saints, and apostles—scholars attribute the Christian influence to Jesuit missionaries at the Mughal court (Bailey, 1998). The album contained European engravings, demonstrating Jahangir and Shah Jahan's interest in Western art (Ettinghausen, 1965, pp. 391-396).

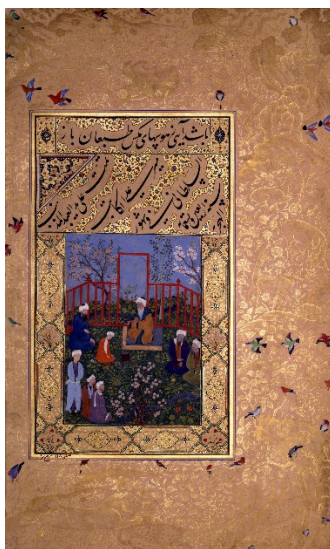


Figure 01: Page 118 of the Gulshan Album preserved in the Golestan Palace, Tehran, Iran.

### **3. Provenance Study and Dispersion of Manuscripts**

Computational methods have increasingly been applied to analyze manuscript catalogues, revealing patterns of provenance and dispersal. Jones and Faghihi utilized the database of the Fihrist Union Catalogue to group manuscript descriptions with shared physical traits, aiding in reconstructing their origins with the purpose of helping the user reconstruct the latter's original source manuscript description. Handschriftencensus is documenting data for more than 23,000 medieval German manuscripts and providing us with the capacity to follow their routes through their residences in 1,400 collections. Initiatives like Mapping Manuscript Migrations demonstrate how network analysis and Linked Open Data platforms can visualize the provenance and movement histories of manuscripts—whether dated or undated—across multiple institutions and geographic regions. However, the advancement of research in this area is hindered by inconsistent cataloging

standards across institutions. Burrows focuses on reuse issues of data in the context of manuscript research and demands greater quality and standardization of metadata. Reconstructing provenance is made more difficult by the fact that institutional cataloging records usually represent arbitrary curatorial choices rather than objective or standardized descriptions. Insufficient standardized metadata hinders us from making data representations for successful cross-institutional comparisons – Different institutions use diverse methods and standards for cataloging manuscripts, making it difficult to compare and connect records across collections.

Catalogues that have been published, like those by Wright (1997) and Adamova (2004), strive to systematically catalogue Persian manuscripts but do not facilitate connections across institutions. Jones and Faghihi suggest that catalogues of manuscripts - formed upon institutional needs - need to be classified according to ontologies and would benefit from network analysis to address provenance issues. Established digital infrastructures and standardized, interoperable cataloguing frameworks will enhance the ability to integrate data and accessibility and to reconstruct movements of manuscripts from institution to institution.

#### **4. Network Analysis and Computational Approaches to Fragmented Manuscript Studies**

Recent research increasingly seeks to employ network analysis and digital methods in response to the difficulties of fragmented and dispersed manuscript collections. Burrows (2021) observes the usefulness of Linked Open Data (LOD) platforms and graph-based visualizations in reconnecting dispersed folios and enabling data sharing between institutions. His work on medieval and renaissance collections is particularly relevant as he demonstrates that frameworks such as the International Image Interoperability Framework (IIIF), as well as Linked Data models, allow for the virtual reunification of manuscripts. While these provide an interesting prototype for investigating Persian manuscript traditions, including, but not limited to the Muraqqa‘-e Gulshan, it is important to note that graph theory has also been helpful in mapping complex relationships between manuscripts, institutions, collectors, and historically, owners. The ownership clusters and the central nodes of circulation that can be visualized in these

graphical models further empower the scholarship of identifying and describing pathways of transfer and provenance.

Metadata aggregation continues to be a crucial part of these initiatives. By combining heterogeneous cataloging records through LOD infrastructures, interoperable databases can be created and accessed across institutions, enabling scale for provenance research. Case studies, like Miller et al.'s (2020) map of Islamic manuscript provenance using Gephi software, illustrate how these methods and computational tools can uncover hidden pathways and connections in the histories of manuscripts.

These methods illustrate how digital humanities approaches can significantly impact manuscript studies by enabling new models of reconstruction, analysis, and ethical cataloguing.

## **Methodology**

In this project, the digital humanities approach is used, employing the academic environment Nodegoat, a data-driven research environment for visualizing and analyzing networks. Structuring data in terms of manuscript movements, institutional ownership, and historical transactions. The methodological architecture of the study is based on a data set that incorporates information from institutional catalogues, auction records, archival materials, and secondary literature. The data set includes information about the details of manuscript folios, the institutions and collectors who acquired them, the manner of transfer, and significant historical events relevant to their transfer.

Nodegoat was selected as the preferred application for organizing and analyzing this data because it allows the modeling of relational networks and the visualization of complex provenance paths. These data were organized into five major object types:

1. Manuscripts: Entrants would comprise individual folios or album components. For each manuscript, the title, folio number, present and former institutional holdings, and transfer details were recorded.
2. Institutions: All libraries, museums, and private collections that acquired or currently house the folios were recorded as institutions.

3. People: Individuals relevant to the transfer of the manuscripts, such as collectors, dealers, and institutional curators, were recorded as people.

4. Events: Recorded events would comprise transactions associated with sales, acquisitions, military seizure, and donations of manuscripts that connected people, institutions, and manuscripts.

5. Movement Pathways: Cross-referenced relationships were employed, allowing movement pathways of manuscripts from entity to entity over time to be traced.

Although this framework had the goal of offering a holistic model for visualization of dispersal, numerous problems cropped up while putting it into practice. They comprised metadata inconsistencies, challenges in correlating historical transactions, as well as limitations of depicting movement paths.

## **Findings and Analysis**

### **1. Dispersal Pathways and Acquisition History**

The Muraqqa‘-e Gulshan is in a fragmented condition, with many folios missing and scattered among collections in institutions worldwide. Table 04, is created based on the data and shows manuscript transfer events, while table 03 shows institutions and individuals holding. Richard (2011) and Sims-Williams (2016) document the removal and transfer of Persian manuscripts from Persian and Mughal courts to European institutions. The transfer of Mughal albums to European institutions followed similar trajectories to the Muraqqa‘-e Gulshan, with roles played by diplomatic envoys, colonial agents, and private collectors transferring these artistic objects from the East to the West. The Berlin State Library (Libr. Pict. A117), was one of the institutions that benefited from this dispersal, among others in Europe. The Berlin State Library obtained a vast number of Oriental manuscripts in the 19th Century, with assistance from a number of scholars, diplomats, and collectors who sought to build upon Prussia’s academic prestige and cultural reputation. Nonetheless, the local sellers that supplied the folios remain largely unknown, as European collectors mainly concealed their sources when purchasing collections. The sale and removal of various folios from the Muraqqa‘-e Gulshan, generally known as the "Berlin Album" or "Jahangir

Album" (Brugsch, I, pp. 92–93; Kühnel & Goetz, 1926, pp. 8–9) illustrates the fragmentation of collections that this trade creates (Rauch, 2022, pp. 99–100).

The dispersal of Mughal albums was not confined to Berlin. Two folios from the *Gulshan Album* are preserved at the Náprstek Museum in Prague, which recent scholarship claims were acquired by Count Viktor Dubský of Třebomyslice while he served as the Austro-Hungarian envoy to Persia from 1872–1876 (Stříbrná, 2021, p. 51). Other Mughal album fragments, including pages from the *Salim Album* and from the *Jahangir Album*, have emerged in the Chester Beatty Library and the Freer Gallery of Art. These acquisitions were typically made through nineteenth and early twentieth-century art markets, where the movement of individual folios was commonplace, rather than complete albums.

Milo Cleveland Beach (1965) has documented how European collectors, aware of the albums' artistic importance, explicitly sought to acquire this type of material for private and institutional collections. The Berlin acquisition strategy, for example, engaged in the procurement of manuscripts that combined Islamic and European artistic skills and aesthetics to serve as important examples for the study of cross-cultural exchange (Beach, 1965, p. 66).

One of the very constructive and important aspects of Wilkinson and Gray's study is the network of actors who are involved in their movement and research. Importantly, scholars in Europe, such as Kühnel and Goetz, contributed to identifying, documenting, and interpreting Mughal albums in Western institutions (p. 169). The interconnected network of artists, agents, collectors, scholars, and institutional agents demonstrates historical processes concerning the dispersal and study of Mughal albums like the *Muraqqa' -e Gulshan*.

The Golestan Palace Library has initiated steps to recover lost folios and has acquired six significant pages, including the first and last leaves of the *Golestān Album* (Hájek, p. 73; Sohayli K̄vānsāri, p. 16; Semsār, pp. 256–57). Nevertheless, it is difficult to reconstruct precisely the number of original folios. Historical accounts established various folio counts, with estimates ranging from 90 to 134 leaves, thus attesting to the ongoing dispersal of its contents (Moḥiṭ Ṭabāṭabā'i, 1967, pp. 40–45; Ātābāy, 1974, p. 11).

## **2. Institutional Enquiries and Responses over the Folios of the Muraqqa‘-e Gulshan**

To determine both the whereabouts and current ownership of Muraqqa‘-e Gulshan folios, a series of institutional inquiries were made to institutions considered responsible for ownership or custody of portions of the album (listed in table 01). The institution responses consisted of varying confirmations, denials, and silence from the institutions approached, which also showed the ongoing difficulties and discrepancies inherent in sourcing previously recorded manuscript ownership and history. Inherent difficulties have been incomplete cataloging, locked archival information, and no central recording of these types of documents.

Some institutions, such as the Musée Guimet in Paris and the Museum of Islamic Art in Doha, readily chimed in their recorded ownership and other details that constricted the level of knowledge, and other institutions, like the Fogg Art Museum, professed a potential ownership that requires additional evidence. All institutional follow-ups illustrated how reaching out to institutions added elements of positivity to the work of open and trusted digital instructions, as well as to the process of working with and through archives.

In many cases, institutions may possess folios or related materials without cataloging them in a way that clearly indicates their provenance, thereby complicating efforts to authenticate and trace individual items. This silence from several institutions demonstrates the challenges researchers encounter when attempting to verify provenance directly, especially in cases when archival records are limited or inaccessible or institutional structures limit institutional communication.

Thus, institutional outreach is another crucial component of the research, in addition to digital modeling and archival research. The process affirms the importance of sustained scholarly engagement with collection-holding institutions, especially as digital tools are more engaged in provenance studies. Such work is needed to enhance accuracy, transparency, and ethical accountability in documenting dispersed manuscript provenance.

Table 01: Inquiries Sent and Institutional Responses

Golestan Palace (Tehran, Iran)	An inquiry was sent, but no response was received.
Edwin Binney III Collection (San Diego Museum of Art)	An inquiry was sent, but no response was received.
Fogg Art Museum (Harvard University)	Documented holdings indicate that the museum possesses at least four folios attributed to the Jahangir Album, which has historical ties to the Muraqqa'-e Gulshan; however, their direct connection to the dispersed album remains unclear.
Saint Louis Art Museum Museum of Fine Arts (Boston)	Contacted via email; confirmation of holdings is pending.
Musée Guimet (Paris):	Responded to the inquiry, confirming that they do not have any folios from the Muraqqa'-e Gulshan.
Otto Sohn-Rethel Collection (Düsseldorf):	No records were found to indicate whether this collection holds any folios from the Muraqqa'-e Gulshan.
Art and History Trust (Houston, Texas):	An inquiry was sent, but no response was received.
Philadelphia Museum of Art:	Responded to the inquiry, confirming that they do not hold any folios from the Muraqqa'-e Gulshan.
Salar Jung Museum (Hyderabad, India):	An inquiry was sent, but no response was received.
Doha Museum of Islamic Arts	Responded in detail about the five folios they possess.

Table 02: Provenance of Selected Muraqqa'-e Gulshan Folios

Title	Folio Number	Current Institution	Previous Institution	Acquisition Date	Notes
Doha Manuscript	5	Museum of Islamic Art (Doha)	Persian Imperial Library	2000	<i>Woman Worshipping the Moon, Four Mughal Courtiers, An old man and his pupil in a landscape,...</i>
Fogg Art Museum Folio	4	Fogg Art Museum – Harvard	John Goelet	1958	Gift of John Goelet
Chester Beatty Folio	1	Chester Beatty	Persian Imperial Library	-	-
Nasli and Alice Heeramanek	1	Los Angeles County	Unknown Persian	1978	Purchased from Nasli and Alice

Title	Folio Number	Current Institution	Previous Institution	Acquisition Date	Notes
Folio		Museum of Art	Dealer		Heeramaneck
Brugsch Pasha Folios	2	Nelson-Atkins Museum of Art	Persian Imperial Library	1860	<i>The Poet and the Prince, A Buffalo Hunting a Lion</i>
Muraqqa'-e Gulshan (Entire Album)	Entire Album (150)	Persian Imperial Library	Mughal Imperial Library	1741	-
Dubský Persian Folios	2	Náprstkovo Muzeum (Czech Republic)	Persian Imperial Library	1870	<i>Portrait of Ibrāhim 'Adil Shāh, Portrait of a Young Nobleman</i>
Freer Gallery Folios	6	Freer Gallery of Art and Arthur M. Sackler Gallery	Parnian Kummer Private Collection	1999	Catalog No. F1999.2a-b; multiple themes, including battle scenes
Berlin Album (Muraqqa'-e Gulshan)	25	Berlin State Library	Persian Imperial Library	1860	Collected by Heinrich Karl Brugsch

Table 03: Institutions and Individuals Holding or Involved with Gulshan Folios

Name	Number of Folios	City	Location
John Goelet	4	Massachusetts (US)	United States
Parnian Kummer Private Collection	6	Genève (CH)	Switzerland
Freer Gallery of Art	6	Washington, D.C.	United States
Fogg Art Museum	4	Massachusetts (US)	United States
Náprstkovo Museum	2	Prague	Czech Republic
LACMA- Nasli and Alice Heeramaneck	1	Los Angeles	United States
Nelson-Atkins Museum of Art- Brugsch Pasha	2	Kansas City	United States
Berlin State Library	25	Berlin	Germany
Heinrich Karl Brugsch	25	Berlin	Germany
Austro-Hungarian Diplomatic Archives- Count Viktor Dubský	2	Prague	Czech Republic
Nasli and Alice Heeramaneck	1	New York	United States
Count Viktor Dubský	2	Prague	Czech Republic
Golestan Palace Library	91	Tehran	Iran
Chester Beatty	1	Dublin	Ireland
Charles Lang Freer Estate	6	Washington, D.C.	United States
Freiherr von Minutoli	2	Tehran	Iran
Unknown Persian Dealer	25	Tehran	Iran
Museum of Islamic Art	1	Doha	Qatar
Persian Imperial Library	150	Tehran	Iran
Mughal Imperial Library	150	Delhi	India

Table 04: Manuscript Transfer Events

Manuscript	Name	Event Type	From Institution	To Institution	Date of Transfer	Number of Folios
Doha Manuscript	Parnian Kummer	Acquisition / Collection	Persian Imperial Library	Parnian Kummer Private Collection	1800	5
Doha Manuscript	Doha Folio	Acquisition / Collection	Parnian Kummer Private Collection	Museum of Islamic Art	2000	5
Fogg Art Museum Folio	Fogg Art Museum Folio	Donation / Institutional Transfer	John Goelet	Fogg Art Museum	1958	
Heeramaneck Folio	Heeramaneck - LACMA	Donation / Institutional Transfer	Nasli and Alice Heeramaneck	Los Angeles County Museum of Art	1978	1
Dubsky Persian Folios	Dubsky Folios	Donation / Institutional Transfer	Count Viktor Dubsky	Náprstkovo Muzeum	1915	2
Dubsky Persian Folios	Dubsky Folios	Acquisition / Collection	Unknown Persian Dealer	Count Viktor Dubsky	1870	2
Freer Gallery Folios	Freer Gallery Folios	Donation / Institutional Transfer	Charles Lang Freer	Freer Gallery of Art	1999	6
Freer Gallery Folios	Freer Gallery Folios	Donation / Institutional Transfer	Parnian Kummer	Freer Gallery of Art	1999	6
Freer Gallery Folios	Parnian Kummer	Acquisition / Collection	Persian Imperial Library	Parnian Kummer Private Collection	1800	5
Freer Gallery Folios	Freer Gallery Folios	Acquisition / Collection	Unknown Persian Dealer	Parnian Kummer	1999	6
Berlin Album	Berlin Album	Acquisition / Collection	Heinrich Karl Brugsch	Berlin State Library	1861	25
Berlin Album	Berlin Album	Acquisition / Collection	Unknown Persian Dealer	Heinrich Karl Brugsch	1860	25
Muraqqaa'-e Gulshan	Gulshan Original Album	Military Seizure	Mughal Imperial Library	Persian Imperial Library	1741	150
Brugsch Pasha	Brugsch Pasha Acquisition	Acquisition / Collection	Persian Imperial Library	Nelson-Atkins Museum of Art	1860	2

## **Discussion**

### **1. Historical Channels of Manuscript Movement**

The dispersal of the *Muraqqaʿ-e Gulshan* illustrates the complicated trans regional circulation of Oriental manuscript materials and exposes the entangled histories of conquest, diplomacy, and collecting that shaped its movements through time. As a composite album (*muraqqaʿ*) compiled in the early modern Persianate world, the *Gulshan* album was subjected to the processes of fragmentation that occurred over the course of the years beginning in the 18th century across imperial, institutional, and transnational contexts. First, an important mode of dispersal involved military expropriation of manuscripts. Historical documentation and provenance research suggest that a substantial portion of the album was taken as trophies of war, notably following the Persian incursions into South Asia in the early 18th century. Manifestations of looting as trophies of war dislocated manuscripts from the cultural context in which they were produced to the cultural context of a rival empire's archival institution or elite collection abroad.

Second, the nineteenth century witnessed an increasing transfer of manuscripts through diplomatic channels and colonial excursions. Albums such as the *Muraqqaʿ-e Gulshan* were often purchased by diplomats, orientalist, and ethnographers acting for expanding European empires. Such purchases, usually couched in terms of preservation or investigation, were contributing still to the epistemic dislocation of manuscripts, removing them from their historical, cultural, linguistic, and intellectual context.

Third, the rise of a global art market in the late nineteenth and early twentieth centuries introduces a third major vector for this publication. Folios of manuscripts sold through auctions, private dealers, or estate sales and were often acquired by individuals and institutions in the West with little or no provenance. Many of these items were eventually incorporated into institutions by gift, or relinquishment, or by public acquisition, again, separating the works from their initial contexts of production.

In combination, these three modes of movement—military capture, diplomatic transfer, and commercial circulation—produced an

incomplete and dispersed corpus that would resist easy reconstruction. The difficulty of reconstructing the Muraqqa'-e Gulshan's original form and history of ownership exemplifies the wider methodological rules for scholars looking at mobility and fragmentation in Islamic manuscript culture, in addition to highlighting the legacy of colonial and military structures of preservation and access to manuscript heritage in institutions across the globe.

## **2. Cataloging Impacts on Access and Reconstruction**

The Muraqqa'-e Gulshan highlights the inconsistency of cataloging practices. As pieces of the album entered different institutions in different parts of the world, the descriptive and classificatory practices of collecting institutions altered the ways the displaced folios could be seen and understood. An examination of institutional actions reveals a few significant patterns. The disaggregation of the manuscript corresponds to the cataloging of those pieces. Folios are often represented as independent entities and cataloged as such, removed from their original manuscript context. Institutional records regularly record, for example, "the folio (with a Muraqqa'-e Gulshan provenance)," but do not reference the Muraqqa'-e Gulshan codex as a unified source, obscuring the folios' origins within larger codicological units. The result is the fragmentation of the original manuscript structure, making it difficult to reconstruct the original manuscript structure and disrupting scholarly attempts to understand the interrelations present in both the iconographic program and the textual fabric.

Second, variation in metadata standards across institutions can pose additional challenges for comparative research. Some cataloging records prioritize cataloging individuals – the painter, calligrapher, or school – while others prioritize provenance or acquisition data. This variation creates asymmetry in descriptive standards, making meaningful connections among folios challenging to establish. Effectively, it limits the interoperability of digital catalogs, which ultimately complicates cross-institutional mapping and visualizations. In the Berlin State Library, for instance, some institutional records indicate that some folios were acquired from 19th-century diplomatic exchanges, yet gaps in acquisition records hinder full provenance reconstruction.

Third and equally important, institutional access policies and other aspects of organizational technology and infrastructural behavior can have a direct bearing on the digital visibility of the manuscript. More non-digital surrogates or downloads are limited, including non-high-resolution scans, and in some cases, exactly where the acquisition occurs can be problematic. For example, the Golestan Palace Library exhibits the full *Muraqqaʻ-e Gulshan* in a facsimile printed album but does not provide any digital access to the album. The long-standing restriction limits engagement and interaction that a scholarly community can have with researchers if immediate access is not possible, especially including those of us without access to Tehran-based materials.

Cumulatively, these practices of cataloging and access have significant ramifications for scholarship on dispersed manuscripts. They affect not only the feasibility of digital reconstruction but also the epistemological frameworks through which scattered cultural remains are made to be known.

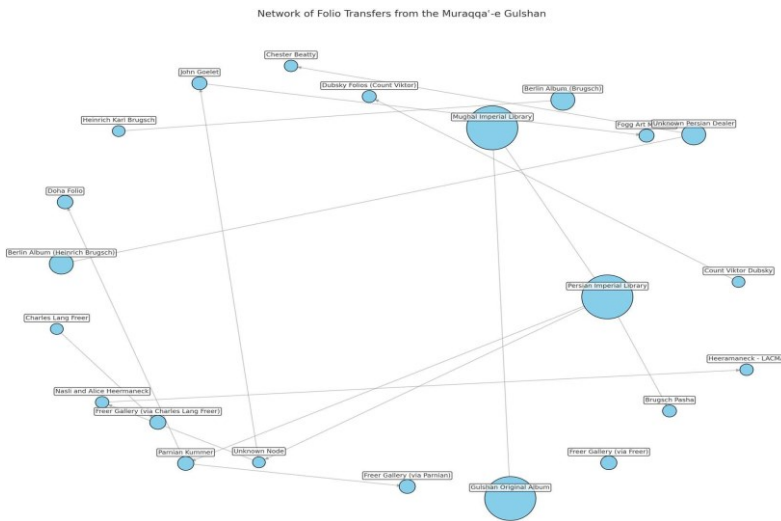
Addressing these issues will require collaborative metadata protocols, open-access commitments, and a documentation ethics that serves to prioritize the integrity of original forms of manuscripts in institutional regimes of cataloging and display.

### **3. Main Historical Channels of Dispersion**

What were the main historical channels through which the *Muraqqaʻ-e Gulshan* folios were scattered? The use of network analysis of the evidence to hand uncovers primary patterns within the institutional and geographical diffusion of the *Muraqqaʻ-e Gulshan* folios. This network of movement is visualized in Figure 2, which maps the transregional dispersion of folios and institutional acquisition nodes. The central points are Berlin and Tehran as individual nodes from a pair of key repositories by way of which much of the album was relayed.

Evidence also identifies Washington, D.C., as second-level hubs. (Freer Gallery of Art), and Doha (Museum of Islamic Art), suggesting alternative or lesser-researched paths of acquisition. These nodes mark the extremely complex intertwining of colonial, commercial, and individual conduits through which manuscripts were passed in the nineteenth and twentieth

centuries. Visualization also brings into focus a series of gaps in the dataset – folios still unaccounted for or likely to be held by private collections with limited or no public cataloging. These gaps make digital reunification attempts more difficult and call for greater coordination between public authorities and private actors.



Network of Folio Transfers from the Muraqqa'-e Gulshan

**Note:** Node size corresponds to the number of folios held, visually emphasizing major collecting hubs such as the Persian Imperial Library and the Berlin State Library. Directional edges trace documented and inferred transfers, with an “Unknown Dealer/Collector” node representing uncertain intermediaries in the pathway from the Persian Imperial Library to figures like John Goelet and Nasli and Alice Heermaneck. This visualization highlights the fragmented and multi-scalar nature of manuscript circulation across time and space. This refined network underscores the importance of digital graph modeling in tracing fragmented manuscript histories. It also foregrounds the interpretive labor required to account for gaps in documentation, especially when addressing manuscripts that changed hands in informal or colonial-era markets.

#### 4. Network Analysis of Manuscript Dispersal

The network visualization delineates the pathways through which the Muraqqa'-e Gulshan folios circulated from their origin in the Mughal Imperial Library to contemporary institutional holdings. The analysis reveals three major dispersal trajectories: A direct transfer in 1741 by the Mughal Imperial Library to the Persian Imperial Library after a military campaign marks the first historical displacement. From Tehran, the folios radiated into various streams, including through Heinrich Karl Brugsch, a Prussian diplomat and orientalist. Brugsch transmitted a substantial number of folios

to the Berlin State Library, marking the strategic acquisition endeavors of 19th-century European institutions by means of diplomatic and orientalist networks.

A great deal of the dispersal occurred through less well-documented intermediaries. An Unknown Persian Dealer/Collector is revealed to have facilitated transactions between John Goelet—whose donation brought folios to the Fogg Art Museum—and Nasli and Alice Heermaneck, from whom the Los Angeles County Museum of Art (LACMA) later bought folios. These nodes, heretofore isolated in earlier models, are now temporarily connected with the Persian Imperial Library via the unknown intermediary node, an unrecorded but likely transactional link.

A further reported sale has the Persian Imperial Library being taken to Geneva-based private collector Parnian Kummer. She sold the folios in 2000 to the Museum of Islamic Art in Doha. She also sold 6 folios to Freer Gallery. We do not know how she obtained the folios. This sale demonstrates how privately owned manuscripts find their way into the public arena through market transactions.

The core location of the Persian Imperial Library testifies to its role as a redistribution point following the 1741 move from Delhi. The inclusion of an Unknown Dealer/Collector node helps to account for manuscript movements that remain hypothetical but plausible according to ownership patterns.

European and American collections are peripheral to the network, normally acquiring manuscripts via chains of transactions in private ownership or orientalist agents. The visualization identifies provenance discontinuities—most notably for the Goelet and Heermaneck clusters—which indicate the limitations of archive reports and the necessity of uncertainty modeling.

In what ways have cataloging practices within institutions affected the accessibility and reconstruction of this dispersed collection? Institutional cataloging practices vary in their terms of describing the Muraqqa‘-e Gulshan folios. The metadata includes rich provenance information in certain instances, absence or misidentification of essentials in others, or total misidentification in others. For example, some Berlin folios have not

recorded clear terms of acquisition as either Mughal or colonial era items. Similarly, the Golestan Palace Library also provides incomplete metadata for the migration of folios to European and North American institutions, so reconstruction of the album's dispersal is not possible.

These disparities are indicative of the fragmented character of cataloging practices across institutions and suggest the need for a standard framework which would enable comparative and integrative research. Without systematic knowledge of origin, migration, and provenance, efforts at reuniting dispersed folios through digital means are speculative and ad hoc.

### **5. Methodological Challenges in Digital Visualization**

What are the pitfalls of attempting to visualize manuscript movement through digital means? Applying Nodegoat presented both advantages and disadvantages of computing techniques when tracking

manuscripts. Nodegoat was effective in presenting relational data organization, yet there were complications within manuscript movements rendering it hard to offer integrated visual outputs. The necessity to verify each of the documented transfers created a tremendous time-consuming element in the research process. Certain manuscript movements were impossible to visualize geographically due to missing or imprecise location information. While Nodegoat provides a foundation for tracing manuscripts, its flaw suggests the potential for multi-platform approaches. Through the integration of GIS mapping, metadata reconciliation tools, and linked open data frameworks, digital provenance research can be enhanced by providing a more dynamic and interoperable research environment.

### **6. Accessibility and the Digital Documentation Challenges**

Despite the proliferation of digitization initiatives, there remain significant challenges to producing a single digital representation of the Muraqqa'-e Gulshan. Institutional databases vary from extremely low detail, unavailability, and usability to fully undigitized collections or print catalogs without online availability – such as the publication of the album by the Golestan Palace Library, which is not digitized. These barriers disproportionately weigh upon Persian-speaking scholars and researchers

who are based in the Global South, frequently with no access to institutionally gated or subscription-based material.

The lack of interoperability among digital catalogs also discourages large-scale research. Fragmentation across platforms generates duplicate efforts and discourages large-scale comparative work that depends on aggregated data. Redressing these infrastructural issues is fundamental to any serious grappling with manuscript dispersal on a global scale.

### **Conclusion: Broader Significance for Manuscript Studies and Digital Repatriation**

Finally, what are the implications of this case for ethical cataloging and digital repatriation? Digital reconstructions such as the one depicted in Figure 1 offer a model for ethical repatriation studies, despite gaps caused by undocumented transactions or metadata loss. The dispersal of the *Muraqqa'-e Gulshan* is one aspect of broader nineteenth- and early twentieth-century patterns of manuscript circulation, conditioned by imperial expansion, diplomatic gift-giving, and the emergence of a global art market. European and North American collectors and institutions desired these albums as things of beauty and representations of cultural capital, often without regard to their original context or codicological integrity. Although these purchases encouraged preservation and academic access, they also raise long-standing ethical questions regarding cultural expropriation and the detachment of manuscripts from their original cultural and intellectual contexts, which often renders their histories opaque or inaccessible to source communities.

Digital methods bring both potential and complexity to their resolution. From one perspective, methods such as network visualization and relational database modeling—illustrated here in the adoption of Nodegoat—are capable of facilitating new kinds of analysis tracking dispersal routes, simulating histories of ownership, and rendering visible the invisible networks within which manuscripts travel. These methods create opportunities for virtual reunification and for de-colonial scrutiny of institutional pasts. Ethically, such visualization of dispersal of manuscripts can be especially helpful in aiding meaningful discourse

towards intellectual repatriation as well as digital reconstruction. By highlighting the routes of removal, procurement, or loss of manuscripts, such visual tools can cause institutions to rethink access policies, recompute gaps in provenance, and recognize collaborative models with communities of origin.

In the end, this study advances an integrated manuscript research paradigm—a one that relies on historical research and computational processing paired with ethical consideration. To that extent, it lays the groundwork for subsequent academic work seeking to bridge the chasm between fragmented archives, computer-based tools, and the goal of digitally-supported, equitable heritage access in a global academic context.

## Bibliography

- Adamova, A. A. (2004). *Persian manuscripts, paintings and drawings: From the 15th to the early 20th century in the Hermitage collection*. London: Azimuth Editions.
- Ātābāy, B. (1974). *Fehrest-e moraqqā'āt-e ketāb-kāna-ye saltānati* (pp. 339–368). Tehran. (Published 1353 Š.)
- Beach, M. C. (1965). The Gulshan Album and its European sources. *Bulletin of the Museum of Fine Arts*, 63(332), 63–91. <https://www.jstor.org/stable/4171427>
- Brydges, H. J. (1833/1973). *The dynasty of the Kajars*. London: [Original work published 1833; reprinted 1973].
- Burrows, T. (2018). Connecting medieval and Renaissance manuscript collections. *Open Library of Humanities*, 4(2), 32, 1–23. <https://doi.org/10.16995/olh.269>
- Ettinghausen, Richard. (1963) "New Pictorial Evidence of Catholic Missionary Activity in Mughal India (Early XVIIth Century)," in Hugo Rahner and Emmanuel von Severus, eds., *Perennitas: Beiträge zur christlichen Archäologie und Kunst, zur Geschichte der Literatur, der Liturgie und des Mönchtums.*, Münster, , pp. 386-96.
- Gul, B. (n.d.). *Gulshan Muraqqā' : An Imperial Discretion* [Master's thesis, University (unspecified)]. Retrieved from personal archive. (Please confirm publisher/university)
- Hájek, L. (1957). *Indian Miniatures of the Moghul School*, London, 1960, pp. 70–75, pls. 8–20. *Iran: Persian Miniatures-Imperial Library*, New York, pp. 18–20, pl. xvi-xxiv.
- Iranica. (2001). GOLŠAN ALBUM. In *Encyclopaedia Iranica* (Vol. XI, Fasc. 1, pp. 104–108). New York: Columbia University.
- Jones, H. & Faghihi, Y. (2024). Manuscript catalogues as data for research: From provenance to data decolonisation. *Digital Humanities Quarterly*, 18(3). <https://www.digitalhumanities.org/dhq/>
- Miller, Y., Prebor, G., & Zhitomirsky-Geffet, M. (2020). A new analytic framework for prediction of migration patterns and locations of historical manuscripts based on their script types. *Digital Scholarship in the Humanities*, 35(2), 441–458. <https://doi.org/10.1093/llc/fqz038>
- pp. 49–66.
- Rauch, S. (2022). Im Wettkampfe mit den Bibliotheken anderer Nationen: Der Erwerb arabischer Handschriftensammlungen an der Königlichen Bibliothek zu Berlin zwischen 1850 und 1900. In *Sammler – Bibliothekare – Forscher: Zur Geschichte der Orientalischen Sammlungen*, 87–106. Frankfurt am Main: Vittorio Klostermann.

- Sohayli K̄vānsāri, A. (1968). "Moraqqa 'e golšan: taḥlil-i az yak sanad-e tāriqi," *Honar o mardom*, no. 73, 1347 Š./1968, pp. 16-18.
- Soudavar, A. (1999). "Between the Safavids and the Mughals: Art and Artists in Transition," *Iran* 37,
- Stříbrná, A. (2021). Notes on a folio from the Gulshan Album in the collection of the Náprstek Museum, Prague. *Annals of the Náprstek Museum*, 42(1), 49-65. <https://doi.org/10.37520/anpm.2021.004>
- Ṭabāṭabā'i, M. M. (1967). Taḥlil-i az yak sanad-e tāriqi rāje' ba Moraqqa 'e pādšāhi (Golšan o čaman). *Honar o Mardom*, (61-62), 44-47. (Published 1346 Š.)
- Titley, N. M. (1983). *Miniatures from Persian Manuscripts: A Catalogue and Subject Index of Paintings in the British Library and the British Museum*. London: British Library.
- Welch, S. C. (1979). *The Art of Mughal India: Painting and Precious Objects*. New York: The Metropolitan Museum of Art.
- Wilkinson, J. V. S., & Gray, B. (1935). Indian paintings in a Persian museum. *The Burlington Magazine for Connoisseurs*, 66(385), 168-169, 172-175, 177.
- Wright, D. (1997). *The Persian manuscript tradition: Catalogue of the Persian manuscripts in the British Library*. London: British Library.