## THE TREASURY OF ORIENTAL MANUSCRIPTS

ABU RAYHAN AL-BIRUNI INSTITUTE
OF ORIENTAL STUDIES
OF THE ACADEMY OF SCIENCES
OF THE REPUBLIC OF UZBEKISTAN





Tashkent Office

United Nations Educational, Scientific and Cultural Organization

If the pencil did not leave eternal monuments, where would we have learned of people's wisdom?

Abu Rayhan al-Biruni

THE ACADEMY OF SCIENCES OF THE REPUBLIC OF UZBEKISTAN ABU RAYHAN AL-BIRUNI INSTITUTE OF ORIENTAL STUDIES

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The anthology produced by the experts of the Institute of Oriental Studies (IOS) of the Academy of Sciences and foreign experts, Marco Di Bella (Italy) and Antonio Mirabile (Italy), contains materials that provide a description of the manuscript collection at the IOS of the Academy of Sciences representing more than 26,000 manuscripts and 39,000 lithographs in 'Arabic script. It highlights the history of the Institute's manuscript collection and provides an analysis of the subject matter. The work also covers the art of book writing and the activities of representatives from various schools of calligraphy and ornamental art such as miniature illustrations on the collection's manuscripts and specific features of their bindings. Furthermore, it investigates the development of paper production and describes the different paper types used in the manuscripts. This anthology contains a proposal for the conservation and examination of the condition of the manuscript collection of the Institute.

This book is for experts and broad readership.

This publication was produced thanks to generous contribution of the Kingdom of Saudi Arabia.

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### **FOREWORD**

بعدد ن البني الاَية والصلة أمن المتدى رحمة ومرا الأدكر فلن الامن مراكحية لله تحدث الحداد ف المدون أن الصفات المحسل لله تحدث المنطق المدون في الصطفا فان سنون في وضع الالفظ حقيقة والمن منواغ عيره لعلاة فهاز اولانعلاقه فرغن موجقيقة العالم المعاقبة الحديد واقا والمنفة في الولانعلاقية فرغن موجقيقة العالم المعاقبة والمنترس محتب الماتة والمنترس من المحددة والمنترس من المعاقبة والمنترس من المعاقبة والعرف والدينة والمنترس من المعاقبة والمنترس من المنترس ا The manuscript collection of the Abu Rayhan al-Biruni Institute of Oriental Studies (IOS) of the Academy of Sciences of the Republic of Uzbekistan is one of the richest and most renowned manuscript repositories of the world not only because of the number of books and documents collected here, but also because of the diversity of their subject matter, language, time periods, and distinctive book design.

In 2000, the Institute's manuscript collection was added to the Memory of the World Register of the United Nations Educational, Scientific and Cultural Organization (UNESCO).

To date, the collection of the IOS of the Uzbek Academy of Sciences holds more than 26,000 manuscripts and 39,000 lithographs in 'Arabic scripts replenished from year to year. Such a compilation undoubtedly requires proper care and optimal storage conditions. The existing conditions at the Institute building constructed in 1967 regrettably fail to meet modern requirements for the storage of ancient books. The laboratory that deals with handling and restoring damaged book copies is lacking necessary up-to-date equipment and sufficient experts on staff.

The Institute petitioned UNESCO for assistance in searching for foreign donor organizations willing to assist in the preservation of handwritten treasures with the goal of improving conditions for the manuscript collection as a whole, and the restoration laboratory in particular.

In 2009, the IOS of the Academy of Science of the Republic of Uzbekistan received a positive response to its appeal. A grant was allocated to the Institute from the government of the Kingdom of Saudi Arabia with assistance from UNESCO.

According to this project, UNESCO arranged a detailed examination of the technical state, storage and restoration conditions of the IOS manuscript collection in 2010 by an internationally renowned expert, Antonio Mirabile, whose opinion and recommendations were used to acquire technical equipment and reagents for the restoration laboratory of the Institute.

In 2011, relevant floors and areas within the Institute's building designed to store books and provide services to readers underwent renovation. At the same time, three staff members of the laboratory received a 40-day special internship at the King Faisal Center in the Kingdom of Saudi Arabia. Fifteen-day training sessions for restorers from the IOS and other organizations dealing with librarianship were also

organized. The training was led by Marco Di Bella, a highly-qualified expert.

The al-Biruni Institute of Oriental Studies of the Academy of Sciences would like to express sincere gratitude to the UNESCO Office in Tashkent represented by Mr. Jorge Ivan Espinal; the staff of the office, Mr. Sanjarbek Allayarov and Ms. Karina Nasibyants for their support and ongoing practical assistance in implementing the project; and to Mr. Antonio Mirabile, for his objective expert examination of the collection and qualified assistance to the laboratory technicians at the Institute of Oriental Studies of the Academy of Sciences.

The Institute also extends deep appreciation to the government of the Kingdom of Saudi Arabia for the financial assistance rendered to the manuscripts collection of the IOS of the Academy of Sciences.

This book is also part of the UNESCO project. It was published to introduce the manuscript collection of the Institute of Oriental Studies of the Academy of Sciences as comprehensively and as broadly as possible. In this regard, foreign experts and connoisseurs such as Mr. Marco Di Bella and Mr. Antonio Mirabile from Italy contributed to this book, along with specialists from the IOS of the Academy of Sciences of the Republic of Uzbekistan.

Bakhrom Abdukhalimov,
Director of the Institute of Oriental Studies
of the Uzbek Academy of Sciences Doctor
of Historical Sciences

Jorge Ivan Espinal, Head of UNESCO Office in Tashkent

## THE HISTORY OF THE COLLECTION

### B. Abdukhalimov

### 1. THE HISTORY OF THE COLLECTION

The Abu Rayhan al-Biruni Institute of Oriental Studies of the Academy of Sciences of the Republic of Uzbekistan was founded in 1943 as the Oriental Department of the Uzbek State Public Library now called the 'Alisher Nawai National Library. It functioned as an institute for studying oriental manuscripts until 1950 when it was transformed into the Institute of Oriental Studies to accommodate the expansion of new areas and research subjects relating to the exploration of original sources of history and the history of science and culture of the Central Asian region. In 1957, the Institute was honored to bear the name of the great medieval scholar and thinker Abu Rayhan al-Biruni (973–1050).

Today, the Institute of Oriental Studies of the Academy of Sciences has won wide recognition in international Oriental Studies owing to the introduction of unstudied and poorly explored original sources preserved in its collection. The Institute has six collections of handwritten treasures. Each of them will be described below.



### THE FIRST COLLECTION—MAIN

The Main Collection is comprised of 13,319 volumes of manuscripts from the private collections of public officials and figures and other people. The public library received these private collections either through purchase or as gifts presented to the Institute. The latter include the private libraries of Khojagan-Naqshbandiyya, son of Bukhara ruler Amir Muzaffar (1860–1885), and a prominent representative and theoretician of Sufi brotherhood; Muhammad Siddiq Hishmat, hereditary supreme judge of the Bukhara Emirate and littérateur; Muhammad 'Ali Dukchi Ishan (1856–1898), the leader of the 1898 Andijan uprising against the rule of the Russian Empire; Bekjan Rahmanov, (c. 1887–1929), Khorezm dignitary and educator; 'Abd al-Rauf Fitrat (1886–1937), Khorezmi educator, famous writer and reformist; V. L. Vyatkin (1869–1932), Russian orientalist; and part of the library from the Khiva khans.

Later, the Institute's Main Collection was further replenished through discoveries, the purchase of manuscripts from individuals, special archeological expeditions, and additional gifts from private individuals.

### THE SECOND COLLECTION—DOUBLET

The Doublet Collection holds 5,237 units of manuscripts. These are mainly manuscript essays, the folio of which is already represented in the Main Collection, or entirely defective manuscripts. The name of the collection, "Doublet," should not be understood to mean a collection that deserves less focus, although it is the least studied of all of the collections. On the contrary, researching this collection may enable the discovery of new pages in the scientific interpretation of specific issues in the sources studied.

### THE THIRD COLLECTION—KHAMID SULAYMANOV

The Institute of Manuscripts named after Khamid Sulaymanov of the Academy of Sciences contains 7,586 manuscripts and was handed over to the Institute of Oriental Studies in 1998 and transferred to **the Oriental Manuscripts Fund of the Institute of Oriental Studies.** This collection is mainly composed of manuscripts purchased from the general population.

### THE FOURTH COLLECTION—HISTORICAL DOCUMENTS

This collection contains historical documents, including about 5,000 civil, legal, and other instruments within a wide chronological range from the 10<sup>th</sup> century to the early 20<sup>th</sup> century. These are mainly documents intrinsic to the Bukhara, Kokand and Khiva khanates. It is also interesting that some manuscripts—originals or copies of letters and documents—are even certified with a stamp. For example, a manuscript from inventory

No. 1386 has a collection of 737 documents from the 16<sup>th</sup> and 17<sup>th</sup> centuries and certified with the seal of a supreme judge of Samarqand.

### THE FIFTH COLLECTION—LITHOGRAPHIC BOOKS

This collection contains 39,300 volumes including lithographs and other publications in Oriental languages. A distinctive part of the collection features books published in India, Iran, Turkey and other countries, while the remaining pieces were published in Tashkent, Kokand, and other Central Asian cities. In this case, manuscript versions of some have either not survived or have not been found. Among them is a unique essay worth mentioning: "Tuhfat al-za'irin" by Sayyid Muhammad Nasir al-Bukhari, son of the aforementioned Amir Muzaffar, and a little-known work titled "Ma'mulat-i Saqibi" ("The Deeds of Saqibi"), by poet Salah al-Din Saqib (1843–1910).

### THE SIXTH COLLECTION—MICROFILMS

The final collection is represented by microfilms of manuscripts both from the Institute and those received from other depositories throughout the world. Since this collection is constantly being replenished, all new arrivals are strictly recorded. The Institute's reading hall is equipped with reading devices for such microfilms, but their quality fails to meet standard requirements.

Along with the abovementioned collections, the Institute has 300 miniatures and samples of calligraphy on separate leaves in addition to manuscripts of many works that are decorated with miniature paintings. This primarily applies

to folios such as "The Shah-nama" by Ferdawsi (d. 1020), and "Khamsa" poems by a number of famous poets, especially the poem "Yusuf wa Zulayha." Some other works on medicine, cosmography and others subjects were decorated with illustrations. Since there are a varying number of miniature paintings in the manuscripts—from single ones to several dozen—the makers must have proceeded from the nature of the work, from their artistic taste or requirements of the patron of the manuscript, and many other conditions. For example, only the "Shah-nama" by Ferdawsi and transcribed in Khiva in the 16th century was decorated with 115 miniature paintings (Inventory No. 1811).

Thus, the total quantity of manuscripts in the Institute exceeds 26,000 volumes of different formats. Each volume may contain anything from a several tens of works. In particular, manuscript No. 2385 contains more than 100 works. Based on the calculation that each volume has an average of three treatises, it may be assumed that there are three times more treatises than volumes.

The manuscripts collection of the Institute of Oriental Studies of the Academy of Sciences is one of the richest in the world in terms of both quantity and quality of depositories of written treasures. It stores valuable and at times unique manuscripts that provide crucial information about the time in which they were created. This applies in particular to a unique copy "Matla' al-nujum wa majma' al-'ulum," by renowned theologian, historian and philologist Abu Hafs 'Umar al-Nasafi (1068–1142) and transcribed in 1364–1365 (Inventory No. 1462). The collection also includes "Majmu'a-yi murasalat" (Inventory No. 2178), a compilation of 594 original 15<sup>th</sup>-century letters to 'Alisher Nawai (1441–1501) from famous persons of the era such

as 'Abd al-Rahman Jami (1414–1492), Khoja 'Ubayd Allah Ahrar (1404-1490) and others.

The Institute's collection contains a significant number of old or rare manuscripts. These include one of the earliest manuscripts, the third volume of the work "Tajarib alumam" ("Experience of the Peoples") (Inventory No. 595), and dated to 1199) by Ibn Miskawaykh (c. 932-1030); the manuscript "Kalila wa Dimna" (Inventory No. 3629) transcribed in 1305 in Baghdad; a copy of the Koran supposedly from the 13th century (Inventory No. 2008), where the 'Arabic text is written along with a continuous interlinear translation into Persian and Turkic languages; "Kutadghu bilik" by Yusuf Khass Hajib (Inventory No. 6093) and "Qalandar-nama" by Baha al-Din al-Rumi (Inventory No. 11668), rare folios from the 14th century; and many others. Copies and autographs created during the lifetimes of the authors, mostly famous historical people, provoke the most interest. Closer to our time the number of autographs steadily grows, which is quite logical.

The design of the manuscripts should also be noted. Luxurious frontispieces and richly decorated bindings from silver and colored enamel are found in some manuscripts. Exquisite calligraphy by famous calligraphers is used, such as that from Sultan 'Ali Mashhadi and Sultan Husayn Mirza (1469–1506) in the Koran leaf from the 19<sup>th</sup> century (inventory No. 2169).

Artistic and other distinctions testify of the exclusive scientific, cultural and spiritual significance of the manuscripts in the Institute's collection. For example, the Main Collection alone contains 315 manuscripts that are distinguished as having special value due to their age, rarity and ingenious design.

Initially, the Institute had only one department for the research of Oriental manuscripts. Later, as new areas came into being, departments for primary scientific processing and systematization, scientific description and cataloguing, research and publication of written sources and documents, as well as departments for studying the political, economic, and cultural life in the countries of the Near and Middle East and their relation to Central Asia, were established.

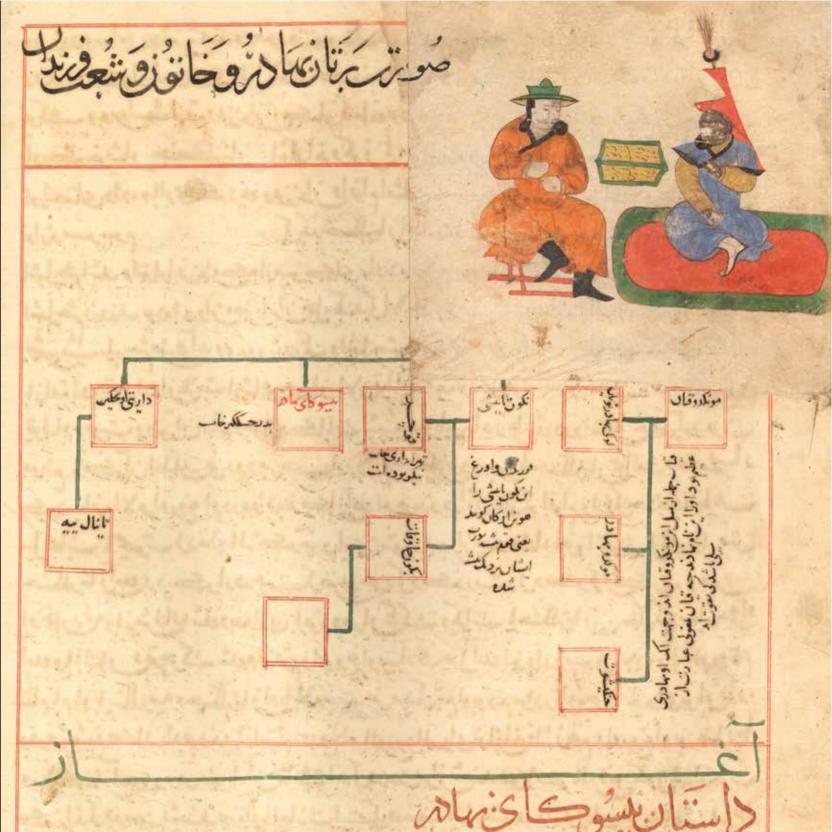
The research activity of the Institute mainly focuses on its manuscript collection. In terms of its scientific value, the collection of Oriental manuscripts at the Institute is the richest and most unique in the world. The most ancient works stored at the collection are more than one thousand years old; including the Qur'an from the 9th century transcribed using Kufi script. The most recent manuscripts date to the mid-20<sup>th</sup> century. The works are written in Uzbek, 'Arabic, Persian, Tajik, Urdu, Pashtu, Azerbaijani, Turkish, Tatar, Turkmen, Uyghur, and many other languages of the Oriental peoples. They cover various branches of medieval sciences (history, literature, philosophy, law, astronomy, physics, chemistry, medicine, pharmacology, linguistics, geography, music, mathematics, mineralogy, agriculture, fine arts, theology and others) and represent a valuable source in studying history and the history of the intellectual and material culture of Central Asia and foreign countries in the East.

Since 1952, the Institute has been publishing a book catalogue titled "Sobraniye vostochnikh rukopisey Instituta vostokovedeniya Akademii nauk Respubliki Uzbekistan" ("A Collection of Oriental Manuscripts of the Academy of Sciences of the Republic of Uzbekistan"), the only

source of information over several decades for Orientalists of the world about the composition of the Institute's Main Collection. The Institute has published 11 volumes of this catalogue to date, providing a scientific description of 7,574 manuscripts. Furthermore, a number of thematic catalogues have been developed, including history, natural sciences, medicine and sufism. In addition, in 2001, 2003 and 2004 a three-volume catalogue of miniature paintings was published with financial support from UNESCO. At the same time, catalogues containing descriptions of such prominent representatives of science and culture such as Abu Nasr Muhammad al-Farabi (d. 950), Abu 'Ali ibn Sina (980–1037), Amir Khusraw Dihlawi (1253–1325), Nur al-Din 'Abd al-Rahman Jami (1414-1492), and Mir Nizam al-Din 'Alisher Nawai were published. Several catalogues in 'Arabic and Persian were published in Iran and the United Arab Emirates in cooperation with scholars from those countries.

A five-year project launched in 2008 is underway with support from the Gerda Henkel Foundation to establish an electronic catalogue of the entire Main Collection of the Institute. It involves 13 employees from the Institute of Oriental Studies of the Uzbek Academy of Sciences. The electronic catalogue of the Main Collection is being created using the custom-designed software "AKAT-A" and will be posted on the Institute's website. The project also entails scanning manuscripts from the above-mentioned collection beginning with those that are unique and rare. The cataloguing of the Khamid Sulaymanov collection is also ongoing. Two volumes of catalogues from these manuscripts will be published.

Since receiving a government grant in 2009 for cataloguing the Doublet Collection, there has been ongoing





cataloguing as well as research and publication of historical documents in this collection.

In 2001, a joint Uzbek-Japanese scientific research project resulted in publishing the first of the document catalogues titled "Katalog khivinskikh kaziyskikh dokumentov" ("Catalogue of Khiva Qadi Documents"). The catalogue provides the description of 1,713 documents. The "Catalogue of Central Asian Patents of Nobility" published in Germany includes the scientific description of 122 documents including patents on privileges, land grants and patents on appointments issued by Central Asian rulers including facsimiles of all patents. The catalogue was the result of cooperation between scientists from the Institue of Oriental Studies of Martin Luther University in Halle-Wittenberg, Germany, and the Abu Rayhan al-Biruni Institute of Oriental Studies of the Academy of Sciences of the Republic of Uzbekistan.

The area of researching the Institute's manuscript collection of similar importance includes an introduction into the scientific activities of unstudied and poorly studied handwritten sources such as facsimiles, analytical critiques and translation into different languages. It is important to mainstream activities in this area, since a majority

of unique works in the collection require vigorous research and subsequent publication.

The Institute's unique collection created by a number of Oriental peoples provides valuable material for academic research. In this regard, the Institute's staff and the broader public face the challenge of preserving the treasures for coming generations. In turn, this requires constant control over the state of the manuscripts, timely handling, restoration, and conservation, and improvement of storage conditions. In this regard, the Institute has made significant progress owing to earmarked allocations from the government of Uzbekistan and grants from a number of international funds. The efforts of UNESCO, various foundations from Germany, Oman, Saudi Arabia, and the United Arab Emirates aimed at expanding and enhancing the performance of the Institute's laboratory and training skilled experts in the conservation and restoration of manuscripts, is highly appreciated. In 2010, Saudi Arabia with assistance from UNESCO allocated funds for these purposes.

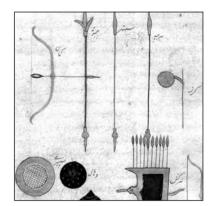
In 1997, the Institute's manuscript collection was inscribed to the Memory of the World Register as one of the richest manuscript depositories in the world.

# SUBJECT MATTER

### D. Yusupova

### 2.1. HISTORY

The rich collection of Oriental manuscripts at the Institute of Oriental Studies of the Academy of Sciences contains a large number of historical works. It is difficult to state their exact number, because in addition to works of purely historical content, there are other kinds of works relating to literature, religion, natural and exact sciences, medicine, and others. The information they hold on specific topics often resonates with historical data, and, therefore, is very important. Moreover, only Davlatshah Samarqandi, the biographer of poets, in his works "Tazkirat al-shu'ara" ("Biography of Poets") (Inventory No. 53 and so on) mentions an anonymous manuscript, "Tarikh-i Sarbadaran" ("The History of Sarbadars"), as the primary source that highlights the Sarbadar movement against the Mongol invaders. Compiled at the turn of the 14<sup>th</sup> to 15<sup>th</sup> centuries, by the end of the 15<sup>th</sup> century this work was considered lost.



Nevertheless, the Institute's manuscript collection currently holds more than 1,000 manuscript works with specific historical content in Persian, Tajik, 'Arabic, and Turkic languages representing narrative and other types of sources. These also include works on historical geography and topography, the history and topography of cities, records management (certificates, documents, correspondence) which to a certain extent touch upon social, economic, and public administration issues within a specific time period, as well as memoirs and travel literature.

Chronologically, the works date to the middle of the 10<sup>th</sup> to 11<sup>th</sup> centuries, while their folios date to from the 12<sup>th</sup> to the 20<sup>th</sup> centuries. Regionally, the works of historical content cover universal history, the history of Central Asia, Iran, India, the Middle East, Turkey, Afghanistan, Eastern Turkestan, European countries, Japan, and other nations. These include works on historical geography and topography as well as travels.

It should be noted that judging by the content, the regional division of the works has been done provisionally. Some works are classified as "General History," "Middle East" and others, but there are also accounts on the history of Turkey, Iran, India, China, France, and other countries.

The collection contains 257 manuscripts (50 works) on "General History." The earliest of them is the Persian translation of "Tarikh-i Tabari" ("The History of Tabari") written by Abu Ja'far Muhammad Jarir at-Tabari (839–923) in 'Arabic and highlighting events that occurred in Central Asia, the Caucasus and Transcaucasia. "The History of Tabari"

was translated by al-Bal'ami at the direction of Samanid Abu Salih Mansur ibn Nuh in 964. The work is included in 16 of the collection's folios (Inventory Nos. 2060, 2073, 2705, 2816, 4226, 6095, 12593 and others). The earliest of them was transcribed on Oriental paper in the 14<sup>th</sup> century in *Naskh* script and elements of *Shikaste* script.

The collection also includes "Kitab-i Futuh" ("The Book on Conquests"), an important source for studying the history of many Near and Middle Eastern countries, including Central Asia, dating from the 7<sup>th</sup> to 9<sup>th</sup> centuries. The manuscript is a Persian translation of the work by Ibn A'thama Kufi (d. 924) written in 'Arabic and known as "Futuh-i ibn A'tham" ("Conquests of ibn A'tham"), "Tarikh-i A'tham Kufi" ("The History of A'tham Kufi"), and others. The translator was Muhammad ibn Ahmad al-Mustawfi al-Hirawi (late 12<sup>th</sup> to early 13<sup>th</sup> centuries). There are two folios of this work. One of them (Inventory No. 27) was transcribed using *Naskh* script on Oriental paper in 1396. The other one (Inventory No. 28) was transcribed using *Nasta'liq* script on Oriental paper in 1797.

It is worth mentioning the work "Tarikh-i Khafiz-i Abru" ("The History of Khafiz-i Abru"), also known as "Zubdat altawarikh" ("The Cream of Histories"), which was written in Persian by Nur al-Din Lutf Allah Khafiz-i Abru (d. 1431), a famous historian from the epoch of Amir Temur (1370–1405) and the Temurids.

Khafiz-i Abru accompanied Amir Temur in his campaigns. In 1414 he wrote his work as an eyewitness. The historical review is devoted to the history of primarily Iran, beginning with the first caliph up until the rule of Shahruh. The collection has two folios of this work. Other folios demonstrate excellent scripts such as *Riq'a* on Oriental paper

from northern India (Inventory No. 4078, possibly an autograph) and *Nasta'liq* of *Herati* type on Central Asian paper (Inventory No. 5361).

The collection holds a very rare work on general history "Jami' al-tawarikh" ("A Collection of Chronicles") by Indian annalist Ghulam Fakhr al-Din ibn Shaykh Muslih al-Din ibn Yahya ibn Muhi (16<sup>th</sup> century) (Inventory No. 3368). It contains evidence about rulers of China, Turkestan, Transoxania, Bani Israil, Farang (Europe) and Rum as well as the history of India until 1592. The manuscript was written in the 18<sup>th</sup> century partly by the author himself and partly by a scribe in *Nasta'liq* and *Naskh* scripts on Kashmir paper.

The collection has a number of Uzbek translations of works written in 'Arabic, Persian, Turkish and other languages.

The author of the original "'Aja'ib al-athar" ("Curiosities of Literary Works"), 'Abd al-Rahman ibn Hasan al-Jabarti al-Hanafi (b. 1754, Cairo), composed a general history mainly of Egypt during the 18th century and the first quarter of the 19th century from previous works and evidence of eyewitnesses. The work was translated into Uzbek by Muhammad Rafi'-akhund and Mulla Muhammad Makhdum in 1908 at the direction of Khiva khan Muhammad Rahim (1865–1910). The manuscript (Inventory No. 833) is an autograph of translators dated 1908 (fol. 411a) and 1909 (fol. 719b) written using *Nasta'liq* script on Russian factory-manufactured paper. Another leaf of the same work is an autograph of translators dated 1909 (Inventory No. 834).

A section titled "History of Central Asia" in the collection is represented quite widely with 400 manuscripts (123 works). The earliest of them is "Tarikh al-'Utbi

al-musamma bi-Yamini" ("The History of Utbi Referred to as Yamini") also known as "Tarikh-i Yamini" ("The History of Yamin ad-Davla"), "al-Yamini" ("Yamini") as well as "al-Kitab al-Yamini" ("The History of the Empire's Sword-Hand") written in 'Arabic in 1022 by Abu Ja'far Abu Nasr Muhammad ibn 'Abd al-Jabbar al-'Utbi (b. 962, Rey [Iran]; d. 1023 or 1036 or 1040). The work contains the history of Ghaznavid Sultans Sabuktegin and Mahmud until 1021 and is an important source for studying the history of Central Asia, Iran, Afghanistan and northern India in the last quarter of the 10<sup>th</sup> century and the first half of the 11<sup>th</sup> century. It was transcribed using *Naskh* and *Thuluth* scripts on Oriental paper around the 13<sup>th</sup> to 14<sup>th</sup> centuries (Inventory No. 3552/V).

The collection has two copies of these works translated into Persian (Inventory No. 3144/II, 5828).

It is worthwhile noting that the work "Jami' al-hikam fi athar al-umam" ("Repository of Wisdom in the Peoples' Monuments") by Ahmad ibn 'Ali al-Balkhayi (c. 15<sup>th</sup> century) and written in Persian (Inventory No. 625) is not found in other manuscript depositories. This also applies to the description of Balkh during the author's time (p. 136a), which is the most intriguing part of the work. It describes the founding of the city, its fascinating buildings, rulers, judges, and others observation. The work was transcribed in *Nasta'liq* script on Indian paper in 1613.

A rare work on the history of Central Asia during the 15<sup>th</sup> to 16<sup>th</sup> centuries, "Tarikh-i Abu-l-Khayr-khani" ("The History of Abu-l-Khayr-khani"), was written in Persian by Mas'ud Kuhistani (d. before 1590). It is a pragmatic history of the Orient and Central Asia from creation until the 16<sup>th</sup> century (Inventory No. 9989), ('Unwan on P. 192b). The manuscript

is rich in illustrations with 34 miniature paintings from a prominent craftsman of the Central Asian Kamal al-Din Behzad's (1455–1537) decorating the text. The manuscript was transcribed on Samarqand paper in the 16<sup>th</sup> century using *Nasta'liq* script which is close to *Herati* handwriting.

"Zafar-nama" ("The Book of Victories") was written by someone referred to as Mukimi and may be classified as one of the rarest works on Central Asia (Inventory No. 3901). It covers a two-year period (1579–1581) in Central Asia during the reign of Shaybanid 'Abd Allah-khan II (1557–1598). The work was written in Persian in 1581 by an eyewitness. There is one more leaf of this work stored in Dushanbe and is rarely shown in the known catalogues of Oriental manuscripts. It dates from 1935 and was compiled much later than the abovementioned leaf

The manuscript collection has a wide array of works on Khorezm historiography. Shir-Muhammad, nicknamed Munis, the son of Amir Avaz-biy mirab (d. 1829) and a well-known Khorezmian historiographer, wrote the work "Firdaws al-iqbal" ("Eden of Prosperity") in Uzbek at the direction of Khiva khan Iltuzar Muhammad-Bahadir (1804–1806). The work is a record of Khiva Khanate from the ancient times to the enthronement of the Khiva Khan Allah quli (1825–1842). The author did not complete his work before his death and only reached the seventh year of Muhammad Rahim-khan I's rule (1812) who replaced the abovementioned Iltuzar-khan on the Khiva throne in 1806 (Inventory No. 821/I). The manuscript was transcribed in 1880 using *Nasta'liq* script on Kokand paper.

After the death of Munis, the work was continued by his nephew Muhammad Riza Agahi ibn Ir-Niyaz-bek, a prominent Khorezmian historiographer and littérateur (1809–1874).

The continuation is titled "Riyaz al-dawla" ("The Gardens of the State") (Inventory No. 821/II) and lists historical events during the reign of Allah quli-khan. The work was transcribed in 1881 using *Nasta'liq* script on Kokand paper.

"Zubdat al-tawarikh" ("The Cream of Chronicles") by the same author is the continuation of previous works on the history of Khorezm and covers the history of Khorezm from the period of Rahim guli-khan's reign (1842–1846). The written piece was completed in 1846 (Inventory No. 821/III). The manuscript was transcribed at the direction of Khiva Khan Muhammad Rahim II by Damulla Riza akhund ibn Muhammad Karim using Diwani script in 1881. He also transcribed "Jami' al-waqi'at-i sultani" ("Sultan's Collection of Events"), the continuation of "Zubdat altawarikh" which covers the history of Khorezm during the rule of Muhammad Amin-khan (1846–1855) and his life and deeds prior to his ascent to the Khiva throne (Inventory No. 9786). The manuscript was transcribed using Nasta'liq script on Kokand paper in the second half of the 19th century.

The novelty of factual material in the autograph "'Ayn al-tawarikh" ("A Data Source") by Haji 'Abd al-'Azim Shar'i (Sami) Bukhari (b. early 1830s; d. 1893) is particularly noteworthy. Shar'i was a representative of Bukhara intellectuals in the second half of the 19th century and held various administrative positions in the khanate (rais/manager, and others). He also taught in a madrasa. The work (Inventory No. 4216, 4217) was written between 1872 and 1895 and contains an account of events from the first year of "the creation of the world" until 1648. It includes sources from a work by Turkish writer Katib Chelebi or Haji Khalifa (d. 1658) titled "Taqwim al-tawarikh" ("Chronological

Tables"). The sources for works from 1649–1894 were collected by Shar'i himself. In the events occurring during his lifetime, Shar'i mentions the military campaigns between Central Asian khanates during years when other famous works were written and famous people died, among other events. The autograph is probably a draft. The folios of this work have not been found in famous catalogues.

A famous historical work by 19<sup>th</sup>-century Tajik educator, Ahmad ibn Mir Nasir Yusuf al-Hanafi al-Siddiqi al-Bukhari, also known by his alias Danish (1827–1897), is also remarkable. Titled "Tarjima-yi ahwal-i amiran-i Bukhara-yi sharif" ("Life History of Emirs of Noble Bukhara") (Inventory No. 1987), the work was copied in 1933 from the autograph by 'Ibad Allah Adilov, a connoisseur of Oriental manuscripts. It was written in Persian and devoted to the history of Manghit Dynasty rule in the Khanate of Bukhara as well as the history of Bukhara from Amir Daniyal (1758–1785) to emir 'Abd al-Ahad-khan (1885–1910). The leaf was transcribed in *Nasta'liq* script on Russian factory-manufactured paper.

The work "Shajara-yi Khorazmshohiy" ("The Genealogic Tree of Khorezm Shahs") by Muhammad Yusuf under the pen name Bayani ibn Babajanbek (d. 1923), was written in 1911–1914 at the direction of Khiva Khan Isfandiyar (1910–1918). Yusuf was a renowned Khorezmian historiographer and littŭrateur of the late 19<sup>th</sup> to early 20<sup>th</sup> century (Inventory No. 9596). The work describes the history of Khorezm until 1914 in chronological order and was transcribed in 1915 using Khivan *Nasta'liq* script on manufactured paper at the direction of Isfandiyar.

The leaf of "Tahqiqat-i ark-i Bukhara wa salatin-i wa uma-ra-yi u" ("A Research of Bukhara Ark, Sultans and Emirs [of

Bukhara]") is unique. Written by Sayyid Nasir ibn Sayyid Amir Muzaffar in 1922 in Persian (Inventory No. 19), the piece contains valuable information about the history of Bukhara based on the author's own observations. It was transcribed in 1922 using *Nasta'liq* script on Kokand paper.

There is a valuable and unique manuscript-autograph of extensive memoirs (600 leaves) by representatives of intellectual circles in Bukhara from the 19<sup>th</sup> century. Hamid, the son of Qadi Baqa Khoja (b. late 1870s to early 1880s), narrates the history of the Bukhara Khanate from the middle of the 19<sup>th</sup> century to the early years of Soviet rule against the background of autobiographical notes (Inventory No. 602). The manuscript was written in cursive *Nasta'liq* script on sheets of manufactured paper dating from 1928.

"The History of Iran" is quantitatively represented in the collection by 41 manuscripts (14 works). The earliest of them, "Tarikh-i Bayhaq" ("The History of Bayhaq [city]"), is devoted to the historic and biographical description of the city of Bayhaq as well as biographical data of famous persons (Inventory No. 1524/I). It was written in Persian in 1167 by Zahir al-Din Abu-l-Hasan 'Ali ibn Imam Shams al-Islam Zayd, the son of Husayn Bayhaqi, also known as Ibn Funduq (b. in 1097 or 1100). The manuscript was transcribed on Oriental paper in 1647.

A brief summary of the history of four dynasties of Iranian kings (tabaqa)—Peshdadids, Keyanids, Ashkanids and Sassanids—is reflected in the work "Tarikh-i muluk-i 'Ajam" ("The History of Iranian Kings"). It was compiled in Uzbek by 'Alisher Nawai (1441–1501) (Inventory No. 5411/I) and transcribed in 1822. There are two other folios (Inventory No. 1859/I, 7412/II).

"Tarikh-i jahangusha-yi Nadiri" ("World Conquest History of Nadir") by Kaukab, a court historiographer of Nadirshah (1731–1747), is a widely-spread work in the East about Nadir-shah with a summary of historical events in Iran that occurred before his accession to the throne (Inventory No. 7441). It was transcribed in 1797 in Bukhara. There are other folios (Inventory No. 31, 32, 1227, 6908, 9640).

The "History of India" accounts for 45 manuscripts (21 works). The earliest of them is "Tarikh-i Firuzshahi" ("The History of Firuzshah") by Ziya al-Din Barani (1272–1363) written in Persian in 1357 and dedicated to Firuz-shah (1351–1388). The work highlights the history of the rulers of Delhi from 1264 to 1357 including the six-year reign of Firuz-shah (Inventory No. 1416). The folio was transcribed in the 17<sup>th</sup> century in *Nasta'liq* scripts on Oriental paper made in India. There is a painted 'unwan (headpiece) in the beginning of each of the seven parts of the work.

The Institute's collection has a stock of several old copies of "Tabaqat-i Akbarshahi" ("Akbarshah's Ranks") by Khoja Nizam al-Din Ahmad Dihlawi who held high military positions in India during the reign of a Baburid, Akbarshah (1556–1605). The work is also referred to by the author's name "Tarikh-i Nizami" ("Nizami's Chronicles") written in 1594. The manuscript was written in 1717 in *Nasta'liq* on Oriental paper (Inventory No. 1535, 3341, 3673).

"Tarikh-i Haqqi" ("Haqqi's History") by 'Abd al-Haq ibn Sayf al-Din ibn Sa'd Allah Bukhari Turki Dihlawi, one of the most prominent Indian scientists, theologians and lawyers (1551–1642), contains brief information about local dynasties including Delhi from Muhammad ibn Sama (1175–1206) to Akbar (1156–1605), as well as Bengal, Janpur, Mandu, Gujarat, Multan, Sind, and Kashmir.

The manuscript was written in the 17<sup>th</sup> century in *Nasta'liq* on Oriental paper and came to the Institute's collection from India. It is the only copy (Inventory No. 3924).

The main source for the research of Indo-Iranian relations in the 17<sup>th</sup> century and the military history of the Baburid Empire is "Lata'if al-akhbar" ("Elegant Narration of Events") by Badi' al-Zaman Rashid-khan Tuni, also famous as Badi' al-Zaman Mahabat-khan (b. 1618; d. in 1696 in Agra, or in 1698, the 41st year of Aurangzeb's reign). He accompanied Dar Shukuh (1615–1659), the oldest son of Shah Jahan (1628–1658), in his campaign to Kandahar in 1653 and later served as an official for Awrangzeb (1658–1707). The work was written in 1678 in Persian using Indian *Nasta'liq* script on Indian paper. It is possibly an autograph (Inventory No. 5400).

The history of Baburid Shah Jahan's reign in verse is contained in "Zafar nama-yi Shahjahani" ("The Book of Shah Jahan's Victories") by Abu Talib Kalim Hamadani (d.1651), written in Persian. This is a perfectly-designed manuscript—transcribed in Indian *Nasta'liq* on Indian paper. It features an 'unwan in gold and paint. It has an artistically-designed binding. The folio dates to the 17<sup>th</sup> century (Inventory No. 2098).

The fund has one of the rarest copies of "'Amal-i Salih" by Muhammad Salih Kanbuyi Lahuri (d. 1675). It was written in Persian in 1659 and describes the history of Shah Jahan's reign with a short introduction about his ancestors starting with Amir Temur. The manuscript provides information about India's relationship with neighboring countries, including Central Asia, and about the life and customs of the Afghans and other people groups (Inventory No. 12549). This is a leaf from the 18<sup>th</sup> century. It was transcribed in *Nasta'liq* script on Indian paper.

There are four manuscripts on the "History of the Middle East" in the collection. Among them is a noteworthy work in 'Arabic titled "Nihayat al-adab fi ma'rifat qaba'il al-'arab" ("Short Range of Art in the Knowledge of the 'Arabic Tribes") by Shahab al-Din Abu-l-'Abbas Ahmad ibn 'Ali al-Kalkashandi (d. 1418) who lived in Egypt. The work was written in 1409 and contains a brief reference book on the genealogy of 'Arabic tribes (Inventory No. 566/III). The leaf was transcribed in the city of Surat, India in 1697 using fine *Naskh* script with diacritical punctuation on Indian paper.

A work in 'Arabic with the provisional title "Tarikh" ("History") by an anonymous author who served for Hasanpasha, one of the viziers of Murad III (1574–1595), is of similar interest. It was written in 1591 in chronological order about events that took place in 1580–1591 in Ottoman Turkey and dependent regions and cities, especially those in Yemen, during the rule of Murad III and Hasan-pasha. The historical data is described by days, months and years (Inventory No. 3026). It was transcribed in *Naskh* script on Oriental paper and has a frontispiece (fol. 1b–2a) and 'unwans (fol. 2a).

Six manuscripts of five works represent "The History of Turkey" in the collection. Noteworthy works include one written in Turkish and provisionally called "Tarikh" ("History"). It was composed in 1786 by Ahmad Efendi Vasif (second half of the 18<sup>th</sup> century to the first quarter of 19<sup>th</sup> century) (Inventory No. 812). It describes the history of relations between Ottoman Turkey and Russia, plus other European countries during the second half of the 18<sup>th</sup> century, specifically Austria, France, Spain and the Balkans. The manuscript refers to contracts concluded between Turkey, Russia and European countries, including the Kuchuk Kainarji Peace Treaty in 1774 (fol. 15a)

and at the end of the Russian-Turkish war of 1768–1774 whereby Turkey recognized Russia's right to some areas of the Black Sea and gave up sovereignty over the Crimean Khanate. The Crimean Khanate was declared independent and Russia was granted freedom of commercial navigation across the Black Sea and the straits. Additional contracts mentioned in the work include the Ainali-Kavak Convention (fol. 11b) between Turkey and Russia which sealed the Kuchuk-Kainarji Peace Treaty, and the Austro-Turkish Convention (fol. 14a). The author also highlights the consultation meetings on specific issues that had arisen in the course of bilateral or multilateral relations between Turkey and other countries in the subsequent years. The leaf was transcribed in *Nasta'liq* on European paper at the end of the 19<sup>th</sup> century.

The Institute's manuscript collection holds works on the history of Turkey translated from 'Arabic to Persian. Thus, Hakim Ibrahim Efendi (19<sup>th</sup> century), a Turkish military doctor in Beirut (Inventory No. 2672/I, fol. 2a) wrote the work "Misbah al-sari va nuzhat al-qari" ("The lame of the traveller and of the Reader") devoted to Ottoman sultans and composed in 'Arabic. This is an account of travels throughout Egypt, Turkey and Europe with historical information about the two former countries and an annex on the ancient history of Syria. The work was translated by Ahmad ibn Muhammad al-Yamani known as al-Shirwani (d. 1841 in Pune), who also authored a number of works and published a large number of 'Arabic works for students. There is a single copy of the leaf transcribed in the second half of the 19<sup>th</sup> century in *Nasta'liq* on Oriental paper.

There are two manuscripts on "The History of Afghanistan." One is a work titled "Zib-i tarikh-ha" ("Decoration

of Chronicles") written in Persian by Husain 'Ali (18<sup>th</sup> century) (Inventory No. 1626), and it is an historical account of the Afghani Durrani Dynasty from the first campaign of Afghani state founder Ahmad-shah (1747–1773) to India in 1748 until the end of the rule of Zaman-shah. It is written in *Nasta'liq* on Oriental paper. It is an autograph from 1803.

"Taj al-tawarikh, ya'ni sivanj 'umri 'aliy Hazrat Amir 'Abd al-Rahman-khan" ("The Crown of Chronicles or Events in the Life of His Majesty Amir 'Abd al-Rahman-khan"), the Ruler of Afghanistan, devoted to the autobiography of 'Abd al-Rahman-khan (the son of Afzal-khan (1844–1901)) is an Uzbek translation by an unknown translator and originally written in Persian. The leaf was transcribed in 1916 in *Nasta'liq* on manufactured paper (Inventory No. 7459).

There are four manuscripts of three works on "The History of Eastern Turkestan." The collection contains one of the most outstanding monuments of historiography of the 16th century—rare manuscript copies of memoirs "Tarikh-i Rashidi" ("Rashid's History") by Mirza Muhammad Haydar ibn Muhammad Husayn Guragan Duglat, better known as Mirza Haydar (1500–1551), a maternal cousin of Zahir al-Din Muhammad Babur (1483–1530). The manuscript copies were written in Persian and devoted to the ruler of Kashghar, the Chagatay khan 'Abd al-Rashid (1533– 1570) and named in his honor (Inventory No. 1430, fol. 3b-4a). The work is a mixed account of history and memoir and is an important source about the history of Kashghar, Central Asia, Afghanistan, northern India, and Tibet. It was transcribed in the 17th century in Nasta'liq on Indian or Kashmir paper and found its way to the collection from either Afghanistan or northern India.

The collection also contains an 1838 Uygur-Uzbek translation of this work by Khoja Muhammad Sharif at the direction of a Kashghari Amir Zuhur al-Din Taji Hakimbek (Inventory No. 10191/II). The translator made his addition to the "Rashid's History" by continuing the history of the Kashghar rulers from 1546 until the year of translation, 1838 (fol. 344a–416a of a composite volume). The leaf was transcribed in 1883 using *Nasta'liq* script on Kokand paper.

Four works represent "The History of Other Countries" in the collection. One of these is "Durar al-akhbar" ("The Pearls of News") by Zain al-Din Muhammad Amin Sadri Kashghari (b. 1753) (Inventory No. 2156) and written in Persian. The author's idea to narrate the history of eastern Turkestan and its relations with neighboring countries from the beginning of Abu Abdallah-Sultan Sayyid Burhanaddin's rule (1756–1760) until his death in 1760, to whom this work was devoted, were not realized. The work is incomplete and ends with a story on the pilgrimage of Muhammad to Mecca. It was written in *Nasta'liq* script on Oriental paper. It is an autograph.

Another work by the same author, "Athar al-futuh" ("A Narrative on Conquest), was written in Persian and also devoted to Abu 'Abd Allah-Sultan Sayyid Burhan al-Din. It is a supplementary version of the abovementioned "Durar al-akhbar." The work is complemented with the history of Safavids in Iran, Iraq, and Azerbaijan, eastern Turkestan and its relations with Semirechye (Mogolistan), China, and the Altay during the reign of Abu 'Abd Allah-Sultan Sayyid Burhan al-Din. The work was written in 1806 (Inventory No. 753, fol. 196a) using *Nasta'liq*, *Thuluth*, and *Naskh* scripts on Oriental paper. It is an autograph.

The fund has five works on the "History of European Countries." One is a work written in Persian "On the State Structure of England" by an anonymous author (Inventory No. 3720/I). It was transcribed in *Nasta'liq* on Oriental paper in 1831. "Tarikh-i Rum" ("The History of Rome") is a compilation in Persian on the history of Rome for 2,000 years from its foundation in the 8<sup>th</sup> century B. C. to the fall of the Byzantium Empire in the middle of the 13<sup>th</sup> century. This work was written in 1844 (Inventory No. 9605) in *Nasta'liq* on European paper. It is an autograph.

The historical proceedings in Persian by Bahman Mirza ibn 'Abbas Mirza Qajar, who emigrated from Persia to Transcaucasia in the second half of the 19<sup>th</sup> century because of court intriguery, are peculiar due to their unconventional style. "Shukurnama-yi shahanshahi" ("The Book of Gratitude to the Imperial Government") is an autograph of Bahman Mirza and an excursion into the history of Azerbaijan and other near-Caucasus regions with an idiosyncratic interpretation of events and information about beliefs of the Iranian elite on western Europe and Russia. This is a source on the history of relations between Russia and Iran in the 19<sup>th</sup> century. The book was written in 1871 in the Shush fortress in *Nasta'liq* on Russian writing paper, (Inventory No. 8980).

Only one written piece represents "The History of Japan" in the collection of manuscripts. "Mikado-nama" ("The Book about Mikado [a Japanese emperor]") describes the Russian-Japanese War of 1905–1907 with a digression into the history of Russia, Japan, China and their relationships. The work was written by Mirza Husayn 'Ali Shirazi tajir-i, "a merchant from Shiraz," (second half of the 19<sup>th</sup> century to the first quarter of the 20<sup>th</sup> century) and by the translator

at Dar at-tarjuma in Tehran (Inventory No. 2250). The work was written in Persian in verses in the style of Shah-nama by Ferdawsi and transcribed in 1912 using *Nasta'liq* script on manufactured paper.

The collection has 123 manuscripts of 35 works on "Historical Geography and Topography." They cover historical geography and topography of the following Oriental cities:

Mecca (Inventory No. 177/I, 842, 1597/II, III, 2200/ IV, 2434/V, 2463/II, 3844/IV, 4346/V, 5199/V, 9379/IV); Medina (Inventory No. 44, 408, 1545/I, 1905, 2087/IV, 2434/V, 4274, 4275, 4346/V, 4534/I, 5199/V, 5845/I, 6236, 9379/IV, 9963/IV, 10163); Herat (Inventory No. 788); Balkh (Inventory No. 3638/II); Istanbul (Inventory No. 1990/ XVI); Bukhara (Inventory No. 46/II, 1173/III, 1494/V,3001/I, 4289/I, 4355/I, II, 5387/II, 5388/II, 5389/IV, 9013/V, etc.); Samargand (Inventory No. 79, 412/III, 600, 1773/III, 1873/ VIII, 4384, 7882/IV, 11438, 11655); Nur (Inventory No. 9857/ II); Shahrisabz (Inventory No. 9688/VII); Osh (Inventory No. 3432/II,4060, 4120, 4188/IX, 12666/III, 12703); Khorezm (Inventory No. 6895/IX); Khiva (Inventory No. 12583); Isfijab (Inventory Nos. 3472/II, 4188/I, 8197/I, 12708/II); Sairam (Inventory No. 1990/IV, 12703); and Tashkent, Kokand and Fergana (Inventory No. 12703).

"Travels" are described in 12 manuscripts of eight works. "Safarat-name-yi Rusiya" ("The Description of an Embassy in Russia"), written in Turkish by 'Usman Shahdi-efendi (18<sup>th</sup> century), is noteworthy. It provides a detailed account of cities and fortresses that he came across on his way to St. Petersburg, including Bendery, Kiev, Nezhyn, Glukhov, Moscow, and Novgorod, with a focus on the fortification installations and toponymics of some

of them (Inventory No. 3375). The work was transcribed using *Nasta'lia* script on European paper in 1771.

On relations between Iran and Central Asia is a rare copy of the work "Safarat-nama-yi Khorazm" ("The Book of Embassy to Khorezm") (Inventory No. 9129) by a renowned littérateur Mirza Riza quli-khan under the aliases of Hidayat and Lalabashi (b.1801 in Tehran; d. 1872). It is of particular interest that Mirza Rizakuli-khan headed to the embassy of Iran in 1851 to represent Nasr al-Din Shah (1848–1886), and to the Khiva khan Muhammad Amin (1845–1885) to resolve issues relating to relations between these.

The manuscript was transcribed in *Nasta'liq* script on Kokand paper in the late 19<sup>th</sup> century.

"Ruz-nama" ("Memoire") by Mirza Muhammad Sharif-sadr with an aliased name of Ziya (Inventory No. 2277), was written in 1903 in the Persian language and recounts events that happened in Central Asia, Near and Middle Eastern countries, and Europe in the second half of the 19<sup>th</sup> century to the late 20<sup>th</sup> century. These records contain many interesting facts about Bukhara scientists, poets, and other persons. They are written in *Nasta'liq* script on Kokand paper. This is an autograph.

The documents and letters contain in the collection quite a lot of information of historical nature. "Waqfiyya" ("The Charter on Establishing Waqf") by 'Alisher Nawai narrates about the acquisition of the waqf estate for a public charity complex and educational building that he had built near Herat on the bank of the Injil irrigation channel. The charter was compiled in Uzbek in 1476 (Inventory No. 1315/II). It was transcribed in *Nasta'liq* script on Kokand paper in the 17<sup>th</sup> century. It has an 'unwan in the beginning. There are two other folios (Inventory Nos. 599/III, 5046/II).

"Majmu'a-yi watha'iq" ("A Collection of Documents") is a roster of court rulings in Persian, containing authentic documents of cases tried in the court of the city of Samarqand by a supreme judge from Aug. 13, 1589 to Feb. 14, 1592 (Inventory No. 1386). The text is written in *Nasta'liq* script on Central Asian paper.

"Munsha'at" ("Business Correspondence") contains copies of various letters of patent (nishan). It is written in Persian using *Nasta'liq* script on Russian ruled paper in the 19<sup>th</sup> century (Inventory No. 5046/III).

The Institute's collection includes a little-known work by Khandamir (1375–1435) titled "Nama-yi nami" ("The Illustrious Book") and attributed to the epistolary genre of literature. It contains valuable facts about the political and economic lives of Mawaraannahr and Khurasan in the early 16<sup>th</sup> century. The work was written in Persian using *Nasta'liq* script on Oriental paper in the 16<sup>th</sup> century (Inventory No. 286/III).

The collection is rich in labels, letter-books, samples of decrees, rescripts and other documents which contain interesting historical information.

وردن وی مصر ربر د و مصلح آن پرسیاوتان است با نبات بو د که جلاب سا د ند شفر غابن است و کفنه من رسیس ای بواسد و شفف ره کو بید و بشرازی کا سه شکنگ کو بید رم بود و دروی زموی فوى بود الامحسل باح عليظ يو د كه در امعانات فودون بو دشفر دون فورى ی و وی دست پرواشف رويون خوانندو آن الوم برى ووحافظ الاصبأ وحافظ المونى خوانت درالف دراسفور دبون كفنته بنابث كرم بو د يوليوند وجون ز و مکویند و جو ن خنک بودبسرند نزاب وببإنثامند كندكى جازران و دويه كشنده دا نا فع بود وسينه را ركبموس عليط ياك كندومن ار وورمها ما والعبل بباننا مندفر حد امعا وعب البول ولذع معده دا ما فع بود وجون باحرف وسل Ly in the state of the state of the state of

السيحت الماوس الأسدة الرامسان בון בינים ויין בינים בינ ورطول است معلوم است بس ذا ديد و رسم معلوم باشد درا ديد وح رفاي ماست بس ملف رح ومعلوم الصول باشد النوية رومعلوم عبريكي ازد دخط كم ح رمعلوم معلن الله دهستك دخطوط آوت كه نصف فطر قلك الله علوم است ببعد بخانظم حرم مطع اشد وهس كى اندىخوم ط ط هم معلى است بسع من نخطط اهده مراه معلوم اشد وهد والازدا يام اله ماسه ه ـ ط ٥٥ ط معلوم الصون الذ و بحث المخطرس لانصف قطر فالمعل المسراسة معلوم است سرع وكل ذ د وخط لط ط معلوم باشدو الديسة وسرطه فابعماس بس خطه سرمعلوم اشدو واويه وسرط معلوم است جملت له سره معلوم الصون است بسرص سكف از دا المسر مسرح وسرك مولوني خلافات مطلوبواست و فلكالمريج معلوم المند حراح لدات وجون كوك رامي بسند ورناهوا البرخلوله واوت وجرب وولنل في لا الرحسوك مركزهاك للدويا وبمالك لم بنودى بلكه برفل فيس بودى برنفط سمبوذي ازان وكوكبرا برخط اسد ندلك ومفادير ذوا بالضلاف ذا يدبعد ندك برمواضع مرائ اشان بانافض أذال ا ين فاد بابعادم الزافل لفارجادم لذا رض معلى الدوجيد بعاده وين احال من دونفط ابعد بعد وافر مرفلا معدا المسيرا فالمند إا مشراذا بعادايشان والصردولا ان معاديراسي وملانا في مان مراد المنور المان ابعاديث كالصادئ ابنع وادانات لارضع كتم ازبرائ وكاناتال المف صوراد نب ابع ا دبير يف ب الكورك اذزواباادل مرم معلم الماءذاويح وفاب مك وح معلوم الصول بالدونسك ورمعلوم عريك ادوخطهم مرمطة بع ويخ إذ وخطائح ومعلى الدود ويك إن خلط و الرب مع لا نصف فطر فلك ملى ملى الله بعدي ال حطولان معلوم الله والمعلوم الله والمعلوم الله المعلوم المعلوم الله المعلوم الله المعلوم الله المعلوم الله المعلوم الله المعلوم ال عرب از دور آه ده معلم الله وس مح معلوم التجملاك المتعلوم الصورة المديع مكن اذفعال الدهم عوم معادم إسندوا بشان مفاديرا بعادي لذك دا فرب فرب است دراحاً للث دا برجوافف والجاردش شدكهون مضع كوكب وعالم المدمعلوم برئزو بعلاوا ذنقط افرب فرب معلوم مضع هديكا زدد نفظ المعد بعد الحد فربطسمعلوم إسند والمارسم كنهم ولعرائح فك الديرح لحظ ما رانزدا نصير وطول اذ تغطه ل كابعد بعلاث اذ فلعدل لمسر علمع بننجذاديه لرج معلوماس ومالاد يزفوس ح

### S. Karimova

### 2.2. NATURAL AND EXACT SCIENCES

More than 12 percent of manuscripts in the Main Collection (13,319 pieces) are composed of folios of written works on exact and natural sciences covering subjects areas such as mathematics, astronomy, astrology, geography, medicine, alchemy, mineralogy, veterinary medicine and hunting, as well as folios of encyclopedias relating to natural sciences.

These works chronologically date from the 9<sup>th</sup> to the 20<sup>th</sup> centuries while their folios date from the 13<sup>th</sup> to the 20<sup>th</sup> centuries. Earlier works (prior to the 14<sup>th</sup> to the 15<sup>th</sup> centuries) are written in 'Arabic. Many of them are written in Persian, and some are written in Turkic languages. The latter mainly include later Turkic editions of famous treatises in 'Arabic and Persian.

Medieval works on natural sciences, which mainly focused on practical concerns such as mathematical calculations and measurements, for example, were necessary for the construction of buildings and bridges, for land surveys, financial and tax calculations, and inheritance determinations. Astronomic knowledge was necessary for compiling calendars, determining high-water seasons, ascertaining geographic coordinates of residential areas, finding the Qibla (direction of prayers), and itineraries of caravan routes through steppes and deserts as well as for casting various horoscopes and other astrological forecasts.

The works on medicine and pharmacology show capacities, diagnosis and treatment method as well as the medicinal arsenal of medieval medicine. Treatises on mineralogy, alchemy, veterinary medicine and others reflect the developmental level of these disciplines of that time.

In the following sections, arranged by theme, the characteristic of each group of manuscript is discussed.

**Medicine**—most (more than half) of all manuscripts on natural sciences are folios of medical content because of the constant demand for this area at all times. Currently, the Main Collection of the institute has 753 folios dating from the 13<sup>th</sup> to the 20<sup>th</sup> centuries with 351 works and 39 excerpts and abstracts of medical content in the 'Arabic, Persian and Turkic languages. Thematically, they refer to general medicine (148 pieces), the theory of medicine (33 pieces), medical handbooks (160 pieces), special issues (128 pieces), simple drugs (91 pieces), pharmacopeia (161 pieces), and glossaries (32 pieces). This group of folios is dominated by works



containing practical information, partly because of their greater relevance.

The works on **General Medicine** containing theoretical information (anatomy, physiology, diagnostics, health care issues, and dietology), practical information (treatment of organs from head to feet and the entire body), and pharmacology information represented in Materia Medica and pharmacopeia, provide a more or less full understanding of medieval Oriental medicine. The collection has the finest specimens of similar works from the earlier periods of Muslim medicine, "the golden age of science," during the era of the Temurids and in the post-Temurid period. For example, a manuscript from the 19th century contains a work on natural sciences by one of the earliest 'Arabic-speaking authors, a famous Nestorian doctor and translator Husain ibn Ishaka al-Ibadi' (808–877). The work is titled "Masa'il Hunayn ibn Ishaq 'ala tariq altagsim va-t-tashkhis" ("[Medical] Issues of Hunayn ibn Ishaq [Researched] Through Division and Identification [of Diseases]") (Inventory No. 2746/III).

Several literary specimens represent medicine during the era of Muslim cultural ascent in the 9<sup>th</sup> to the 11<sup>th</sup> centuries, including "Kitab Kamil al-sina'at al-tibbiyya" ("Comprehensive Book on the Art of Medicine") (Inventory No. 9622) by the famous Iranian doctor 'Ali ibn 'Abbas al-Majusi (d. 994); and "Kutub al-mi'a fi sina'at al-tibbiyya" ("One Hundred Books on Medical Art") (Inventory No. 12970) by Abu Sahl al-Masihi (d. 1010), a contemporary and one of the teachers of 'Abu 'Ali ibn Sina in the area of medicine. The collection has one manuscript copy of each of the two abovementioned works dating to the 13<sup>th</sup> century.

Three works by a great Central Asian scientist and encyclopaedist Abu 'Ali ibn Sina (980–1037) adorn the collection of medical books. They include a poetic manual on medicine in one manuscript from the 19<sup>th</sup> century and composed in a rajaz rhythm in 'Arabic and Persian titled "Urjuza fi-t-tibb" ("Urjuza [A Poem] on Medicine") (Inventory No. 3008/VI); an 18<sup>th</sup>-century manuscript titled ""al-Masa'il al-ma'duda" ("Selected Issues"), which includes 15 questions on medicine with answers from Ibn Sina (Inventory No. 9770/I); and a famous encyclopedia in 'Arabic titled "al-Qanun fi-t-tibb" ("The Canon of Medicine") represented in seven manuscripts, including two which are complete—a leaf made in 1309 (Inventory No. 11195) and a three-volume manuscript with artistic illumination supposedly from the 17<sup>th</sup> century (Inventory No. 9785/I, II, III).

After the "Canon of Medicine" came into being in the 11th century, it guickly spread throughout the Muslim Orient beginning in the 12th century along with written commentaries and abridged versions. The collection of the Institute has commentaries in 'Arabic and editions of the "Canon of Medicine" from different time periods. The earliest is a list from the 13th century of an anonymous work "Sharh mushkilat al-Qanun" ("A Commentary on Difficult Sections in the 'Canon'"), which is a commentary of the first two sections in the first book of "Canon of Medicine" (Inventory No. 3235). "Al-Tuhfat al-Sa'diya fit-tibb" ("Sa'd's Gift to Medicine") by Qutb al-Din Mahmud al-Shirazi (d. 1311), a disciple of renowned theologian, philosopher, and astronomer Nasir al-Din al-Tusi, is considered one of the most complete commentaries on "Canon of Medicine." This work is available in two full folios dating supposedly to the 14th century (Inventory

No. 2167) and the  $17^{th}$  century (Inventory No. 9748), as well as in a small excerpt from the  $17^{th}$  century (Inventory No. 10412/IV).

Abridged editions of the "Canon of Medicine" were composed by reputed doctors of their time such as 'Ala' al-Din 'Ali al-Qarshi with an alias of ibn al-Nafis (d. 1288) and Mahmud al-Chaghmini (d. 1344). "Mujaz al-Kanun" ("Abridged 'Canon'") by Ibn al-Nafis is represented in the collection by four full folios from the beginning of the 17<sup>th</sup> to the 19<sup>th</sup> centuries (Inventory No. 47150; 10544; 5783/l; 2409/III) and two incomplete manuscripts (Inventory No. 11778; 10058).

Short abstracts of main provisions of the "Canon of Medicine" are contained in "Al-Qanuncha" ("Small Canon") by al-Jagmini, which apparently was very popular judging by the abundance of folios in 'Arabic and one in old Uzbek (Inventory No. 11083). The earliest of the available 11 manuscripts in 'Arabic was transcribed in 1572 (Inventory No. 3532).

Besides commentaries and abridged editions of the "Canon of Medicine," there are supracommentaries in 'Arabic composed in the 14<sup>th</sup> to 16<sup>th</sup> centuries (Inventory No. 10249; 2492; 10413, and etc.).

A similarly famous work by Isma'il al-Jurjani (d. 1136) titled "Dhakhira-yi Khorazmshahi" ("The Treasure of Khorezm Shah") and its abridged editions are represented by a multitude of folios. This work is one of the most complete medical encyclopedias in Persian created after Ibn Sina's "Canon of Medicine." It was compiled for Khorezm-shah Arslantegin Qutb al-Din Muhammad (1097–1128). Out of the 13 folios dating to the 16<sup>th</sup> to 19<sup>th</sup> centuries, four are complete, including three manuscripts dating to the 17<sup>th</sup> century

(Inventory No. 9747; 2111; 3485) and one dating to the first half of the 18<sup>th</sup> century (Inventory No. 2124/II). Isma'il al-Juzjani personally compiled abridged Persian editions of "The Treasure of Khorezm Shah" upon the request of royal persons and friends. The collection has three manuscripts of earlier editions dating to the 19<sup>th</sup> century (Inventory No. 2116/VIII; 3334/XII; 11344/IV).

Medicine in the Temurid period (15<sup>th</sup> to 16<sup>th</sup> centuries) is represented by manuscripts of the works of Mansur ibn Muhammad ibn Fakikh Ilyas (15<sup>th</sup> century) (Inventory No. 5536; 9974/IV; 11665/VIII; 11846/V), Nafis ibn Ivaz al-Kirmani, a court doctor of the ruler of Mawaraannahr and grandson of Amir Timur, Mirzo Ulugbek (1409–1449) (Inventory No. 2872; 10706; 7636; 4910), and Nurbakhsha ar-Razi (d. 1507) (Inventory No. 3664; 2846; 11153/XI; 2612/IX).

The work of Salikh ibn Nasrallakh ibn Salluma (d. 1670), "Al-Kitab fi-t-tibb al-jadid al-kimiya allazi ikhtira Barakilsus" ("The Book of New Chemical Treatment Invented by Paracelsus"), is a rare specimen of an Oriental edition of a medical tractate by a European author in the late Middle Ages. This 'Arabic adaptation of the tractate written by Philippus Aureolus Theophrastus Paracelsus (1493–1541), a famous Swiss doctor and founder of iatrochemistry (medical chemistry), is stored in three manuscripts dating to the 19th century (Inventory No. 6592; 3508; 2631/III).

During the rule of Babur and the Baburids (1526–1858) in India, a number of works on medicine were composed along with historical, literary and scientific works. These include two works by famous Indian doctor Muhammad Akbar under the pen name of Arzani (d. after 1718), "Tibb-i Akbari" ("Medicine of Akbar") and "Mizan-i tibb" ("Balance of Medicine"). The first work was devoted

to a Dehli ruler Muhyiaddin Aurangzeb 'Alamgir I (1658–1707), and is a Persian edition of the abovementioned commentary in 'Arabic, "Sharh al-asbab va-l-'alamat" by Nafis ibn Ivaz al-Kirmani. Muhammad Akbar not only translated this work by al-Kirmani into Persian, but also supplemented it, thus essentially creating a stand-alone work. The collection has nine folios of this work including some which are artistically illustrated and fine specimens of calligraphic art and binding (Inventory No. 2116/V; 3504/X; 2629/I; 2924).

The second work, "Balance of Medicine," is represented in six folios, the earliest of them dating to the 18<sup>th</sup> century, presumably (Inventory No. 2829/IV).

There are rare manuscripts of works by several Central Asian and Khurasanian authors dating to the 17<sup>th</sup> to the 20<sup>th</sup> centuries, including an autograph "Qanun al-mabsut" ("Expanded Canon") (Inventory No. 8921; 8922) in Uzbek by a doctor and poet from the 20<sup>th</sup> century, Basitkhan ibn Zahidkhan Shashi (1878–1959). This is a rare example of a work on medicine written in a traditional Oriental form in the modern period. There is also an abridged version of the "Expanded Canon" executed by the author's brother, Hamidkhan ibn Zahidkhan Shashi (Inventory No. 12535/I).

**Medical Books**—this group includes works on practical medicine, i. e., private and general pathology. These manuscripts can be provisionally divided into two groups: original works by famous authors and compilations executed, apparently, for individual use in day-to-day medical practice. The latter includes medical books as lecture notes in the Persian and Uzbek languages compiled in the 19<sup>th</sup> century.

According to the time of writing, a treatise titled "Bur' al-sa'a" ("Cure within a Short Time") by a distinguished

scientist-encyclopeadist better known as doctor and alchemist Abu Bakr Muhammad ibn Zakariya al-Razi (865–925), which describes diseases that do not require long treatment, appears to be the earliest medical book. It has enjoyed great popularity as evidenced by the vast number of its folios and translations. The collection holds 18 folios dating to the 19<sup>th</sup> century, 10 of which are Persian editions that include both full translations and excerpts from various sections. Two manuscripts of the 'Arabic original are noted for their high-quality execution (Inventory No. 3390/l; 2988/l).

A work in 'Arabic titled "Kitab al-ghina va-l-muna" ("Sufficient and Desired Book") by Bukharan doctor Hasan ibn Nuh al-Qumri (al-Qamari) al-Bukhari (d. 999) is also referred to as "Kunnash" ("Symposium") and "Shamsiya al-Mansuriyya" ("Solar [Book of] Mansur"). Al-Qumri was known both as a theorist doctor and a practicing doctor. He was mentor of Ibn Sina in the area of medicine and was held in esteem by the ruler of Bukhara, Mansur ibn Nuh (961–976), to whom the scientist apparently dedicated this work. The medical book has survived in a manuscript dated to the 15th century (Inventory No. 5708).

Medical books in the earliest manuscripts of the 13<sup>th</sup> century include two works: "Taqwim al-abdan fi tadbir alinsan" ("Tables of the Body With Regard to the Physical Management of Man") by Baghdadian doctor Yah ya ibn 'Isa ibn Jazli (d. 1100) and dedicated to 'Abbassid caliph al-Muqtadi bi-Amr Allah (1075–1094), and anonymous excerpts on practical metters from a large work on medicine (Inventory No. 578). The work by Ibn Jazla is noteworthy because the material is represented in the form of 44 tables (Inventory No. 437).

Many medieval doctors were talented poets and successfully used their skill for their scientific works. The most popular poetic treatises were about simple drugs and medical books where one poem describes both a disease and the means to combat it. Most similar works of the post-Mongolian period were written in Persian. One example is the work "Shifa-yi-maraz" ("Treatment of a Disease") also known as "Tibb-i Shihabi" ("Medicine of Shikhab") by Shikhabaddin ibn 'Abdalkarim Qavam Naguri (14<sup>th</sup> century). There are four copies, with the earliest of them created in 1685 in India (Inventory No. 10426/II).

Medical works by Yusuf Muhammad Yusufi al-Hirawi, a court doctor of Zahiraddin Babur (1526–1530) and his son, Humayun (1530–1556), enjoyed great popularity. These include his "'llaj al-amraz" ("Treatment of Diseases") written in the form of quatrains or ruba'i (Inventory No. 4544/IV) and a commentary, "Jami' al-fawa'id" ("A Collection of Useful Information"), which brought fame to Yusufi. The earliest of 29 folios from the 17<sup>th</sup> to 19<sup>th</sup> centuries dates to the beginning of the 17<sup>th</sup> century (Inventory No. 4187/V); 22 copies date to the 19<sup>th</sup> century.

Multiple folios include medical books composed in the 15<sup>th</sup> to 16<sup>th</sup> centuries in Maverannahr and Khurasan. These are "Dastur al-'ilaj" ("A Manual on Medical Practice") and "Muqaddima-yi dastur al-'ilaj" ("Introduction into Medical Practice") by Sultan 'Ali, "a Khorasani doctor" who practiced medicine for many years in the courts of the Sheybani rulers. Calligraphically executed copies from 1589 of both works are bound into one volume (Inventory No. 2264/I, II)

Abu Bakr al-Razi may be considered a founder of the technique to preserve clinical records, which is presently

used in every medical office. Similar "patient histories" were also kept by his disciples who worked together in the hospitals of Ray and Bagdad. One group of medical books includes an autograph by Turkish doctor, poet, and calligrapher Katib-zade Muhammad Rafi'i (18<sup>th</sup> century), who translated "Patient Histories" by Abu-l-Hasan Allan (9<sup>th</sup> to 10<sup>th</sup> centuries), a disciple of Abu Bakr ar-Razi, from 'Arabic into Turkish. In this work, Katib-zade has proven to be not only a translator, but also a skilled calligrapher and a master of bookmanship (Inventory No. 3023).

Rare medical books include one in Uzbek by Ja'far ibn Khazaraspi (19<sup>th</sup> century) titled "Multaqat al-tibb" ("A Collection of Medical Information") dedicated to Khorezmian shah Sayyid Ahmad al-Husayni. The work was completed in 1823–1824 and is available in two folios, one of which was executed in 1827–1828 possibly during the lifetime of the author (Inventory No. 3336).

The collection of medical works includes treatises on specific medical issues, including anatomy, diagnostics, health care, dietology, diseases of various organs, infectious diseases, and others. For example, among the works on the history of medicine feature is a piece by the famous Khorasan doctor, poet, and lawyer, Fakhraddin Abu 'Abd Allah Muhammad ibn 'Umar al-Razi (d. 1209) titled "Masa'il fi-t-tibb" ("Issues of Medicine"): it is contained in single folios supposedly dating to the 16<sup>th</sup> century (Inventory No. 3135).

Although treatises of a theoretical nature are few in number in the collection (33 pieces), there are still some works in Persian that are of scientific interest. These are "Risala dar tashrih-i badan-i insan" ("A Treatise on the Anatomy of Human Body") also known as "Tashrih-i

Mansur" ("Anatomy by Mansur") by the previously mentioned Mansur ibn Faqih Ilyas. The work was dedicated to the grandson of Amir Timur, Pir Muhammad Bahadur (killed in 1405). A folio dating to 1683 was made at the direction of Ashtrakhanid Subhankulikhan (1680–1702) with corrections in the text and illustrations depicting a human skeleton, nervous system, internal organs, and other components (Inventory No. 2105). In addition, there are three more folios (Inventory No. 3663/V; 11763/III; 3483/I).

Works by two of Baburid court doctors are interesting for comparative analysis—a Heratian doctor, Yusuf ibn Muhammad Yusufi, and Mukhammad Akbar. The treatise by Yusufi, "Sitta-yi zaruriyya" ("Six Necessary Conditions [for Health]"), is represented in six folios including an illuminated manuscript dating to 1798, which was executed in Kashmir (Inventory No. 9974/I) and included in one volume with other works by Yusufi. The work by Muhammad Akbar, "Mufarrih al-qulub" ("Delight to the Hearts"), is a voluminous commentary in Persian on the earlier mentioned "Al-Qanuncha" in 'Arabic by Mahmud al-Chaghmini (Inventory No. 3532). There are eight full folios of the work with the earliest of them dating to 1725 (Inventory No. 11990).

Analytical diagnostics guidelines include a treatise about using urine test results and interpretation of pulse reading for diagnosis. Traditional Muslim medicine considered the latter method as one of the most reliable means of ascertaining a disease. Therefore, both encyclopedic works and medical books dedicated a special section to pulse readings, and some doctors who were proficient in using this method, wrote special treatises on the issue. These include two folios dating to the 19<sup>th</sup> century titled "Miftah al-hikma" ("The key of Wisdom") by Darvish

Muhammad Hakim Kilasabadi who was a disciple of a renowned Indian Sufi sheikh Faridaddin Shakarganja (d. 1265). The treatise was written in Persian in verse with the introduction and conclusion in prose (Inventory No. 2992/II; 1858/III).

Other manuscripts regarding medical treatments, include a treatise in Persian by the abovementioned Yusuf ibn Muhammad titled "Dala'il al-nabz" ("Pulse Readings"), in six manuscripts, with the earliest of them dating to 1798 (Inventory No. 9974/II); and "Risala dar tahqiq-i nabz va tafsira" ("A Treatise on [a Patient's] Pulse and Urine") by Muhammad Yusuf, an ophthalmologist and personal doctor of the Shaybani rulers of Samarqand. This work was dedicated to Sultan Sa'id-khan (1567–1572). The treatise supposedly dating to the 17<sup>th</sup> century is a rare work available only from the al-Biruni Institute (Inventory No. 2275/VI).

Two early works in 'Arabic may be categorized as rare—"Kitab al-humayat" ("A Book on Fevers") by by Ishaq ibn Sulayman al-Isra'ili (b. 932) in the 1215 manuscript (Inventory No. 2399); and "Sharh fusul al-Buqrat" ("A Commentary on 'Aphorisms of Hippocrates'") by 'Abd al-Rahman al-Nishaburi (d. after 1068) in the 1292 manuscript (Inventory No. 3139).

Ophthalmology is represented by works of famous ophthalmologists 'Ali ibn 'Isa al-Kahhal (d. after 1010) (Inventory No. 9723/I), and Shah 'Ali ibn Sulayman Kahhal (16<sup>th</sup> century) (Inventory No. 4935/II; 1832).

There are several rare manuscripts on infectious diseases, including the plague in an autograph from the 16<sup>th</sup> century (Inventory No. 3187/X) and in the manuscript from the 19<sup>th</sup> century (Inventory No. 4157/I); and cholera, in one manuscript from 1873 (Inventory No. 2774/II). Many medieval authors focused on issues of health care

and hygiene as evidenced by a multitude of folios of treatise from different time periods on this issue.

Works on **pharmacology** concerning simple and complex drugs were just as popular as medical books. These are found as independent elements of medical encyclopedias, as in the "Canon of Medicine" by Ibn Sina (Books II and V) or as stand-alone works on simple drugs (Materia Medica) and pharmacopeias.

Works on **simple drugs (adwiyat al-mufrada)** include a description, properties and uses of simple drugs that have mineral, plant and animal origin. Usually the information is arranged in *abjad* order of the 'Arabic alphabet letters. The collection holds works by the abovementioned authors, Ibn Jazla (Inventory No. 3761), Najibaddin Samarqandi (Inventory No. 7225/V), and Yusufi (19 copies).

The collection includes two works by the famous 'Arabian botanist Ziya al-Din ibn 'Abd Allah al-Maliki (d. 1248), also known as Ibn al-Baytar ("son of the veterinarian"). His first work, "Kitab al-mughna fi-l-adwiyat al-mufrada" ("A Sufficient Book on Simple Drugs"), was written in 1240 and represented in the manuscript of 1243 copied from the original (Inventory No. 3237). The second work, "al-Jami' 'fi-l-mufradat al-adwiya va-l-aghziya" ("A Collection on Medicinal and Nutritive Substances"), is an incomplete manuscript dating to the 17<sup>th</sup> century (Inventory No. 3099). There are unique folios dating to the 18th century of a rare treatise according to its content on incense, "Risala-yi 'atrnama-yi 'Adil shahi" by Yusuf Haji al-Qarshi (16th century) (Inventory No. 3494/II) dedicated to 'Adilshah. Along with comprehensive traditional alphabetical listings of medicines, there is a work called "Khawass-i haywan" ("On the Properties of Animals") and special

treatises on one type of medicine. Other works include "Chub-i Chini" ("A Chinese Stick") (Inventory No. 9269/II, 2873/II); "Ab-i naysan" ("The Water of Nisan") in four copies; and "Khasiyat-i sana-yi makki" ("Properties of Alexandrine Senna") (Inventory No. 3313/XVII). The two last works are found only in the collection of the al-Biruni Institute.

In medieval Muslim medicine, works dedicated to making **complex drugs** were referred to as *Aqrabadin* or *Qarabadin* (from Ancient Greek *grafidion*—a list of medications). The content of these works usually corresponded with that of pharmacopeias. They usually consist of two parts—the first one describing types and methods of making from simple ones, while the second one specifies types of diseases "from head to toe" for which a certain composite drug is indicated.

The earliest treatises by Central Asian authors in the 'Arabic language may include "al-Adwiyat al-qalbiya" ("Heart Medicines") by Ibn Sina in a manuscript dating to the 18th century (Inventory No. 2275/V), and "Risala fi-s-sikanjubin" ("A Treatise on Sikanjubin [acidulous syrup made of honey and vinegar referred to as Oxymel]") (Inventory No. 2572/XXI) by the same author. Other early works include "Qarabadin al-Qalanisi" ("Pharmacopoeia of Kalanisi") by Badr al-Din ibn Muhammad al-Kalanisi (d. 1194) (Inventory No. 3925), and "Usul al-tarakib" ("Foundations of Making [Compound drugs]") by the aforementioned Najib al-Din Samargandi (Inventory No. 2275/III) и 7225/III).

A work titled "Ikhtiyarat-i Badi'i" ("Selected [Pharmacopoeia] Dedicated to Badi'") by 'Ali ibn al-Husayn al-Ansari (also known by his alias Khoja Zayn al-Attar (1330–1404) in the Persian language) was quite popular. The author was in service at the court of the ruler of Shiraz,

Jalaliddin Shah-Shuja (1364–1384) and dedicated his treatise to Princess Badi' al-Jamal. There are 20 copies, with the earliest of them having been presented in 1541 especially for Shaybanid 'Abd al-Latif-khan. It features 594 pictures executed in paint depicting plants, animals, and vessels for preparing and storing medicines (Inventory No. 1598).

There is a noteworthy work titled "Bahr al-khavass" ("A Sea of Specific Properties") by a Kermani doctor Ni'mat Allah ibn Mughis al-Din (d. 1477), where the author provides as many synonyms as possible of simple drugs in five languages. There are three folios on file; the earliest of them dates to the 17<sup>th</sup> century (Inventory No. 2146).

There is sufficient material available for those interested in Indian pharmacopeias dating to the 17th to the 18th centuries. These include two pharmacopeias by Takiaddin Muhammad (17th century) (Inventory No. 8307; 2248; 7225/ VII); a rare list titled "Umm al-'ilaj" ("Basics of Treatment") by 'Amanallah, a court doctor for Nur al-Din Muhammad (1605– 1628) from the Baburid Dynasty (Inventory No. 1355/I); popular pharmacopeias by the abovementioned Muhammad Akbar, including "Qarabadin-i Qadiri" ("Pharmacopeia of Qadir"), dedicated to the author's mentor, Sayyid 'Abd al-Qadir Gilani (in 12 copies, the earliest dating to 1783, Inventory No. 3497); "Mujarrabat-i Akbari" ("Tried and True Means of Akbar") in two copies from the 19th century (Inventory No. 7362; 715/I); and a rare copy titled "Majmu'ayi Baqa'i" ("A Collection of Baqai") by Muhammad Isma'il Baga'i (18th century) (Inventory No. 432).

There are two manuscripts of two works written by royal persons—"Manafi' al-insan" ("[Substances] Useful for Humans") in Uzbek by Khiva khan Abu-l-Ghazikhan (1643–1663) (Inventory No. 4107), and "Ihya' al-tibb

Subhani" ("Subkhan [-kuli]'s Revival of Medicine") by a ruler of Mawaraannahr Sayyid Subkhankuli Bahadur-khan from the Ashtarkhanid Dynasty (1680–1702) (Inventory No. 2101). There is one more autograph of the aforementioned Basit-khan Shahi represented in the pharmacopeia titled "Fawa'id al-adwiya va mawa'id al-aghziya" ("Benefits of Drugs and Supporting [a Body] with Food") (Inventory No. 11256).

The collection of books on medicine includes a small number of dictionaries (32 pieces) of medical terms in two ('Arabic-Persian), three ('Arabic-Persian-Indian) and more languages. Most of them are dedicated to names of drugs, while others are dedicated to the names of diseases. There are also combinations. Based on period of transcription of these dictionaries cover from the 16th to the middle of the 20th centuries, and are penned by Central Asian, Khorasani, and Indian doctors. The most famous of them include an 'Arabic-Persian dictionary titled "Bahr al-jawahir" ("The Sea of Pearls") by Muhammad ibn Yusuf (16th century) dating to 1589 (Inventory No. 7192). In several copies dating to the 18th to the 19th centuries there are two poetic dictionaries with explanations of Indian names of medicines in Persian by Yusufi. "Hall al-asami" ("Analysis of Titles") by Isma'il ibn Muhammad (16th century) is a Persian translation of "Kitab al-tanvir fi-l-istilahat al-tibbiyya" ("A Book of Insights into Medical Terms"), a famous explanatory lexicon of medical terms in the 'Arabic by the abovementioned Abu Mansur al-Qumri. Qumri's dictionary contains 800 terms. The Persian translation has an additional chapter "On Explaining Names of Compound Drugs in Greek." The al-Biruni Institute has three folios of this translation (Inventory No. 11776/I; 6171/I; 11153/VI).

Two autographs in Uzbek by brothers Basit-khan and Hamid-khan Shashi may be classified as unique (Inventory Nos. 8923; 12544/II).

**Mathematics**—a collection of mathematics manuscripts includes 213 copies. Of those, 186 include folios of arithmetic and algebraic treatises (91 works). The remaining 27 are works on geometry (19 essays). The earliest of the mathematical treatises is "Risala fi-l-arithmatiqi" ("Treatise on Arithmetics") in 'Arabic by famous mathematician and astronomer Abu-l-Vafa Muhammad al-Buzjani (940–998) represented in rare folios dating to 1881 (Inventory No. 4750/IX).

Works by lawyer and mathematician Sirajaddin Abu Takhir—Muhammad as-Sijavandi (12<sup>th</sup> century) were quite popular in Central Asia. Among the multiple folios in the Institute's collection, three of his works on algebra and arithmetic are included with "al-Fara'iz al-Sirajiyya" ("Inheritance Law by Sirajiddin") being the most widely spread practical treatise on Muslim inheritance law. The earliest of the eight available folios dates to 1475–1476 (Inventory No. 8693/II).

Scientific schools, including the Maragin School headed by Nasiraddin at-Tusi (1201–1274) and the Mirzo Ulubek Samarqand Astronomy School, have left their mark in the science of the medieval East.

The Maragin School is represented in the collection by the arithmetic and algebraic treatises of Nasir al-Din al-Tusi (Inventory No. 8990/VII; 7235/IV): his disciple, mathematician and lawyer Imadaddin 'Abdallakh al-Haddam (1245–1325) (Inventory No. 3893/I, etc.): and Nizam al-Din al-Hasan al-Naysaburi (13<sup>th</sup>–14<sup>th</sup> centuries), who was a commentator of several works by Nasiraddin

at-Tusi. "Al-risala-al-shamsiyya fi-l-hisab" ("A Solar Treatise on Arithmetic") was especially popular as evidenced by the large number of folios in various book depositaries worldwide. Eleven of the folios are stored at the al-Biruni Institite with the earliest of them dating to 1552 (Inventory No. 8152/III). The renowned scientist-encyclopeadist, Sa'd al-Din Mas'ud ibn 'Umar al-Taftazani (1322–1390), wrote a commentary on the "Solar Treatise" in 1389. There are three folios from the 16<sup>th</sup> to the 18<sup>th</sup> century of this commentary (Inventory No. 9080; 4100/1; 4117/4).

Works by representative of Mirzo Ulugbek Samarqand School representatives include "Talkhis al-miftah" ("Abridged 'Key to [Arithmetic]") by Ghiyas al-Din Jamshid al-Kashi by Giyasaddin Jamshid al-Kashi (d. 1436) in a folio dating to 1693 (Inventory No. 2245/VII), and "Risala dar 'ilm-i hisab" ("A Treatise of Arithmetic") by 'Ala' al-Din 'Ali ibn Muhammad Qushchi (1402–1474) in six folios. One of the folios, transcribed in 1510, features calculation tables (Inventory No. 3894/III).

There are three unique folios, including "Jadwal-i sittin" ("Sexagesimal Numeration System") by Hasan ibn Husainshah as-Simnani (d. 1348) in a manuscript dating to the 15<sup>th</sup> century, (Inventory No. 8990/IV); "Risala-yi Sadiqiya dar hisab" ("Sadiq's Treatise on Arithmetic") by Muhammad Sadiq al-Isfahani (14<sup>th</sup> to the 15<sup>th</sup> centuries) (Inventory No. 10864/IV); and an untitled treatise on arithmetic by Muhammad ibn 'Ali al-Kubavi from the 16<sup>th</sup> century (Inventory No. 8830/IV); plus two autographs on arithmetic by lawyer Muhammad-Amin al-Muminabadi al-Bukhari written in 1550 (Inventory No. 7131/III; 7131/XII).

Authors of most of the works on geometry are unknown (15 out of 19 works). The rest are copies of works

in 'Arabic by Nasir al-Din Tusi (Inventory No. 4854); Shams al-Din Samarqandi (13<sup>th</sup> century), a scientist from a Maragin observatory (Inventory No. 3373/4); the abovementioned Sa'd al-Din Taftazani (Inventory No. 4697/XXX, and others); and a certain Mawlawi Sadiq in Persian in the manuscripts dating to the 19<sup>th</sup> century (Inventory No. 6175/5).

**Astronomy, astrology, and astronomic instruments**—in the Middle Ages, people in the East favored astronomy and the field of astrology. The collection of the al-Biruni Institute holds 234 manuscripts of 153 works on this subject area, most of which are written in Persian. These works are astronomic tables, astrological calculations, horoscopes, and descriptions of celestial bodies and their interrelations and relation with nature as a whole.

Moreover, there are calendars or "Salnama, Navruznama" (92 pieces), by famous and unknown authors. Other works by well-known authors include a rare manuscript dating to the 17th century in Persian titled "Qiranat-i kawakib" ("Approximation of Stars") by Abu Ma'shar al-Balkhi (d. 886) (Inventory No. 1206/VIII); a small treatise in 'Arabic by Abu Nasr Muhammad al-Farabi (873–950) in two folios dating to 1664 (Inventory No. 2385/XXXII, 2385/LVII); a treatise in 'Arabic by Kushyar ibn Labban (970–1030) titled "Mujmal al-usul" ("A Body of Principles") and its Persian translation in an ancient manuscript dating to the 13th century (Inventory No. 445/II, 1640/I); a Persian version of "al-Tafhim" ("The Book of Admonishment") by Abu Rayhan al-Biruni (973–1048) in two folios, the earliest of them dating to 1261-1262 and endowed with drawings, tables and maps (Inventory No. 3423); three treatises by Abu 'Ali ibn Sina, with one of them being letters with answers from ibn Sina to questions from al-Biruni

in 1664 (Inventory No. 2385/XIV); two astronomic treatises of Fakhr al-Din al-Razi in a Persian edition (Inventory No. 2715/II; 2687); "al-Mulakhkhas fi-l-hay'a" ("Brief Description of Astronomy") by Mahmud ibn 'Umar al-Chaghmini (d. 1221) and a commentary on this work by Qazi-zade Rumi (1360–1437), a teacher of Ulugbek, in many folios dating to the 16<sup>th</sup> to the 19<sup>th</sup> centuries; three treatises by Nasir al-Din al-Tusi including "Tatimma-yi risala Mu'iniyya" ("Addition to the Treatise Dedicated to Mu'in al-Din"), which is included in a unique manuscript dating to 1422 (Inventory No. 8990/II).

The crown of the collection is a work on astronomy titled "Zij-i Jadid-i Guragani" ("New Guragan Astronomic Tables") by Mirzo Ulugbek represented in four folios, one of them supposedly dating to the 15th century and copied by 'Ali Qushchi (Inventory No. 2214). There is also an 'Arabic edition by Ghiyas al-Din al-Kashi as well as commentaries and other elaborations by famous authors such as Nizam al-Din al-Birjandi (d. circa 1525) (Inventory No. 704); Mulla Farid al-Din Mas'ud al-Dihlawi (d.1629) (Inventory No. 4225); and Savay Jai Singh (d. 1743) (Inventory No. 2752). The latter built observatories in Dehli, Benares, Jaipur, Ujaina and Muttra upon the command of Indian Sultan Muhammad-shah from the Baburid Dynasty (1719–1748), according to descriptions of instruments in Ulugbek's observatory.

The collection holds unique manuscripts of works by little-known authors such as Shir-Muhammad Kakyani's "Ma'rifat-i samt-i qibla" ("Determining the direction of the Qibla") in a manuscript dating to 1743 (Inventory No. 477/VII); 'Ali ibn al-Qadir al-Natani, who wrote commentaries on "Risala al-fathiyya" ("A Treatise on the Conquest")

by 'Ali Qushchi in 'Arabic; the date of the copy is 1843 (Inventory No. 2984/III); and several autographs by scientist and educator Ahmad Danish (1827–1897) on the movement of planets, astrology, the structure of the globe and two calendars for 1288 and 1299–1300 AH (hijra) (Inventory No. 5095/III; 2144). Another autograph written by Hishmat in 1912–1916 is dedicated to compiling calendars (Inventory No. 2932/II).

Astronomic instruments are discussed mainly in manuscripts (30 pieces) of treatises about the astrolabe, manipulations with a sine-square, and the globe. The earliest copy dates to the 13<sup>th</sup> century (Inventory No. 1640/II).

**Geography**—geography as a subject area is represented in manuscripts of works on geography, geographic dictionaries and several encyclopedias on cosmography (a total of 123 pcs).

In contrast to works on natural sciences, those on geography were often written as works of art and contained not only geographic information but also highlighted the history of cities and biographies of famous people. The oldest manuscripts dating to the 13th century include two treatises in 'Arabic dedicated to identifying the direction of the Qiblah (Inventory No. 177/II; 177/III). Widely known medieval geographic works include the folios "Mu'jam al-buldan" ("A Dictionary of Counties") by Yaqut al-Hamavi (1179–1229) (Inventory No. 2109); "Nuzhat al-gulub" ("Delight of the Hearts") by Hamd Allah Qazwini (1281–1349) (Inventory No. 606 and etc.); anonymous Persian translations of "Masalik al-mamalik" ("Roads and Countries") by Abu Ishaq al-Istakhri (10th century) (Inventory No. 108); and "'Aja'ib almakhlugat" ("Curiosities of Creation") by Zakariya al-Qazwini (1203-1283) (Inventory No. 3477).

Also quite popular in Central Asia was "Majma'i ghara'ib" ("A Collection of Rarities") by Sultan-Muhammad al-Balkhi, an astronomer and geographer from the 16<sup>th</sup> century who dedicated his work to the Shaybani rulers. The collection includes 37 copies in Persian and one unique manuscript, which is an Uzbek translation titled "Anjuman-i bada'i" ("A Collection of Rarities") and rendered at the end of the 19th century (Inventory No. 7774). Also included is "'Aja'ib al-tabagat" ("Wonders from the Earth's Belts") by Muhammad Tahir Balkhi, an astronomer and geographer who worked in Bukhara for Nadir Muhammadkhan of the Ashtarkhanid Dynasty (1642–1645). This work is noteworthy because it contains sections on the history of most European countries. Sixteen folios dating to the 18th and early 20th centuries survive today and include two illuminated manuscripts with images of the Kaaba, Mecca and Medina mosques (Inventory No. 411/1 and 2380). Among the colorfully illustrated folios is one dating to the 16th century of the encyclopeadia on cosmography by Fath Husaini (13th–14th century) (Inventory No. 1835). There is an autograph by Sadr Ziya (d. 1935) entitled "Dar ta'yin wa tabyin bilad-i mashhura" ("Description of Famous Countries") composed in Persian in the beginning of the 20th century (Inventory No. 2193/VI).

**Alchemy**—the collection of the al-Biruni Institute holds 31 copies of 30 works on alchemy, 17 of which are anonymous records, excerpts, compilations and translations from different alchemic treatises. The remaining 13 works may be divided into two types according to their contents—works on hermetic and rational alchemy.

Muslim alchemy dates back to the beginning of the 8<sup>th</sup> century, and it thrived in the 9<sup>th</sup> and 10<sup>th</sup> centuries. During

this period alchemy developed in two directions. Since the main goal of alchemists was to generate noble metals artificially, some authors attempted to conceal the essence of the narration from "uninitiated" readers with the help of symbolism and metaphors. Some of these treatises were written in verse using a florid style. Examples include: "Miftah al-kunuz fi hall ashkal al-rumuz" ("The key of Treasures in Explaining Unclear Symbols/signs") and "Qasidat al-mimiyya" ("Qasidah with Mim Rhyme") in 'Arabic by Abu 'Abd Allah ibn Umayla al-Tamimi (900–960), one of the key representatives of hermetic chemistry: and a commentary on this gasidah (a poem that maintains a single elaborate meter throughout and every line rhymes. It typically runs more than 50 lines, sometimes more than 100) by the author himself (Inventory No. 562/I, 562/II). There are also two works in Persian by 'Abdallah ibn Javkhari Tabrizi including "al-Qasida al-hawiyya fi-s-san'at al-maktuma" ("Intricate Qasidat on Mystic Art") and a voluminous commentary on this gasidah. Both works are found in a unique manuscript dating to the 17th century and preserved only in the al-Biruni Institute (Inventory No. 10884/I, II).

Jabir ibn Hayyan (722–813) and the abovementioned Abu Bakr al-Razi are considered founders of rational alchemy, because rid alchemy of excessive vague symbolism of classical Greek authors and enriched it with new practical material. The collection of the Institute houses a manuscript dating to 1506 which includes two famous works on alchemy by Abu Bakr al-Razi in 'Arabic, "Kitab al-Asrar" ("The Book of Secrets") and its logical sequel, "Kitab Sirr al-asrar" ("The Book of the Secret of Secrets"), dedicated to the disciple of ar-Razi from Bukhara, Muhammad ibn

Yunus (Inventory No. 3758/I,II). A Persian edition of "The Book of Secrets", titled "Tajarib-i Shahriyari" ("Shahriyar's Experiments") by Shahriyar ibn Bahmanyar Farsi (11<sup>th</sup> century) is preserved in the manuscript dating to 1744 (Inventory No. 2168/1). Later works include two compositions in 'Arabic by 'Iz al-Din 'Ali ibn Aydamir al-Jildaki (d. 1342) (Inventory No. 2903/II; 450).

**Mineralogy**—18 manuscripts on mineralogy in the collection which are mainly in Persian. Half of them are copies of anonymous compilations, including excerpts in Persian and Uzbek from lapidary records from different time periods. Works on mineralogy provide a description of gemstones and precious metals (quality, cost, medicinal and magical properties).

There are two folios of the most famous lapidary records, "Tansuq nama-yi Ilkhani" ("The Book of Jewels Dedicated to Ilkhan") by Nasiraddin at-Tusi written between 1256 and 1258, and the earliest of these folios dates to 1501 (Inventory No. 4388/II). The following pieces have special artistic value:—the copy dating to 1624 "Jawahir-nama" ("Lapidary Record") by Muhammad ibn Mansur who dedicated his work to a founder of the Oq-Qoyunlu Dynasty, Abu Nasr Hasan Bahadur-khan (1453–1478) (Inventory No. 2294/II), and a list dating to 1685 of the work "Mirat aljawakhir" ("A Mirror of Jewels") by 'Ibad Allah Aman Allah and dedicated to Nur al-Din Jahangir from the Baburid Dynasty (1605–1628) (Inventory No. 8839).

**Veterinary Science and Hunting**—this thematic group includes manuscripts of works on hippology, the treatment of birds, and hunting (a total of 49 pieces). Works on hippology include a reference encyclopedia on veterinary science of pack animals and horse training in 'Arabic,





"Kashif al-wayl fi ma'rifat amraz al-khayl" ("Identification of Troubles in Recognizing Diseases of Horses") by Abu Bakr ibn al-Munzir al-Baytar (14th century), the chief veterinarian at the court of the Mamluk Sultan, al-Mansur ibn Qalaun, who ruled three times with intervals in Egypt and Syria (last rule—1309 to 1340) (Inventory No. 1446). There is a Persian translation of this work for an Afghani ruler, Ahmad-shah Durrani (1747–1774), in an uncompleted copy (Inventory No. 5203/I). Another work, titled "Mizmar-i Danish" ("Pursuit of Knowledge") and written by Nizamaddin Ahmad in Persian for shah 'Abbas II Safavi in Iran (1642–1666) is a manuscript dating to the 19th century (Inventory No. 2324/I). A third work is an anonymous Persian edition of "Faras-nama" ("Book of Horses"), originally a Sanskrit work executed in the time of Shah-Jahan (1628-1658). There are three folios that are artistically illuminated with colorful miniature paintings depicting horses (Inventory No. 2199; 5519).

There are also a number of "Baz-nama" ("Book of Falcons") manuscripts, and several works written in the time of Jalal al-Din Akbar of the Baburid Dynasty, who was a passionate falconer (e.g., Inventory No. 2511/I, 4863). "Shikarnama" is similar in content to "Baz-nama," a book about hunting. The manuscripts include colorful copies illuminated with miniature paintings, such as "Shikar Nama-yi Ilkhani" ("The Ilkhani Book of Hunting") by 'Ali ibn al-Mansur al-Hawafi (14<sup>th</sup> century) (Inventory No. 471/II), and "Kitab-i saydiyya" ("The Book of Hunting") by Shaykh al-Islam al-Haravi

al-Samarqand (16<sup>th</sup> century) compiled for the Sultan Badi 'al-Zaman. The earliest of its folios dates to 1553 (Inventory No. 3704).

Various **encyclopedias** were composed, along with works on specific subjects in the natural sciences covering both monothematic and multidisciplinary issues.

An example of such literature is "Jami' al-'ulum" ("Collection of Sciences") by the aforementioned Fakhr al-Din al-Razi. This encyclopedia contains information on mathematics, astronomy, astrology, chemistry, mineralogy, and other sciences and was dedicated to the Khorezm shah, Alaaddin Muhammad (1200-1220). There are three folios in this collection dating to the 18th to 19th centuries and two folios of an expanded edition of this work by the same author (Inventory No. 2671; 10287). It should be noted that an artistically illuminated copy dating to 1309 the author's lifetime of the work by Kutbaddin ash-Shirazi, "Durrat at-taj ligurrat al-Dibaj" ("Pearls of the Crown to Adorn Dibaj"), includes fastidiously executed diagrams (Inventory No. 816). An encyclopedia on philosophy in 'Arabic, "Hikmat al-'ayn" ("Philosophy of 'the Source") by Nasir al-Din al-Tusi's close associate, Najm al-Din 'Ali al-Qazwini, (d. 1276) enjoyed broad popularity in the countries of the Orient. The collection of the IOS under the Uzbek Academy of Sciences holds more than 40 folios of these works including copies that are calligraphically executed and adorned with 'unwans (decorative introductory panels) (Inventory Nos. 5601/ XXVI; 2979/XVIII).

#### Sh. Musaev, G. Karimov

# 2.3. LITERATURE



### **POETRY**

Literature (poetry, prose, *bayazes* (a book of poems), anthologies, folklore, *mu'amma* (logogriphs and charades), riddles and solutions, jokes, etc.) in 'Arabic, Persian, Turkic, Pashto and other languages are an integral part of the manuscript collection at the Institute.

The earliest work in the Institute's collection is "Qasida Banat Su'ad" ("A Poem of Banat Su'ad") by Ka'b ibn Zuhayr (7<sup>th</sup> century) in 'Arabic (Inventory No. 3019/II). This is a panegyric to the Prophet Muhammad. There is also a commentary on this work (Inventory No. 3076/III).

The Institute's collection holds only one manuscript dating to the 10<sup>th</sup> century. It is a work in 'Arabic titled "al-'Aqd al-farid" ("A Matchless Necklace") by Abu 'Umar Ahmad ibn Muhammad ibn Abu Rabbih (d. 940) (Inventory No. 3119).

The collection has a broad and versatile array of literature works from the 11th century in which poetry has a special place. From a chronological perspective, these masterpieces include the widely-known "Shahnama" ("A Book on Kings") by the Persian poet Abu-l-Qasim Hasan ibn Ishaq at-Tusi (d. between 1020 and 1025). The poem was completed circa 1010. The earliest copy of "Shahnama" dates back to 1450, while the most recent dates to 1865. The collection contains 20 folios of this work. Most of them are colorfully illuminated and transcribed using exquisite *Nasta'liq* script.

Earlier works from the 11<sup>th</sup> century include small 'Arabic verses by Abu 'Ali ibn Sina titled "Al-qasida an-nafsiyya" ("Qasidat on Soul") with allegoric and Sufi content, and an anonymous detailed commentary in Persian (Inventory No. 3373/III).

Unique poems from 11<sup>th</sup>-century poets Mawlana Abu-l-Hasan 'Ali Farruhi Tirmizi (d. 1037) and Ma'sud Sa'd Salman (d. between 1060 and 1121) and their biographies (Inventory No. 160) have also survived in the collection.

The Institute depository possesses rare works of ancient Turkic literature such as "Kutadgu bilik" ("Blessed Knowledge") by Yusuf Balasugun who wrote this piece in 1069–1070 (Inventory No. 1809), and a rare "Diwan" ("A Collection of Poems") by Abu-l-Faraj Runi, an Indian poet who lived in the second half of the 11<sup>th</sup> century (Inventory No. 2141). His poems influenced the works of many Persian-speaking

poets, especially the famous poet-eulogist from the 12<sup>th</sup> century, Awhad al-Din Anwari. This "Diwan" is excellently illuminated with three miniature paintings of later origin. It was transcribed in 1694.

Literature of the 12<sup>th</sup> century is more abundant and diverse than that of previous centuries. Works by Persianspeaking, Turkic-speaking and a small number of 'Arabic poets such as 'Umar Khayyam, Arzaki, Hasan Ghaznawi, Muazzi, Sana'i, Mukhtari, 'Abd al-Wasi', Muhi, Khoja Ahmad Yassawi, Anwari, Khaqani, and others are noteworthy in this regard.

Another good example of literature is "Ruba'iyat-i 'Umar Khayyam" ("Quatrains by 'Umar Khayyam") by renowned scientist and poet Abu-l-Fath 'Umar ibn Ibrahim al-Khayyam al-Nishaburi (d. 1128). The collection of the Biruni Institute has 15 folios. The most complete and earliest of them is a manuscript copied in the 15<sup>th</sup> century (Inventory No. 142/II). It contains 385 quatrains inscribed into exquisite headpieces of a sumptuously decorated manuscript, "Diwan-i Khafiz-i Shirazi" ("A Collection of Poems by Khafiz Shirazi") between separate *ghazals* on 130 folios (fol. 22b–202b). Most folios of "The Quatrains" are delicately illuminated and transcribed using calligraphic *Nasta'liq*. There are a varying number of quatrains in different folios.

Samples of poems by poets of the 12<sup>th</sup> century are represented in the works of Abu-l-Mahasin Abu Bakr Hakim Arzaqi (d. 1132) and Sayyid Hasan Ghaznavi (d. 1140) with brief biographies in the "Bayaz" ("A Collection of Poems") (Inventory No. 160/IV, 160/VII).

Poem excerpts by a little-known poet named Muhammad ibn 'Abd al-Malik Muizzi (d. 1147) and the compiler's

foreword, "Bayaz-i ash'ar," are highlighted in the manuscript (Inventory No. 238/XI).

The works of the famous poet and Sufi Abu-l-Majd Majd al-Din ibn Adam Hakim Sana'i Ghaznawi (d. 1150 or 1181) are broadly represented in the collection: three "Diwans" (Inventory No. 760) which contain the poet's biography and a detailed foreword; a famous Sufi poem, "Hadiqat alhaqiqat va shari'at al-tariqat" ("The Garden of Truth and Divine Law of a Mystical Path") in six folios; and "Saqi-nama" ("A Poem of a Cupbearer") in one copy. "The Garden of Truth and Divine Law of the Mystical Path" was written in 1140. Its artistically-illustrated copy was transcribed in calligraphic script on silk paper in 1601.

Selected poems by little-known poets 'Usman Mukhtar Ghaznawi (d. 1159) and Mawlana 'Abd al-Wasi' Jabli (d. 1160) are represented in "Bayaz" (Inventory No. 160/III and 160/VI.).

"Diwan-i Muhi," attributed to Muhiddin Sayyid Abdulqadir Jilani also known by his alias Gaus al-A'zam (d. 1166), consists of poems with Sufi content. Gaus al-A'zam was the founder of the *Qadiriyya* fraternity. His work was transcribed in Khorezm in 1889. Besides "Diwan-i Muhi" he also authored a eulogy of Sufi content titled "Qasidat al-khamriyya" ("An Ode to Wine"). The Institute collection holds three of the folios for "An Ode to Wine" and two folios of its interpretation *(sharh)*.

Literature from the 12<sup>th</sup> century is also associated with the name of a famous Central Asian Sufi and missionary among Turkic-speaking peoples and tribes, Khoja Ahmad Yassawi (d. 1166). The collection possesses tens of folios of his "Diwan" and excerpts from his poems. The poems are of Sufi and didactic nature and are also known as "Hikmat" or "Khoja Yassawi Hikmatlari" ("Wisdom of Khoja Ahmad Yassawi"). Folios of this work are different in volume and contain from 70 to 257 folios transcribed in different years. The earliest copy (Inventory No. 4700/IV) was transcribed in 1718, while the most recent one was transcribed in the 19<sup>th</sup> century.

The poetic legacy of Awhad al-Din Anwari (d. 1189), the poet-eulogist during the rule of the Seljuks, is represented in five folios of his "Diwan" and three folios of "The Qasid" ("Eulogic Ode").

Literature from the 13th century is broadly represented in the collection. Thse includes works by famous poets such as sheikh Nizami Ganjawi (d. 1200 or 1209) and represented in full in the collection; Zakhir Faryabi (d. 1201); 'Imad al-Din Khujandi (d. 1227); Farid al-Din 'Attar (d. 1230), represented in full in the collection; and Mu'in al-Din Hasan Sanjar al-Chishti (d. 1236), who was the founder of the Chishti Order of Sufis. Other authors from this century include little-known poets such as Asir al-Din 'Ummani Hamadani (d. 1266 or 1267); Khoja Shihab al-Din 'Utarid (d. 1252); Sayfaddin Isfarangi (d. between 1261 and 1267); and Mawlana Jalaladdin Rumi (d. 1273), the founder of the Mawlawiyya Order of Sufis and author of several works including the world-famous "Mathnawi-yi Rumi" ("Mathnawi [couplets of Jalal al-Din] Rumi"), certain excerpts and a commentary on "The Mathnawi," and "Diwan-i Shams-i Tabrizi" ("A Collection of Poems by Shams Tabrizi"). The collection also includes "Diwan-i Iraqi" by sheikh Fakhraddin Ibrahim Hamadani Iraqi (d. 1289) and others.

Works by famous poet Muslihiddin Sa'di Shirazi (d. 1291) are also abundant in the collection. For example, "Kulliyat" (Inventory No. 2148) was transcribed in 1326. This copy is the earliest of all existing manuscripts of this author and

it is exquisitely illustrated. It is transcribed in calligraphic *Nasta'liq* script using gold and cinnabar on silk paper. His other works, "Bustan" ("Garden"), "Gulistan" ("Rose Flower Bed"), "Diwan-i Sa'di Shirazi" ("A Collection of Poems by Sa'di Shirazi"), and "Ruba'iyat-i Sa'di" ("Quatrains by Sa'di") are available in several folios and are in good condition.

A famous work by 'Arabian poet Abu 'Abd Allah Sharaf al-Din Muhammad ibn Sa'd al-Busayri (d. 1294) titled "Qasidat al-burda" ("A Poem of the Mantle"), is an ode of praise for Prophet Muhammad. It is represented in multiple copies in 'Arabic with translations and commentaries in Persian and Uzbek.

Works of poets, writers and representatives of Sufi fraternities from the 14<sup>th</sup> century are prevalent. The collection has "Intikhab-i ash'ar-i Diwan-i Humam" ("Selected Poems from *Diwan* by Human") by Khoja Humam Tabrizi (d. 1313); Sufi poems titled "Zad al-musafirin" ("Provision for the Travelers"); "Qalandar-nama" ("A Book on Qalandar"); "Si nama-yi Husayni" ("Thirty Letters of Husayni"); and "Kanz al-rumuz" ("Treasury of Signs") plus others by Amir Husain Fakhri Sadat (d. 1319), which are contained in several folios in the collection. A Sufi poem "Gulshan-i raz" ("Rose Garden of Secrets") includes questions and answers by Mahmud ibn 'Abd al-Karim Shabistari (d. 1320). Its excellently illustrated manuscript was executed in 1317 during the author's lifetime.

The Institute's collection includes works of widely-known poet and statesman Amir Khusraw Dihlawi (d. 1325) including "Kulliyat" and "Diwan" in several folios and "Khamsa" ("Quintuplet"), which contains five known heroic, romantic and historical poems. This copy is the earliest of existing "Khamsa" manuscripts by the poet. It

is noteworthy that three poems from the "Khamsa" such as "Khusraw wa Shirin" ("Khusraw and Shirin"), "Iskandarnama" ("The Book of Iskandar") and "Hasht bihisht" ("Eight Paradises") were transcribed by the famous poet-lyricist Shamsaddin Muhammad Khafiz Shirazi.

Literature of the 14<sup>th</sup> century is also reflected in many poetic works of a Sufi nature by other writers. Specimens of these works are kept in the collection of the Biruni Institute (Inventory No. 192, 999, 1085, 1344/XIII, 115, etc.).

The collection contains several folios of "Diwan-i Khafiz" by famous lyricist Shamsaddin Muhammad Khafiz Shirazi (d. 1389) and a series of commentaries on some poems. The collection offers beautifully decorated folios of *Diwan* manuscripts by the poet. The earliest of all *Diwans* is "Diwan-i Khafiz" (Inventory No. 730) re-written in calligraphic *Nasta'liq* script in 1577 and decorated with an elegant 'unwan. Most folios were transcribed using either calligraphic or neat *Nasta'liq* script, truly book art.

Literature of the 15<sup>th</sup> century is abundant and versatile in the collection. These include an abstract from "Diwan" by Mawlana Bisati Samarqandi who lived during the reign of Khalil-mirza from the Temurid Dynasty (1404–1409); a rare lyrical poem titled "Yusuf wa Zulayha" by little-known poet of classical Uzbek literature, Durbek, and written in 1409 in Balkh; and "Vali-nama" ("A Book about Saints") by Khafiz Allah Harabati. This last work is a narrative about early representatives of Muslim theology and jurisprudence, from the Prophet Muhammad to Husayn Mansur Hallaj (executed in 922). Other works include an abstract from the "Diwan" of Jamal al-Din Abu Ishaq-i Shirazi Bashaq (Inventory No. 238/III; and "Diwan" and "Majmu'a-yi qasayid-i Khoja" ("Collection of the Master's Odes") by Ismatallah

Bukhari (d. 1425); and a treatise on Sufism titled "Hujjat al-anzar" ("Proof of Views") by Muhammad Salih Nidai-yi Samarqandi whose illuminated copy was transcribed by Mir Ali Katib, a well-known Herati calligrapher (15<sup>th</sup> century) during 'Alisher Nawai's lifetime.

The "Diwan" of 'Ali ibn Nasir ibn Harun ibn Abu al-Qasim al-Husayni al-Tabrizi Qasim-i Anwar (d. 1431 or 1433), and his Sufi poem "Anis al-arifin" ("A Friend of the Cognizant"), are available in multiple folios.

The rich poetry of Muhammad ibn 'Abd Shams aldin-i Nishapuri Katibi (d. 1434–1435 from plague) consists of "Kulliyat" ("Diwan"), "Ghazaliyat wa qasayid" ("Ghazals and Odes"), "Si name-yi Katibi" ("Thirty Letters of Katibi"), and "Dah bab-i Katibi" ("Ten Chapters of Katibi"). These works are represented in multiple folios and are artistically decorated.

The manuscript collection possesses three folios of "Diwan-i Lutfi" by the Uzbek classical poet Lutfi (d. 1492 in Herat) (Inventory No. 5023/I) which comprises two *qasidahs* and 230 *ghazals*. Another more complete "Collection of Poems" consists of 2 *qasidahs*, 279 *ghazals*, and 18 *Ruba'iyats* and is transcribed in calligraphic *Nasta'liq* script.

The collection has a broad and prolific body of works by famous poet Nuraddin Abdarrahman Jami (1411–1492), including "Kulliyat-i Jami," which is an autograph of the author written in *Naskh* script. Another major poetic work by Jami titled "Haft avrang" ("Seven Stars of Ursa Major") is a collection of seven poems—"Silsilat al-dhahab" ("Golden Chain"); "Salaman wa Absal" ("Salaman and Absal"); "Tuhfat al-ahrar" ("A Gift to the Free"); "Suhbat al-abrar" ("Rosary Beads of the Righteous"); "Yusuf wa Zulaikha" ("Yusuf and Zulaikha"); "Layli wa Majnun" ("Layli

and Majnun"); and "Khiradnama-yi Iskandar" ("A Book of Iskandar's Wisdom"). The copy is well illustrated and was transcribed in 1490 during the author's lifetime.

The collection possesses three *diwans* by Jami—"Fatiha al-shabab" ("Diwan at the Beginning of Youth"); "Wasita al-'aqd" ("The Middle Pearl of the Necklace") an autograph; and "Khatimat al-hayat" ("The End of Life"). Additional works include "Diwan-i ghazaliyat Jami" ("A Collection of Ghazals by Jami"), "Ruba'iyyat-i Jami" ("Quatrains of Jami") and other works. They are colorfully designed, transcribed in calligraphic *Nasta'liq* script with frontispieces, and illuminated with high-quality miniature paintings.

The development of literature, science and art during the second half of the 15<sup>th</sup> and early 16<sup>th</sup> centuries in the Mawaraannahr and Khurasan areas, particularly in Herat, is associated with 'Alisher Nawai, a statesman, humanist, poet and writer, and the founder of Uzbek classical literature. His works are represented widely in the treasury of the Institute. The earliest work from Nawai, according to the time of creation and the date of correspondence, is "Khamsa" ("Quintuple") (Inventory No. 5018) consisting of the following poems—"Hayrat al-Abrar" ("Wonder of the Righteous"); "Majnun wa Layli" "Bahram-nama" ("A Book about Bahram"); "Farhad wa Shirin;" and "Sadd-i Iskandari" ("The Wall of Alexander").

The collection has significant number of folios of "Quintuples" both in full and as individual poems. Most of them are exquisitely illuminated.

In addition to the "Quintuple" folios, the manuscript collection is adorned with other rich works, including "Chahar diwan-i Nawai" ("Four Diwans by Nawai") (Inventory No. 677); "Gharaib al-sighar" ("Wonders of Childhood");

"Navadir al-shabab" ("Rarities of Youth"); "Bada'i' al-wa-sat" ("Curiosities of Middle Age"); and "Fawa'id al-kibar" ("Benefits of Old Age"). All of them are artistically decorated while some are illustrated with exquisite miniatures.

Several additional poetic works from Nawai in the collection include "Lisan at-tayr" ("Language of Birds"); "Nazm al-jawahir" ("A String of Pearls") (Inventory No. 1743/I), which is an anthology of poets with an extensive prosaic preface; "Chihl hadith" ("Forty Hadith") written in 1485 (Inventory No. 1315/VI); "Mukhammasat-i Nawai" ("Quintuples by Nawai") (Inventory No. 1135/VI); "Bayaz-i Nawai" ("Poetical Works of Nawai") (Inventory No. 237/II); and others.

"Bayaz" (Inventory No. 159) contains extracts of poems from the "Diwan" of Mawlana Nizam Astarabadi (d. 1506), "Diwan" by Asifi (d. 1514), and other poets.

Works of Mawlana Hatifi (d. 1521) are abundant. The collection has his "Timur-nama-yi Hatifi" ("A Book by Hatifi about Temur"), also known as "Zafar-nama-yi Hatifi" ("A Book of Hatifi about Victories of Temur"), a poetic story about Amir Temur (Inventory No. 2204), which is an excellently-designed copy with miniature paintings transcribed in 1536; "Khusraw wa Shirin," a love-lyric poem (Inventory No. 208); "Haft manzar" ("Seven Images") (Inventory No. 1087/II); and others.

Sixteenth-century literature is represented in the collection by a rare folio titled "Diwan-i Hitai" (Inventory No. 1412). This collection of poems in Azerbaijani by Shah Ismail Safawi (1502–1524) and known by his alias "Hitai" is a luxurious manuscript copied in 1535. The collection includes the Sufi poem "Shah wa darvish" ("Shah and Dervish") (Inventory No. 200/1) by poet Hilaliyi Astarabadi (d. 1529) who studied under the guidance

of 'Alisher Nawai; "Mazhar al-anwar" ("The Phenomenon of Light") a Sufi poem by Hashemi-yi Kirmani known by his alias Shah Jahangir; and a luxurious copy titled "Kulliyyat-i Salma" (Inventory No. 1317).

There is a unique manuscript in good condition, "Kitab-i kulliyyat-i zarb-i 'Ubaydallah-khan" ("Book of the Full Collection of Poetical Works by 'Ubaydallah-khan"). The author is 'Ubaydallah-khan ibn Mahmud Sultan from the Shaybani Dynasty, which ruled in Mawarannahr from 1533 to 1539 and wrote under the alias of 'Ubaydi. The *Diwan* is a collection of his 12 works in Tajik and Uzbek, including "Sabr-nama" ("A Book of Patience"), "Shavqnama" ("A Book of Passion"), "Ghayrat-nama" ("A Book of Jealousy"), "Mathnawi" ("Couplet"), "Mu'amma" ("Logogriphs," "Riddles"), and others. The folios are exquisitely executed in *Nasta'liq* script with the text located within frames of gold and colored lines.

The collection possesses several folios of "Diwan-i Hayali" by Turkish poet Muhammad Hayali (d. 1556) and "Diwan Fuzuli" by Azerbaijani poet Sulayman Fuzuli Bagdadi (d. 1555 or 1556; according to other data, d. 1562 or 1563). "Diwan-i Fuzuli" features a foreword titled "Diwan, Maktub-i Fuzuli ba hidmat-i hazrati Nishanji padsha" ("A Message of Fuzuli to Nishanji Pasha") and dates back to 1581. It is the most ancient of all known folios (Inventory No. 7260). The collection also contains "Layli va Majnun," "Husn va ishq" ("Beauty and Love") and "Ghazaliyyat" ("A Collection of Poems").

Different poetry collections feature poetic specimens by Inshayi, Tayyib, Abid, Muhtasham Shahidi, Ghazali-yi Mashhadi, Mawlana Vakhsh-yi Yazdi and others who lived in the 16<sup>th</sup> century.

The collection has poetic works by the famous Shaibani court poet Abdallah-khan Mawlana Abdarrahman Mushfiki Marwazi (d. 1588) such as "Kulliyyat-i Mushfiki" consisting of four parts: "Qasayid wa madayih wa tavarikh wa mukata'at wa ruba'iyyat" ("Odes of Fame, Chronograms, Small Poems, Impromptus and Quatrains"); a love poem "Gulshan-i iram" ("Rose Garden of Paradise"); and "Diwan-i Mushfiki, Mutayibat wa hazliyyat wa hajwiyyat" ("Humorous Poems and Satire") (Inventory No.113); and other works from this author, including "Sadu yak pandi Mushfiki" ("One Hundred One (Poetic) Expressions of Mushfiki"); "Qasa'id-i Mushfiqi" ("Odes by Mushfiki"); "Bayan-i sayr-i Hirat" ("A Story about a Walk around Heart"); "Fal-nama" ("A Fortune Book") and others. Some of the works can be found in several folios.

The Institute's collection has "Selected Poems" in good preserved condition by other poets who lived in the late 16<sup>th</sup> century, such as Urfi-yi Shirazi (d. 1590), Khuzuri (d.1591), Jalal, and Fayzi ibn Mubarak (d. 1595).

Literature from the 17<sup>th</sup> century is diverse and rich in the collection. A significant number of poems may be found in "Bayazes," for example, which is poems by Muhammad Akram Ghanimat Mulla Naw'i Khabushani (Inventory No. 201, 202, 58) and poem specimens by Mir Zaman-yi Yazdi (d. 1612) with an introduction by a scribe (Inventory No. 238).

Poetry from Mawlana Zula Havansari (d. 1616) is represented in his work "Sab'a-yi sayyara-yi Zulali" ("Seven Planets of Zulali") (Inventory No. 194). It consists of seven romantic poems: "Mahmud va Ayaz;" "Shu'la-yi diydar" ("Flaming Gaze"); "Sulayman-nama" ("The Book of Sulayman"); "Husn-i gulusuz" ("Breathtaking Beauty"); "Azar

va Samandar" ("Fire and Salamander"); "Hira wa khurshid" ("A Speck of Dust and the Sun"); and "May-khana" ("Tavern").

There is a rare copy titled "Diwan-i Zukhuri" by little-known author Nuraddin Muhammad Zukhuri-yi Turshizi (d. 1615) who was a court poet for Ibrahim II Adilshakh (1579–1626) (Inventory No. 658/1). He also wrote "Saqinama" ("A Book about a Cup-bearer") in two folios (Inventory No. 210).

Specimens of Sufi poems by poet Muhammad Amili (d. 1621) and his poem "Nan wa halva" ("Bread and Sweets") are kept in one symposium (Inventory No. 4320/VIII, IX).

Mawlana Sayyid Hasan's literary heritage is represented in the collection by a beautifully decorated copy executed in 1623 as a *Bayaz* during the poet's lifetime and contains *qasidas* and *muththammanat* (octaves) (Inventory No. 179).

There are several more *Diwans* and poems by other authors of that time (for instance Inventory No. 167, 2548/II, 158 and others).

Literature from the 18<sup>th</sup> century has an important place in the collection. Saykali is one of the most prominent poets from this period. He wrote "Kitab-i Saykali" ("A Book of Saykali") and "Vafat-nama-yi Paygambar" ("A Book about the Death of the Prophet") (Inventory No. 222/1). He also wrote a love-lyric poem titled "Bahram va Gulandam" (Inventory No. 3430/III), and "Akhtam-nama" ("A Book about Akhtam") (Inventory No. 220/I).

It is also worth noting several specific works, including "Diwan-i Athar" by poet Akhund Shafi'a Athar-i Shirazi (d. 1701) (Inventory No. 119); "Diwan-i Mulkhim" by Bukharan poet Mulla Abdullah Bukhari Mulkhim, a contemporary of Abulfayz Khan (1711–1747) from the Ashtarkhanid Dynasty (Inventory No. 130/I), and his "Layli va Majnun"

(Inventory No.200/II); and excerpts from poems by Mullah Abdalkhalik Azar Nasafi (Inventory No. 130/II).

Multifaceted creativity, rich literary content and the spiritual heritage of the famous poet Mirza Abdalkadir Bedil (1644–1720) is fully represented in the manuscript collection of note are his "Kulliyat" consisting of "Diwan, Nukat-i Bedil" ("Witty Expressions of Bedil"); "Tilsim-i khairat" ("Talisman of Mystic Trance"); and "Muhit-i a'zam" ("The Greatest Ocean"), a poem of Sufi content embodying the poet's philosophical views. The collection also includes "Sayr-i Hirat" ("Journey to Herat"); "Mathnawi-yi ramz va ima" ("Couplets of Allegorisms and Symbols"); and "Mirat-i Allah" ("The Mirror of God") (Inventory No. 4414) transcribed in semi-Shikaste script on glossy thick paper produced in Kokand and artistically decorated. Some works from the "Kulliyat" are transcribed in separate folios.

In addition to "Kulliyyat," the collection possesses "Majmu'a min tasnif ibn al-ma'ani Mirza Abdalkadir Bedil" ("A Collection of Works from 'The Son of Mental Values' of Mirza Abdalkadyr Bedil") (Inventory No. 2858) which features 16 works by the poet. The collection also has his individual essays which were not included in "Kulliyyat", including "Qasayid-i Bedil" ("An Ode by Bedil") of Sufi content; a poem about the basics of Sufi doctrine, "'Irfan" ("Knowledge"); a poem about mystical knowledge titled "Tawr-i ma'rifat" ("The Path of Knowledge") (Inventory No. 1264/II); "Diwan-i Bedil" ("Collected Poems by Bedil"); "Ruba'iyyat Bedil" (Inventory No.1000); and others. Many of the works by this poet are found in multiple folios.

Literature from the 18<sup>th</sup> century is also represented in the collection by the works of the famous Uzbek poet and translator Rahim Baba-yi Namangani, better known by his alias Diwana-yi Mashrab (second half of the 17<sup>th</sup> to the beginning of the 18<sup>th</sup> century), and Sufi Ibn Allayara Allakuli (d. 1720).

The collection has "The Diwan" of Rahim Baba-yi Namangani (Inventory No. 3674), which is a work of Sufi content written in Uzbek and partly in Tajik.

The literary heritage of poet, translator and commentator Sufi Ibn Allayar Allakuli is also included in the collection. He was widely known in Central Asia as one of the key representatives of Sufism. His works in the collection include "Thabat al-'ajizin" ("Persistence of the Weak") regarding moral nature in the spirit of the Muslim religious doctrine with Sufi overtones (Inventory No. 238, 1902/IV, 2043, etc.); "Murad al-'arifin" ("The Purpose of Those Who Have Learnt the Truth"), which is mainly a glossary of Sufi terms (Inventory No.2900/XX); "Tuhfat at-talibin fi sharkh abyat murad al-'arifin" ("A Gift to Seekers (of the Truth) as a Commentary on Poetry Works," "The Purpose of Knowing the Truth"), a commentary on a Sufi treatise (Inventory No. 1657/1); "Maslak al-muttagin" ("The Path of the Pious"), describing religious and ceremonial duties of Muslims in the spirit of Sufi beliefs (Inventory No.1657/I, 1387, etc.); and "Sharkh-i Mathnawi" ("Interpretation of Couplets"), an Uzbek collection of poems by an unknown Tajik poet (Inventory No. 1294).

"Diwan-i Imla" by Akhund Mulla Muhammadi Imla (d. 1749), a popular poet with the Sufi outlook, contains more than 20 folios (Inventory No. 2342), including "Diwan-i Siraji" by Sirajaddina 'Ali-khan Arzu (d. 1756) (Inventory No. 1022); "Diwan-i shuur va 'Ishq" ("Collection of Poems on Emotions and Passionate Love") (Inventory No. 2131), a collection of poems of a Sufi content by Mawlana Sayyid

al-Husseini al-Kabuli; "Diwan-i Ashiqa" by Aga Muhammad Isfahani Ashiq (d. 1767) (Inventory No.2131); a superbly designed "Diwan" in the Pashto language by Ahmad-shah Durrani (1747–1773), the founder of the modern Afghan state (Inventory No. 4252); and others. Many of the above collections of poems are beautifully decorated and transcribed in neat *Nasta'liq* script. Some of them are in several copies.

The collection of the Institute of Oriental Studies has specimens of literature dating to the 19<sup>th</sup> century in Uzbek, Tajik and Turkmen languages. Many poets of this period in Central Asia wrote in two languages—Uzbek and Tajik. *Bayazes* composed in different years contain samples of poems. For instance, poems by poet Mullah Muhammad Ghazi-yi Khukandi (18<sup>th</sup> to the 19<sup>th</sup> centuries) are in Uzbek and Tajik. Samples of poems by poet Khuvayd are in Uzbek (Inventory No. 121; 77). There is also a work titled "Kulliyyat" by Huwayda (Inventory No. 3430/1).

The collection also has "Diwan-i Binawa" ("The Divan of Binawa") (Inventory No. 169), "Ghazaliyyat-i Mijmar mucamma ba tukhfat al-muluk" ("Ghazals by Mijmar Titled 'A Gift to Sovereigns'") (Inventory No. 1116/V), and several folios titled "Diwan-i Shayda" by poet Shayda (Inventory No. 905/III, 1037/V, 1868, etc.).

Literary works from the famous historical scientist and littérateur Shermuhammad ibn Avaz-biy Mirab are represented in several of the collection's copies, particularly "Diwan" transcribed in 1804 in Khiva during the author's lifetime (Inventory No. 1330/I).

The manuscript collection of the Biruni Institute also contains "Diwans" of Uzbek poets including Muhammad Yusuf Mahdum Razhi, a Khorezmian poet from the 19<sup>th</sup>

century (Inventory No. 1271), for example his "Mukhammasat" ("Quintuples by Razhi") (Inventory No. 1135/III). Also in this collection is "Mukhammasat-i Khalis" ("Quintuples by Khalis") by little-known Khorezmian poet Yakub Khoja ibn Ibrahim Khoja Khalis (Inventory No. 1135/IV) and "Diwan-i Muqimi" ("A Collection of Poems by Muqimi") by Muhammad Amin Khoja Muqimi (1853–1903), a famous Uzbek poet from the second half of the 19<sup>th</sup> century (Inventory No. 7521); among others.

The creative legacy of Mirza Muhammad Sadiq Munshi, a contemporary and secretary of Bukharan emirs Shah Murad and Khaydar, is represented in several of the collection's works—"Musannifat-i Mirza Sadig Munshi" ("Works by Mirza Sadiq Munshu") (Inventory No. 1896, 1792), which includes "Qasidah" without a specific title to the burial vault of Shaikh Bakhaaddin Nakshband: "Dakhma-yi shakhan" ("A Royal Shrine"); "Qazo va gadr" ("Fate and Predestination"); "Du gasida" ("Two Qasidahs"); "Ash'ar-i tarikhi" ("Poems—Chronograms"); as well as individual works by the poet, including "Tarikh-i manzum" ("History in Verses") (Inventory No. 2731/III) and "Futukhat-i amir Ma'sum va amir Khaydar" ("Victories of Emir Ma'sum (Shah-murad) and Emir Khaydar") (Inventory No. 40/IV). This manuscript also contains his works "Dakhma-yi shahan" and "Kissa-yi Shah-i Darwaz" ("The Ode to the Shah of Darvaz").

The collection has a series of anecdotes and stories in verse in a variety of works, including "Kitab-i Munis-khan" ("A Book of Munis-khan") by an unknown author (Inventory No. 3856/V); "Diwan-i Afghan" by Mullah Gul Muhammad Afgan (Inventory No. 2041); "Ishratkada-yi afak" ("The Temple of Worldly Pleasure") by Indian

poet Maharaji Chandu La'l Shadana (d. 1863) (Inventory No. 128); and "Diwan-i Amiri" in Uzbek and Tajik by Amir Muhammad Umar Khan Khukandi (d. 1822), a Kokand ruler using the alias "Amir."

Several *Bayazes* contain "Muhammasat-i Munis" ("Quintuple by Munis") by Uzbek poet Sher Muhammad ibn Amir Ivaz-biy mirab Munis (d. 1829), and poem samples by Mirza Junayd Allah Makhdum-i Hirawi Haziq (killed between 1830–1834), as well as his poem "Yusuf wa Zulayha" (Inventory No.1088, 1135/II, VII; 159/I; 1064).

The collection has works by Mulla-yi Jum'a kuli-yi Urguti, a famous Qadi from Urgut during the reign of the Bukharian Emir Nasrallah (1827–1860), such as "Diwan-i Humuli" (Inventory No. 37/III); a poem titled "Shah wa gada" ("A King and a Pauper") (Inventory No. 37/I); "Malfuzat tarikhiyya" ("Chronogram"); and others.

The collection features "Diwan-i Makhtum-ku" by a Turkmen poet (d. 1841), which contains 129 songs. This is the most complete of the famous poet's *Diwans* (Inventory No. 3330/I). The collection also has his incomplete *Diwan* (Inventory No. 5341/III).

There are two folios of "Diwan-i Shah Shuja'" by Shah Shuja', also known as Shuja 'al-mulk, an Afghani emir of the Durrani Dynasty. The second copy of the *Diwan* executed in Khorezm (Inventory No. 934) is luxuriously decorated and has an exquisite 'unwan. The collection also possesses an autograph titled "Bayaz-i Shahin" ("Collected Works Shahin") of Bukharian poet Shamsaddin Mahdum-i Bukhari Shahin (d. 1893).

Poetry from the 20<sup>th</sup> century is represented in the collection in the manuscripts of "Diwan-i Umidi" or "Tasvidat-i muhabbat" ("Sketches on Love") by Umidi, a poet

from Ferghana (Inventory No. 1942/II); "Tuhfa-yi Sharif" ("A Glorious Gift") in the autograph of author Muhammad Ni'matallah Mukhtaram (Inventory No. 2961); "Qissa-yi Varaqa va Gulshah" ("A Story about Waraqa and Gul-shah") by an anonymous author (Inventory No. 226/III); "Diwan-i Khiyali" by Khiva poet Muhammad Nazar Khiyali, the son of Mahmoud Niyaz yasaul-bashi (Inventory No. 903/IV); "Diwan-i Siraji" by Mirza Sirajaddin Hakimi Bukhari (d. 1913) (Inventory No.854/III); an autograph of Abdarrakhman Bukhari Tamkin (d. 1917 or 1918) titled "Ruba'iyyat-i Tamkin" ("Quatrains by Tamkin") (Inventory No. 136); and many other works (Inventory No.1303; 951, 4304, etc.).

The Institute's collection possesses a large number of *Bayazes* composed in the 20<sup>th</sup> century (Inventory No. 227, 348, 234, and etc.).

### **PROSE**

The Institute's manuscript collection has rich and versatile prosaic literature in 'Arabic, Persian and Uzbek. The earliest prosaic literary pieces date to the 9<sup>th</sup> to the 11<sup>th</sup> centuries. This includes "Kitab al-hasid va al-makhsud" ("A Book about an Envier and Object of Envy") by Amru ibn Bakr al-Jakhiz (d. 869) (Inventory No.2956/VIII). The most recent prosaic literature dates to the 20<sup>th</sup> century. Key works include prosaic translations into Uzbek of "Shah-nama" by Ferdawsi and performed in Kashghar in 1682 (Inventory No. 1322,1953) and in Bukhara (Inventory No.1952). Another key work is "Kitab at-tamthil al-makhazirat" ("A Book of Parables and Witty Talks") by Abu-l-Mansur Abdalmalik ibn Muhammad ibn Isma'il al-Sa'alibi (d. 1038) (Inventory No.1848/III), among others.

The prose of the 12th through the 14th centuries is represented in the collection by the folios of "Kitab al-magamat al-Hariri" ("Magams by Hariri") by Abu Muhammad ad-Kasima al-Khariri al-Basri (d. 1122 or 1123) in two copies in 'Arabic (Inventory No. 3153/II, 4425); "Majma' al-amsal" ("A Collection of Proverbs") compiled by Abu-l-Fazl Ahmad ibn Muhammad ibn Ahmad ibn Ibrakhim al-Maydani al-Nisaburi (d. 1124) (Inventory No. 3615); "Rabi' alabrar" ("The Spring of the Righteous"), a collection of proverbs, sayings and aphorisms in 'Arabic by famous persons on down-to-earth and moral issues and compiled by famous scientist-theologian and philologist, a master of 'Arabic, Abu-l-Qasim Mahmud ibn 'Umar al-Zamakhshari (Inventory No. 2384); "Jami' al-hikayat va lavami' al-rivayat" ("A Collection of Anecdotes and Brilliant Stories") by Nur al-Din Muhammad Awfi, a well-known writer and traveller (Inventory No. 2836); "Gulistan" ("A Rose Garden") by Sa'di Shirazi (d. 1291); and "Muntakhab az musannifat-i shaykh Sa'di" ("Excerpts from the Work by Sheikh Sa'di") (Inventory No. 531/II), found in several copies.

A book that is famous in the Middle East, "Char darvish" ("Four Dervishes") in Tajik and Uzbek is kept in several folios (Inventory No.1752/1, 5996, etc.). There is also a manuscript titled "Rawzat al-khuld" ("A Garden of Immortality") or "Kharistan" ("Thorny Brushwood") by Majd al-Din Hawafi comprising stories and parables in verse and prose (Inventory No. 2759/I).

Works such as "Thamarat al-awraq" ("The Fruit of [Book] Folios") by Takyaddun Abu Bakr ibn Hujjat al-Hanafi (d. 1433) (Inventory No. 2742); and "Shabistan-ikhiyal" ("The Chamber of Imagination"), a collection of remarkable stories and anecdotes (Inventory No. 90/

IV) by Yakhya Shiybak (Sibak) Nishaburi Fatahi (d. 1439) represent the collection's 15<sup>th</sup> century prose. "Kulliyat-i" by Nur al-Din 'Abd al-Rahman Jami is stored in several folios. The manuscript contains 28 prosaic and poetic works by Jami (Inventory No. 1331).

Works that represent the prose of the 16<sup>th</sup> century include "Mahbub al-qulub" ("The Beloved of the Hearts") by 'Alisher Nawai and found in several folios, including "Anwar-i Suhayli" ("The Lights of Canope") by Husayn ibn 'Ali Wa'iz Kashifi, which is a remake of a famous fable by Bidpay titled "Kalila and Dimna" (Inventory No. 2116/IV); "Iyar-i danish" ("A Touchstone of Knowledge") by Shaykh Abu-I-Fazl ibn Mimarak; and "Nigaristan" ("A Picture Gallery") by Ahmad ibn Sulayman ibn Kamal-pasha (d. 1535).

The most valuable works of the 17<sup>th</sup> and 18<sup>th</sup> century held in the collection include "Bahar-i danish" ("The Spring of Knowledge") by Sheikh Inayatallah (d. 1677); "Nuqat" ("Subtle Thoughts") by Bedil; "Mahbub al-qulub" ("The Beloved of the Hearts") by Barkhurdar in Mahmud turkman-i Farahi Mumtaz; and others.

The manuscript collection is also rich in treatise on folklore. Various folklore genres are collected here including stories, novels, fairy tales, and other works both in Uzbek and Tajik.

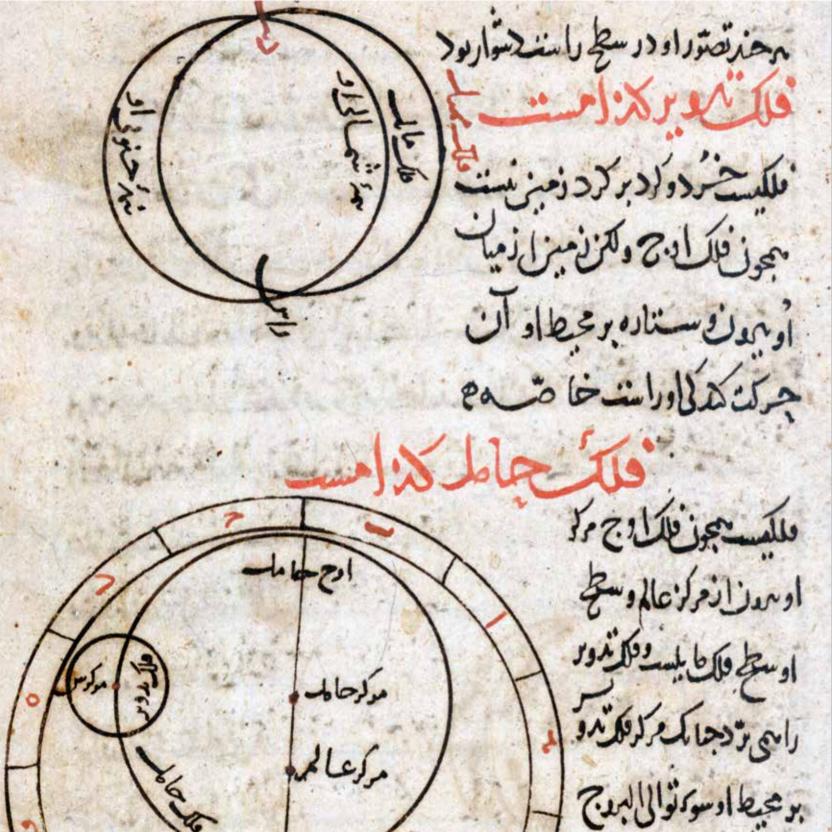
The *mu'amma* genre—logogriphs, riddles, and charades—holds a unique position in literature. The Institute's collection possesses multiple treatises in this genre. *Mu'amma* has a special place among the works by 'Abd al-Rahman Jami, Husayn ibn Muhammad al-Husaini an-Nishapuri (d. 1498), Sharaf al-Din Munajjim Mu'ammayi, Mavlana Kavkabi (16<sup>th</sup> century), and many others. However, this genre has been poorly researched.

"Tadhkira" ("Anthologies of Poets") genre also has a special place in the collection of the Biruni Institute. "Anthologies" that include samples of poems and brief biographies of certain poets present a special value for researchers. The earliest "Anthology" dates to the 15th century. This is "Tadhkirat al-shu'ara-yi Dawlatshah Samargandi" ("Anthology of Poets by Davlatshah Samargandi") in Persian compiled by Davlatshah Samargandi (1432–1494), who was a contemporary of Jami and Nawai (Inventory No. 4552); and "Majalis an-nafais" ("Rare Compendia") by 'Alisher Nawai in Uzbek. The collection has more recent "Anthologies," for example "Tazkirat ash-shu'ara" ("An Anthology of Poets") by Mutbiri-yi Samarqandi (16<sup>th</sup>–17<sup>th</sup> centuries) in a single copy. It gives biographies of 328 poets with extracts of their poetic compositions. An anthology titled "Muzakkir al-ashab" ("Remembrance of Friends") compiled by Muhammadi Badi ibn Muhammad Sharif Samargandi Malih in 1682–1692 also provides valuable information about poets. "Muzakkir alahbab" ("Remembrance of the Beloved"), another anthology compiled by Khoja Hasan Bukhari in 1566 contains biographies and poetic specimens of poets who lived after 'Alisher Nawai.

The anthology "Tuhfa-yi Sami" ("The Gift of Sami") or "Tadhkirat al-shu'ara-yi Sam Mirza" ("The Life of the poet Sam Mirza") by Sam Mirza ibn Shah Isma'il Safawi (d. 1576) compiled in 1550 (Inventory No. 4377) contains a biography and poetry specimens. "Tadhkirat al-shu'ara" ("Life Histories of Poets") by Haji 'Abd al-'Azim gives biographies of famous and little-known Central Asian poets who lived up to the mid-19<sup>th</sup> century (Inventory No. 3396/III).

"Majmu'at al-shu'ara" ("Collection of Poets" or "Collection of Poetry of the Time of (Emir) Umar Khan") contains





poems by different poets in Ferghana in Uzbek and Tajik (Inventory No. 2371). The anthology "Majmua'-yi shuara-yi Khukandi" ("A Collection by Kokand Poets") (Inventory No. 238/XVIII) includes 28 selected poems of Tajik poets who lived during the reign of Umar Khan.

An anthology ("Tadhkirat") (Inventory No. 3887/II) compiled by Mullah Muhammad Yunus Ghijduwani contains poems of more than 20 poets in Tajik and Uzbek. "Majmu'a-yi ghazaliyyat" ("A Collection of Poetry") includes poetic specimens by 60 poets in alphabetical order (Inventory No. 233).

Several *Majmu'a-yi ash'ar* ("Anthology") were written at the end of the 19<sup>th</sup> century. The most fundamental of

them is "Majmu'a ghazaliyat-yi" ("A Collection of Ghazals") (Inventory No. 3326) by an unknown compiler. The "Anthology" contains specimens of 292 *ghazals* by renowned, unknown and little-known (mostly Central Asian) Uzbek and Tajik poets. The most recent anthology, "Afzal tadhakkur fi dhikr al-shu'ara wa-l-ash'ar," was compiled by Afzal Mahmud Pirmasti (d. 1915).

This analysis shows that literature of the manuscript collection at the Institute is rich and versatile. Unique and rare specimens and autographs that are not found in other manuscript depositaries throughout the world are collected here

## B. Babadjanov

# 2.4. ISLAM AND PHILOSOPHY



## QUR'AN EXEGESIS (TAFSIRS), INTERPRETATION AND SCIENCE OF RECITATION

This part of the collection at the al-Biruni Institute is the richest, containing more than 1,200 manuscripts including the Institute's so-called "Doublet Collection." It also includes 500 copies of compositions from "supplementary Qur'anic sciences." Some of these works are small books that set forth the rules of the Qur'anic recitation (tajvid) and were mandatory in the libraries of a madrasa, although some samples came from private collections and other sources. This genre also includes works associated with Kabbalism (fortunetelling by the Qur'an/'ilm al-jafr), which are also found in the Institute's collection.

Most notable theologians or philosophers turned to commentaries on the Qur'an, not only expressing their devout respect for the Holy Book, but also trying to reason their own ideas regarding specific philosophical issues and other problems of existence. In line with the traditions of commentaries on the Koran, compositions of such nature were referred to as *ta'vil* (interpretation), where authors focused on interpretation of subtle and ambigious meanings of the Holy Book. These, for instance, include Ibn Sina's commentaries. Among these is also the *tafsir* of Sadr al-Din Muhammad ibn Ishaq al-Qunawi (d. 1273) who was a disciple of reputed mystic and philosopher Muhi al-Din ibn al-'Arabi (d. 1240). His commentary on the Qur'an (Inventory No. 3125) was titled "'Ijaz al-bayan fi sharh ba'z asrar umm al-Qur'an" ("Glorious Clarifying of the Interpretation of Some Secrets in the First Surah of the Koran"). This copy originated in the famous library of renowned Sufi shaykh Naqshbandi Khoja Muhammad Parsa (d. 1420). Most of the composition folios illustrated below also originated in this library.

The oldest manuscript of the *tafsir* stored in the collection of the Institute dates back to the pre-Mongol period (1204) and is perhaps the oldest copy in the world of the surviving works of this genre. There is one other copy in the Berlin National Library that is 100 years "younger" and titled "Tafsir al-Qur'an al-Wahidi" ("A Commentary on the Qur'an by al-Wahidi") by Abu-l-Hasan 'Ali ibn Ahmad al-Wahid

<sup>1</sup> Our'an folios as such have been described above.

al-Nisaburi (d. 1075) (Inventory No. 5115). The binding of this manuscript appears to be just as ancient and is superscripted by the bookbinder with "Muhammad Amin-Sahhaf" (the binder).

The Institute's collection also possesses a full version plus a fragment (interpretation of initial surahs) of one of the earliest Koran commentaries "Tafsir 'Abd al-Oahir" ("A Commentary by 'Abd al-Qahir") (Inventory No. 3116, 3214). One of them (Inventory No. 3116) was stored in the abovementioned library of Muhammad Parsa. Another specimen of tasfir is an ancient and rare commentary on the Qur'an composed by the famous theologian of the region, Naim al-Din Abu Hafs 'Umar ibn Muhammad al-Nasafi (d. 1142 in Samargand), titled "Taysir fi-t-tafsir" ("Simplification of the Commentary on the Koran"). The work was transcribed on ancient Samargand paper using Thuluth script. The scribe was Muhammad ibn Muhammad ibn 'Ali ibn 'Uthman al-Bukhari, who completed transcribing this copy in Khujand on Dec. 2, 1250. The distinguishing feature of this work lies in the fact that the author tries to reconcile the tradition of ta'wil (rationalistic or symbolic and allegorical interpretation) and tafsir (a commentary on the basis of sunna/tradition). This commentary was one of the works which initiated a local school of exegesis in Transoxania/ Mawarannahr.

A commentary on the Koran compiled in 1125 by the first imam of the collegiate mosque in Bukhara, Abu Nasr Ahmad ibn Husain az-Zahidi, titled "Tafsir-i Zahidi" ("Tafsir by Zahidi") is unique and sufficiently old. According to experts, this is the earliest and most comprehensive commentary of the Holy Text written by an author from Transoxania. Deposited in the collection of the Institute,

the commentary (Inventory No. 3601) presents a highly artistically executed specimen transcribed in 1558 in Bukhara on thick, glossy cream-colored paper (apparently made in Bukhara). The specimen, judging by stamps, was kept in the library of the abovementioned Muhammad Parsa.

The collection also holds an exquisitely illuminated full copy without defects and blotches of a *tafsir* by well-known theologian and Sufi Abu Hamid Muhammad ibn Muhammad al-Ghazali at-Tusi (1059–1111) transcribed in Kokand on Kokand paper in the late 19<sup>th</sup> century. The commentary is famous because its interpretations come from the Khurasan school of mysticism.

A famous theologian of the Mu'tazili (rationalist) school of theology in Khorezm, Abu-l-Qasim ibn 'Uthman al-Zamakhshari (d. 1144), left behind a commentary on the Koran that is widely known in the region. The work is titled "al-Kashshaf 'an daga'ig al-tanzil" ("[The Book] Explaining the Intricacies of Revelation") and is composed from the perspective of a rationalist interpretation of the Koran. Most of the surviving specimens at the Institute are recognized as being some of the most ancient and unique (13th to 15th centuries, Inventory Nos. 1909, 2403, 3427/II, etc.). One unique specimen that is key to tafsir was written by al-Zamakhshari and compiled by his adherent Muhammad ibn Abu-l-Qasim al-Baggali al-Khorezmi (d. 1167 or 1177). It is titled "Miftah al-Tanzil" ("A Key to Revelation") (Inventory No. 6174). The copy was completed approximately in the middle of the 14th century on Indian paper.

Early specimens of *tafsirs* include a composition by Khafiz al-Din Abu-l-Baraka 'Abd Allah ibn Ahmad ibn

Mahmud al-Nasafi (d. 1310) titled "Madarik al-tanzil wa haqa'iq al-ta'wil" ("Gaining Revelation and Insight into Truth of Interpretations"). The author is known as a lawyer of the Hanafi theological and legal school, particularly in the area of legal theory (usul) and its practical application (furu'). As Al-Nasafi wrote in the preface, he sought to rid commentaries on the Qur'an from "innovations" (bid'a), i. e., of "heretical," from his viewpoint, interpretations of previous authors. Surviving specimens in the Institute's collection are rare, but defective (Inventory No.3117/I, 3961).

There are a number of folios in the collection's depository at the al-Biruni Institute including approximately 100 commentaries on the Koran by a reputed gadi, Shiraz Abu Sa'd 'Abd Allah ibn 'Umar al-Baydawi (d. 1316). His commentary is titled "Anwar al-tanzil wa asrar al-ta'wil" ("The Light of Revelation and Secrets of Interpretation"), better known as "Tafsir al-Baydawi" ("Commentary [on the Koran] by al-Baydawi") (Inventory Nos. 2819, 4017/I, etc.). There is also an abundant glossary (hashiya) to the commentary by al-Baydawi that is little known in Islamic studies (Inventory Nos. 562/ VI, XIV, XVI, and etc.) yet indicative of the popularity of this work in the region. Tafsir by a prominent Sufi author, Mawlana Husain ibn 'Ali al-Wa'iz al-Kashifi (d. 1505), titled "Mawahib-i 'Aliya" ("Lofty Gifts") and also known as "Tafsir-i Husaini" ("Tafsir of Husaini") (Inventory Nos. 259/II, 2680, and etc.) enjoyed similar popularity in Central Asia. Manuscript and lithographed specimens of this work are numerous at the Institute and in other collections in Uzbekistan numbering approximately 100 manuscripts and more than 200 lithographs. This work was mentioned

in practically all Sufi works written in the 16<sup>th</sup> to 19<sup>th</sup> centuries in Central Asia.

There is also a series of famous *tafsirs* in Persian, some of which are accompanied with interlinear translation. Examples include a *tafsir* dating to the mid-15<sup>th</sup> century titled "Bahr al-mawaj" ("A Rolling Sea") by Shihab-i Shams 'Umari Dihlawi (Inventory Nos. 2815, 2911, and etc.), and "Tafsir-i Charhi" ("A Commentary of Charhi") written by famous Sufi Mawlana Charhi (d. 1447), among others.

"Keys" to the Koran were also compiled in the Medieval Period to facilitate the search for necessary *surahs* and *ayats*. These include the most famous work "Taysir al-Bayan fi takhrij al-ayat al-Qur'an" ("Simplifying the Explanations of Searching for versus of the Koran") (Inventory No. 2668), written by Ahmadi Han Daud.

The doctrine of "Abrogation" ("Nasikh wa-l-mansukh") is a special concept in the Muslim exegesis, i. e. about the parts (ayats) in the Koran. According to theologians, there are "abrogating" or "repealing" ayats sent to the Prophet Muhammad by God, thus "abrogating" or "repealing" previous revelation. One such work in the Institute's collection is unique, although it bears a "standard" title, "al-Nasikh wa-l-mansukh" ("Abrogating and Abrogated"). It was composed by Abu 'Abd Allah al-Ghamiri al-Isfara'ini (Inventory No. 2563/II), apparently in the 15<sup>th</sup> century.

Another area in Koranic studies includes works about the rules of recitation (reading) of the Koran (tajwid). The Institute's collection possesses a number of such works written by reputed authors (about 50 folios). The most famous work in this genre is "al-Qasida al-shatibiyya" (Inventory Nos. 3976/I, 4131/I, 5700, etc.). It was authored

by Abu-l-Qasim al-Qasim ibn Firrah al-Ru'yani al-Shatibi (d. 1194), a native of Andalusia who lived in Cairo and taught the rules of reading the Koran at Medrese alfadiliyya. Another work of the same school is "al-Taysir filqira'at al-sab'a" ("Simplification in Seven [Types] of Reading [the Koran]") by a lawyer from Andalusia, 'Usman ibn Sa'id al-Dani al-Qurtubi (d. 1053). Both of these works had an influence on local Transoxanian authors who widely used them when writing their own works in this genre. For example, there are two well-known works by a local author referring to himself as Khafiz-i Kalan that are dedicated to the explanation of different Koran recitation types (Inventory Nos. 3129/I, 3976/II).

The Institute's collection includes a significant number of folios (up to 20) of three works on *tajwid* written by a renowned theologian of the Amir Temur era, Shams al-Din Muhammad ibn Muhammad al-Jazari al-Shafi'i (d. 1429). These folios are noted for the interpretation of individual *surahs*, phrases, "glorious names of God" ("al-asma' al-husna"), and even interpretations of some letters. Some of these folios are masterpieces of book illustration. For instance, copy No. 4147/I were written on glossy Samarqand paper with its first copy decorated with a wonderful pattern (*'unwan*) using multicolored and gold-colored paints. It was transcribed in 1514 by 'Abd al-Rahman ibn shaykh Taj al-Din al-Multani. The manuscript pages are outlined with colorful margins.

Another concept in exegesis is the explication of "secret and obvious properties of the Qur'an", such as fortune-telling by *surahs* and *ayats* ("ilm al-jafr). These are also quite popular genres with various authors. The Institute's collection contains a considerable number of such works

(about 120). One example is the work by al-Hakim at-Tamimi (15<sup>th</sup> century) titled "Manafi' al-Qur'an" ("Useful [Properties] of the Qur'an"). The author narrates about "secret and obvious properties of the Koran and its healing power which is useful for diseases and ailments" (Inventory No. 3234, fol. 2a).

Muslim exegesis is not limited to commentaries on the Koran. The manuscript depository at the Institute has a work titled "Sharh-i sura-i Zabur" ("Interpretation of a Psalm") in Persian (Inventory No.2900/XXIV) and authored by a distinguished Sufi, Diya' al-Din Nakhshabi (d. 1350). According to this remark, the Prophet Muhammad recommended the psalm commenting that the "reader will achieve happiness in both worlds" (fol. 262b). The author claims to have followed this recommendation and turned "from an unknown and poor man into a famous and rich man." The author possibly spoke ancient languages since he also wrote that he had translated the abovementioned psalm from Syrial into Hebrew in verse style (fol. 363a).

### **HADITH (SAYINGS OF THE PROPHET)**

A significant number of manuscripts and lithographic editions represent this genre of literature in the Institute's collection. It is estimated that along with commentaries this genre in the collection contains at least 300 manuscripts and more than 30 publication titles. One of the ancient compendia written in the genre of fables was compiled by Abu 'Ubayd al-Qasim ibn Sallam al-Harawi (d. 837) who was the most prolific disciple of the famous 'Arabian philologist al-Asma'i

(d. 831). His book, "Gharib al-hadith" ("Oddities in the Hadith"), explains infrequent 'Arabic words and concepts that are found in the hadith. It is characteristic that among the hadith are some that go back not only to the Prophet, but also to his first four companions, his wives and other related individuals (96 persons). The specimen kept at the Institute's collection (Inventory No. 3101) is the oldest one in the world but has no beginning. It was transcribed in 955 on dark-colored unglazed paper. The scribe was Abu 'Ali al-Hasan ibn Muhammad ibn Ahmad.

The work of Abu 'Abd Allah Muhammad ibn Isma'il ibn Ibrahim al-Ju'fi al-Bukhari (d. 870) titled "al-Jami' al-sahih" ("The Aunthentic Collection") is considered one of the most reputable collections of hadith in the Muslim world. By the start of al-Bukhari's lifetime, about 1,000 hadith had been in circulation with most of them unreliable, i.e., only attributed to the Prophet. These "hadith" contradicted one another and even contradicted some Qur'anic ordinances. The author meticulously compiled the collection and included only those hadith that featured a reliable chain of transmission (isnad) traceable back to the Prophet and only via a person who actually existed. Al-Bukhari also attempted to analyze the text (matn) for its reliability, not only by considering its potential anachronism, but also by comparing the subject matter. By doing so, he considered as "hadith" only those that were spoken by the Prophet, but not his relatives or followers. The oldest copy, titled "Sahih" by al-Bukhari in the Institute's collection was transcribed in 1399 by calligrapher Amir Shams ibn Amir 'Ibad al-Nuskhi (Inventory No.3257/I). About 50 years later,

in 1444, this copy was sold via a middlemen to a minor grandson of Muhammad Parsa, Abu Nasr Parsa (fol. 1a). The manuscript then ended up in Shah-i Jahanabad in 1697 and then again returned to Central Asia when it was bought by a descendant of the very Muhammad Parsa. Such records about the "travels" of books are a rarity. The "Sahih" of al-Bukhari was subject to many commentaries, most of which are available in the Institute's collection (Inventory Nos. 5161, 4166/I, and etc.).

Another ancient compendium of hadith belongs to a scholar of the Shafi'i theological and legal school, Abu Muhammad al-Husayn ibn Mas'ud al-Farra al-Marwarudi al-Baghawi (d. 1122), who was awarded an honorary alias, Muhi al-sunna ("Reviver of the Sunnah"). His compendium, "Masabih al-sunna" ("Cressets of Sunnah"), is based on other abovementioned reputable collections by al-Bukhari, al-Tirmizi and Abu Daud and noted for a more detailed systematization of the hadith. The compendium is available in the collections of the Institute (Inventory No. 3228) and was written on thick paper, probably of Central Asian origin. Judging from paleographic properties, it can be dated to the beginning of the 14th century. The collection also contains another work by the same author, a devoted hadith titled "Sharh al-sunna" ("Explanation of the Sunnah") (Inventory No. 6097).

Thereafter, special literature on hadith became somewhat of a compilation in style, i.e., literature compiled from reliable compendia or focused on specific commentaries on hadith or extracts that were the most significant from the author's viewpoint. At the same time, thematic classification of collections facilitated the use of well-known hadith.

"Jami' al-usul ahadis al-Rasul" ("A Collection of the Hadith of Rasul [the Messenger of God]") by famous scholar Majd al-Din Abu Sa'adat al-Mubarak ibn Muhammad ibn al-Athir al-Shaybani al-Jazari (d. 1209) was one of the earliest works in this style where an attempt was made to systematize hadith by subject matter. His book is divided into three parts (rukn). Each part is divided into sections and "books" (kitab). The author attempted to systematize the hadith letter by letter (at the beginning of a hadith and its subject matter) (Inventory No. 3243). In the first part of the work, the author explained the reasons for writing this work ("for convenience of use and search"), and explains the methods for muhaddithin (i.e., those theologians who specialize in hadith) to determine the authenticity of a hadith: he also explains techniques of collection and codification. In the remaining parts, the author also explained how to find the right hadith in his work. The third section of the book is a kind of "key" for searching the hadith, and contains a very detailed and systematic table of contents for the book.

A similar collection (also popular in the Muslim world) to facilitate the search for and selection of hadith relating to "sacred genealogies" was written by the famous Egyptian scholar 'Abd al-Rahman ibn Abi Bakr al-Suyuti (d. 1505), who named his book "Lubb al-lubab fi tahrir al-Ansab" ("The Heart of the Core on Arranging the [Book] of Genealogies'"). His book is actually an abridged and more user-friendly version of a book from another famous historian and scholar 'Izz al-Din ibn al-Athir (d. 1232) titled "al-Lubab" ("The Core"). This work is also an abridgement of a huge work

by Abu Sa'd 'Abd al-Karim ibn Muhammad al-Sam'ani (d. 562/1167) titled "Kitab al-Ansab" ("The Book of Genealogies").

A small collection by Yahya ibn Sharaf al-Din ibn Muri ibn Hasan al-Nawawi al-Dimashqi (d. 1278) titled "Chihil havadis" ("A Book of Forty Hadith") was the most popular excerpt of hadith of predominantly ethical and moral nature. In fact, the book contains 42 hadith extracted from the works by al-Bukhari and Muslim, according to the author. The book was very popular in Muslim countries and in Central Asia and was translated into Persian and Turkic (Uzbek) languages (Inventory Nos. 2439/IV, 3200/III, 3294/I, etc.) and published in cities such as Kagan, Tashkent, Novo-Margilan, and others.

Over time, the topic became popular and more authors produced collections of hadith on specific topics, sometimes preserving a preset "quantity" (about "40 hadith") (Nos. 209/XIII, 2200/II, 2517/II, etc.). There were other thematic hadith (mawdu') collections which often included unreliable or hadith that could only be traced back to a Companion of the Prophet, but not the Prophet himself. This included, for example, a collection of hadith titled "Managib al-sadat" ("The Degrees of Perfection of the Prophet's Descendants") written by Sayyid 'Ali ibn Shihab al-Hamadani (d. 1387). The collection, as the author writes, is dedicated to "the glorification of descendants of the Prophet's son-in-law and fourth caliph 'Ali" (d. 651), and is a compilation of hadith with the "summary of their merits," and the requirements of integrity of "the Prophet's family" (Inventory No. 480/XLI). The collection was popular among both Shiites and Sunnis.

### FIQH (ISLAMIC LAW)

This corpus of manuscripts is, perhaps, the most numerous in the literature preserved in the Institute's collection with approximately 2,300 copies and 188 titles. Works in this genre can be divided into the "theoretical" (usul) usage and the practical application of rules and ordinances of fiqh in different areas (furu' al-fiqh). However, major works on jurisprudence, as a rule, contained provisions for both aspects of fiqh. Muslim jurisprudence developed into various schools of thought, (madhhabs) and often received eponyms in honor of their founders.

Four "Sunni madhhabs"—Hanafi, Maliki, Shafi'i and Hanbali—have survived. They mainly differ in how they make theological and legal decisions on various legal issues, the acceptance or rejection of certain methods and tools for making those decisions, the recognition or non-recognition of the norms of customs ('urf) as a source of law, and other issues. Another canonical madhhab is the Ja'fari theological and legal school which is the official legal system in Iran.

The foundational madhhabs were identified based on eponyms, and they were developed and shaped by their followers in specific areas. In this respect, the contribution of Central Asian scholars, in particular those from Bukhara, Samarqand, Tashkent, Ferghana and other areas in the development of the Hanafi and Shafi'i madhhabs, was significant. The most numerous, in terms of the number of adherents, is the Sunni Hanafi madhhab. Its eponym, Abu Hanifa Nu'man ibn al-Thabit, also known as al-Imam al-A'zam (d. 767), is considered the pioneer of a written tradition in Islamic theology.

According to tradition, he penned the work "al-Fiqh alakbar" ("The Great Fiqh"). He introduced a case-based method in terms of issues and scholastic requirements for the first time in Islamic jurisprudence. For example, any resulting precedent in the community (if it has no direct guidance in the Koran or hadith) is regarded as a specific "incident/event" and the decision thereon shall be made by using the principles of judgments by analogy (qiyas) or the preferred solution (istihsan). This work and numerous commentaries on it have been preserved in the collection of the al-Biruni Institute of the Uzbek Academy of Sciences (Inventory Nos. 1612/II, 4697/XV, 5255/I, etc.).

Subsequent authors continued to develop a more detailed methodology of Islamic jurisprudence based on the work of Abu Hanifa. Relatively early works of this kind contained in the Institute's collection include the work by Abu Ya'qub Ishaq ibn Ibrahim ash-Shashi al-Samarqandi (d. 937) titled "Kitab al-usul" ("A Book of [Fiqh] Methods"), which was transcribed in 1371 (Inventory No. 3287/I). Abu Ya'qub Ishaq moved to Egypt as an adult for reasons unknown and held a post of qadi for several districts. Local scholars considered him a reputable narrator of *hadith* and the opinions of respected scholars from the Hanafi madhhab

Works on fiqh by another well-known jurist from Samarqand, 'Ali ibn Muhammad ibn al-Husain al-Bazdawi/Pazdawi (d. 1089 in Samarqand where he is buried), were also dedicated to the "theory/methodology" of fiqh. The author came from a village called Pazdav, 40 kilometers from the medieval town of Nasaf (modern Karshi). His work "Kanz al-wusul ila ma'rifat al-usul"

("The Treasure of Obtaining in Knowledge of Legal") is best known. In this work the author focuses on issues such as rules and methods of determining a variety of sources and methods for making the "right decision" (theological and legal requirements) and discourses on rules of working with texts, and so on. The collection of the IOS under the Uzbek Academy of Sciences has more than a dozen copies of this work (Inventory Nos. 1397, 3112, 4739, etc.).

There is another famous work on branches of fiqh and the practical application of its provisions titled "Kitab al-Mabsut fi-furu' al-fiqh" ("An Extensive Book on Branches of Fiqh") better known as "Kitab al-mabsut." Its author, Shams al-Aimma Muhammad ibn Ahmad ibn Abu Sahl al-Sarakhsi al-Hanafi (d. 1090), produced it as an abridged version of one of the works by a disciple of Abu Hanifa, Muhammad ibn al-Hasan al-Shaibani (d. 804), titled "al-Usul fi-l-furu'" ("Fundamentals in Branches [of Fiqh]"), or shorter just "al-Mabsut." One of the folios stored in the Institute's collection (Inventory No. 2706) is complete and was transcribed at the order of Amir Husaon, son of the ruler of Bukhara Amir Haidar (1800–1825).

Another commentary by al-Shaibani on a different work is "Jami' al-Kabir" ("The Great Collection") written by Chief Justice of Transoxania (Mawaraannahr), Husamaddin 'Umar ibn 'Abd al-'Aziz Ibn Maza, also known by his alias Sadr al-Shahid (killed in 1141 during the invasion of the Khara-China). The Institute's collection possesses the oldest, although somewhat defective, copy of this work, transcribed in 1259. Judging by stamps, it came from the library of Muhammad Parsa (Inventory No. 3289). The author comes from a family

of famous scholars of Bukhara, the descendants of Ibn al-Maza

Another work of Sadr ash-Shahid, "Kitab al-wagi'at" ("Book of [Legal] Cases"), is better known as "al-Vagi'at al-Husamiya fi madhhab al-hanafiya" ("The Husami Approach to Legal Cases in the Hanafi Madhhab"). Here the author makes broad use of the works of his predecessors, including Muhammad al-Shaibani, Abu-l-Lais as-Samargandi, fatwas of Abu Bakr Muhammad al-Balkhi, and others, although he gives preference to the Central Asian School of figh. "Khizanat al-figh" ("Treasury of Figh"), composed by Abu-l-Layth Nasr ibn Muhammad ibn Ahmad as-Samargandi (d. 985) was very popular with jurists of the Hanafi madhhab. The manuscript was transcribed in 1467 by calligrapher Shamsaddin ibn Junayd al-Bukhari. Having laid out the basic concepts of Hanafi jurisprudence standards in the introduction, the author then focused on specific "branches" (furu') of figh.

The collection at the Institute includes at least 15 folios of manuscripts at different stages of preservation and more than 20 folios of printed publications of another famous work on Hanafi law, "Mukhtasar al-Quduri fi-l-furu' al-Hanafiya" ("al-Quduri's Short Guide to Hanafi Fiqh"), written by Abu-l-Husain Ahmad ibn Muhammad al-Quduri al-Baghdadi (d. 1037). The copy was frequently transcribed until the early 20th century (Inventory Nos. 4836, 6411, 8556, etc.). The author was the first to systematize "branches" of Hanafi law as well as the most frequent issues commonly arising among qadis and muftis. Therefore, his book became a reference point and a basis for subsequent authors who wrote about the practical application of Hanafi law.

A renowned Bukhara lawyer, Abu Zayd 'Ubayd Allah ibn 'Umar ibn 'Isa al-Dabusi (d. 1039), considered the founder of "Field of Accepted Legal Disagreements" ('Ilm al-Khilafah), wrote his treatise on figh around the same time. The work in question was titled by the author "Tagwim al-adilla fi-l-usul" ("The Presentation of Arguments on the Fundamentals of [Figh]"). Here, he elaborates on different approaches that exist in Sunni madhhabs on the legitimacy (or vice versa) of a certain issue of precedent in the community. Interestingly, the author defends the right of some lawyers "who achieved a high degree" to use legal principles of other Sunni madhhabs in their conclusions if their own traditions complicate the process used in resolving a certain issue. One of three folios available at the Institute (Inventory No. 3157) is ancient and was transcribed more than a half a century after his death (c. 1094). The scribe is Muhammad ibn 'Abd al-Rahim ibn Ahmad ibn Abu-l-Qasim al-Wardani (from the village of Vardana near Bukhara). The copy comes from the library of Muhammad Parsa.

The most significant work on Hanafi law is "al-Muhit" ("A Comprehensive [Corpus]") consisting of 80 books (kitab), which are divided into chapters (bab) and sections (qism, fasl). The author is Riza al-Din Muhammad ibn Muhammad al-Sarakhsi (d. 1149). This work is based on the writings of Abu Hanifa's disciple Muhammad ash-Shaibani. However, the author adds a wealth of information about differences (ihtilaf) between the legal schools using various legal techniques and describes his methods of extracting the "right decisions." The Institute's collection contains a unique copy of the work. The book

was transcribed in Rum (i.e., Turkey) by two scribes, Mahmud ibn 'Abd al-Rahman al-Mubaraki and Shihab ibn Kamal al-Fishtaki, who transcribed the work for two years, 1491 to 1492. Fol. 7a lists the price of the manuscript in the Turkish currency—1,000 gurush, possibly at the beginning of the 19<sup>th</sup> century. The manuscript has an interesting fate. Judging from the brief records and seals (fol. 1a-7a), it was donated (waaf) on behalf of the Turkish Sultan Mahmud II (1808-1839) but later came to Bukhara. Just a few years later, in 1843, the ruler of Bukhara, Amir Nasrallah (1826-1860), bought it for 22 gold dinars for the Gaukushan madrasah in Bukhara. After the revolution, it was put in the collection of the Ministry of the People's Republic of Bukhara in 1924 and then transferred to the State Public Library. In 1944 it was transferred from the library to the collection of the IOS under the Uzbek Academy of Sciences.

"Mizan al-usul fi nata'ij al-'uqul" ("The Balance of Bases in the Conclusions of Minds") was a famous work on the methodology of fiqh in the region. It was authored by 'Ala' al-Din Shams al-Islam Abu Bakr Muhammad ibn Ahmad as-Samarqandi (d. about 1165–1166), who was an outstanding representative of the Samarqand school of fiqh and a disciple of renowned jurists such as al-Makhuli al-Nasafi (d. 1114) and the abovementioned 'Ali ibn Muhammad ibn al-Husayn al-Bazdawi/Pazdawi. The work by as-Samarqandi is unique and the collection in question includes two of its copies (Inventory No. 3143 and Inventory No. 5881, Library of Muhammad Parsa).

The practical application of figh (furu') gadis and muftis tends to be composed in smaller collections with issues most often encountered in practice.

One of the earliest examples of such specimens is the work by Tahir ibn Ahmad Iftikhar al-Din al-Bukhari (d. 1147). The material in it is borrowed from earlier works, although it is supplemented with fetwas of the author's contemporaries who come from Bukhara. The collection at the Institute has been known to have about 10 copies of the manuscript of this work with the most ancient and complete (Inventory No. 3219) transcribed in 1339.

Sometime later, Nasir al-Din Abu-l-Qasim ibn Yusuf al-Husayni al-Samarqandi al-Madani (d. 1161) compiled a brief compendium on the law titled "Multaqat-i Nasiri" ("Nasir's Excerpts"), which was produced on the basis of his voluminous and detailed works. However, it was edited after the author passed away. The oldest manuscripts of the work (Inventory No. 4828) note out that the latest edition was completed in 1219 as dictated by Jalaladdin al-Istrafshani at the Mihkade madrasah built by Mas'ud-bek, son of Mahmud Yalavach, in Samarqand. The copy was transcribed in 1395 on Samarqand paper. The manuscript comes from the library of Abraham Shirvani.

Another famous representative of the Ferghana and Samarqand school of figh, Fakhraddin Hasan ibn Mansur al-Uzjandi al-Farghani under the alias Qadi-khan (d. 1196) wrote "Fatawa-yi Qadi-khan" ("Qadi-khans' Fatwa"), which was very popular with local lawyers. The work consists of 42 chapters which include up to seven fatwas and commentaries on other ritual and legal matters. The Institute's collection has a fairly well-preserved, albeit incomplete, copy (Inventory No. 6184) transcribed in 1500 by scribe 'Abd al-Rahman ibn Muhammad al-Misraki.

Theologian and jurist Burhan al-Din 'Ali ibn Abu Bakr al-Farghani al-Marginani al-Rishtani (d. 1197) was a disciple of several prominent theologians: Najm al-Din Abu Hafs al-Nasafi (d. 1142), the abovementioned Sadr ash-Shahid, and Abu Amr as-Sarakhsi who was widely known in the Muslim community. Al-Marghinani authored several books on Islamic law. The largest of his work is "Bidaya al-mubtadi'" ("Fundamental Principles for a Beginner") composed on the basis of the abovementioned compendium, "Mukhtasar al-Quduri fi-l-furu' al-hanafiyya" by al-Quduri, and a compendium of ash-Shaybani.

The collection at the Institute contains a complete manuscript (Inventory No. 3895) transcribed in Turkey in 1649, although collections throughout the world have hundreds of manuscripts and published copies of this work and especially comments on it. The most famous and popular commentary on this work is "al-Hidaya" ("A Handbook") compiled by the author himself, Burhanaddin al-Marginani, and also known as "al-Hidaya fi-l-furu'" ("A Guide to the Branches of [Figh]"). "Al-Hidaya" consists of 57 books which are divided into chapters. This work fell within a category of the most popular works in the Muslim world because of its exceptional clarity and brevity of legal language as well as convenience of thematic classification. The author also made extensive use of legal provisions from other madhhabs (mostly the Maliki and Shafi'i madhhabs), thus increasing the number of people who could use this work.

There are more than 60 supra-commentaries, abridgements and thematic abstracts from this work

written by different authors who lived in the region from Egypt to Kashghar and from India and the Volga region. The Institute's collection has the rarest copies of "al-Hidayas" including the oldest ones (e.g., Inventory No. 8411). One of the folios (Inventory No. 2393) was transcribed in 803/1401 by the authors of the famous "Kitab-i Mulla-zada" ("Book of the Descendant of the Mulla") with a description of the burial grounds of scholar and other famous people from Bukhara by Ahmad ibn Mahmud ibn Mu'in.

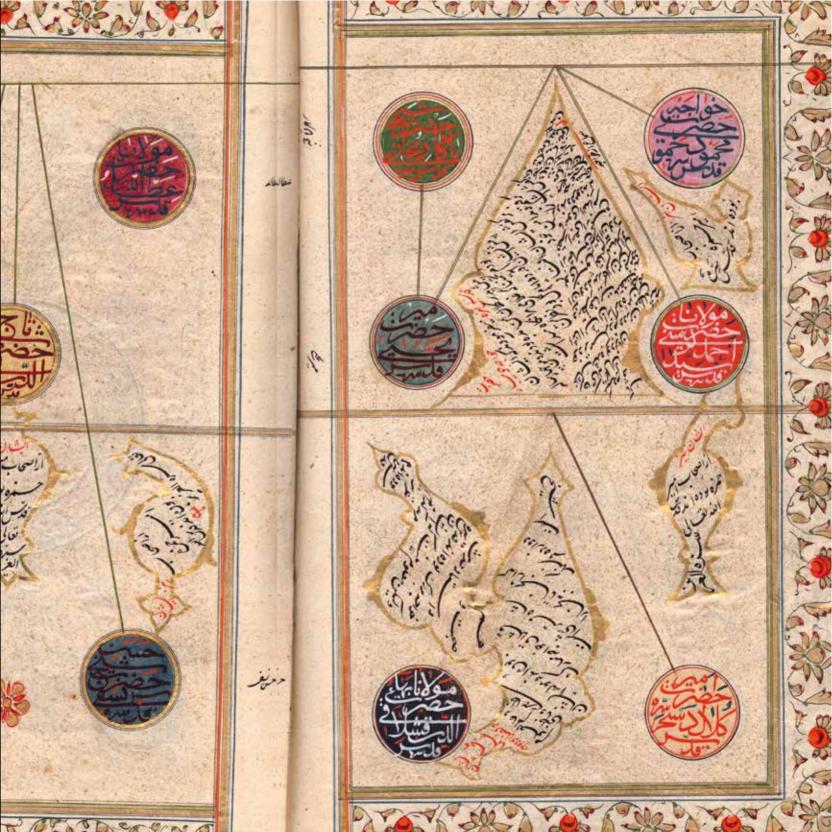
A special genre in the writings on fiqh was formed with works on inheritance law (fara'id/fara'iz). One of the earliest works on inheritance law is "al-Fara'id al-Sirajiyya" ("Siraj's [Book] on the Inheritance Law") by Siraj al-Din Abu Tahir Muhammad al-Sijawandi (12th century). The treatise is very popular and was published in different countries and translated into European languages. There are plenty of commentaries on this work.

A prolific but little-studied Central Asian *faqih* (a person trained in fiqh), Muhammad ibn Mahmud ibn al-Husain al-Ustrushani (d. 1234), was a native of the southeastern regions of modern Jizzakh. He happened to work during the period Mongolian period. This scholar was among those who refused to immigrate to the western areas of the Muslim world and thus contributed to the restoration of the judiciary system in the region where he lived and the tradition of writing theological and legal works. One of his most interesting works is "Kitab al-Ahkam al-sagha'ir fi-l-furu'" ("Book of Legal Judgement Concerning Minors), also known as "Jami' al-sighar" ("Legal Collections in Minors")

composed in 1227. The manuscript stored at IOS of the Uzbek Academy of Sciences (Inventory No. 9634) is unique and is likely to be dated close to the date of writing. Interestingly, the author not only repeated and commented on earlier decisions (*ahkam*) in different branches (*furu'*) of fiqh, but he also offered his own solutions and answers trying to adjust them to new conditions of the rule of the Mongols.

In general, during the Mongolian period, figh was largely built on previous developments in the field of law. The new conditions, however, made lawyers seek answers to new precedents that arose in the community, especially since many of the Mongol rulers and tribes began to convert to Islam. One of the collections on figh written during the Mongolian period was the work by a Khorezmian author 'Ala' al-Din 'Abd al-Rahim ibn 'Umar al-Tarjumani (d. 1247) titled "Yatimat al-dahr fi fatawa ahl al-'asr" ("The Wonder of Its Time Concerning the Legal Decisions of the People of the Period"). The author reasoned that he wrote the work because during his era works on jurisprudence were impoverished and he wanted to help gadis and muftis in resolving legal issues. Meanwhile, the structure of the work and sequence of questions set out by the former predecessors remain faithful to tradition. The manuscript of this work (Inventory No. 3050) at the Institute's collection is interesting because it has a brief glossary in the index of terms and expressions in the ancient Khorezmian language.

Another author from Khorezm, Najmaddin Abu-l-Raj Mukhtar ibn Mahmud az-Zahidi al-Gazmini (d. 1260), wrote "Kunyat al-munya li-tatimma al-ghunya" ("The



د نوا ټر چې لي د سيا د ه الد و دارده بطلح دارد المال टेन्द्री हे कि कि ادآ راسعوحوايد بود كرينضولي مئ يند اكرجها منها غيريف كوس فراسى اوداسه بعور كرم بود و الله الله الله الوصواحماح اعداما بنا فيودد سدول وارندساك حوا موسندك اطهارع ومارا اسال لماس عددة الداد دولتوسطاد والسلا دوس دولاوسعادت دى سد دا جراان اساره در مرماس ود درعاسا بسارمكذ ومومواه يوس دس دالسلام اساءاسام اس بومودوع د بعدا رعرصا دمدرة 178 دعدادعرص دوروطاكم حدب يملوان سمعول درغ بددا دعرصار مووكا العداد عوص ارموكاله دارنه در دوعارس وعاسطارما رما سكركما د ادر احدام وداد دارنده مردي فيو ارولاسك ارمزدام رود وا ومرد مصالح كواسي ويد سادى كسدوما فا والاكراكا ووكا والتي طلعي فياسلط ورزوق كه اورا اسطاع آن مرسواللعا واصامي ) का असे असे TI أوس الما عاسة الله ما الدعدا سيده in class delater وجهده كذابروي الماس الله العاواس المحصورما يو مالد ودي ارحا ل ودرم برار ورصل ونعدى بوور: بودودر agraphy to سداد عرص ما رمروص مديراو إدران احدادغرص اربعوق بعدادعرصاد مروضا الحامة ارعوصاد معروص دارنده دنعاطاصوار المال وو المواولا دادره ی کورکه مصح فطرد न्मर हर नी ना है कर हरिते حرمس وسيدادما السيه -128/2018/18 مولا يجعو حطاط ود معلاق اسوالموسوعلى صيايسه موفق مدة المرجحوا ملكة . । भारत्याहरः। । دد محلس او لادار المراس א פישפול פנודנו אוני سمع روس سرساسد الماسي عماس عود اضعا كاسد الكرم كمار في وسوم الم فاخيدس حارية وروايا ول 世世一、多古老山 62.61.80,00 - Will - wingo والرحصل واساد وماسد مود، وجهرد کرند اوسعد درعاسی دانجود و الکالی ورد ट्टाक्टिमाल क्य لدوسيدسي ووالله درج سرما معد موفدومي د 186 نعدارعرصاد مروضة حدر جاحطال المن العدادعرص ارمروك مدا دعرصا وروام سدادعرصاد طروط عرصدوا عداردسم دارنده بطاردالالا داد بره مدلایا محود طالبط صالح دسرسال عالی سند وادركا مردم دعساء حامد سالمان كوس الخرادك الوسة عاك د. العاطر دارن اللا فعالم اورااوماد فحظرظروا

Acquisition of the Desired for the Completion of Sufficiency") in a similar manner, i. e., to appeal to the new realities of the Mongol domination. This writer also speaks of the difficult conditions of the Muslim jurisprudence which developed after the "troubles," referring to the Mongol invasion. The work is noted for a description of specific precedents in legal practice in Khorezm. For example, until the time period described by the author (13<sup>th</sup> century), evidences of the validity of legal transactions (e. g., marriage, divorce, judicial confession, and others) had been pronounced in the Khorezmian language. The IOS under the Uzbek Academy of Sciences has the oldest folios of this work (e. g., Inventory No. 5942/I transcribed in 1324, and others).

The tradition of composing commentaries on the theory of fiqh (usul) was revived during the post-Mongolian period. One of these works was a piece written by Abu-l-Barakat 'Abd Allah ibn Ahmad al-Nasafi (d. 1310 or 1320, according other sources), titled "Manar al-anvar fi-l-usul al-fiqh" ("A Shining Beacon in the Fundamentals of Fiqh"). The oldest copy of this work was transcribed by Burhan al-Din al-Khurasani in 1361 (Inventory No. 5243/I) and is in the Institute's collection. The same author wrote other works on jurisprudence that are stored in the same collection (Inventory No. 3110, 5243/II, etc.).

Another distinguishing feature of the post-Mongolian period in the field of law is the compilation of special thematic compendia on specific issues and a great number of glossaries and supra-commentaries on previous works about fiqh. These works are mostly small in size (from three to 50 leaves) and the authors were

able to add to the compilation of their own opuses several (sometimes dozens) fatwas made on certain issues. It is interesting that these treatises were primarily authored by practicing judges (qadi/qudbt). These features of small, compilations treatises on jurisprudence survived until the early 20<sup>th</sup> century. There are dozens of smaller treatises (from three to 20 leaves) by famous Bukhara judges from the 16<sup>th</sup> and 17<sup>th</sup> centuries, including Muhammad Baqi al-Bukhari, Mirza 'Abd al-Wahhab al-Bukhari, and others.

#### **KALAM (SPECULATIVE THEOLOGY)**

This discipline in the Islamic sciences was developed in particular in the pre-Mongolian period and benefitted from the translational activity of the Early Abbasid Period. Along with ancient works of antique authors on natural sciences (from Greek, Syrian and other languages), the works of philosophers, scholastics and mystics were also actively translated into 'Arabic. Muslim thinkers mastered this heritage, connecting or relating these ideas to the spirit and ideology of their own society. This contributed to the development of their own approaches to theosophy, philosophy and theology, which also contributed to the formation of their own directions in these fields.

Another distinguishing feature of the intellectual culture of that time was that the number of scholars engaged in simultaneous research in various fields of knowledge, so they were considered encyclopedic scientists. As a result, a number of scholars emerged in the

Muslim world, especially in Central Asia, whose names became part of the constellation of outstanding intellectuals who have made their contributions to civilization. The Institute's collection has about 350 copies of these works, especially commentaries on dogmatism and scholasticism.

Abu 'Ali al-Husayn ibn Sina (Avicenna) is well known to be one of the most prominent scholar-encyclopaedists in the region. In addition to writing highly acclaimed treatises on medicine and philosophy, Ibn Sina also authored works on Islamic scholasticism and eschatology. His treatise "al-Risala al-adhawiyya" ("A Treatise on Sacrifices"), better known in its 'Arabic original, has survived until present day in its Persian translation (Inventory No.561/IX). The work is founded on the author's speculation about the afterlife, the resurrection of the dead, human essence as "physical and spiritual substance," and many others.

Works by the famous scholar Abu Hamid Muhammad al-Ghazali (d. 1111), who had the honorary title of Hujzhat al-Islam ("The Proof of Islam"), are also in the collection. While in Europe he was famously known as "al-Gazel" and enjoyed special popularity in the Middle East and Central Asia. The influence of mysticism (Sufism) is evident in his works expressed as, for example, advocacy of moral self-improvement and moral responsibility of an individual. In one of his most famous works, "Ihya 'ulum al-din" ("Revivication of Religious Sciences"), al-Ghazali tried to "save the science of faith from the influence of Greek philosophy" at the same time advocating for a moral element in religion. The Institute's collection has preserved a few dozen copies of this (Inventory

Nos. 3138, 6108, etc.) and other works by al-Ghazali (Inventory Nos. 3907/II, 5857, etc.). Some of these manuscripts are ancient (no later than the middle of the 13<sup>th</sup> century). Most of them come from the previously mentioned library of Muhammad Parsa.

The work by a jurist of the Hanafi school, Najmaddin Abu Hafs 'Umar ibn Ahmad am-Nasafi (d. 1142) and titled "'Aga'id al-Nasafi" ("The Creed of al-Nasafi"), was known in Islamic societies as the most concise and most popular treatise of theology. The work is devoted to a brief presentation of the Creed of the Samargandi School, specifically the essence of Allah, the Quran, the mission of the prophets, the credo of Islam, etc. The Institute's collection still has several copies of this work (Inventory Nos. 502/1, 2979/XII, and etc.) plus around 50 commentaries on this work differing in size and written by famous jurists and theologians (e.g., a comprehensive commentaries of aforementioned at-Taftazani, al-Ilji, and others) dating to different periods until the early 20th century. The collection also possesses dogmatic compositions of other theological and legal schools and trends including Shiah treatises. These include the most famous work by Abu Ja'far Nasir al-Din ibn Muhammad al-Tusi al-Shi'i (d. 1274) who acquired notoriety as an adherent and commentator of Ibn Sina. The work by at-Tusi is the oldest treatise dedicated to the doctrine of Isma'ilis (one of raminification of early Shiah), the dogmatic concepts of which are associated by the author with the views of Ibn Sina (Inventory Nos. 4705/I, 8949/I, 5600/55). About 10 copies of commentaries on this work by different authors have survived (Inventory Nos. 4638, 3077, etc.).

Other authors also wrote on issues of dogma. These, for example, include Muhammad ibn Muhammad, better known as the abovementioned Muhammad Parsa. He wrote a small treatise titled "Risala" ("Treatise") (Inventory No. 541/III) under the strong influence of the works of al-Ghazali. In "Risala" the author defends the importance of combining "good intentions with good deeds and piety." In another treatise, mostly doxographical in structure, the author also discusses the issues of faith and dogma (Inventory No. 8808).

A more recent tradition of dogmatic and scholastic literature, Theosophy, is represented in a series of works mainly of compilatory nature and dedicated to fairly narrow issues. The most popular topic among this genre include commentaries on the credo of faith, "There is no God but Allah," and other maxims of monotheism.

# **PHILOSOPHY**

It is quite difficult to isolate strictly philosophical works, in the modern sense, from Islamic theological works since, in its formative theology combined issues from both fields. Islamic philosophy emerged under the influence of pre-Islamic philosophy (primarily Greek and Middle Eastern). These ideas did not always coincide with Islamic dogmas, whereby many theologians denied a right of philosophy to religious legitimacy or insisted that philosophy is a domain of a restricted group of people. Nevertheless, works on philosophy were written and commented on. Some of these works are available in the Institute's collection.

The most common genre of early philosophica; works was translation and often liberal restatements of Greek philosophic works and multiple commentaries thereof. In this group, most restatements and commentaries refer to works of Aristotle, Plato and Alexander of Aphrodisias (al-Iskandar al-Afradisi). Their key works are compiled into voluminous manuscripts (Inventory No. 2213 and 2385). These treatises contain classical philosophical speculations on matter, existence, "classification of things" and many others.

Philosophical works by Abu 'Ali Husayn ibn 'Abd Allah ibn Sina (Avicenna) strike particular interest among specialists. One of his most famous works, "al-Mabahis al-nafsaniyya wa tusamma aydan al-Hujaj al-'ashar" ("Discussions on the Soul", also called "Ten Arguments"), was dedicated to the ruler of Bukhara from the Samanid dynasty, Nuh ibn Mansur II (976–1007). The author makes a reference to Aristotle and caliph 'Ali (most probably, to aphorisms attributed to him) and directly relates the cognition of God with the human soul and describes its properties (Inventory No. 2385/IV). The same collection contains other works by Ibn Sina and multiple commentaries, including one critique. The famous theologian Fakhr al-Din al-Razi (d. 1209) wrote a critical commentary on the aforementioned work and other works by Avicenna. A renowned theologian, Nasir al-Din al-Tusi, wrote his commentary on the works of Ibn Sina, engaging in polimics with ar-Razi and blaming the latter of "receding from justice" (Inventory No.2065). Another well-known theologian, Outb al-Din Muhammad ibn Muhammad al-Razi al-Tahtani (d. 1364), attempted to comment on the work

of Ibn Sina and tried to "reconcile" the aforementioned commentators while offering his own views on Avicenna's work. The collection has a full copy of this commentary (Inventory No. 2433).

A copy containing the correspondence of the abovementioned at-Tusi with Sadr al-Din Abul-Ma'ali Muhammad al-Qonawi (d. 1273), an adherent of the famous philosopher Ibn al-'Arabi, is interesting and unique. Letters with questions addressed to at-Tusi were sent on behalf of al-Konavi. These questions of a philosophical nature appealed to the ideas about specific features of a far-away afterworld, "ethereal substance," attributes of God, and so on (Inventory No. 2385/XLIII).

# **LOGIC**

Works on logic are also difficult to distinguish from works of philosophy since they are often written as a single piece. Although in more recent times, preand post-Mongol, these works were isolated into separate genres. These also demonstrate the influence of the Greek tradition. First of all, translated works or their restatements stand out. For example, these include anonymous restatements of Aristotle's works on logic (usually his "Analytics") and works of the aforementioned Alexander of Aphrodiasis (Inventory Nos. 2386/LV, 2386/XCIX, 3907/II, etc.). More original treatises on logic by Muslim authors found in the Institute's collection belong to abovementioned al-Ghazali, al-Taftazani, al-Katib Najmaddin (d. 1294), and others (Inventory Nos. 744/II, 2979/III, 3907/III, etc.).

## **ETHICS AND ADVICE LITERATURE**

Didactic or ethical and edifying literature (adab, tanbihat, vasiyat) also became a part of philosophical or historical works, poetry, or hagiographic literature. At the same time, howver there were also works of a strictly didactic genre. These are primarily works on ethics and Islamic morality. An anonymous work with different titles, where a legendary philosopher gives advice to his son, Luqman, is considered most common among works in this genre throughout the region. There are many folios of this work in the Institute's collection, including some that have not been catalogued and which are not mentioned in other manuscript repositories (Inventory No. 531/V, 2501/V, 2900/IV, etc.).

The collection at the Institute holds a significant number of Persian translations (about 20 copies) of famous didactic works known under various titles and written by the famous author, Abu al-Hasan al-Madaini (d. between 830 and 835) (Inventory No. 400/IV, 341 and others). The work of Abu-l-Layth Nasr ibn Muhammad al-Samarqandi (d. 985) is a similar early specimen of edifying literature, where he laid down standards of Muslim conduct in different life situations, while praying, fasting, and other occasions. At the same time, the collection has commentaries and Persian translations of this work (Inventory No. 1364, 2734 and others).

Didactic works "Akhlaq-i Nasiri" ("Nasir's Ethics") by the abovementioned at-Tusi; "Ahlak-i Jalali" ('Djalal's Ethics") by ad-Davani (d. 1502); and "Ahlak-i Muhsini" ("Ethics of Benefactors") by Mawlana Husayn Wa'iz al-Kashifi, are perhaps the most famous with Muslims in the region. Copies of these works are most numerous among the didactic literature (Inventory No. 2151, 2789, 5897, etc.).

Treatises on the standards of conduct of "rulers of the world" that sometimes provide "wise advice and instruction" regarding the method of governance stand out as one more genre of didactic literature. The most common works, mostly anonymous or of apocryphal nature of this genre were ones where Sassanid ruler, Anushirvan/Khosrow I (531–579), appeared as the main character. The name of Anushirvan/Khosrow Lis often used in Islamic historiography as a model of justice. These works are quite numerous in the Institute's collection (Inventory Nos. 295/VIII, 2900/XI, and etc.). The same collection possesses more than 10 copies of didactic works by a prominent Sufi 'Abdallah Ansari (d. 1088) titled "Tuhfat al-wuzara" ("A Gift to Sovereigns") and "Tuhfat al-vuzara" ("A Gift to Viziers") (Inventory Nos. 416/II, 2900/I, etc.). Many Sufi leaders, including Sayyid 'Ali ibn Shihab al-Hamadani (d. 1384), Ahmad ibn Jalalddin al-Kasani ad-Dahidi (d. 1542), and Mir Husain ibn Amir Haydar (Inventory Nos. 112/III, 501/X, 1897), wrote in this genre of edification for sovereigns.

# **SUFISM**

Sufism was intensively developed in the Middle East and Central Asia as a mystical-philosophical movement within Islam. This is where Sufi trends, which were popular in the Islamic world, emerged, such as Kubrawiyya (founder-eponym, Najm al-Din Kubra, 1145–1221); Khojagan/Hajagan (founder-eponym, 'Abd al-Khaliq

al-Ghijduwani, d. 1180); Yassawiyya (founder-eponym, Ahmad Yassawi, d. 1175 or in the early 13<sup>th</sup> century according to other reports); and Naqshbandiyya (founder-eponym, Baha al-Din Naqshband, d. 1380). The collection at the Institute has developed one of the richest collections in the Islamic world associated with Sufism—about 2,000 manuscripts. This body of works can be roughly divided into two broad groups: theoretical treatises by Sufi sheikhs and their hagiographies (magamat).

One of the early theoretical Sufi works created in the region was written by the previously mentioned theologian of the 10<sup>th</sup> century, Abu-l-Laith Nasr ibn Muhammad al-Samarqandi, and titled "Risala-yi asrari wahy" ("A Treatise on the Mysteries of Revelation"). The author used stories about the ascent of the Prophet Muhammad to heaven where God revealed secrets "of the best acts of man" to him, his last messenger. These responses are used as a form of presentation of the behavior of "good men and Sufis." The collection at the Institute has the most complete manuscripts of this work (Inventory No. 66, 1841 and others).

Another early Sufi composition written in the region was compiled by Muhammad Abu Bakr ibn Iskhaq al-Kalabadi/Kalabazi (d. 990). It is titled "Kitab ta'arruf madhhab al-tasawwuf" ("Book of Sufi Doctrine"). The author came from the Kalabad neighborhood of Bukhara. His work reveals information about the early Sufis, gives extensive references to the Koran and the traditions (ahadith) in which legitimize Sufism, and lays down rules of conduct for Sufis and "the mysteries of Sufism," among points. The Institute's collection possesses the oldest copy

in the world transcribed in 1235 (Inventory No.3154/V). Another scholar from Bukhara, Abu Zayd 'Ubayd Allah ibn 'Umar al-Dabusi (d. 1039), compiled a treatise titled "al-Amd al-aqsa" ("Extreme Limit") of the same moralistic nature of the Sufi spirit. The Institute's collection also maintains the most complete and oldest specimen of this work, transcribed in 1278.

The group of early Sufi works, also includes complete and quite ancient folios of famous works such as "Kashf al-Mahjub" ("Disclosure of the Hidden") by Abu al-Hasan 'Ali ibn 'Usman al-Julabi al-Hujviri (d. circa 1071) (Inventory No. 1536). This group also includes works widely known to experts that were written by various authors, including Abu-l-Qasim al-Kushayri (d. 1072); a famous Sufi elder and mentor, 'Abd Allah al-Ansari (d. 1088); Ahmad al-Ghazali (d. 1126); Ahmadi Jama an-Namiq (d. 1142); Muhi al-Din 'Abd al-Qadir al-Jilani/al-Gilani (d. 1166); Shihab al-Din ibn 'Umar al-Suhrawardi (d. 1234); Muhi al-Din ibn 'Arabi (d. 1240); Jalal al-Din al-Balkhi al-Rumi (d. 1273); "Diwan-i Hikmat" ("A Collection of Wise [Sayings]") by Ahmad Yassawi; 'Abd al-Khaliq Ghijduwani; Ahmad Yassawi; and others.

Tens of commentaries were written on these works, and they have not yet been fully researched. The above-mentioned collection possesses commentaries chiefly by local authors. The work "Nuzkhat al-arvakh" ("Delight of Souls") by Husain ibn 'Alim al-Husaini al-Furi (d. 1318) is one of the most popular works in the Middle East and Central Asia on the doctrine of Sufism. There are nearly 40 of his folios and a similar number of commentaries and abstracts from this work (Inventory No. 3014/V, 3840, etc.).

The largest numbers of theoretical works by Sufis on Sufism in the Institute's collection were written by authors from the Nagshbandiyya brotherhood which until the 15th century was better known as Khojagon and by the end of the 17th century was known as Mujaddidiyya. The most eminent theorist of the brotherhood was Khoja Muhammad Parsa, the abovementioned and well-known theologian and theorist of Sufism. He is also known as a bibliophile who donated his huge collection for those times, more than 3,000 books according to a modest estimate, to a library in a Bukhara madrassah built by him. Most works from the library are preserved in the Institute's collection. Muhammad Parsa wrote several works and commentaries about Sufi rituals, spiritual states with an explanation of some Sufi terms, and others (Inventory No. 2516, 3039/III, etc.). However, the most programmatic and theoretical legacy of Nagshbandiyya was Muhammad Parsa work "Fasl al-khitab" ("Clear Speech"), which shows a synthesis of various teachings and practices, especially that of Shariat and the mystic path. After this work, Muhammad Parsa was awarded the title of "al-Jami' al-shari'a wa-l-haqiqa" ("The Combiner of Shariat Hidden Truth/Sufism"). The collection of the Institute has five specimens of this work (1449/I, 1450 and others) and many commentaries thereof.

Another famous sheikh from the Naqshbandiyya brotherhood, Khoja 'Ubaydallah Ahrar (d. 1490), also authored three works where he explained some specific features of the "path of Khojagon-Naqshbandiyya," benefits of "zikr of the heart" (i. e., ritual rites during which

certain formulas are recited silently, not out loud), and gave his speculations about the conduct of a Sufi, and so on (Inventory No. 507/II-III, 2967/II, etc.). Another sheikh from the Naqshbandiyya brotherhood, the aforementioned Jalal al-Din al-Kasani al-Dahbidi known by his alias Makhdum-i A'zam ("The Greatest Master") (d. 1542), was even more prolific in terms of literary creativity. He wrote more than 30 treatises on various subjects of Sufism. However, his most prominent works include several treatises where he theoretically justified the possibility for a Sufi sheikh to "communicate with the sultans", i. e., become involved in politics "for the sake of Muslims" as the author asserts.

The next group of Sufi works features the description of the "miraculous lives" of Sufi sheikhs, and often provides interesting data about their biographies, descriptions of political events of their periods or relevant commentaries. One of the earliest works of this kind was dedicated to the biography and thaumaturgy of a famous Sufi from Khorasan, Abu Sa'id Mayhani (d. 1049), and was written by Muhammad ibn Munavvar ibn Abu Sa'id Mayhani (d. the end of the 11th century). There is a similar work in the Institute's collection titled "Tadhkirat al-awliya'" ("Remembrance of the Saints") which was transcribed after the death of its famous author, Sheikh Faridaddin Muhammad 'Attar (d. 1234). The work provides a chain of spiritual succession of famous Sufi elders, their biographies and miracles. A biography similarly popular in the region was written in 1330 by Ahmad ibn Husain al-Harakani and dedicated to one of the most famous Sufis of the Islamic world, Abu Yazid al-Bistami al-Tayfuri (d. 878). It is titled "Dastur al-jumhur

manaqib sultan al-'arifin Abi Yazid Tayfur" ("A Guide for Community in the Life of the Sultan of Gnostics Sultan Abu Yazid at-Tayfur"). A few complete folios of this work have survived (Inventory No. 78, 1453/I, etc.).

Hagiography (magamat) written by authors of a mystical group (tariga) in Nagshbandiyya presents a particular interest. One of the most popular collections of biographies was a work by a famous poet and mystic 'Abdarrahman al-Jami (d. 1492) titled "Nafahat al-uns min hadarat al-quds" ("Fragrant Trends of Spiritual Closeness to the Heights of Sanctity"). The work gives the author's interpretation of Sufi doctrines including biographies of some of the most prominent Sufi elders. The collection at the Institute has the most complete folios of this work (Inventory No. 1331/II). A close friend of Jami, 'Alisher Nawai (d. 1551), rendered the abovementioned work into the Chagatai/Uzbek languages and significantly complimented it with biographies of Turkic sheikhs. This resulted in a virtually new work, which the author titled "Nasaim al-muhabbat min shamail al-futuvvat" ("Zephyrs of Love [Drifting] from Flavors of Nobility"). Another biographical compendium of Sufi sheikhs was penned by the abovementioned Wa'iz Kashifi and titled "Rashahat 'ayn al-hayat" ("Drops [of Sanctity] from a Source of Life"). It enjoyed similar popularity in the region and beyond. The Institute's collection possesses more than one hundred manuscript specimens of this work and lithographic editions.

There are also a significant number of hagiographies dedicated to the biographies and miracles of sheikhs from the Nagshbandiya brotherhood here.

#### 2. SUBJECT MATTER

These include unique copies of the famous hagiography by Amir Kulal (d. 1372) (Inventory Nos. 96, 97, etc.); two versions of Bahaaddin Naqshband's biographies (Inventory No. 398, 630, 2520/I, etc.); hagiographies of Khoja Ahrar, Mahdum-i A'zam, Mawlana Lutfallah Chusti (d. 1579); and others.

In conclusion, it should be noted that only a small fraction of manuscripts are collected in the richest depository of the Institute. Scientists interested in the history of Islam cannot help but pay attention to the manuscripts in this collection, where research will prosper for many more years.

# S. Gulyamov

# 2.5. HISTORICAL DOCUMENTS

The study of history requires research with documents that contain important historical information not otherwise found in works in manuscript form.

Historical documents provide valuable information for studying socio-economic and political history of the regions where they were composed. They can provide a detailed list of state taxes and duties that were in use during different periods. They inform about the existence of realities of the time, such the weights and length, area and currency. Finally, these documents are a source of historical geography, topography and toponymics.

Like many other types of sources, historical documents have both internal and external forms and different templates depending on the type of document. Supplies used for writing the text may also provide valuable information. For example, paper, script, ornament and others features may point to the approximate time and place a document was composed.

The collection of the Institute of Oriental Studies contains a large quantity of historical documents in Persian, Uzbek and partly in 'Arabic drafted in the territory of present-day Uzbekistan and adjacent regions. These include legislative documents (e.g., decrees, orders, and instructions), private legal documents (e.g., documents concerning the sale, wills, marriage certificates, deeds of gift, leases, mortgages, *waqf*, promissory notes), clerical documents (e.g., orders, notices, and petitions), and other legal documents.

# THE HISTORY OF ESTABLISHMENT OF THE INSTITUTE'S COLLECTION AND DOCUMENT RESEARCH

In 1921, a year after the elimination of the Emirate of Bukhara, a group of historians including R. Fitrat, B. Saliev, and A. Sergeev visited the Bukhara Ark, the palace of the Bukhara Emirs. Encountering a multitude of documents, the abovementioned scientists acquired most of them and brought them to Tashkent for research. In 1936, some documents were handed over to the State Public Library of Uzbekistan.

In 1943, the year of the foundation of the Institute of Oriental Manuscripts (transformed into the Abu Rayhan Al-Biruni Institute of Oriental Studies of the Academy of Sciences in 1950), the documents and the rest of the manuscripts were transferred to the Institute. Thus, the Institute received its first document collection. In 1952,



the Academic Council of the Institute of Oriental Studies decided to acquire manuscripts preserved by the public. In line with this decision, systematic scientific expeditions were dispatched to different regions of the republic. This resulted in the enrichment of the collection with several more thousands of documents.

In 1992, a professor from Kyoto University in Japan who specialized in international research and was an expert on the history of Central Asia, Toru Horikawa, presented the Institute with a large collection of historical documents from Khiva which he had purchased during an academic mission to Tashkent. Horikawa's donation was to initiate cooperation between the two institutions dealing with research of the aforementioned documents.

Collection of documents and their research, compilation, and publication of their catalogs has always been the highest priority in the scientific area of the Institute. This started when the Oriental manuscripts were part of the Public Library. This painstaking work was carried out in 1943–1944 at the Institute by I. Adilov who drafted the first inventory book of documents which included a summary of the 1,743 documents relating to the history of khanates in Central Asia.

A group of researchers led by renowned documentalist O.D. Chekhovich continued gathering data about the documents in inventory books. Their work resulted in several more inventory books and additional logbooks which included data about 1,200 documents.

In 1960, the Institute established a department called "Cataloguing and Preparation of Oriental Documents for Publication" staffed with 13 employees under the guidance of M. Yuldashev. The department was active until 1982. A draft of the Catalogue of Oriental Documents

in two volumes that gave a description of 1,500 documents was generated during this period.

Documents from the collection were selectively used for publications of many scholars, particularly R. N. Nabiyev, A. L. Troitskaya, M. A. Abduraimova, M. Y. Yuldashev, F. I. Rubinstein, O. D. Chekhovich, A. Urunbaev, R. Mukminova, K. Z. Muhsinova, M. Y. Usmanov, A. B. Vildanov, B. A. Kazakov, A. Jalilov, A. Shaykhova, F. Muhiddinov, Juraeva, Astanova, and others.

Several years ago, a group of researchers from the Institute launched a project to compile a roster of all documents preserved in the document collection. The researchers were able to see the outcome of this work several years ago. Regrettably, many members of this group are no longer alive, while some of the employees have retired with a sense of a job well done. Owing to the efforts of the senior researcher of the Institute, Ms. Juraeva, who deals with the revision of document descriptions and the compilation of indices, this work is almost complete.

In the 1990s, the Institute decided to alter the principles of cataloguing. This resulted in an initiation of thematic manuscript catalogues on the one hand, and originals on the other hand. This is described in more detail in Section I.

# THE TYPES OF DOCUMENTS IN THE COLLECTION

**Letters Patent**—the Institute's collection houses hundreds of documents such as decrees, edicts, and instructions (yarlik, hukm, nishan, farman, mubarak-nama, inayatnama), which are often referred to as "certificates." Letters patent were issued by a supreme authority and drafted

on behalf of a khan or emir on the occasion of awarding privileges, including tax concessions, immunities, and administrative autonomy, grants of land and water as well as appointments to positions. They cover various regions in Central Asia, i.e., Khanates of Bukhara, Khiva and Kokand.

The earliest letters patent according to the date of processing in the collection are the letters patent dating to 1379. The most recent documentary source dates to the first quarter of the 20<sup>th</sup> century.

Letters of appointment give us an understanding of an administrative system, officials, their rights and responsibilities, boundaries of their authority, their interdependence as well as the nature of their remuneration.

The letters patent includes documents issued in different years on the occasion of appointing a certain individual to various positions, thus allowing the visualization of promotion for a specific official (Folder No. 48: Inventory No. 29; 30; 31).

Tarkhan letters patent are documents on granting land or other estates for heritable ownership with the right of taxation and duties partly or in full for the benefit of the holder of the certificate. It is known that key legal properties of this patent included tax and administrative-judicial immunity that can be inherited. All of these privileges lasted for many centuries as evidenced by the certificates.

These sources contain specific material regarding forms and types of feudal rent which the government declined for the benefit of the letters patent holder. The letters patent provide a detailed list of tributes and duties available in the Bukhara, Khiva, and Kokand Khanates during the period in question.

Appearance of letters patent varies. The documents are scrolls of various length made from local handcrafted paper.

Letters patent were certified with imprints of a figured stamp of sovereigns on the front side. Name, patronymic and title of a sovereign were carved on the stamps.

As for decrees of Bukhara Emirs on appointments to a lower position (see "Clerical Documents" for more detail), they are small in size and sometimes a quarter size of a regular sheet of writing paper. These documents were certified with impressions of round stamps of rulers on their reverse sides. Russian- and Europeanmanufactured paper was used for most of the documents-decrees of the latter period.

Some letters patent are of poor preservation status. Some are torn, others have parts of the text erased, and some have been tainted by rodents. Therefore, it is not always possible to identify names of persons, geographic names and other such information. Not all stamps are readable.

There are two documents among the letters patent (Folder No. 64: Inventory Nos. 181a; 182a) with indecipherable text due to a high degree of defectiveness and dilapidation. Both letters patent were described by the documentalist Ms. F. I. Rubinstein on a small-format paper half a century ago. She pointed out that both documents were in a poor state of preservation and as a result, she was unable to read the stamp impressions, measure the size or count the number of lines. According to the documented data, she hardly managed to extract any information about the documents. Both are *tarkhan* documents of Timur Gazikhan (1757–1764) issued in Khorezm to descendants of some sheikhs about exempting their land from all taxes.

# **PRIVATE LEGAL DOCUMENTS (QADI DOCUMENTS)**

Most of the Institute's Documentary Collection is composed of private legal documents issued in the "House of Justice" and sealed with stamps of qadis (a *qadi* is a judge who administered justice according to Islamic law and precedent acts). The documents in the collection provide rich and varied information covering different aspects of social and economic life in Central Asia in the Medieval Period. In addition, the documents provide interesting ethnographic data that helps researchers explore the ethnic composition and specifics of the material culture of the people in that region.

Documents of this type registered the following transactions between individuals:

Advance Contract (bay-i bat)—an indissoluble final sale of movables and real estate, i.e., documents about alienation of assets from the private property of one individual and addition of it to another individual's property through sale. These documents were generated on behalf of a seller and documented the sale but not the purchase of property.

**Mortgage** (bay-i jais—literally "permitted sale")—documents confirming a unique type of collateral with subsequent rent with the right of redemption. These documents record temporary surrender of property to a creditor as collateral for a received loan.

**Rental deed (khatt-i ijara)**—a document about renting out assets.

**Deed of gift (tamlik va taslim; bakhshish)**—a document registering a donation of various types of both real estate (land, houses and so on) and movables (treasure, slaves and so on).

**Promissory note (khatt-i madyun)**—a document where a borrower in truth received money in the form of a loan from a specific individual and is obliged to return the debt within a period specified in the document.

**Will (vasiyat-nama)**—documents drafted on behalf of people who, at the end of their lives, distribute their assets between their children.

Marital agreement (khatt-i nikah; 'akd-nama; tazv-ij)—documents providing interesting information on socioeconomic history.

**Relinquishment of claim (khatt-i ibra)**—a document confirming the end of litigation between a complainant and defendant, whereby the complainant takes back the claim in most cases for material considerations.

**Legal opinion (rivayat)**—includes documents providing opinions of jurists about a specific case with references to reputable sources of figh (Islamic law).

**Waqf documents (waqf-nama, waqfiya)**—documents generated when transforming movables and real estate into *waqf*, i.e., the dedication of incomes generated for alms. Most frequently these were given for the maintenance of mosques, madrasahs, and shrines and so on. Waqf certificates accurately recorded assets transformed into *waqf*, their purpose and ways of spending funds as well as names of individuals who were entrusted with the management of *waqf* assets. There are 104 pieces of *waqfs* in the Institute's collection. The earliest of them dates to the 14<sup>th</sup> century.

# **CLERICAL DOCUMENTS**

Documents of a clerical nature can be divided into two groups. The first group consists of decrees, i.e.,



استن عدر الحدد ودرام في الرساعة إ THE PORT ولم القد سب الني ويعف الخيردائد الملاحد المان مر والله ع بالنتردون المنلاى بتعييهما الشاطن والدعوع الحالخ مراها رطاب ديد كركادها الونعوع فالنرص وركالا دمس فالعرد العنى ملك مقد عد لغميب دارالسواد- والم المفالد الدمان و المنفرد للمشرماد دستيطات والمسلا في النسر محادر دون در الا بالبحوع مع الحالمان الحقيم ان تقداد دوح في طست موظائدة منافسالا الانتان ساسار واصط فبته سختنان وكالمشريفي - IVed - emander المالى المال الالمادي المال ال حريرالغفو رالنواد المرعان على في المستان الدر تلادم دالاتان المان المستنا بشفاع والمست المسال المساد لابرا د ان ع طده ع للعنع النب بالمعرد معم الحي أل الملائب غادج عن حد الانكان ا درودصلى على الله عروا لاداس معوزع الحدى طنبه أدر عباعكالاعلص الالدار المطله بورالمرين الله الندرداونا بعن فالاحتان بالناد صروري عليا اللاز لعي وحسرياد سوه والانكان عن بالشال المان والمك الا ناحد الماله ادحوع الحسننا رالعب السوس والمادد اليا خف المادر فيل الانطف الما المالاجيا ر المسال وراس مان واساى الحدار الاحسطرار المالي لخنم اوالى النار وانعتان ومفداح استفاسهاليا النور موزيها من الدين عدد الدوج وحد نقد عملي صدرربع والأرق لالسا لا رص فراله المجبا ف السرح حقيقتها وسيرطها وسيبها دعلانها وسرتها حصر وساحد بالاولا والافات المانعه مهاوالادوث المسترولنادسع فالله باحر سوانا دسالادي اربعه الحان الدكن الاولى في نفس النوم وسان اساحرسيسائن حد كا وخصصها وابنا و لسرملي العفد وعلى حيع الا نقاص عد الكسر وعبرهد مي جيع الاحوال والفااذا فن كات بقوله الرطالات الي على طرق المع جالارام م بعلمة الموم التوم وعوالة عند دسان الصاميا الي صفايد وكياب رسوالند سورعه و، وما سعلى تعنى المت وما سعلى المعما دوران كني المت المواع

documents of descending nature. Orders were drawn up on behalf of a supreme authority on various occasions. They show appointments to lower positions as well as grants of a single room (hujra) in a madrasa or a town in a city, for example. In addition, they include decrees on many routine issues of public life such as allocation of funds for repair of a mosque, payment of salaries to employees, inquiry about grain prices at bazaars, and many others. These also include documents of notification nature, which were also issued at offices of emirs/khans in response to the petitions from various lower-level officials. They notified the senders that their requests sent to the court of the emir had been accepted and the contents were understood.

The second group includes petitions (ariza, arza-dasht). These documents reflect requests from both officials and ordinary people.

In addition, the documentary collection of the Institute contains several scrolls of family trees or so-called *shajara* of some historical figures. For example, there is a genealogy of Bukhara Khan Abu-l-Faiz Khan from the Ashtarkhanid dynasty (1711–1747) among such documents.

# **DOCUMENTS IN THE MANUSCRIPT COLLECTION**

The collection of manuscripts of works (but not the collection of documents) contains original documents put together in one volume. Each of these volumes is designed as a conventional handwritten book. Possibly, because of their appearance, they ended up in the collection of manuscripts and are still listed in that collection.

For example, one compilation of the inventory No. 1740 resembles an ordinary manuscript from the outside. However,

in a 250-folios manuscript, more than 2,000 original documents are pasted these are mostly letters to Muzaffar, the Emir of Bukhara (1860–1885) and addressed to esaul Mirak Sayyid with response messages to the last emir. In most cases, these are decrees on appointments, the processing of complaints, the distribution of income from the harvest, the issuing of books to students at madrasahs, distribution of money to the military and other issues.

Key elements of this work are documents such as letters-instructions and letters-notifications with a round stamp of the emir on a reverse side of each document. The documents were glued to clean leaves of the manuscript with a reverse side where the stamps are imprinted, so they become to be visually inaccessible. Possibly, someone who glued them on a sheet of paper attached no importance to the stamps. In addition to letters-instructions, there are 32 *rivayats* (Inventory No. 902–934).

In contrast to this compendium (Inventory No. 1740), the compiler of another volume (Inventory No. 407) found a different solution. The documents in this collection were neatly glued and attached to clean paper sheets so that the front side and the reverse side of the documents remain visually accessible. In addition, some documents were carefully attached to the leaves only with two strips of thin paper, thus allowing the reader to turn pages and easily view the reverse sides of all documents where the stamps are imprinted. It should be noted that handicraft paper in Central Asia was always an expensive commodity. Therefore, beginning in the second half of the 19<sup>th</sup> century, relatively cheap Russian factory-manufactured paper became common. In some locations European-manufactured paper also became common. For example, documents

of this collection were glued to French factory-made paper with a "Paris" embossment.

This volume contains the originals of 315 letters from Bukhara Emir Muzaffar to one of the judges in Bukhara County, Mullah Muhyaddin, the brother of then-famous supreme judge Badraddin in Bukhara. All these documents present interesting material on private law relations, specific functions and responsibilities of provincial judges as well as information for research of actual relations (as opposed to the prescribed relations in works of fiqh) between sovereign and administrative machinery with qadi courts and other intriguing issues of administrative management in the Emirate of Bukhara.

# "ALBUM OF NAWAI"

The manuscript collection of the Institute has a collection of original letters (Inventory No. 2178) provisionally titled "Majmua-yi murasalat" ("A Collection of Letters") by a former owner of the manuscript, Shafirjan Mahdum. In scientific literature this collection is usually referred to as the "Album of Nawai." This album is comprised of 594 letters by 16 authors. The letters are addressed mainly to 'Alisher Nawai, who held high government positions at the court of Sultan Husain Baykara (1469-1506) of the Temurid dynasty. As Shafirjan Mahdum supposed, the letters were compiled together under the instruction of Nawai. A renowned Orientalist who studied this collection, A. Urunbayev, believes that this assumption is indirectly confirmed by the words of 'Alisher Nawai in his work "Nasaim al-muhabbat" dedicated to the biographies of Sufi sheikhs. Nawai wrote that Khoja Ubaydallah

Ahrar addressed him with messages on different occasions. He kept these messages and put them into a collection of letters separating each of them with *jadval* (lines). The similarity of the album with a description of Nawai and the presence of 128 letters-autographs of the famous Sufi sheikh Khoja Ahrar Ubaydallah addressed to Nawai, suggest that this album is, probably, a collection of letters sent to Nawai in "Nasaim al-muhabbat." More than half of the messages in this album belong to the poet Jami Abdarrahman, while the remaining 114 are letters of Khoja Ahrar's champions.

Authors of letters-autographs in the "Album of Nawai" are educated people of their time. In their letters they addressed issues of economic and political nature. The information in these letters helps readers gain a fuller insight into the economic, social, political and cultural lives of Mawarannahr and Khurasan in the 15<sup>th</sup> century.

# COPIES OF DOCUMENTS CERTIFIED BY THE QADI SERVICE

This type of compendia is found in the manuscript collection where one document has bound copies of other documents, each one stamped by qadis. One example is a collection of copies of documents-brevets (Inventory No. 1644). It should be pointed out, however, that despite the presence of the seals, these papers are not original brevets but are copies. Therefore, they may not be deemed as documents coming from the office of a governor. It should be reminded that each of these documents has stamps of qadis-related phrases, such as "bir muhr-lik" (single-stamped) or "ikki muhrlik" (double-stamped),

confirming the presence of a governor's stamp on the document. This suggests that, in this case, we are dealing with copies that were once issued as brevets and certified by qadis. Hence, they should be regarded as documents prepared by the qadi service, or *qazihana*.

Nevertheless, this does not undermine the importance of the collection. On the contrary, having absorbed a large number of copies of brevets issued by Shaibani, Ashtarhani, and Kokandi rulers, the collection provides grandious material on the history of record management in the abovementioned states and also the social life of the Kokand Khanate (i. e., the time when they were copied).

A compendium of copies for 373 gadi documents (Inventory No. 1386) provisionally titled "Majmu'a-yi wathai'q" ("A Collection of Documents") also falls under this category. It mainly contains copies of documents drawn up in 1589 through 1592 and a number of documents generated in 1629 and 1642 in Samarqand. Some scholars who have studied the documents in this compendium emphasize their authenticity by pointing to the presence of seal impressions with the legends under each of them reading: *Qazi Mir Mulla Muhammad 'Umar Qazi* and 'Ashur Muhammad ibn Mulla Qurban. It should be noted, however, that the text appears to be written over the stamp.

This means that the stamps were imprinted on the paper before writing the text. This, as well as gaps in the dates in the collection of documents, testifies to that fact that we are dealing with a collection of copies especially done for one of the two aforementioned qadis (perhaps as examples of legal cases).

# **QADI'S BOOK OF REGISTRATION**

Four notebooks are preserved in the manuscript collection of the Institute (Inventory No. 9490; 9491; 9492; 9493) that were compiled by scribes at the service of qadis and contain a systematic record of various judicial transactions. The transactions cover various regions of the Khiva Khanate. All four of the notebooks were started in the late 19<sup>th</sup> to early 20<sup>th</sup> centuries and include records on a total of 28,205 documents certified by the seals of gadis.

The aforementioned data shows that the Institute has a rich collection of original sources such as documents containing information on the history of Central Asia. However, very few of them have been introduced into research use. Researchers have yet to do a lot in the area of diplomacy to introduce the new historical facts reflected in these documents.



# SCRIPTS, ORNAMENTATION, AND ILLUSTRATIONS

# Sh. Ziyodov

# 3.1. CALLIGRAPHIC STYLES

The art of book writing is essential to the centuries-old cultural legacy of Oriental nations. After the Arab conquest of Central Asia, the 'Arabic script penetrated into the culture of these areas, gradually replacing local written languages (old Sogdian, Khorezmian and Uyghur scripts).

Over many centuries, the 'Arabic script served for the development of spiritual culture and was one of a major means of preserving scholarly and cultural treasures until the present day.

Despite uniform fundamentals of the 'Arabic script, the form of the letters evolved in different ways.

'Arabic Script not only served as the written language for many nations. It evolved into an art in itself capable of delivering the utmost aesthetic delight. The art of 'Arabic calligraphy still enjoys worldwide popularity.

In the Mediaval Period, any work was transcribed by hand. Book transcription was deemed as a great craft and skill. Masters of this craft were known in history as calligraphers.

Writing skills were indeed based on abilities, knowledge and literacy with regard to the artistic aspect of writing. A calligrapher's profession was highly viewed in society and considered respectable and reputable. Many scientists, poets and educators left their heritage in book history as duly qualified calligraphers.

The experience of calligraphers increased with every manuscript proportionally to the number of books they transcribed as well their association with the authors and the rich content of the books. The perfection of the text and qualities selected by the calligrapher for transcribing depended on the overall culture, perception, bibliography and several centuries worth of book repertoire of different nations, plus knowledge in the field of literature and history.

A calligrapher was not considered a mere scribe. In medieval Central Asia the literacy and broad world outlook of a calligrapher placed him on par with major cultural figures of that period.

Each letter that was written by a skilled calligrapher is an immortal work of art. This may be due to the fact a skilled calligrapher not only expressed the sense, but also delivered an aesthetic delight while enabling contact with the world of imagery and characters of classical poetry as well as into a treasury of science and art. Among



the skilled calligraphers were Muhammad ibn Husain al-Tabi, Mir 'Ali Tabrizi, Sultan 'Ali Mashkhadi, Mir 'Ali Hiravi, Muniz Khwarizmi, Ahmad Danish, and others. There were many types of calligraphic styles in the east: *Kufi, Naskh, Thuluth, Nasta'liq, Riq'a, Rayhani*, and others. A person who considered himself a calligrapher had to be aware of all types calligraphy rules of the abovementioned scripts and follow these rules in writing. This in turn impelled a calligrapher to have a sufficiently broad knowledge, talent and advertence.

A master of writing—a calligrapher—is the one who was in charge of producing and creating a book. All negotiations about an order for a new book were held with a calligrapher. He not only transcribed the text of the book but planned absolutely everything that was related to its design, such as highlighting open spaces and pages for decoration and miniatures, thus pre-determining the work of the artist and illustrator for the new book. The calligrapher chose the script, identified the number of columns and lines, and arranged the text of poems according to the content and purpose of the book. For example, on the pages of a voluminous poetical epic (Inventory No. 2225), ghazals, mustazads, musaddas and others were placed in a special way and even ruba'i, tuyuk, chiston and fard were illustrated in order to highlight their presence.

Poetic works such as *masnavi*, *qasida* and *saki-na-ma* were illustrated according to special compositional requirements.

The mastery of script styles such as *Naskh*, *Nasta'liq* and *Thuluth* that were common in Central Asia was an obligatory criterion. The *Naskh* script was used to transcribe the holy Koran and hadith, while *Nasta'liq* was often used to transcribe imaginative literature and works on history.

The *Thuluth* script was used for transcribing scholarly works and for highlighting the headings of artistic works, titles of chapters, parts and cycles. In addition, calligraphers used *Rayhani* script to transcribe novels in prose and calendars. Sometimes, they used the *Shikaste* script for works of imaginative literature, *Tawki* for legislative documents, decrees and resolutions, and *Riq'a* for paperwork and letters. The development of the artistic writing styles mainly related to the spirit of the period and real practical requirements.

The principle of calligraphy is chiefly based on the spirit of a certain era and inherent practical requirements. According to sources, various methodological techniques have developed and have followed a path of comparative growth on the basis of six writing styles—*Naskh*, *Thuluth*, *Riq'a*, *Rayhani*, *Tawki*, and *Muhaqqaq*.

Under historical circumstances, about 70 scripts could be found in the Near and Middle East and Central Asia at the end of the 19<sup>th</sup> century. All of these scripts were based on the six classical styles.

Calligraphers speaking Turkic languages and Persian in Maverannahr, Azerbaijan, and Iran equally contributed to the development of new writing styles.

Scripts such as Ta'liq, Nasta'liq, Shikaste, Madjari, Idjaza, Diwani, Djali-Diwani, Riq'a, Kirma and Siyogat were created on this calligraphic basis and were saturated with the ancient cultural influence and elements of written cultural traditions. For example, the script Ta'liq created in the Medieval Period was close to the ancient and medieval Iranian Pahlavi script.

Important changes began taking place in the 15<sup>th</sup> century both in the economical and political spheres of Central Asia and Khorasan. The rise of the Timurid Empire initiated

a cultural ascent in both areas. This was especially true of the art of calligraphy, which is directly associated with written literature and bibliography compilation, and which led to the emergence of several calligraphic schools in cultural centers and brought skilled calligraphers together. Below is information about some of these calligraphers.

# 1. THE REPRESENTATIVES OF HERAT CALLIGRAPHIC SCHOOLS

**Ibrahim Mirzo**—son of Shahruh and a grandson of Timur, was the successor of Sharafiddin 'Ali Yazdi. The great historian devoted his work "Zafarnama" ("A Book of Victories") to Amir Timur. Mirza Ibrahim was an unmatched calligrapher in the six scripts. He surpassed the well-known calligrapher Yaqut al-Musta'simi (1221–1298) by imitating his style. Some parts of his letters have survived in ancient buildings of Shiraz. The calligrapher died in 1431.

**Khoja Mir-'Ali Tabrizi** (14<sup>th</sup>–15<sup>th</sup> centuries)—famous as a creator of a unique style *Nasta'liq* by means of combining six writing styles (1673).

**Sultan-ali Mashhadi** (15<sup>th</sup> century)—excelled in the art of the *Nasta'liq* calligraphic writing style and received the honorary title of "The Leader of Calligraphers." The script of Sultan 'Ali Mashkhadi was used to transcribe many works by Nawai during the poet's lifetime. For example, the manuscript "Nawadir al-shabab" ("Rareness of Youth") (Inventory No. 1995) by 'Alisher Nawai that is part of the collection of the IOS of the Uzbek Academy of Sciences was transcribed in the fine *Nasta`liq* style by the chrysographer Sultan 'Ali Mashhadi, who wrote at the end of the manuscript, "Sultan 'Ali Mashhadi, have

transcribed this copy for the treasury of Mirza Sultan Husein in Herat."

**Abdaljamil** (d. 1506)—a special scribe for 'Alisher Nawai's works. He transcribed "Hamsa" ("Quintuple") during the author's lifetime. The poet highly appreciated the work of the calligrapher. This copy is undoubtedly the best one (Inventory No. 5018). The second full copy of the Diwan "Nawadir al-shabab" ("Rareness of Youth") was also executed by Abdaljamil in 1487.

**Darvish Muhammad Taki Hiravi**—a contemporary of 'Alisher Nawai and 'Abd al-Rahman Jami who transcribed works of great public figures throughout his life. He transcribed such works as "Baharistan" ("The Spring Garden") by Jami (Inventory No.3376) and "Lubbi lubabi ma'navi intihabi masnavi" ("The Kernel of All Spiritual Cores, an excerpt from *Mathnawi*") by Husain Va'iza Kashifi (Inventory No. 2227).

The manuscript of "Kulliyat" ("The Complete Works") by Amir Khusraw Dihlavi was transcribed in fine *Nasta'liq* and adorned with artistic miniatures (Inventory No. 9661).

**Sultan Muhammad Handan**—one of the first successors of Sultan 'Ali Mashkhadi (15<sup>th</sup>–16<sup>th</sup>). He dedicated his life to serving Nawai since his adolescence. He transcribed several folios of *Diwans* (Inventory Nos. 2196, 2261).

**Hwaja Abdallah Marvarid Bayani** (d. 1526.)—a mentor of calligraphy in seven styles. He was a calligrapher both during and after the reign of Sultan Husein.

# 2. THE CALLIGRAPHY SCHOOL OF BUKHARA

**Mirali Hiravi**—signed as a *katib sultani* (sultan's scribe) on books he transcribed. He was born in Herat and raised in Mashhad. Mirali was an unsurpassed master of calligraphy

in his days. In 1538, Ubaydallah-khan together with Mirali Hiravi brought a large group of scholars, craftsmen and representatives of art from Herat to Bukhara. Several folios of classical poets were transcribed by Mirali (Inventory No. 2298, 9700).

**Mir Husayn Kulanki Bukhari**—forcibly brought by Ubaydullakhan to Bukhara with a group of craftsmen in 1538. He transcribed many works of Ubaydulla-khan including his "Diwan-i Ubaydi" (Inventory No. 8931)

**Sayyid Abdallah Bukhari** (d. 1647)—known by the pennames Darvesh Abdi and Mawlavi. He is the scribe of "Shahnama" by Ferdawsi.

**Khoja Yadgar** (d. 1663)—a calligrapher during the reign of Abdalaziz-khan and an unsurpassed master of *Nasta'liq* style. He transcribed many works by Khafiz.

**Fazil Diwana** (18<sup>th</sup>–19<sup>th</sup> centuries)—one of the most skilled calligraphers of Persian books who lived as a dervish in *gulzar* near Bukhara, not far from Mazari Sharif gates. He was a scribe of Bedil's works (Inventory No. 11267).

**Ahmad Danish** (1826–1897)—a great thinker and fine calligrapher. By his own hand he decorated manuscripts with gold coating, sketches and miniatures. The Institute's collection possesses a series of transcribed works (Inventory No. 2187, 2776, 2941).

# 3. THE CALLIGRAPHY SCHOOL OF SAMARQAND

**Ahmad ibn Umar Ash'as Abu Bakr Samarqandi**—a prominent calligrapher of the 11<sup>th</sup> century. He lived in Damascus for some time where he transcribed *mushaf* (copy) of the Koran.

**Muhammad Sabir ibn Muhammad Salih Samarqandi**—one of the skilled 17<sup>th</sup> century calligraphers in Samarqand. The work by Mu'in Miskin Hiravi "Mi'raj an-nubuvvat" ("The

Prophet's Ascension") was transcribed by him in ornate *Nasta'liq* script in 1689. There is a gilded sketch at the beginning of the manuscript (Inventory No. 9621).

**Muhammad ibn Husain Miraki Samarqandi** (16<sup>th</sup> century)—an historian and calligrapher. He transcribed the work "Ihtiyarati Badi'i" ("The Princess Badi' al-Jamal") by 'Ali ibn Husayn al-Ansari especially for Abdallatif Shaybanid in 1541 (Inventory No. 1598).

Achildi Murad Miri Katta Kurgani Ni'matallah ugli (d. 1899)—known by the aliases Mullah Achildi, Achildi Mahdum and later qazi Achildi in Qattaqurgan and its suburbs. He earned a living by transcribing and selling works of Khafiz Shirazi, 'Alisher Nawai, Bedil and various textbooks (Inventory Nos. 1380, 1408, 9395).

**Abdaljabbar Urguti Samarqandi** (1885–1910)— a prominent calligrapher in *Nasta'liq* style. He transcribed more than 250 manuscripts (Inventory No. 2460).

# 4. THE CALLIGRAPHY SCHOOL OF KHOREZM

**Hamdami** (first half of the 16<sup>th</sup> century)—a very talented poet and master of *Nasta'liq* style. He transcribed "Shahnama" ("The Book of Kings") by Ferdawsi in *Nasta'liq* script by the order of Khorezmian khan Ishmuhammad in 1554 (Inventory No. 1811).

**Mawlana Abdarrahman Khorezmi**—known as a calligrapher from 1455 to 1475. His two sons, Abdarrahim Anisi and Abdalkarim, altered his writing style, thus proving the gateway to their fame.

**Munis Khorezmi**—born in 1778 in the suburbs of Khiva. He was a famous poet, historian, translator and fine calligrapher (Inventory No. 821,1330).

**Hudaybergan Muhrkan Khivaki**—the son of Muhammada Fano, he was born in the Babakravanbashi settlement of Yangi kala in 1817. He was interested not only in calligraphy but also in stamp making (Inventory Nos. 1135, 1154, 9319, and 9578).

**Kamil Khorezmi**—a poet, calligrapher and master of patternmaking (*naqqash*) which occupies a special place in the Khiva literature movement in the second half of the 19<sup>th</sup> century (Inventory No. 1135).

# **5. THE CALLIGRAPHY SCHOOL OF FERGHANA**

**Zahiraddin Muhammad Babur**—a famous statesman, commander, poet, historian, and calligrapher-inventor. Babur invented a writing style of his own that was used in different forms of 'Arabic scripts. This new script was called *Khat-e-Baburi*.

**Muhammad Latif** (19 century)—a prominent calligrapher from Kokand, he was the son of Muhammad Sharif from Shakhrizabz. He transcribed "Char Diwan" ("Four Diwans") by Nawai in *Nasta'liq* script in the beginning of the 19<sup>th</sup> century. Each column of this manuscript was illuminated with different ornaments in gold and different colors (Inventory No. 1715).

**Mirza Dabir**—lived in the first half of 19<sup>th</sup> century. Mirza Dabir perfectly transcribed "Diwan-i Fuzuli" in *Nasta'liq* style by the order of Muhammad 'Ali Khan in Kokand in 1836 (Inventory No. 150, 3465).

Mukimi Muhammad Amin Khoja Mirza Khoja ugly (d. 1903)—a poet and calligrapher. He transcribed "jali kit'a" and "ruba'i" in fine *Nasta'liq* script (Inventory No. 9309).

**Ma'asumkhan Gulhani** (d. 1922)—a poet and calligrapher and a contempory of Mukimi. He transcribed many textbooks.

**Raji Hakandi** (d. 1924)—a calligrapher who transcribed a series of works on philosophy and poetry. One of the manuscripts is deposited at the museum of literature in Kokand.

**Ishakhan Turakurgani** (d. 1937)—an educator, poet and calligrapher with a literary penname Ibrat. The collection possesses his autographs (Inventory Nos. 10117, 11618).

### 6. THE CALLIGRAPHY SCHOOL OF TASHKENT

**Mahmud Abdaljalil Vasifi**—a prominent poet of Khurasan, the author of "Badai' al-vakai" ("Amazing Events") (Inventory No. 698). He set to travel across Maverannahr and arrived in Tashkent through Parkent in 1521, where he worked and engaged in calligraphy.

**Jalaladdin Yusuf Shashi**—achieved mastery in the art of ornamentation (*naqqashliq*), miniature painting and calligraphy in Tashkent in the 16<sup>th</sup> century.

Muhammad Yusuf Taib Muhammad Amin ugly—wrote a qasidah titled "Anvar al-bavarik" ("The Light of Rays") in 1894, supposedly in response to a qasidah titled "Jilal ar-ruh" ("The Eminence of Soul") by Abdurrakhman Jami. The work is finely transcribed by the author's own hand (Inventory No. 6696).

**Muhammad Zarif** (19<sup>th</sup>–20<sup>th</sup> centuries)—a poet and calligrapher who transcribed many works by Nawai (for example, Inventory No. 6126).

**Muhammad Shah Murad Katib Ni'mat ugly** (19<sup>th</sup>– 20<sup>th</sup> centuries)—mastered the art of calligraphy from

calligrapher Davud Hvadji. He transcribed by imitating the styles of prominent calligraphers.

**Muhammad Usman Katib Tashkandi** (19<sup>th</sup>–20<sup>th</sup> centuries)—known as Usman qatib, he transcribed the works "Fasl al hitab" ("Clear Speech") (Inventory No.10417) by Muhammad Parsa and "Salavati Mas'udi" ("Prayers of Mas'ud") by Mas'ud Samarqandi (Inventory No. 14868).

**Siraj al-Din Makhdum Sidqi Mir Zahid Khandaliqi**—one of the representatives of Uzbek literature in the beginning of the 20<sup>th</sup> century. He exalted writing to the status of an art form and mastered the art of calligraphy in *Naskh, Ta'liq, Yaquti, Ubaydi, Thuluth, Ruk'a* and *Lahuri* styles. Most manuscripts he transcribed are kept in the IOS of the Uzbek Academy of Sciences (Inventory Nos. 9569, 7629, 7630).

The following is information on copies in the depository of the Institute's Collection that was transcribed on the basis of fine writing.

The most ancient manuscript of the Institue's collection is a copy of the Koran written in the 9<sup>th</sup> century in *Kufi* style (Inventory No. 579). The most recent manuscript was transcribed in the first quarter of the 20<sup>th</sup> century.

Another rare work is "Gharib al-Hadis" ("A Rare [Phrase] in a Hadith") by famous scientist Ibn Sallam. It was transcribed in 955 in both *Kufi and Naskh* script. The research of this work leads to the conclusion that a transition from *Kufi* style to *Naskh* occurred in the middle of the 10<sup>th</sup> century.

Rare copies of the Koran are also stored in the manuscript collection. The largest one was written in *Thuluth* style (Inventory No. 3962). Judging by the writing style, paper and other signs, it was transcribed in the 12<sup>th</sup> century for the library of Malik al-Nasir, i. e. Salah ad-din (d. 1193) upon special request.

Another copy of the Koran is notable for its artistic illumination. The text was fully transcribed in fine *Naskh* with gilded illumination. The translation into Farsi was placed below the text and executed in red ink. There is a text of "Tafsiri jalalayn" ("Jalali's Commentary on the Koran") with a beautiful sketch at the beginning. The paper was made with the addition of silk and the binding is decorated with gentle flowers with the help of varnish paint (Inventory No. 1226).

The manuscripts stored in the Institute's collection testify that calligraphers played a decisive role in the development of the medieval book, educational system and dissemination of books in 'Arabic created by scholars, poets and writers over the centuries. Thousands of manuscripts that represent masterpieces of human culture and universal spiritual values are extant today because of the hard work of these talented artists.

The books transcribed by calligraphers such as Mir 'Ali Tabrizi, Mir Imad, Yakut, Sultan 'Ali Mashkhadi, Darvish Muhammad Taki, Muhammad ibn Nur, and Mirza Sharif Dabir not only have an educational value but also a well-deserved place among the best examples of the art of calligraphy in the history of Central Asian book culture.

# Sh. Musaev, G. Karimov

# 3.2. MINIATURE AND ARTISTIC PAINTING

Miniature and artistic paintings are gems in the centuries-old history of Middle East and Central Asia. Medieval Oriental miniatures, i. e. the ornamental decoration of manuscripts developed under the influence of classical Oriental poetry and works by prominent poets of world literature such as Ferdowsi, Nizami Ganzhavi, Sa'di, Khafiz, Khosrow Dehlavi, Dzhami, Nawai, and other poets of eminence. Oriental poetry has become an inexhaustible source of inspiration for artists, enriching their art with humanistic ideas as well as dateless and soulful images. The grandiose epic "Shah-nama" ("The Book of Kings") by Ferdowsi; the heroic, romantic and philosophic and didactic poems by Nizami Gandzhavi; "Khamsa" and other works of Amir Khosrow Dehlavi; "Gulistan and Bustan" by Sa'di, the book of poems by Khafiz Shirazi; works by Abdurakhman Dzhami, 'Alisher Nawai, and others all had a profound impact on miniature artists. Book designers had a powerful incentive for the creation of abundant and unique works from a conceptual and esthetic viewpoint that differ from each other by artistic details and individually elaborated images.

Along with determining the humanistic content and conceptual trend of miniature painting, Oriental poetry had a significant impact on the development of its artistic forms. Oriental poetry, with the sublime world of imagery, elegance and flamboyance in its metaphoric language, rhythmicity and musicality inspired artists to create a concordant provisionally decorative style and excellent imaginative compositions for specific works. Plots that invariably attracted the focus of almost all artists crystallized as centuries passed. Storylines and the seamlessness of narration was polished, and the pattern of their elaboration was perfected. It should be emphasized that miniature painting and other types of Middle Eastern and Central Asian art have some pronounced similarities.

Masterpieces of Oriental miniature painting are found in most of the world's museums, manuscript depositaries, and private collections, including those of the Institute for Oriental Studies under the Academy of Sciences of Uzbekistan. The manuscript collection at the Institute of Oriental Studies houses one of the richest collections in the world enumerating more than 3,000 items and a sufficient number of paintings for individual works. Using images, they illustrate both the entire content of the text and its parts. Some of them are discussed in detail below.



Chronologically, the earliest miniature paintings by an unknown artist (second half of the 14<sup>th</sup> century) illuminate an historical work of Fazlallah Rashidaddin ibn Imadaddavly (executed in 1318) titled "Dzhami al-tavarikh" ("A Compendium of Chronicles"). There are portraits of Bartan-Bahadur and his wife Sanigil-Fudzhin (grandfather and grandmother of Genghis Khan), Ugedei Khan with his wife, and Genghis Khan himself on the throne. There are a total of seven portraits of Mongols (Inventory No. 1620).

A corpus of 116 miniature paintings by Muhammad Murad Samargandi for the Khiva folio of Ferdowsi's "Shah-nama" is undoubtedly one of the most impressive series of miniature paintings. "Shah-nama" was transcribed for Ishmuhammad khan in 1566–1557 (Inventory No. 1811). In his miniature paintings that are rich in color shades and iridescence, the artist vividly and colorfully depicted kings, their deeds, various battles, fights, the deeds of knights and soldiers, feast scenes, religious cycles, and others scenes based on the narration. There is an interesting miniature painting depicting meetings of Ferdowsi with court poets of the Ghaznevids such as Unsuri, Asdzhadi and Farrukhi, who had won popularity by that time. The manuscript is artistically decorated and transcribed in Nasta'lia script in four columns on a page, on thick glossy paper. Each chapter title for each story begins with titles executed in golden ink and with an unvan (l.1.b) at the beginning, illuminated with golden ink and bright hues. Another "Shah-nama" copy is adorned with 77 fine miniature paintings that expressly illustrate various battles, feast scenes, encounters, fights with dragons, and other scenes. (Inventory No. 3463).

The "Shah-nama" was illuminated at various times by many artists specializing in miniature painting, calligraphers, book binders and other skilled book makers. Another copy of "Shah-nama" is adorned with 22 miniature paintings by an unknown artist (Inventory No. 372). All of the folios in the depositary are artistically illustrated and are in a good status of preservation.

Works illuminated with miniature paintings include folios of "Khamsa-yi Nizami" ("Quintuple") by Sheikh Nizami Gandzhavi (d. 1200 or 1209). "Khamsa" (Inventory No. 662) consists of the following poems: "Makhzan al-asrar" ("The Storehouse of Mysteries"), "Khosrow va Shirin" ("Khosrow and Shirin"), "Layli va Madzhnun" ("Leyli and Majnun"), "Haft paykar" ("The Seven Beauties"), and "Ayina-yi Iskandar" ("The Mirror of Alexander the Great"). The manuscript is decorated with 27 fine miniature paintings by an unknown artist with five unvans at the beginning of each poem and transcribed in fine Nasta'liq script. Another copy of "Khamsa" was illuminated and adorned with two miniature paintings of high quality. Other copies of "Khamsa" are also well illustrated. The poem "Layli va Madzhnun" is adorned with 20 picturesque miniature paintings.

The well-known work in prose titled "Tazkirat al-av-liya" ("Hagiographies of Saints") by Faridaddin Muhammad ibn Ibrahim Attar (d. 1229 or 1234) is illuminated with 52 miniature paintings of high artistic merit (Inventory No. 2103). The "Tazkirat al-avliya" folios (more than 10) are colorfully illuminated and transcribed in neat *Suls* and *Nasta'liq* scripts with *unvans* and gold speckles. The text is framed with golden and colored margins.





Artists also paid due attention to works by Sheikh Muslihaddin Sa'di Shirazi. "Gulistan" ("The Rose Garden") (Inventory No. 7727) is his famous prosaic and didactic collection of short stories decorated with 36 miniature paintings. His "Kullayat" ("The Complete Collection of Works") (Inventory No. 4448) is illuminated with a series of miniature paintings executed in a shading technique with three *unvans*. His other works are also artistically decorated and transcribed in neat *Nasta'liq* script.

The heritage of Amir Khosrow Dehlavi's creativity is widely represented in the manuscript collection of the Institute of Oriental Studies. Many of his works are in good condition, artistically decorated and adorned with miniature paintings. For example, his work "Hamsa" (Inventory No. 3317) is transcribed in *Naskh* script and illuminated with 36 interesting miniature paintings by an unknown artist. "Divan" by Dehlavi is adorned with two magnificent miniature paintings of an Indian school of miniature painting. The other works of the poet are illuminated with frontispieces, *unvans* and artistic insertions. The works were transcribed in neat *Nasta'liq* and old *Naskh* scripts.

The manuscript collection possesses a rare manuscript of "Kalila and Dimna," which is a translation from Sanskrit (from the Indian epic "Panchatantra") into Persian of a collection of edifying tales, apologues and anecdotes (written in Kashmir circa 3<sup>rd</sup> century A. D.). The manuscript contains 49 miniature paintings by an unknown artist depicting people, animals, birds and other scenes that illustrate each chapter of the manuscript. The manuscript was transcribed in *Naskh* and *Suls* scripts in 1304 (Inventory No. 1687)

The richest series of miniature paintings is dedicated to "Divan-i Khafiz" by Shamsaddin Khafiz Shirazi (d. 1389). Many of the artists paid attention to Khafiz's lyrical ghazals noted for conveying the finest shades of thought and feeling of the characters. For example, there are 18 miniature paintings in the manuscript with an Inventory No. 1420, while a manuscript with an Inventory No. 350 contains 23 miniature paintings and "Divan," with an Inventory No. 10042, is illustrated with 78 miniature paintings by an unknown artist. "Divan" with an Inventory No. 12800 is illuminated with 31 miniature paintings by an unknown artist in the 18<sup>th</sup> century. All "Divans" by Khafiz are exquisitely designed and are in a good preservation status.

The lyrical poem "Yusuf va Zulaykha" (Inventory No. 1433) was written by Uzbek classical poet Durbek in Balkh in 1409 and is illuminated with five delicately and exquisitely executed miniatures by an unknown artist.

A series of 12 miniature paintings by an artist of the Herat school are dedicated to a famous historical manuscript titled "Zafar-nama-yi Timuri" ("A Book about Timur's Victories") by Sharafaddin 'Ali Yazdi (d. 1454) (Inventory No. 4422). Eight miniature paintings depict battle scenes, one is an erotic scene, one is a hunting scene, and two are feasts. A copy with an Inventory No. 3440 has a sketch of a fine miniature painting depicting battle formation of troops.

The Institute's manuscript collection possesses a finely illuminated "Divan-i Qasim-i Anvar" by 'Ali ibn Nasir ibn Harun ibn Abu-l-Qasim al Husaini at-Tabrizi. The collection of the poet's poems is illustrated with two lightly-colored miniature paintings from the 15<sup>th</sup> century in the style of the Herat school (Inventory No. 2108).

A significant part of Abdurakhman Dzhami's works was luxuriously decorated, transcribed in *Nasta'liq* script and adorned with fine miniature paintings. For example, "Haft Awrang" ("Seven Thrones" or "Ursa Major") is illuminated with miniature paintings that illustrate seven poems in this work (Inventory No. 3478). A series of folios of poem "Yusuf va Zulaykha," for example, with an inventory No. 9397, is luxuriously illustrated with 63 fine miniature paintings. Another one is illustrated with 27 miniature paintings. All folios of the poem are finely illuminated with frontispieces, gold specks, transcribed calligraphic and neat *Nasta'liq* script. The text is framed with golden and colored margins.

The literary heritage of 'Alisher Nawai is also beautifully illuminated. His numerous works were transcribed in different years by different calligraphers and miniature painting artists. For example, the manuscript of his first divan "Gara'ib al-sigar" ("Wonders of Childhood") (Inventory No. 2197) is decorated with five miniatures by an unknown artist in the style of the Herat school. It was transcribed by the famous calligrapher Sultan 'Ali Mashkhadi (15th century) in Nasta'liq. The text is framed with golden and light-blue margins and poem titles are executed in golden and light hues. Another copy is adorned with nine miniature paintings (Inventory No. 7463). The poem "Hazain al-ma'ani" ("Treasury of Thoughts") is illuminated with three highly artistically executed miniature paintings. "Navadir al-shabab" ("Rarities or Witticisms of Youth") is adorned with six miniature paintings that were typical for the Herat painting school with frontispieces, unvans, ornaments with the use of gold, ultramarine and bright hues (Inventory No. 1995). Other works by Nawai are also

artistically decorated and mostly transcribed in calligraphic *Nasta'liq* script with liquid gold and bright paints.

Mawlana Hatifi's (d. 1521) work "Temurnama-yi Hatifi" ("Hatifi's Book about Temur") is represented as a magnificent manuscript with a frontispiece on leaves one and two decorated with six page-size miniature paintings by an artist named 'Ali Riza Katibi. The first two miniatures depict "An assault of a fortress by the troops of Amir Temur." All margins of the manuscript are covered with floral patterns; it is transcribed in calligraphic *Nasta'liq* on golden speckles and framed with golden and colored lines by artists of the Herat school (Inventory No. 2102). Other folios of "Temurnama-yi Hatifi" are also in a good status of preservation.

The manuscript collection at the Institute possesses an illustrated historical work titled "Fatkh-nama" ("The Book of Victories") by Mullah Muhammad Shadi (16<sup>th</sup> century). The poem narrates the wanderings and victories of Muhammad Shaibani-khan (1500–1510). It was illustrated with seven miniature paintings by an unknown artist, who apparently was a venerable artist. The seven paintings include Shaibani-khan in a royal tent; handing over a Mahidil letter; Shaybani Khan accepting a golden teacup near a white yurt; Shaibani-khan in the mountains; Shaybani-khan and Muhammad Mazid-runaway; a battle scene; and the siege of Samarqand. The manuscript was transcribed in calligraphic *Nasta'liq*. The text is framed in golden and black margins and the titles are highlighted with liquid gold.

Another illustrated work on history, "Tarikh-i Abulhayrh-khani" ("History by Abulhayrhkhan"), was written by Mas'ud ibn Usman-i Kohistani (Inventory No. 9989). Twenty-eight

miniature paintings in bright colors by a prominent Central Asian artist illuminate the text. The artist paid special attention to group scenes and portraits.

Two copies represent the work "Madzhlis al-ush-shak" ("A Meeting of Lovers") by Kamaladdin Husayn Guzurgahi (16<sup>th</sup> century) in the Institute's collection (Inventory No. 3476). The manuscript contains 50 colored miniature paintings, portraits of famous poets, rulers, Sufis and other persons. The second copy (Inventory No. 65) is illustrated with 75 miniature paintings—portraits of famous people.

The manuscript collection possesses the literary heritage of the famous scientist, translator and commentator from Herat, Husain ibn 'Ali al-Va'iz al-Kashifi. For example, his work "Anvar-i suhaili" ("The Lights of Canopus") is a new edition of "Kalila and Dimna" (Inventory No. 9109) and is adorned with 35 exquisite miniatures in pastel shades. The miniature paintings precisely illustrate all 14 chapters of the work.

An excellent manuscript written in ink and cinnabar on gold-speckled glossy paper in *Nasta'liq* script represents another work by Kashifi, "Ahlak-i Muhsini" ("The Ethics of the Virtuous") (Inventory No. 2116/I). Leaves 1b–2a are illuminated with gold and bright paints and decorated with frontispieces. The text is framed with golden and colored margins. The manuscript was originally decorated with 22 miniature paintings. Now only parts of landscapes and architectural details remain. For some unknown reasons, perhaps religious, all depictions of people were covered (blurred out) with liquid gold and paint.

A series of miniature paintings was dedicated to "Divan" by Aga Muhammad Isfakhani Ashik (d.1767). The manuscript

contains six exquisite miniature paintings for the poems dedicated to Yusuf and Zulaykha.

Some works by Mirza Abdulqadir Bedil, in particular, his "Ruba'iyat" ("Quatrains") (Inventory No. 9614) in *Bayaz* were illustrated with picturesque miniature paintings and frontispieces. Each quatrain was transcribed in calligraphic *Nasta'liq* and framed with golden and color lines. The manuscript's margins are illuminated with a golden pattern. There are 22 *unvans* to the quatrains by Khafiz, Dzhami and others in *Bayaz*.

The Institute's collection possesses manuscripts on exact and natural science. One example is "Kitab-i saydiya" ("A Book about Hunting") by Shaykh al-Islam al-Haravi as-Samarqandi (16<sup>th</sup> century) (Inventory No. 5225/III). The copy gives a description of animals arranged in 'Arabic alphabetic order and illustrated with 67 colorful images of the animal world.

A copy of "Adzha'ib al-makhluqat va ghara'ib al-maudzhudat" ("Wonders of Creation and Marvels of Existence") by Zakaria ibn Muhammad ibn Mahmud al-Kamuni al-Qaznivi (Inventory No. 3477) is illuminated with 174 colored illustrations.

"Danish-nama-yi dzhahan" ("The Encyclopedia of the World") by Giyasaddin 'Ali ibn Amiran al-Husaini al-Isfaha-ni (13<sup>th</sup>–14<sup>th</sup> centuries) (Inventory No. 4470) consisting of four sections that explain the emergence and structure of the universe, the essence of natural phenomena, flora and fauna, and human anatomy, is illustrated with numerous highly artistic miniatures.

The collection has a work titled "Kitab-yi faras-nama" ("Book about a Horse") by an anonymous author which is a translation from Sanskrit (Inventory No. 2199). An unknown artist illustrated the work with 29 colorful

and highly artistic miniature paintings depicting various horse breeds in the 18<sup>th</sup> century. The second copy (Inventory No. 5519) contains 26 miniature paintings depicting horses by their coat color. The copy (inventory No. 471/I) is adorned with three magnificent miniature paintings by an unknown artist. There is an exquisite *unvan* executed in gold and paints at the beginning of the treatise, which was transcribed in neat *Nasta'liq*. The text is enclosed in golden and colored lines.

The manuscript collection is adorned with 86 portraits in the style of miniature painting contained in the original rare work "Suhbat al-abrar" ("Chaplets of Saints"). The work describes the family tree from Adam, Old Testament prophets such as Noah, Abraham, then later to Jesus, Muhammad, their followers and successors, the 12 imams, King Nimrod, royal heroes in Ferdowsi's "Shah-nama," scientists and philosophers, Socrates, Plato, Ptolemy and others. The treatise also provides a genealogy of Abbasids, Samanids, Chingizids, Buveyhids, Ghaznavids, Khorezmshaks, Seljuks, Osmans, Omeyad dynasties and others down to the Turkish Sultan Osman I ibn Ortogrul (1299–1326). Mini-miniature paintings are encircled with colored and golden lines with names placed outside the frame.

The art of manuscript illumination is versatile. Book artists paid special attention to binding. For example, the manuscript of the "Silsila-yi aliya-yi hazrat-i Hvajagan-Naqshbandiyya" treatise ("The Lofty Genealogical Chain of Honorable Khodjas {of} Naqshbandiyya {Order}") was compiled in 1799. Ibadallah inb Sultan 'Ali Balkhi has a beautifully lacquered binding with patterns, flowers and inlaid encrustation. The names of sheikhs are inserted in gold and white in beautiful circular charts. The margins of

the manuscript are adorned with a highly artistic ornament of field flowers executed in liquid gold and bright paints. The collection stores tens of such book covers made by different bookbinders belonging to different schools.

The Institute's collection also holds masterpieces of miniature painting dedicated to individual rulers, poets, scientists, musicians, animals and birds, feasts and battle scenes, and other games.

Treatises on calligraphy are widely represented in the collection. The work "Favaid al-hutut" ("Useful Remarks on Scripts") (Inventory No. 2617) compiled by Darvish Muhammad ibn Dust Muhammad Bukhari is a theory of calligraphy art with samples of *Nasta'liq* script. The author was a calligrapher who compiled his work in 1586. The "Dar qavaid-i hat" ("On Rules of Calligraphy") by Mawlana Sultan 'Ali Mashkhadi (Inventory No. 8528/XV) describes methods of training, ink, colors, quill preparation and writing in *Nasta'liq* script. There are treatises such as "Hat va savad" ("Writing and the Skill of Writing") (Inventory No. 3582/V), "Rasm al-hat" ("The Rules of (Calligraphic) Writing") and others, along with samples of calligraphic scripts *Naskh*, *Suls*, *Nasta'lqk*, *Rayhani*, *Shikaste*, and *Semi-shikaste* compiled in different years.

There are also specimens of *qit'a*—calligraphic letters of famous calligraphers—such as 'Ali al-Katib, Mir 'Ali, Muhammad Murad Samarqandi, Hodja Yadgar, Muhammad Salih al-Katib, Mir 'Ali Tabrizi 'Ismatallah Munshi and others.

The folklore section of the manuscript collection has artistically decorated treatises. For example, "Kitab-yi dah vazir" ("A Book about Ten Viziers") by an anonymous author is a story about the love of padishah Azadbashkh

for the daughter of his commander. The manuscript is illuminated with two miniatures executed in gold and paint (Inventory No. 5526).

The analysis of the most significant of the artistically illustrated manuscripts at the treasury of the Institute leads to the following conclusion: the oldest miniatures in the collection date back to the 15<sup>th</sup> century. The most

recent ones date to the 19<sup>th</sup> century. Miniature painting is the supreme form of manuscript decoration that provides a graphic depiction of lyrics, narrations and short stories. In general, the significant part of the collection at the Institute, especially the "Collection of Poems," is exquisitely illustrated. They were transcribed in calligraphic scripts and in most cases in *Nasta'liq*, *Naskh* and *Suls*.



### M. Di Bella

# **4.1. ISLAMIC BOOKBINDING**

#### INTRODUCTION

A comprehensive history of Islamic bookbinding has not yet been written. These bookbindings cover an extremely wide domain in terms of chronology as well as in terms of provenance. They range from Yemen to Spain to Central Asia and are dated from the 7<sup>th</sup> century. Nevertheless, these bindings all have something in common that allow them to be defined as Islamic bookbinding. It is a simple definition, immediately referring to the cultural religious domain of provenance, but is also a definition that includes, from a structural point of view, some basic and fundamental material features of the books.

Islamic bookbinding has some structural features and decorative patterns that include them into the more general class of Oriental bookbinding. All Oriental bookbinding structures (from Byzantine to Coptic; Islamic to Syriac) have, for example, an unsupported sewing structure (fig. 1 and 2) and often no squares. This means that the binding boards are exactly the same dimension as the text block.

As for the decoration of the covers, early Islamic bookbinding seems to have been strongly influenced by Coptic examples <sup>1</sup>, which eventually led to the development of its own specific style.

Among the general group of Oriental bookbindings, those belonging to a specific cultural domain possess some distinctive feature, such as endbands, spine lining, boards, board attachment, board features, etc., made in different ways or with specific decorations.

Within every specific binding group it is possible to identify various other differences due to geographical and chronological influences, historical development of the bookbinding techniques, and a change of taste. As a result, amid the same class of bindings we can sometimes have books with very different appearances.



<sup>1</sup> See Petersen, Theodore C. "Early Islamic Bookbindings and Their Coptic Relations." Ars Orientalis 1 (1954), pp. 41-64.

### **ISLAMIC BINDING**

Islamic bindings are among the few bindings that can be described by a religious attribute. Even though it seems strange to identify a class of bindings by the religious faith of those who produced the objects, this is the only way to define the wide range of bookbindings found on all manuscripts produced in the 15<sup>th</sup> century in all regions of the Islamic world, regardless of their provenance of origin or language. It is also true that Islamic bookbindings have some features in common that can be subdivided according to other details (mainly the decoration) into smaller groups and named after the geographical provenance.

This is possible because few main changes have occurred to the Islamic binding structures over the centuries. In particular, a first attempt of classifying Islamic bindings was done some years ago by grouping these bindings into three main groups or types <sup>1</sup> (Type I, II and III) according to their external appearance, which corresponded under a structural point of view to specific features. This division is interesting because it shows quite clearly how different Islamic bindings can appear over the centuries. Nevertheless, in this classification there is no mention of a previous type of bookbinding that must have existed in the earliest manuscripts but unfortunately has not survived, even in fragments.

The three groups that distinguish bookbindings are easy to recognize:

- Type I—corresponds to the so-called "box bindings" found on manuscripts between the 8<sup>th</sup> and the 12<sup>th</sup> centuries A. D. (fig. 3)
- Type II—groups all classical "fore-edge flap" book bindings (fig. 4)

 Type III—groups all Islamic bookbinding not bearing any fore-edge flap (fig. 5)

I would also add a Type 0, which is yet unknown.

# TYPE 0

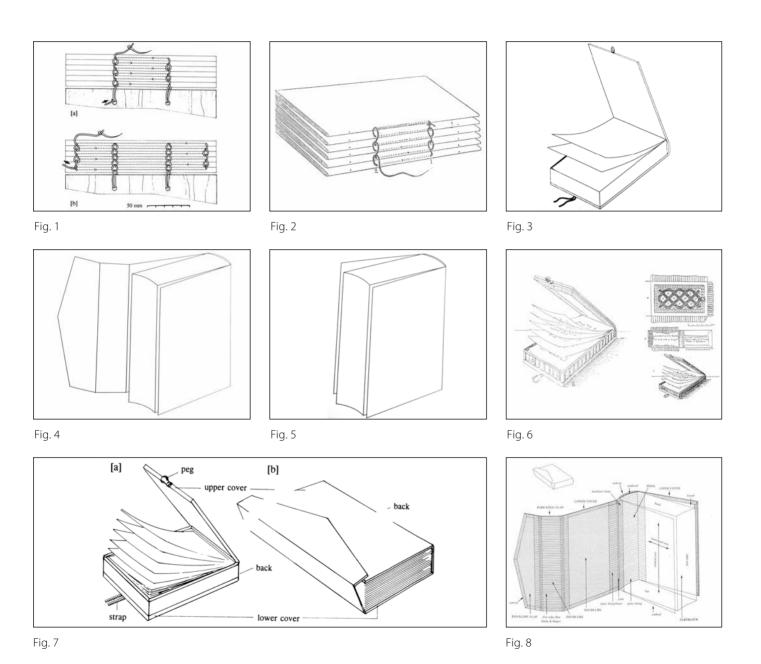
As already mentioned, we do not have any recorded information on binding structures for the earliest Islamic manuscripts. There is evidence of sewing but it is fragmentary. There is also no consistent text blocks from very old manuscripts. As a result, this evidence has not been recorded or studied until now.

# **TYPE I**

For manuscripts from between the 9<sup>th</sup> and the 12<sup>th</sup> centuries, however, we have many fragmentary bookbindings that allow us to reconstruct their original features with a certain degree of precision <sup>2</sup>. The early Islamic bookbindings, or so called "box bindings," were significantly different in structure from the later "classical" examples (fig. 7) except for the use of unsupported sewing (fig. 1, 2). These bindings were quite peculiar, resembling a box because of the presence of a continuous leather protection all around the three exposed edges (fig. 6). Box bindings have been found associated only with Masahif manuscripts

<sup>1.</sup> See Deroche, Francois. Manuel de codicologie des manuscrits en ecriture arabe. Paris: Bibliotheque nationale de France, 2000.

<sup>2.</sup> See Di Bella, Marco. An attempt at a reconstruction of early Islamic bookbinding: The box binding. Proceedings of the twelfth international seminar held at the University of Copenhagen 14<sup>th</sup>–16<sup>th</sup> October 2009, Museum Tusculanum Press, 2011.



(copies of the Holy Qur'an). This might be one explanation for the unusual construction. Box bindings usually protect parchment manuscripts and since the skin is a material that is very sensible to the changes of the environmental parameters (temperature and humidity), the text block leaves need to rest under light pressure to remain flat. This is why the binding boards are made out of wood and a mean of fastening is used to keep them closed.

## **TYPE II**

Between the 13<sup>th</sup> and the 20<sup>th</sup> centuries most Islamic books were bound in a very similar way from a structural point of view. The main differences were limited to the decoration which is still the principal feature to classify the subdivisions <sup>1</sup>.

From earlier manuscripts there were two main changes—the writing support, which changed from parchment to paper; and the format, which changed from horizontal back to vertical. In the same time the fore-edge flap appeared in bookbinding, which became the main feature to identify the classical style for Islamic bookbindings.

The change in the writing support determined the change in the binding board material, which no longer needed to be wood. The sewing of the quires remained unsupported and the standard became two stations only. The endbands were traditionally flat and sewn on a strip of thin leather with a typical chevron pattern using two coloured threads.

In the early Type II bindings, the cover was usually full leather with elaborate decorations featuring the repetition of complex geometric patterns created with small tools.

The patterns progressively evolved to the more simple use of bigger blocks to decorate just the centre and corners of the boards as well as the flap. It is interesting to note that Islamic bindings were almost never decorated on the spines. There are few fragmentary examples on early medieval <sup>2</sup> bindings and some rare Ottoman samples in which the spine is decorated. Also the covering material, as it happened in Western bindings, evolved toward the use of less expensive materials. Half-leather bindings started to appear as well as cloth bindings associated with decorated papers.

### **TYPE III**

This class of binding appears to be the most recent variation in the Islamic bookbinding tradition. If we omit consideration of Western-style bindings also produced in the Islamic world, the bookbindings without the foreedge flap are typical but not unique, especially for Central Asian manuscripts. From a structural point of view there are very few differences between Type II and Type III bindings. What differs especially in the Central Asian bindings is the decoration and board covering, both in terms of technique and materials used. Some other differences are in the spine lining and inner joints treatment <sup>3</sup> (fig. 17), but these are minor issues that most probably have to do with the evolution of the craft toward a more quick

<sup>1.</sup> See Deroche, 2000

<sup>2.</sup> Moreover resembling traditional geometric patterns common in Byzantine book bindings, see http://www.islamicmanuscript.org/files/DI\_BELLA\_Marco\_2008\_TIMA.pdf.

<sup>3.</sup> The inner joint is often decorated with a strip of material in a different colour, shaped in various ways; note also a plain one in Fig. 29.

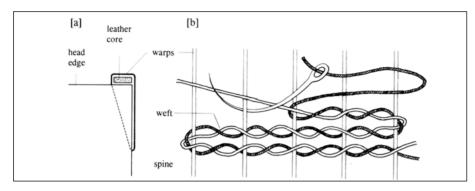


Fig. 9















Fig. 13

solution to accomplish the job rather than geographical variations.

# THE ABU RAYHAN AL-BIRUNI INSTITUTE OF ORIENTAL STUDIES' COLLECTION

During my first visit to the Abu Rayhan Al-Biruni Institute I had the opportunity to spend time looking through part of the collection.

Most of the manuscripts, regardless of their date or provenances, are enclosed in typical Central Asian book bindings dating around the 18<sup>th</sup> to the 20<sup>th</sup> centuries. This is probably due to the fact that the collection was gathered and prepared for use beginning from the 19<sup>th</sup> century. Therefore books in bad condition were restored according to standards of the time.

Except for the Central Asian bindings, there are some examples of early Middle Eastern bindings as well as some Persian, Ottoman and Western-style examples.

The oldest bindings I had the opportunity to recognize in the part of the collection I analyzed are a group of Middle Eastern bindings from the 14<sup>th</sup> to 15<sup>th</sup> centuries (fig. 11).

These bindings appear to have been repaired or recovered with later material (fig. 11–14), but still most of the original sewing structure, boards and leather covers have been preserved. Previous damage was concentrated mainly on the spines, at the joints and at the board edges (fig. 14), which are the most vulnerable parts of a book and are the most exposed to wear and tear. Since the sewing structure was still intact, only the covers were repaired by applying new leather over the previous cover, thus hiding but preserving the inestimable value of the original binding features.

These bindings are rare examples of survival of medieval Islamic sewing structures, possibly Mamluk. The text block is reasonably well preserved and doesn't need any conservation treatment while some minor damage to the structure allowed the possibility of recognizing and examining the original binding. What makes these bindings unique is the presence of the original sewing thread still in place, however the fore-edge flaps are missing. This might be explained by the habit of local Central Asian binders not to use this feature on their products.

It is noticeable that the tooled geometrical decorations were obtained by the repetitive use of many small tools and a limited use of gold (fig. 15 and 16).

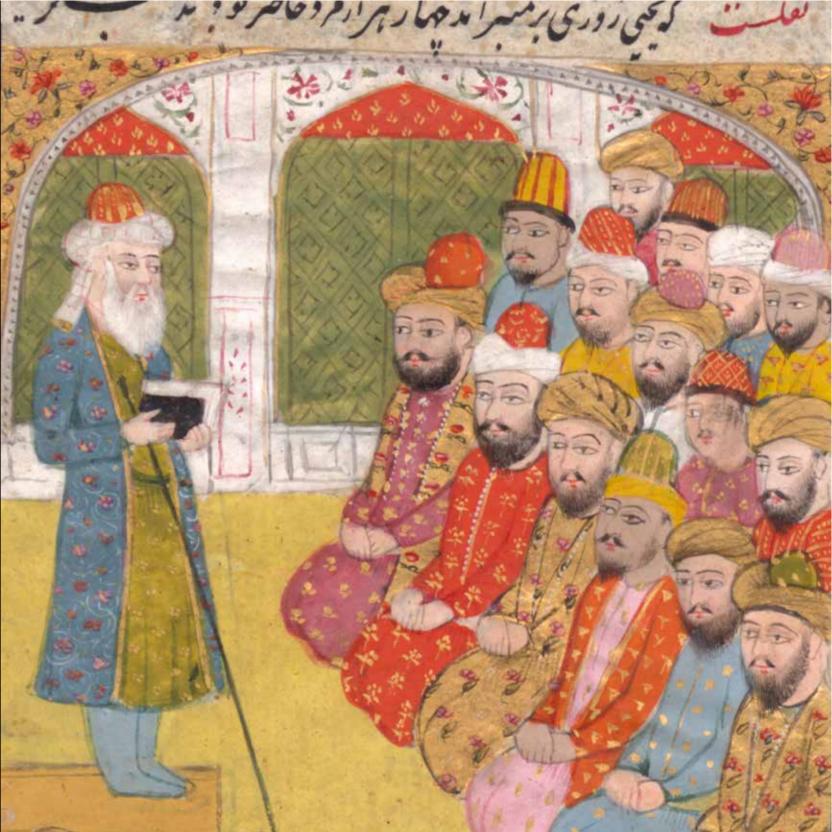
On these bindings we can appreciate the presence of the typical leather inner cover, the so-called doublure (fig. 17 and 22), which in some cases is plain. On other bindings, even if less-well preserved, there are remnants of the most elaborate block-pressed decoration 1 (fig. 18).

One example from the same period but probably south Arabian (possibly Yemeni) has been found in the collection. The decoration is again obtained by the repetition of a small tool but it is outlined by free-hand fillets and decorations painted in gold (fig. 19–22).

Among other non-local bindings we can include several Persian full-leather bindings with their typical decoration (fig. 23–27).

And some later Ottoman examples (fig. 28, 29).

<sup>1.</sup> On the image we can notice that the offset on the adjacent page doesn't match the decoration on the doublure. This might be explained assuming that the board was reused from another binding. This is a typical habit of craftsman to save money.



كالراندا خذيف ورنز الوظاط موكور بعك طلاق بابن والمرداند ورغوم ادفات ع فنولها ومو داس امراندا فن معوازاكم مرزاعاب من مرزا المردملاماركد الاملاماكة برك ظامر العداله ومعنوراليهاد، بود مد اضار كود مد ترفون اجوكور د بودجود برط نيز مردح مطور مع تاكيد كا مايمين المعلط على عدم وهور النعفة درناد ببت بوم مرسوان سند و در امراندافت سا، اعا ا تنا د طلا و نعن صود ش مع طلاق ما بن ج ام كرد اند سرستو م غاس حود ن نربون س بابوسى بوجود امرعست سنن مام كد درصل عقد مكام تغويون كود، مرين مسارة مدكور را بوينوم كم اكومدت منتى ما ، بيوسة بلانعة كفايس عنيت عايد ارتزدان محطوم أن تحطوم وكلما تدارقعل طاطب موكوركم امراند اند مغن صودت رابوس مرطلان ماين والمحرد الددرعوم ادفات م وقولها وبوداس امراندافس بعد مكرملاخاه يون طالطيق والمناد مالتوس مارقام كه دريك ظامر العداله ومعور النهاد، بودند اضار كودند موفون اوموكور وبوجود مرط نبزح ناكيد بها بمين المغلط على عدم وصور النعف في الله المالية منه الها دكان دكر في النعاب

# **CENTRAL ASIAN BOOKBINDINGS**

What appears to be typical examples of Central Asian 18<sup>th</sup> to 19<sup>th</sup> century bookbinding presents the same kind of unsupported sewing structure, usually on two stations (fig. 30) as other Islamic bindings.

The sewing of the endbands follows the classical chevron pattern even though a wider range of colours and their combination can be recorded (fig. 31, 32).

The spine lining is often not involved in the joint reinforcement on the inside of the boards but is pasted onto the text block, while the outside joint is wide and constituted just by the leather cover (fig. 35).

As for the covering, most of the Central Asian book-bindings found in the Abu Rayhan Al-Biruni collection are so called "half-leather" bindings. This means that only the spine and edges of the boards are covered in leather (fig. 35). Some full-leather bindings have been recoRded, although possibly from an earlier date.

In half-leather bindings the central part of the board is covered with another material, usually paper, and glazed with a lacquer, painted and tooled (fig. 33–37). The boards are usually paste boards, obtained by pasting together

many sheets of paper, or sometimes with a pulp board <sup>1</sup> core lined on both sides with paste boards. The result is that on Central Asian bindings the boards are thicker and more still than those on Middle Eastern examples <sup>2</sup>. Only a unique example of engraved and painted wooden board binding has been found (fig. 38).

Another distinctive feature of the bindings in the Institute collection is the presence of a protruding cap<sup>3</sup>, shaped in a decorative way (fig. 39–41).

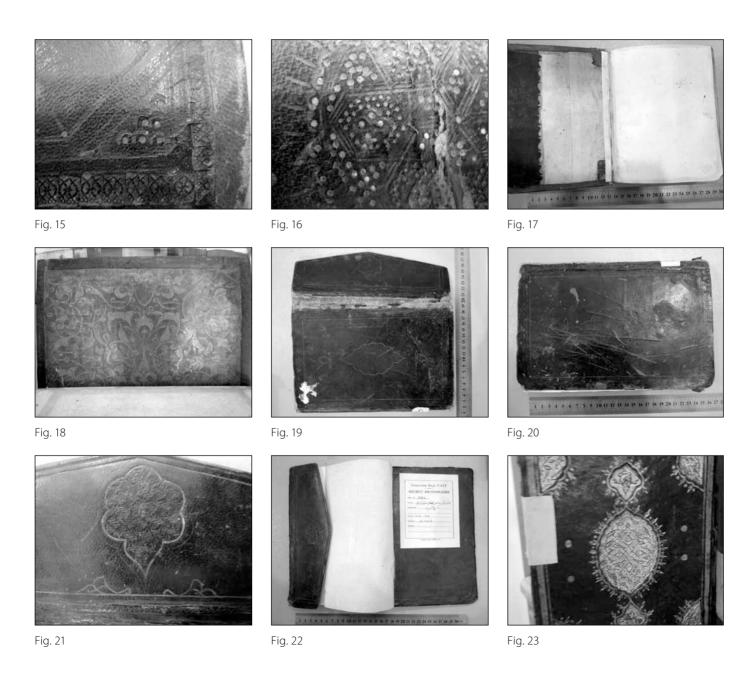
Often in the impressed decorative tools, inscriptions are found bearing names and dates, possibly of the bookbinders.

A comprehensive study of the book bindings in the collection will lead to a deeper knowledge of the local bookbinding trade and craft as well as of Islamic bookbinding in general. It is highly advisable that such research on materials and structures employed in book construction take place in the near future with an "archaeological" approach to the subject. Material evidence from the bookbinding will side with the palaeographical, codicological and philological studies of the manuscripts, often helping or allowing the manuscript to be dated and to localize the provenance and history of the book.

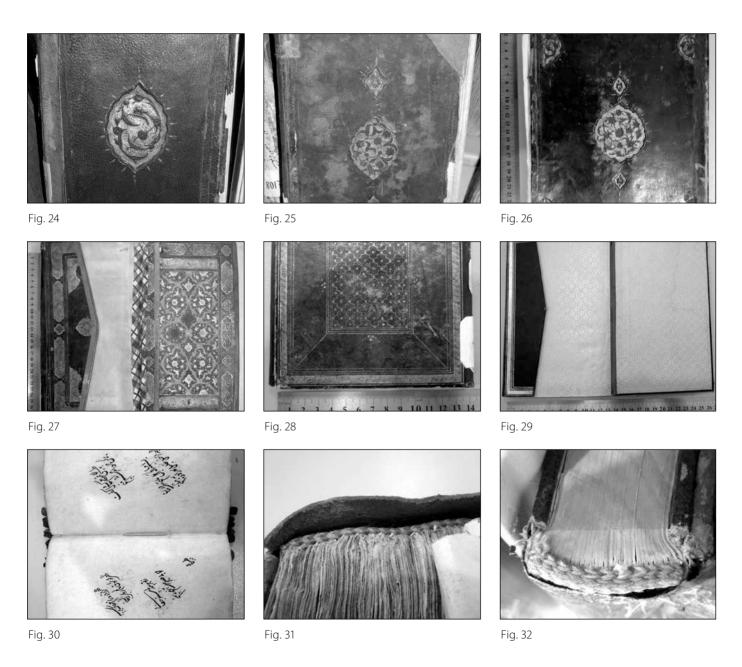
<sup>1.</sup> A board made out of paper pulp with the same process of paper making but allowing a big quantity of fibres so to obtain a thick product.

<sup>2.</sup> Possibly because the use of a more rigid adhesive than the traditional Middle Eastern paste.

<sup>3.</sup> Plain protruding caps are found also on late Persian bindings. In general it becomes an easy way to treat the leather in that part of the book.



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### M. Salimov

# 4.2. PAPER

Papermaking in Central Asia emerged in very ancient times during the pre-Muslim period. Certain historical data suggest that the craft of papermaking was borrowed from the Chinese. Ibn Khaldun (d. in 809/1406), the famous Arabian historian and philosopher, discussed papermaking in his renowned "Introduction to History" and attributes the emergence of papermaking to a relevant decree of Fazl Ibn Yahya Barmakid who was a vice caliph in Armenia, Azerbaijan, Media, and areas in the Caspian Sea region in the late 8th century and then in Khorasan, which apparently relate to the areas of the Arab Caliphate more to the west where papyrus production was experiencing a deep recession. In the eastern regions of the Caliphate and in some regions of Central Asia (Maverannahr), papermaking was associated with the region's center in Samarqand which was traditionally famous for excellent papermaking from silk. Paper mills in Samarqand became known to the Arabs in 650–651, i.e. at the beginning of the Arab expansion to Khorasan and Central Asia. Apparently, it was Samarqand where papermaking of the western areas of the Arab Caliphate and Europe originated.

In any case, the Samarqand paper was famed for its high quality. Production of this paper was at a high level in subsequent centuries. According to a written source in Persian dating to the 10<sup>th</sup> century, Samarqand paper was exported all over the world. Then in the 11<sup>th</sup> century, Persian poets celebrated the famous paper mills. It is unknown the exact impact that was made on Samarqand paper production because of the enormous damage and destruction caused by Genghis Khan's Mongols who turned half of Asia into dust, ash and desert. However, judging from the fact that in 1264 one of the local Koran exegetes read the Koran, which had been written on paper in Samarqand, while in a collegiate mosque with his commentaries in front of scientists and the broad public for almost one month, one may conclude that neither cultural life nor paper manufacturing ceased to develop there.

In the work "Baburnama," the famous Sultan Babur wrote "The best paper in the world is made in Samarqand. All the water for the paper-mortars comes from Kanigil [a meadow]. Kanigil is located on the banks of the Siyahab (black water), while this black water is also referred to as Obirakhmat ("Water of Mercy")."

In the 18<sup>th</sup> century, fine top-quality Samarqand paper known for its excellent properties was produced in Samarqand during the reign of Abdalazizkhan (1645–1680)



from the Astrakhanid dynasty. The extant manuscripts of this period, especially exquisitely decorated ones, fully confirm this fact. Manuscripts were penned on paper that was very smooth, thick, yellowish and smooth to the touch. The vaqif documents of the 16<sup>th</sup> century and in subsequent centuries also confirm this fact.

One of the Russian archeologists V.L. Vyatkin wrote later, "Downstream of Siyab, where the Abi-Mashkhad flows into it, there is a bridge over a canal of Prince Abdullah. Upstream from the bridge and downstream from the diversion canals from Siyab, including the canal of the abovementioned prince, there are a great number of paper mills."

The gear for the mills, according to the documents, was made of wood, stone and iron, while the structure itself was a framed building with a mention of millstones, pests, and gutters as mill accessories. This place was probably one of a kind in Samarqand where the paper mills were located.

According to the documents under scrutiny, it is probable that the existence of such types of mills was indicated only here. It is known that Samarqand was famous as a center of producing paper which was exported to different countries in large quantities, especially during the first centuries of Islam. Manuscripts written in Samarqand are notable for being on high quality paper. This is evidenced by the manuscripts from the collection of the Institute of Oriental Studies under the Uzbek Academy of Sciences with Inventory Nos. 447; 471; 1598; 1620; 1844; 2112; 2134; 2752; 3440; 3476; 3779; 4472; 5369; 9989.

Paper production that was adopted from the Chinese had recently ceased to exist. Samarqand paper was also produced in other cities of Central Asia, mainly in cities that were scientific and cultural centers and contained universities, scientists, and calligraphers who transcribed books for educational institutions, court and private libraries.

Besides Samargand, the famous and ancient cities of Bukhara and Herat were known as major papermaking centers. It is difficult to say when papermaking emerged in Bukhara. The most recent Oriental author dates the origin of papermaking from silk in Bukhara to 1252–1253. All things considered, paper production in this city, according to elders from Bukharan, existed for a very long time and apparently ended at great troublous times and decadence of spiritual and material culture during the reign of Ashtarkhanid and the first Mangits in the 17th century. The name of the area is Juvazi kagaz, i.e. a paper mill located near Samargand Gates bears the memory of paper production. Place names that have survived until present day speak of the fact that paper production also existed in the Bukhara district. For example, in the Kamat (Vabkent) district there is an irrigation canal named Juvazi kagaz without any settlements nearby, which is diverted from the main line. In addition, there is another irrigation canal with the same name of Juvazi kagaz that separated from the Shahrvud main irrigation canal diverted from the Zarafshan River. Juvazi kagaz used to exist near the canal, which enumerated 30 households in the '90s of the 19<sup>th</sup> century.

Heart, one of the most famous culture centers of 15<sup>th</sup> century, especially during the second half of the 15<sup>th</sup> century, also had paper mills. According to Sultan Babur "Herat is second to no one in the world."

The reign of the last Timurid ruler, Sultan Husayn Mirza (1470–1506) and his famous vizier, the great writer

and the patron of scientists, poets and painters, was a time when literature and education thrived; therefore, the magnificent capital needed a lot of paper.

Both Herat and Bukhara paper were noted for their equally high quality, durability, excellent gloss, the warmth of their pale-yellow or completely white color and the ease of writing on this paper. Therefore, Herat and Bukhara manuscripts are the real masterpieces of calligraphic art largely due to this excellent paper.

Such evidence about manuscripts written on paper made in Herat (Inventory Nos. 1995; 2116; 2197; 3480; 9109; 7463) and Bukhara (Inventory No.1433; 2102; 2200) is stored at the collection of the Institute of Oriental Studies under the Uzbek Academy of Sciences.

A reduction and partly full extinction of paper production in Central Asia became a reality. The striving of paper-making masters during major social unrest to save their own lives and find a somewhat peaceful abode forced them to migrate to other locations. Because of these forced migrations papermaking soon developed in Kokand and the neighboring settlements of Kagazgar and Chorku.

When paper production fully ceased to exist in such ancient centers as Samarqand and Bukhara, Kokand became a monopolist in paper, supplying to all the centers of former Turkestan from the Aral Sea to China. Kokand paper was exported both to Kashghar and even to north Afghanistan.

This paper was used for all local Oriental manuscripts and more significant diplomatic documents of different content and rank (labels of khans and emirs, title deed and etc.). For example, manuscripts with the Inventory Nos. 648; 726; 1711; 2223; 3622; 7438; 8241; 9496; 9350;

10034 were written on Kokand paper. Most books stored at the collection of the Institute of Oriental Studies under the Uzbek Academy of Sciences are manuscripts written on this paper.

In general terms, these were the historical stages of artisan production of writing paper in Central Asia. Judging by the extant manuscripts, from as far back as ancient times until the 17 century, there were three types of paper. The first type, made from silk combings without any mixture of cotton was elegant, thick, smooth, mostly creamcolored, glossy and pleasant to the touch. It was called *kagazi abrishumi* or *kagazi ipaki* (silk paper).

The second type of paper was semi-silk and consisted of silk and up to 50 percent hemp (*katton, kenaph*). It was a thick and firm paper that could bear glossing. It was called *nimkatoni*, i.e., semi-hemp paper. It is worth mentioning that this type of paper was the best at that time.

The third type of paper was made fully of cotton. Although such paper was second to semi-silk paper in terms of quality, it still offered certain advantages.

All three types of paper were not transparent enough to see the traces of production such as the traces of a grid where the paper pulp was poured. Watermarks intrinsic to old ancient European paper and relevant mottos of heroes and trademarks of manufacturers were alien to the makers of this type of paper. Although Central Asian craftsmen did not know anything about these elements, there was one kind of apparent and distinctive mark—a watermark in the form of a white ring the size of a quarter coin. This mark was a kind of brand mark for a famous paper craftsman from the first half of the 16<sup>th</sup> century, Mir Ibrahim from Samargand. Therefore, this kind of paper

was referred to as *Mir Ibragimi*, meaning Mir Ibrahim's paper, until very recently in Central Asia.

There is very interesting evidence about this paper maker in the most recent written sources from Bukhara. During the reign of Shaybanid Ubaydallah Khan (1533– 1539) there were three famous Mirs and each of them was an inimitable master of his art. The first Mir-Ubavd was an outstanding calligrapher; the second, Mir-Shafi, was a bibliophile and good at the exquisite execution of headpieces, end-pieces, vignettes, and others in gold and paints; and the third one was the abovementioned Mir Ibragim who was a famous maker of excellent paper. Until very recently Bukhara had three or four copies of the Koran with the three famous Mirs of the 16th century having contributed to their making. These manuscripts were noted for their incomparable beauty and harmony of joint work and were masterpieces of bookmanship in the full sense of the word.

# PAPER AND ITS PROCESSING

Before the invention of paper in the Muslim Orient, papyrus, leather, parchment, animal bone, fabric, potsherd and wood were used for writing. Each of these materials had some shortcomings. Although light, papyrus was fragile. Potsherd was breakable and fabric was quick to decay. Moreover, many records written on them have not survived because most of these materials are easily destroyed by worms and fire. It is known that the Egyptians used papyrus in the 7<sup>th</sup> century and parchment with *kufi* 'Arabic script. Cloth, bones, wood and skin that reached us in small quantity also date to that period. Leather as a handwriting

material was used in ancient Egypt and Persia. In particular, during the reign of Sassanids in Persia, ox and lamb hide were used for this purpose. The latter was dyed with saffron and perfumed with rose water.

In the Middle East, paper was first produced in the 8<sup>th</sup> century in Samarqand and in Bagdad during the reign of Harun ar-Rashid. Chinese prisoners initiated paper manufacturing while an Arab named Ziynat ibn Salikh elaborated this process. Parchment and papyrus were eventually replaced with new and cheaper material, however, parchment was used for the Koran folios until the 10<sup>th</sup> century. Papermaking spread gradually to the entire Middle East in the 10<sup>th</sup> and 11<sup>th</sup> centuries. Papermakers produced handcrafted paper in different cities of ancient Iran for manuscripts of the 14<sup>th</sup> through the 16<sup>th</sup> centuries. Paper was also imported from China, Syria, Iraq and India. Many of the manuscripts preserved in the Main Collection of the Institute were rewritten on Indian paper (Inventory Nos. 2103; 2108; 2196; 3317; 3481; 3778; 6267; 9597 and etc).

The following types and varieties of paper that were referred to according to the place of paper production, material and other properties include: *Bagdadi, Samarqandi, Isfagani, Buharai, Hatai, Davlatabadi,Hhanbaliki, Abi Firenchi, Kashmiri, Fistigi, Surmei, Tirmei,Aadilshahi, Hariri, Hindi, Nizamshahi,* and others. A 16<sup>th</sup>-century Turkish author, Mustafa Aali, who listed these names of paper types quoted Persian poems dedicated to paper types in his work "Manakibi hunarvaran," where Damascus paper was considered the best followed by paper from India and Bagdad and then Samarqand paper.

Yet another author, the abovementioned and well-known calligrapher Sultan 'Ali Mashkhadi, who lived

and worked half a century earlier and wrote his "Treatise on Calligraphy" in 1514, highly appreciated the excellent quality of Samarqand paper. It seems that during several decades there were some changes in the quality of hand-crafted paper. Sultan 'Ali wrote in his Treatise regarding the different paper types:

The (Chinese) paper, hatayi, is the best, However much you test it—it's the best, Yet paper made in Samarqand is so fine, A man of reason won't decline A letter on it writes so smooth and clear Yet one should take care to buy it cleaner Be that a simple piece of paper for Sultan Try always to procure a quality one.

It should be noted that *Hatayi* implies paper colored by alcanna in pea color. Therefore, sometimes paper

of an alcanna hue was referred to as *Hatayi* irrespective of where it was produced. For this reason, Sultan 'Ali, who highly appreciated the *Hatayi* paper, also spoke highly of the paper colored in alcanna hue. In the Treatise chapter titled "On the Colors of Paper," he wrote:

There is no color better than that of Chinese paper No need for you to verify this statement This color combines saffron, alcanna and few drops of ink Do not approve of other, A letter on such paper compares with gold in beauty.

Among paper types discussed by Mustafa Aali, the thickest and smoothest was *Davlatabadi*, also called *Sultani*. According to the treatise "Adab al mashq" ("Exercise Rules") by Mir 'Imad Kaznivi, *Davlatabadi* paper ranked second in quality after *Adilshakhi* which was noted for its fine grain.

# CONSERVATION PROJECT

# **5.1. PRESERVATION OF PAPER-BASED DOCUMENTS**

### INTRODUCTION

The two essential goals of a cultural institution like a museum, library or archives are to acquire, enrich and preserve a collection and to facilitate access to the documents by means of publications, researches, exhibitions and consultation <sup>1</sup>.

These goals might seem, at first sight, conflicting because access can compromise the preservation of a document requiring permanent preservation and a constant respect for its integrity and authenticity. How can we protect documents while still using them? How can we give access to documents without damaging them?

The fulfillment of these two missions depends on the establishment of a comprehensive preservation <sup>2</sup> programme that includes a system of plans, policies, procedures and resources required to properly prevent, stop or slow down the deterioration of the documents while also, if necessary, improving the preservation conditions of the collections. An active preservation programme encourages respect for the library and its collections, reduces the loss of materials



<sup>1.</sup> Two statements confirm these missions:

<sup>1. &</sup>quot;A museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment." ICOM Statutes art.3 para.1

<sup>2. &</sup>quot;Every library collection is established for one or more definite purposes. A collection development and management program organizes and directs the processes of acquiring materials, integrating them into coherent collections, managing their growth and maintenance, and deselecting them when appropriate in a cost- and user-beneficial way." Bonita Bryant, ed., "Guide for Written Collection Policy Statements." Collection Management and Development Guides. (Chicago and London: American Library Association, 1989).

<sup>2. &</sup>quot;Preservation" is the set of actions taken to prevent, stop or retard deterioration of library materials through the management of the storage environment, housing materials and techniques, security, handling practices, as well as through user and staff education. "Conservation" implies the actions taken to prevent, stop, or retard deterioration of individual items through treatment level intervention into the physical state of the document. "Preservation" is used here as the broader term encompassing both preservation and conservation.

through neglect or carelessness, and conserves resources through the application of preventive and corrective measures. It guarantees the development of the library as well as access to information and minimizes document deterioration.

Storage, security, pollution, fire risk, chemical and physical deteriorations, the nature of existing buildings (historical or new), the prevailing climate (both geographical {continental, temperate, tropical, etc.} and microclimate {town, district, etc.}), the social and financial circumstances, and the purpose of the collection all have to be considered when a preservation programme is established. It must be interpreted and applied in a way that serves the purpose of the library and the needs of the collections and considers the relations between all library services and functions

The preservation programme integrates the preventive conservation concept at all stages from acquisition to display. A coherent preservation programme has to be implemented in stages, going from assessment of the functioning of the institution to the inspection of storage facilities, and from the state of conservation of the building to the state of the collection giving an overview of the causes and consequences of deterioration. This makes it easier to rank risks in order of importance and helps to determine the priorities in risk prevention and/or treatment of damage.

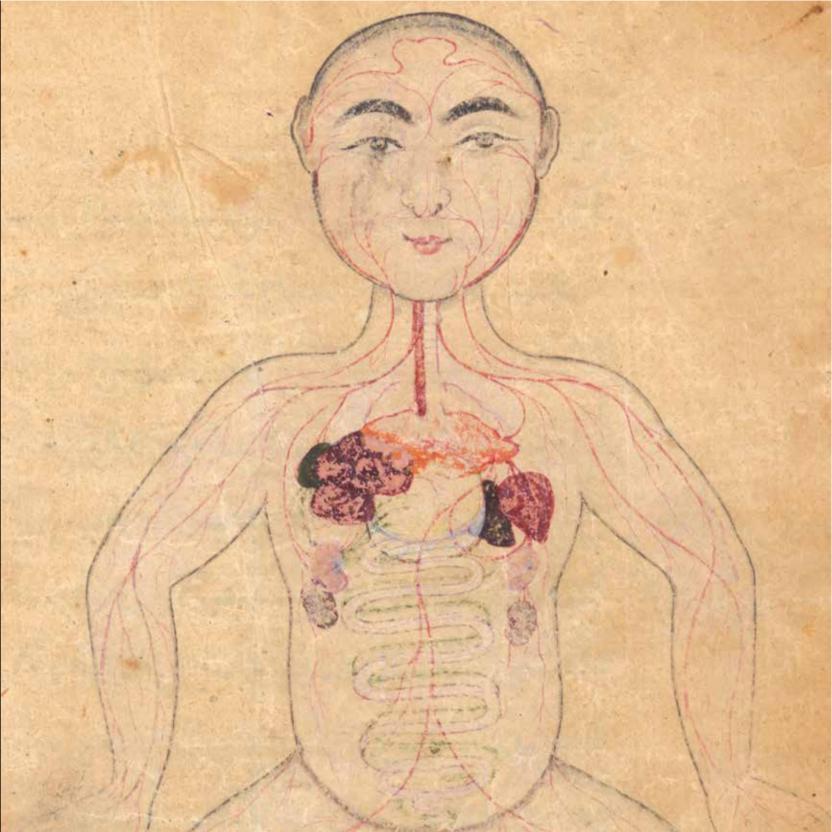
Many elements are necessary to start and maintain a successful preservation programme. A variety of methods exist to protect documents physically and ensure their stability and security. Environmental controls, the use of quality storage containers, and good handling practices will help extend the life of collections. Naturally, the steps available to protect and preserve documents will vary depending on the availability of resources in different institutions. The subject of preservation can be highly technical. It is important to remember that remedial item-by-item conservation is an expensive service, requiring the participation of skilled and trained conservation specialists.

This paper explains the main elements needed for the construction of a preservation programme. It is constructed in the belief that the programme has to be a collaborative work. In this spirit, this paper brings together four main elements organized in a way to illustrate the core sequences of an approach. It starts with the main causes of deterioration of paper-based documents, continues with a look at assessment methods, and finishes with some preventive measures and a set of trainings.

# **CAUSES OF DETERIORATION**

### **External causes of deterioration**

Access is not the only cause of deterioration. Collections tend to deteriorate due to a combination of internal and external causes. External degradation can be environmental, chemical, biological or mechanical. The most damaging internal causes are found in paper





made from wood. Inks and iron gall <sup>1</sup> inks must also be counted among the internal degrading agents of paper. Not only is it necessary to have a thorough knowledge of document deterioration factors, it is also essential to know how to implement a coherent preservation programme.

### Light

The part of the spectrum of electromagnetic waves that is visible to our eyes—light—is a common cause of damage to library and archival collections. Paper, bindings and media (inks, photographic emulsions, dyes and pigments) are particularly sensitive to light. Light damage manifests itself in many ways. It can cause paper to bleach, yellow or darken and it can weaken the cellulose fibres that make up paper, causing them to become brittle. Media and dyes used in documents, photographs and art works can fade or change colour due to light exposure. Fading can also be considered a form of light damage but this is only a superficial indication of deterioration that extends to the physical and chemical structure of collections. Light provides energy to fuel the chemical reactions that produce deterioration (see Figure 1).

While most people know that ultraviolet (UV) light is destructive, it is important to remember that all light causes damage. UV radiation causes photochemical deterioration. Infrared radiation causes deterioration by heating and affecting the microclimate. Visible radiation itself carries certain dangers, as it still carries

enough energy to cause changes at a molecular level. Light damage is cumulative and irreversible.

# **Temperature and relative humidity**

Control of temperature and relative humidity is critical in the preservation of library and archival collections because unacceptable levels of these contribute significantly to the breakdown of materials. Temperature is a measure of heat. Humidity is the concentration of water in the air. Heat accelerates deterioration and harmful chemical reactions. High relative humidity provides the moisture necessary to promote damaging chemical reactions in materials and, in combination with high temperature, encourages microorganism growth and insect activity. Extremely low relative humidity, which can occur in winter in centrally heated buildings, may lead to desiccation and embrittlement of some materials.

Materials are hygroscopic and sensitive to the environment in varying degrees (Table 1). Fluctuations in temperature and relative humidity are also damaging (Figures 2 and 7). Library materials respond to diurnal and seasonal changes in

<sup>1.</sup> Ink whose basic components are iron and tannin, found in galls or other plant material. As a result of the iron used to make the ink, most iron gall inks are susceptible to corrosion. The ink in the paper rusts the same way any metal would when it is exposed to changes in temperature and humidity. As it deteriorates over time, the chemicals released from the corrosion seep into the paper, discoloring and weakening it.

temperature and relative humidity by absorbing and releasing moisture and by expanding and contracting. Dimensional changes accelerate deterioration and lead to such visible damage as cockling paper, flaking ink, warped covers on books and cracked emulsion on photographs. In some situations, however, materials may be protected from moderate fluctuations with boxing and packaging.

Table1: Conservation condition for most important materials in libraries

Material	Temperature	Relative Humidity	Light	Major risk
Paper	16 to 22 ℃	35 to 55%	50 or 150 lux	insects, mi- croorgan- ism, chemi- cal and pho- tochemical degradation, dimensional stability
Cellulose nitrate	10°C	< 50%	50 lux	heat, light
Photos	2°C for coloured photos 18°C for other types of photos	30–50%	Varieties	light, climate
Leather	16 to 22 °C	40 to 55%	50 or 150 lux	insects, mi- croorganism
Wood	16 to 18 °C	50 to 60%	> 150 lux	insects, di- mensional stability
Textile	16 to 20 ℃	40 to 55%	50 or 150 lux	insects, mi- croorgan- ism, chemi- cal and pho- tochemical degradation

# **Dust and pollution**

An important factor of damage to a collection is air pollution composed of chemical air pollutants and dust. The dust, consisting largely of organic material, is strongly hygroscopic and can constitute a microclimate convenient to the development of microorganisms as well as a depot of nourishing elements for insects.

Gaseous pollutants (Table 2) can be emitted from poor quality storage furniture and packaging materials, or even from other collection items manufactured from unstable materials. Gaseous pollutants catalyse chemical deterioration of materials by oxidation<sup>1</sup> and hydrolysis<sup>2</sup>. Solid pollutants cause mechanical deterioration by abrasion and encourage the spread of mould and insects. Both dust and pollutants are dangerous for human health and for collections.

Table 2: Maximum recommended levels of pollutant gases

Sulphur dioxide	1 μg/m³	
Oxides of nitrogen	5 μg/m³	
Ozone	25 μg/m³	
Carbon dioxide	45 μg/m³	
Dust particles	75 μg/m³	

<sup>1.</sup> Chemical reaction in which one or more free electron is released.

<sup>2.</sup> Decomposition of organic compounds by interaction with water.



Fig. 7 Fig. 8 Fig. 9

# **Biological activity**

The materials of which library and archive collections are composed, namely paper, parchment, birch bark, leather, and adhesives used in bookbinding, are susceptible to biological deterioration caused by insect attack (Figure 5) and/or fungal growth because these agents feed on the organic layers they find in the materials. This form of deterioration is connected with environmental conditions because humid conditions favour the growth of fungi and insects are attracted by the accumulation of dust and dirt. The absence of ventilation and darkness also encourage the spread of biological activity, producing irreversible damage.

# **Mechanical damage**

It goes without saying that disasters (floods, fires, etc.) can cause the most serious mechanical damage on documents. Fires cause widespread damage and massive losses (Figure 6). Water is a serious threat to collections. Water damage may be due to pipes, roofs, flooded rivers, hurricanes and fire fighting. When water damage is not discovered in time, or when rescue measures are insufficient for the scale of the disaster, further damage is generally caused by mould.

Other mechanical damages can be caused by natural disasters (earthquakes) or accidental situations (collapse of a roof or a shelf). Nevertheless, mechanical deterioration is most frequently caused by poor handling of documents while they are being moved, made available

to readers, stored (see Figures 3 and 4), photocopied or photographed.

### Theft and vandalism

Collections can be threatened not just by disasters, careless handling or poor environmental control, but also by theft and vandalism (Figure 8) that may lead to the total loss of a document. These risks are normally dealt with by the security service. It is an unfortunate reality that libraries and archives must be concerned about the security of their collections.

### **INTERNAL CAUSES OF DETERIORATION**

# **Materials and processes**

The materials and processes used in the manufacture of the paper can bring about its deterioration. Innovations in the industry and the introduction of alum-rosin<sup>1</sup> sizes to the pulp, followed by chlorine

<sup>1.</sup> As a sizing ingredient, alum has been one of the most important materials in the history of papermaking. Since the late 19th century it has also been mentioned as a primary cause of paper degradation. The two major alum varieties employed in papermaking have not always been distinguished for their different properties. Aluminum potassium sulfate was used throughout the history of papermaking until the 19th century. It was then replaced by the newly developed aluminum sulfate, a cheaper and more concentrated source of aluminum compounds. Although both aluminum potassium sulfate and aluminum sulfate tend to introduce different impurities into paper.

bleaches in the 18<sup>th</sup> century, led to much paper that was inherently weaker than earlier types. Today the main cause of paper deterioration is the industry's dependence on mechanical wood pulp, in use since the mid-19<sup>th</sup> century. When chemically treated, wood pulp can make a very stable and good quality paper. But in its rough, mechanically pulped form (as used for newsprint), wood pulp contains lignin¹, which, like the acid products of chlorine bleaches and alum leads to the breakdown of the cellulose that gives paper its strength. The paper consequently becomes brittle, more vulnerable to mechanical damage and often discoloured. Other additives that can contribute to this deterioration include vegetable oils, some coloured dyes and metallic particles.

Ink

Iron gall ink can cause the degradation of paper or other supports. This process is called "iron gall ink corrosion." Chemical processes cause the slow deterioration of the ink. Turning from blue-black to dark brown, ink can actively oxidize and corrode the paper (see Figure 6) if certain negative conditions are met.

### **Assessment**

It is essential to know and to identify the characteristics and the fragility of paper-based documents before assessing the collection and the building in which it is

housed. Before recognizing the hazards to a collection, factors such as environment, storage, security and access, housekeeping, conservation treatment, and policies and practices must be considered. Indeed the various problems are often connected to the complexity of the institution, to the nature, the size and the importance of the collection, to the organisation of the institution, and to the influence the building itself has on the preservation of the collection.

To assess a cultural institution and its collections means to describe and to analyze a situation through the functioning of the collection and the conditions of its use, including its qualities and vulnerabilities. Once that it is done, conditions of the change can be prepared along with decision-making procedures that are more adapted to the institution being assessed.

The assessment allows for the identification of preservation problems and measures the risks for the collections. Going further than a simple report, the assessment is followed up by propositions, advice, recommendations and action plans for the improvement of the preservation conditions and of the functioning of the institution. These recommended actions are classified in short-, mediumand long-term. A needs assessment survey can be conducted by an outside consultant or by qualified

<sup>1</sup> A naturally occurring component of plant life that helps provide strength in plants, lignin is often removed from paper during paper manufacturing to improve the quality and life of the paper. Its presence in paper may contribute to chemical degradation. Newsprint and various inexpensive or low quality papers that don't have the lignin removed will turn yellow over time.

in-house staff. There are advantages and disadvantages to both which should be considered before a decision is made to hire an outside surveyor or to begin the process in-house.

Most institutions have many preservation needs that require a variety of actions. Resources in an institution are always limited and not every action can be accomplished. It is crucial to determine which actions are the most important so that those receive consideration first. It is helpful to consider three criteria when prioritizing 1 preservation actions:

- Impact—the greater the impact of an action, the higher its priority;
- Feasibility of implementing an action—the political feasibility of various actions must also be realistically evaluated. If it is not likely that an action can be implemented, it may be given a low priority even if its impact is high; and
- Urgency—those actions requiring immediate implementation would be given the highest priority.

# Survey

One of the most significant ways to define the extent of a conservation problem is to look at the material in detail. A structured survey, clearly thought through and with achievable goals, can provide information on a number of different levels. It can outline the generalities, give a very detailed analysis, and provide unique management information. It is not always possible or desirable to look at every item. A percentage sample

will give enough indicators to enable policy decisions to be formulated and priorities drawn up. It is recommended that the methodology of a survey plan be tested before embarking on the project.

The results of a survey should form the basic requirement for background information in the grant application processes.

### **PREVENTIVE MEASURES**

### Disaster plan

The collections in libraries, archives, museums and other cultural institutions are constantly at risk of damage or loss from events such as geographic and climatic hazards and other risks that could put in danger the building and collections. These hazards and risks include earthquakes, hurricanes, fire, flood and volcanic eruptions. Man-made disasters should also be considered such as power outages, sprinkler discharges, fuel or water supply failures, chemical spills, inflammable conditions, bomb threats, chemical industries or shipping routes for hazardous materials.

To reduce the chances that a disaster will occur and to minimize damage to collections if a disaster does occur, each institution should have a disaster preparedness and response plan. Disaster preparedness is an ongoing

<sup>1.</sup> Prioritizing is the process of deciding which actions will have the most significant impact, which are the most important and which are the most feasible.

process that includes identifying risks and potential hazards to the collections, taking steps to eliminate or reduce those risks whenever possible, and developing and maintaining a disaster response capability to minimize damage or loss in the event of a disaster.

The best way to deal with a disaster is to be prepared for it with a written emergency preparedness plan. This formally written plan facilitates the efficient and quick response to an emergency and minimizes danger to staff and damage to the collections and building. The plan, based on a risk assessment report, includes specific procedures on prevention and mitigation of the risk assessed, immediate response steps, salvage procedures, local emergency contact list, emergency resources outside the institution, and upkeep activities.

### **Modification of environment conditions**

The ideal environment for collections is one where the temperature and relative humidity are controlled, it is free from pollutants, it has good ventilation, the light is controlled, it is free from mould, insects and rodents, and where good maintenance and security practices (measures against fire, water damage and theft) are applied.

### Climate

Installation of adequate climate controls and their maintenance will considerably retard the deterioration

of materials. Maintaining stable conditions is essential. The institution should choose a temperature and relative humidity within the recommended ranges (Table 1) and maintain them 24 hours a day, 365 days a year. Where economics or inadequate mechanical systems make it impossible to maintain ideal conditions year round, less stringent standards may be chosen for summer and winter with gradual changes in temperature and relative humidity permitted between the two seasons. Because of the interdependence of temperature and relative humidity it is imperative to always control both parameters simultaneously. If measures are taken without considering the environment as a whole, conditions may worsen rather than improve.

Temperature and relative humidity should be systematically measured and recorded. This is important due to the type of data produced which documents the existing environmental conditions, supports the requests to install environmental controls, and indicates whether available climate-control equipment is operating properly and producing the desired conditions. A psychometric chart (see Figure 7) is an essential tool to understand the six possibilities in changing the climate conditions:

- Humidify the air—raise the absolute humidity to increase the relative humidity while keeping the temperature constant;
- 2. Humidify the air—raise the absolute humidity to keep the relative humidity stable if the temperature goes up;
- 3. Dehumidify the air—reduce the absolute humidity to keep the relative humidity stable if the temperature goes down;

- 4. Dehumidify the air—reduce the absolute humidity to reduce the relative humidity while keeping the temperature constant;
- 5. Cooling the air—reduce the temperature to increase the relative humidity while keeping the absolute humidity constant; and
- 6. Heating the air—raise the temperature to reduce the relative humidity while keeping the absolute humidity constant.

# Light

Because total damage caused by light is a function of both intensity and duration of exposure, illumination should be kept as low as possible for the briefest amount of time feasible. Ideally materials should be exposed to light only while in use. When not in use, they should be stored in a light-tight container or in a windowless room illuminated only when materials are being retrieved. Light levels should be as low as possible and exposure should be for the shortest time that is feasible.

For an exhibition, the light exposure level must not exceed 84 Klux hours/year and must even be reduced to 12.5 Klux hours/year for certain documents made of very sensitive paper. These levels are important because the photochemical action of electromagnetic rays is cumulative. For example, the damage caused to a document by lighting at 50 lux for 10,000 hours (three years at eight hours per day) is the same as the damage caused by lighting

at 1,000 lux for 500 hours (approximately eight hours per day for two months).

Naturally, visible radiation must also be controlled. Windows should be covered by drapes, shades, blinds, or shutters that completely block the sun. This will also aid in temperature control by minimizing heat loss and limiting generation of heat by sunlight during the day. Ultraviolet-filtering plastic films or UV-filtering Plexiglas can be used for windows to lower the amount of UV radiation passing through them. An alternative is the use of special low-UV fluorescent tubes. Timed switches should be used for lights in storage areas to help limit duration of exposure of materials.

# **Dust and air pollution**

Controlling air quality is difficult and complex and depends upon several inter-related factors. Various standards for air quality can be suggested. However, until more experience is gained, the most reasonable recommendation is that the amount of pollutants in the air be reduced as much as practicable. Gaseous contaminants can be removed by chemical filters, wet scrubbers or a combination of both. Particulate matter can be mechanically filtered. Electrostatic precipitators should not be used because they produce ozone.

Equipment also varies greatly in effectiveness. It is important that the equipment chosen be suited to the institution's needs and the level of pollution in the area where the institution is located. A regular schedule of maintenance and filter replacement should be followed.

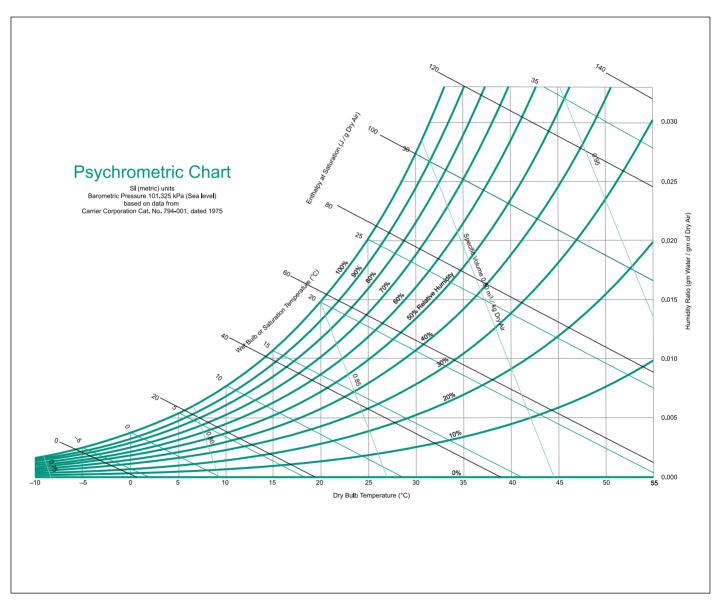


Chart 1

# **Biological agents**

Most of the insect species likely to infest paper collections are attracted not by the paper itself but by the sizes, adhesives and starches, all of which are more easily digested than the cellulose that makes up paper. Integrated pest management strategies encourage ongoing maintenance and housekeeping to ensure that pests will not find a hospitable environment in a archive or library building. Management activities include building inspection and maintenance, climate control, restriction of food and plants, insect identification, staff training, regular cleaning, proper storage, control over incoming collections to avoid infestation of existing collections, and routine monitoring for pests. It is best to begin a formal pest management programme with an initial survey of the building, surrounding areas and all collection storage areas. This assessment may include looking at the history of any previous infestations to document pests that have caused damage in the past and what was done to solve the problem.

Control of temperature, relative humidity and air circulation will reduce the likelihood of damage from mould

### Theft and vandalism

It is recommended that all repositories conduct a security survey and draw up a security plan. While there is a place for automated security systems of various

types, a repository must not depend solely on these systems to protect its collection. Its security plan must also include policies and procedures regulating access to the collection by staff and users, mechanisms for identifying missing documents, and procedures for responding to a security violation.

## **Storage**

Storage areas are an important part of an institution in the same way as the spaces of consultation and exhibition are important and are conceived according to the library environment. Storage areas have to be integrated into the functioning of the institution. A good storage policy must answer the requirements of preservation by limiting and anticipating the risks of damage and by setting up favourable conditions for preservation and facilitating access to the collections to make it possible for the study and dissemination of cultural property. It also has to permit the movement of collections while guaranteeing the conservation and the safety of cultural property.

Storage policy has to take into account the evolution and growth of the library. It is an evolving system that should be adapted to the changing of the institution and to the most recent standards.

Each storage situation is unique with its own set of problems and constraints, but it is possible to have a list of suggestions and recommendations that are universal. It is important to organize storage space in the best way so that the location of shelves is as safe as possible and circulation in the storage area is easy and doesn't represent a risk of degradation for the documents.

There are as many varieties of library stacks and shelving as there are materials that sit on the shelves. Since a book stack can occupy more than 50 percent of a library's storage space, careful planning for shelving can be a large part of a library building project. Components and accessories include end panels, canopy tops, sloped shelves, slotted divider shelves, display shelves, and retractable index shelves. The selection of suitable storage furniture is a complicated task. What constitutes acceptable storage furniture can change rapidly. Poor quality storage furniture greatly accelerates the deterioration of collections.

Properly preparing or processing the documents prior to storage can save the documents from future damage. Safe processing and handling of materials is basically a matter of common sense. It is necessary to be constantly aware that the documents processed and manipulated are often old, fragile and irreplaceable.

Books must be shelved in a logical, structured system otherwise locating specific books quickly becomes impossible. Each library can have a different system to organise books. This system should be the result of active research that dictates the most useful way for the library to follow national or international standards.

Boxes, enclosures and folders should protect manuscripts and archive documents. Storage containers will protect collections from dirt and light. They will also

facilitate organisation, handling and identification while helping to buffer rapid environmental changes that can stress the documents. Drop-spine boxes are preferable because they provide better support and keep books cleaner.

To reduce the amount of dust and dirt that accumulates on books and shelving, floors in book storage areas should be kept as clean as possible. Dust and dirt abrades pages and binding surfaces, attracts insects, and contributes to an environment that supports microorganism growth. With a regular dust removal and cleaning programme, personnel are contributing greatly to the preservation of the collections. This basic task is one of the most important in preserving collections.

# Digitization

When documents are extremely fragile, heavily used, deteriorating or highly valuable, it is common for institutions to reproduce the materials and make the copies available for research use. The originals are then kept in safe storage or sent for conservation treatment. Facsimile copying of documents helps preserve materials in two ways. First, making one or more copies allow multiplies access to the information embodied within a book or document. Second, copying limits the use of the original work, saving it from wear and tear. Systematic copying of materials at risk is an essential element in preservation programmes. There are a number of methods of reproduction or reprography, including

microfilming, photocopying, photographic reproduction and digitisation.

The key to a successful digital project is planning. Digital projects are complex, time-consuming, and costly. Some key components of a digital project include selection, standard and access.

- Selection deals with issues that should be considered when selecting material for digitization, including intellectual value of the collection to researchers, use of the document, physical condition of the document, preservation work to be done prior to digitization, and copyright permission.
- Standards for digitization—there are many best practices recommendations for digitizing materials.
   Remember that these guidelines may require adaptation to particular projects dependent upon source document characteristics such as font size, photographic detail and physical size.
- Access deals with issues in organisation, management, and delivery of the digital collection, including cataloging and technical data associated with digital images, storage of the images, and backup/disaster recovery. Copies of all digital image files are recommended with one copy stored off-site. Other access issues include rights management, viewing software, and reformatting/refreshing media to avoid inevitable data degradation.

# **Trainings**

Training of library personnel and its users is very essential to raise preservation awareness. This concerns

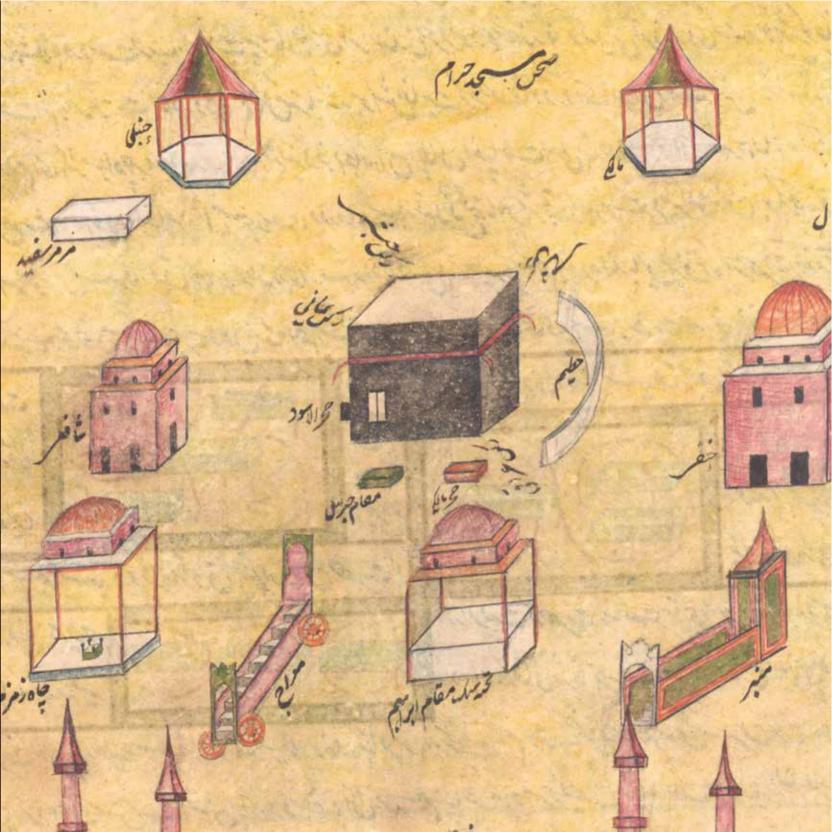
all library personnel, from conservators, cataloguers, maintenance workers, technicians, and others.

The appropriate training must follow every new procedure defined to respect a policy or a preventive measure. This especially concerns maintenance, housekeeping, shelving, packaging, boxing, surveillance, handling, digitization and conservation. An important part of conserving a section's work is the training of the personnel who will manipulate the documents. For example, in a digitization project, proper training is required for the preparation of the material identified for copying. Material that has suffered damage will require different levels of conservation first aid to ensure that the information to be recorded is presented in the most secure and legible way. It is recommended that a conservator be consulted during the planning phase of a copying programme.

All personnel will carry out a biannual review of the standards and procedures in consultation with the director of each department and the director of the library. This ensures that the procedures and recommendations are based on the most current standards, information, researches and publications and they provide a good operational framework for preservation, management programmes and projects. It is equally important to ensure that an appropriately-trained staff is involved in all of these considerations.

The local manager must identify the best staff to receive the instruction and should plan appropriate technical training as part of the overall project.

The role that training can play in human resource development, especially in libraries, is inestimable



ع بررصني للجارشوما الأن موسع المرز لمح إعليه فقار الن الأن جريز وت العلوا هوموسع الديمة موسى الرجع ولك فا بان الذرعة كمان النذ لهذه الدين أن ما المورد المان الله على العراط وموسع الدومة الرائمة موسع الرجع والما ester. فال بان الزرعة كمون الفي العصل من الموضع المواوني الموضع الموجه ورق وهوم حد لابط في الوف فضل بني السل وين ما ط ف ن العدم عارض والسل وهو وجه والن الدر المرابط موجه بذالذان وجه الميل و الرك بها وخ الفون ما شالك بعان الو اذكان بس بنوع لذات أركب ف القول ق الصون فأ الصون فتركب ما مها اراه وك لق وصون كما فيست the اي وسنوان سان ارسوطان انارسم منا الرسم الصورة النول المراه بي البعد ومورد بروحلة العزالار عالية اذالمدرت وغرمتنا من والبيكغرالات بية والصوت الزمية واشالها فارله بنه كا فيدنب موايئ لمنصل بزالعواليدة و بن جي القرر ابنية ٥ العنولية الدهر والما الرمر وفوقة عر عرومة والمن مشقم الاسراء والاسدام 3 ومعران غر محدود إنهالان في العادات في ال دي إنه ولا معدوة لنوق بنها وبن الكان والذي ل في واحد مز الامور ذوات الكان من معدمة بحرَّ سَنَة وَمَافَقُ فَ الْقُولْ الْحَرَاتُ والما أَكُونَ فَرَكِ مَا رَسُهَ ارْطُولُانُ كَا لَا مِرَالنَّقَ المركة والما أَرُكُ وعوم المركة كالانعلانز الوستم لتقوالغوة وذك القالغوة وقدا ذافيت الانعل المتمل على وكل الحذ لريت وجمة ويكوال سؤلانه بالتن واذاومت سؤل ابناباسنل ومن ابين انظامران عوموجه اتم والكرعالب وجه واذاكان مكنان ومرق الكالكان اصعاع ش كالابسة النرفذ بروخ في نباز و ذا الكال يطلب النوة لركا نتعليه والكال الأفركال انع وعظام مالتوة عرب البيت الهنكال بذر وم العواق ليرجون محقة لالينوب كالكالمقة عرب البيت قبل ل ما بنداد كانت فذا بندا بالتك منا كذا لكال وقد ساتها كارته مركال البوع بالتق ولا بلد فلاك المع عافي كالعرب التي فعراء ارباصوبالغة شعر ذك إن ابنا اذا ابتوابنا البيت قدم النق المضاع البناء ما فان إكن الما المفالزلائية وق وماانز بوج عنوالواغ مز با. البيت معما قالف از كالع بالبنق ١ القولت النان واما النان فعرك المرار طوفات من نعد الدكة بالمستدم والمنافر وهوم بالمنة الاستداء الور تقالي كية وك رب وذيك ان الغال اناموراول زماناما للي ويولط المحد ومد الكرونية بن ارسطوط و المناد الاجة من المع الطبيع الذي المن وكد إلى فا ن الدي الم تصور فان ورا الحكة بج معرفه على لم كتك بطن الران واذباع الانعماما شدانان بالأروذك الاستفاع رفان ما الب كفاتول الم من سنداو بنراوين وكل واورخ من انا موز بندي بحركة النه في ن المنة انا مراكمين الريوبيا الني من نقط الربعيط البيا والهرانا ومنة كياله ومن فرا فرعز فأفرالنك واليوم من مروريه النك الاعر دورة واحق مامة فقد تبين اذا ان الفائم ومن معرد المان والمان و المعلى و المعلى و المالكان فوك المعلى و المالكان فوك المعلى و المانكان فوك المالكان فوك المعلى و المانكان فوك المعلى المانكان فوك المانكا الكرا في الما في المرا من وكان كالله المرافي المرافي والمع المرافي المرافي المرافي الما المرافي المالية المرافية المرافي اذكان عززار عيدولان مقد عنه وكل كان كل واحدفراهب ذوات الاكان ما ولط إن بع صعمار اذا المكان بعدال العنط فايدل عليهم الله فالما يراعيهم ان ومعدف في محرس وانا قلت مايدل يد مم انه وما ول مداكلًا لاك الله فدى السطيطي والمالة الالعة مزكن والماع لطسوان ليوله وماليو لهما لانزلود اذكار الدعوة لم موايدة

and unquantifiable. The training of staff enhances productivity. Another advantage of staff training is that it improves job performance and therefore promotes management efficiency. Other advantages of training include reduction in cost, reduced turnover, human resources

reserve, faster decision making, continuity of effort, improvement in employee morale, availability for future personnel needs of the organisation, improvement in health and safety, reduced supervision, personal growth, and organisational stability.

### A. Mirabile

# **5.2. PRESERVATION OF THE MANUSCRIPTS COLLECTION**



The sustainable preservation of cultural heritage depends on sound principles, clear policies and guidance, and the quality of decisions that stem from their consistent application. A clear methodology and a set of understandable principles are needed to guide a preservation project, to give meaning to what is preservation at the beginning of the 21st century, and to distil current good practice in casework. The main purpose of this paper is to illustrate methods and principles that guided the UNESCO project, "Preservation of the Manuscripts Collection of the Abu Rayhan Al-Biruni Institute of Oriental Studies." For this reason it does not describe all of the elements of the project because some activities are still in process and others have yet to be started.

By defining principles and methods, the project should help create a progressive framework for the preservation of manuscripts in Uzbekistan. The project focuses on six main aspects:

- 1. Assessing the Institute with special attention to major risks and establishing an action plan for the improvement of the various areas and services;
- 2. Surveying the state of condition of the collection;
- 3. Training conservators;
- 4. Starting the stabilization of the collection;
- 5. Drawing up and establishing policies and procedures; and
- 6. Publishing and raising awareness through conferences and short trainings.

# **ASSESSMENT**

A first assessment of the Abu Rayhan Al-Biruni Institute of Oriental Studies was carried out in the frame of the UNESCO/Saudi Arabian Funds-in-Trust project "Preservation of the Manuscripts Collection of the Abu Rayhan Al-Biruni Institute of Oriental Studies under the Academy of Sciences of the Republic of Uzbekistan." The objective was, in particular, to determine the priority of actions to be taken in each of the following areas—conservation and storage spaces, reading and consultation areas, exhibition space, infrastructures, safety and security.

The work of data collecting was divided according to three axes:

- collection of data concerning the collections, including the nature of the collections, the state of conservation, environmental conditions of presentation, and other factors:
- collection of documentation, including data concerning the history of the collections, the management of the collections (inventory, cataloguing, digitisation), temporary exhibitions, documents concerning communication to the public, and other documentation; and
- collection of data concerning the building, such as plans, surfaces, state of conservation, and other data.

The methodology chosen stands on a selective approach based on relevant indicators or markers of vulnerability of the collection and the institution. Eight elements to be assessed have been identified—the building, the environment, security, safety, storage, methods of storage, handling and consultation, and conservation.

Each element assessed was separated into different markers. Each marker gave us one or more pieces of information. This information was analyzed and compared with a set of international preservation standards, rules or values. The difference between the "ideal" and "real" situation gave us the possibility to evaluate the reality (see Table 1), to see how close or far we were from the best practice, to measure if the best practice was feasible in the context of the Abu Rayhan Al-Biruni Institute, and to prioritize a set of recommended actions according to the time and economic frame of the UNESCO project and to the human and material resources of the Institute.

Table 1: Elements assessed in the Abu Rayhan al-Biruni Institute (simplified version)

Reference table	Marker	Condition	Action
	Structure	Average	
	Roof	Good	
Building	Floor	Average Good Good Ows Bad Ure Good Wery bad Ure Good Wery bad Ure Good Very bad Ure Good Very bad Ure Good Average Good Good Good Average Good Good Average Good Good Average Good Good Average Good Average Average Average Average Average Average Average Bad Ure Average Bad Ure Average Average Average Bad Ure Bad Bad Ure Bad	
	Doors and windows		Urgent
	Sanitary state		
	Climate	Very bad	Urgent
- Francisco and - Francisco an	Artificial light	Average Good Good Bad U Good Very bad Bad U Good Very bad U Good Very bad Very bad Average Good Good Good Average Good Good Average Good Good Average Good Average Good Very bad U Average Good Average Good Good Very bad Very bad Very bad Very bad Very bad Very bad Average Average Bad Bad U Average Average Average Average Average Average Bad Very bad	Urgent
Environment	Natural light	Good	
	Dust	Bad	Urgent
	Detection	Good	
Security	Evacuation	Average Good Good S Bad Urge Good Very bad Urge Bad Urge Good Very bad Urge Good Very bad Urge Average Good Good Average Good Very bad Urge Average Average Average Average Average Average Average Bad Urge Bad Urge Average Average Average Average Bad Urge	Urgent
	Means of defense		
	Intrusion detection	Good	
Safety	Surveillance	Bad Urgen Good Bad Urgen Good Very bad Urgen e Average on Good Good Average Good Good Good Average Good Good Average Good Average Good Average Good Bad Urgen Average Average Average Bad Urgen Bad Urgen	
Salety	Locking		
	Consultation	Good	
	Functioning	Average	
	Accessibility	Good	
Ctorogo	Visibility	Good Bad Urg Good Very bad Urg Bad Urg Good Bad Urg Good Very bad Urg Average Good Good Good Average Good Good Very bad Urg Average Good Average Good Good Average Good Very bad Urg Good Average Average Average Bad Urg Bad Urg Average Average Bad Urg Bad Urg Bad Urg Average	
Storage	Safety	Bad	Urgent
	Security	Good	
	Environment	Very bad	Urgent
	Shelves	Average	
	Position	Good Average Good Bad Good Very bad Average Average Bad Bad	
Methods of storage	Unbound	Bad	Urgent
or storage	Boxing	Bad	Urgent
	Oversize	Bad	Urgent
	Ergonomics	Average	
Consultation	Reception		
Consultation	Сору		
	Training	Bad	Urgent
	Environment	Very bad	Urgent
Consorvation	Equipment/materials	Very bad Urgent	Urgent
Conservation	Methodology	Bad Urgent	
	Training	Very bad Urg Very bad Urg Bad Urg	Urgent

Assessment methodology, identification and characterisation of the different issues, the relation between the issues, and the action plan with corrective measures were recorded in a formal survey report. The report was written in clear, direct language and formatted in such a way that the information can be easily located and extracted. Recommendations are organised in three phases: short- (one to two years), middle-(two to five years) and long-term (beyond five years).

Some recommendations constitute a sort of ideal solution while others are a pragmatic answer to the assessed institution. The three main challenges of the Abu Rayhan Al-Biruni Institute at the present time, in the context of preservation and restoration of its collections, are:

- storage environment;
- light (both natural and artificial); and
- conservation workshop and conservation training.

These constitute the heart of the short-term recommendations.

# **SURVEY**

The general state of conservation of the manuscripts was assessed using a simple statistical sampling derived from Carl Dott's 1 table. This table allows the defining of the sample size according to the chosen confidence level and the confidence interval.

The chosen confidence level is 95 percent with a confidence interval of  $\pm$  3 percent. A total number of 1,067 manuscripts were consulted (see Figure 1).

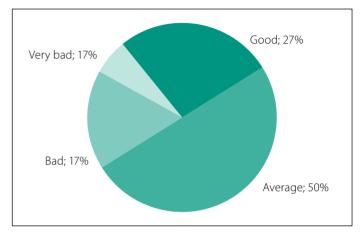


Fig. 1

The first impression is that the situation at the Insitute is manageble, even if the current environment jeopardizes the necessary and permanent work of preservation in a safe and clean environment.

High temperature and relative humidity are factors in preservation. Heat accelerates the speed of chemical reactions, whereas the dry atmosphere extracts water molecules contained in materials, causing shrinkage of documents and a change in their dimensions. Pollution and dust also accelerate the aging of manuscripts and books. These aging effects on the documents are considered slow degradation and are not immediately visible and only measurable with sophisticated tests. However, this is not a good reason to underestimate them. The effects of these factors irreversibly affect the longevity of cultural heritage.

<sup>1.</sup> For more information see: http://testbed.cis.drexel.edu/DrottHome.html





Fig. 2 Fig. 3





Fig. 4



Fig. 5

# **CONSERVATION WORKSHOP**

Conservation workshops have a very important role to play in the development of a culture dedicated to the preservation of heritage materials. They establish a specialist activity within a public service and also represent, in an unassailable way, the significant commitment to the long-term preservation of material worthy of retention. Conservation workshops are a place where important and complex activities are carried out.

The area chosen for the installation of the workshop at the Institute was not ideal. However, it is possible to achieve a satisfactory layout of a workshop respecting some basic principles. One of the first considerations is security since documents and books undergoing treatment may often have to be left in the workshop overnight. The workshop is locked when staff are absent. All staff must be made aware of the health and safety risks associated with a primarily craft-based, practical workshop area where cutting machines, sharp knives and chemical solvents are in regular use. This room must never be a thoroughfare; access must only be available to staff of the institution.

Another consideration is circulation and work-flow (Figures 2 and 3) as the staff must circulate safely and efficiently so the different stages of conservation can be carried out in a logical and mandatory manner. Wet and chemical treatment areas and the storage of materials should be, respectively, in rooms separate from paper and binding conservation. Benches in the workshop are equipped with a light box and

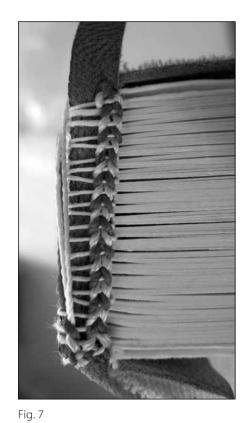
a double electric outlet from which to run smaller electrical tools. Benches enable conservators to work standing up or sitting, with enough room for their legs to fit comfortably underneath. In addition to workstations, the workshop should include some shelves, drawers and plain chest-style shelves which are vital for the storage of paper, off-cuts material and other documents

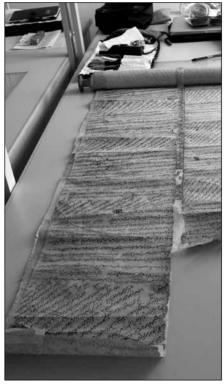
A comprehensive list of technical equipment, personal tools, materials and products complete the workshop so four people can work without difficulty.

### **CONSERVATION PRINCIPLE**

The entire collection of the Abu Rayhan Al-Biruni Institute is composed of manuscripts and books. The manuscripts are made from a variety of materials belonging to the family of organic materials, most of which are natural products. The paper, boards and thread of a book are all composed of cellulose, a plant material. The covers can be made from a wider variety of materials, including skin products (leather, vellum or parchment), textiles or plastic.

Every manuscript in 'Arabic writing can have a double soul, being both a copy of a given text and a unique manufactured product. Each manuscript carries a double value as a collection of information contained in the text and as an historical document produced in a particular geographical and cultural background, making it a real piece of archaeological investigation. All the material elements of a manuscript provide





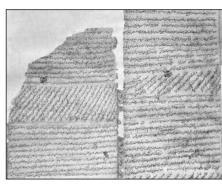


Fig. 9

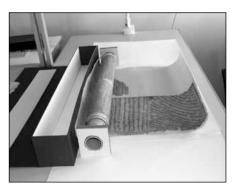


Fig. 8 Fig. 10







Fig. 11 Fig. 12 Fig. 13

valuable clues about the society and the time frame in which it was produced.

The integrity and meaning of a manuscript is recognized as the combination of a number of values and types of information, including aesthetic, historical, technological, social and spiritual information. Conservation of the manuscript, therefore, requires an understanding that these aspects must be considered in the same way as basic chemical and physical characteristics are considered. Maintenance and conservation treatment are always approached with caution, with the minimum practicable intervention required to promote preservation. Treatment to enhance the appearance or aesthetic presentation of a manuscript is never considered if it compromises its integrity or its ongoing preservation.

Any remedial treatment, alterations or additions are fully documented in the permanent record and are readily identifiable. When possible, these treatments, alterations or additions are minimal and reversible. It is particularly important that alterations or additions are only carried out after consultation with curatorial and conservation staff and others as appropriate, and with the direct or delegated agreement of those responsible of the Abu Rayhan Al-Biruni Institute.

# **CONSERVATION TRAINING**

Conservation is associated with the preservation, safeguarding and protection of materials, according to the Operational Guidelines of the 1972 World

Heritage Convention. The Nara Document on Authenticity defines conservation, specifically with reference to cultural heritage, as making all efforts designed to understanding cultural heritage, knowing its history and meaning, ensuring its material safeguard and, as required, ensuring its presentation, restoration and enhancement. In fact, conservation is a good example of the accumulation of knowledge, skills, abilities and experience.

The conservator is an expert who can perform the duties of conservation through specialized education, knowledge, training and experience. A skilled conservator should be competent in conservation history, ethics and philosophy, values and significance, history of technology of cultural heritage, scientific principals and methods, processes of deterioration and change, preventive care and measures, examination methods, and documentation and treatment methods (Figures 4.5.6 and 7).

All these skills, abilities and experiences are strongly encouraged and developed with short and extensive trainings in situ (Figures 8, 9 and 10) and abroad (Figures 11, 12 and 13). The trainings provide general concepts regarding cultural heritage and its protection and the immense role of conservation in assuring the protection of heritage values with a combination of theory sessions and practice.

Abu Rayhan Al-Biruni conservators are familiarizing themselves with new approaches on world heritage and applying conservation techniques in an ongoing program. By the end of the trainings they will have a better understanding of the analysis process

regarding alteration and decay of paper-based materials, peculiarities of Islamic binding, use of basic chemical treatments, identification of deterioration effects, and definition of the diagnosis and documentation. They will achieve an understanding of the international legislative framework and will perform the restorative action in strict observance of the professional code of ethics

### **CONCLUSION**

This on-going project, based on principles and experiences, is building a preservation culture in the Abu Rayhan Al-Biruni Institute that also takes into account a wide range of heritage values. These are intended to help everyone involved in the preservation of manuscripts and art on paper, taking into consideration the different professionals

working with cultural heritage. The project acknowledges that the preservation of manuscripts involves different long-standing and evolving actions managed in parallel, and is fostered with close relationships between theoretical and practical approaches.

A level of self-help is also instilled in the project with a flavour of local control. This will be doubly important once the project is complete, the monies spent, and specialist consultants have returned to their own countries.

The overall message is to get involved and plan ideas to achieve:

- development of local expertise on a permanent basis;
- establishment of efficient supply routes; and
- establishment of links with relevant national and international institutions in order to strengthen national capacity in conformity with international standards and conventions.

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# © Antonio Mirabile

Illustrations/pictures of the article 5.1 Preservation of paper-based documents and 5.2 Preservation of the manuscripts collection

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