National Museum of Medical Sciences History of Iran¹

The word for *museum* in Persian is $m\bar{u}zeh^1$, which is the Persian pronunciation of the French *musée*, derived from the Greek *mouseion* (house of the *muses*) and its latinized version of s *museum*.

Also, *mousa* is the name of nine sister goddesses in Greek mythology presiding over songs, poetry and the arts and sciences. Their temple, a place for cogitation and scholars' discussion, and a place for procurement, care and exhibition of jewels and precious objects was named *mouseion*. At the same time the word *muse* in English, Italian and other Latin-related languages means to become absorbed in thought, meditate, wonder and marvel and different forms of the word such as *musei*, *museo*, *museu*, *museum*, *musée*, *museet*, etc. in European languages have the same definition.

The word *musée* was first introduced into Persian during the reign of Nāṣir ad-Dīn Šāh and was noticed in Muḥammad Ḥasan I'timādu's-Salṭana's work.

¹ Aus dem Persischen ins Englische übersetzt von Mehrdad Vahdati, Teheran, nach dem persischen Originaltext leicht überarbeitet von Dr. Thomas Ogger.

A museum is an institute for procurement, organization, care, study and exhibition of relics in the fields of culture and civilization, sciences, industries and technologies, in a systematic and scientific way is so that development, progress or rising and falling of peoples and nations one reflected.

In short, museums, objectives are as follows:

- 1. Care and exhibition of relics and handing them down to future generations.
- 2. Surveying and comparing historic, scientific, technologic, industrial and artistic phenomena of the past and present.
- 3. Promotion of mutual understanding between people and nations.
- 4. Cognizance and representation of peoples and nations share in the world culture and civilization.
- 5. Promotion and enhancement of school and university students, researchers, aged people and other groups.
- 6. Safeguarding vernacular cultures and acting as a bulwark against exotic and vagrant cultures.

Superfluity of objects and monuments, great variety and their qualitative and quantitative magnitude and, last but not the least, various aims and attitudes, brought about the division of museums according to their role and functions. At the first glance museums are divided into five major categories:

- 1. historic museums;
- 2. special museums;
- 3. scientific museums;
- 4. technologic and industrial museums, and
- 5. art museums historic museums procure old objects and monuments which can mirror the archaeology, anthropology and history.

Special museums, on special occasions exhibit historic, artistic and technologic monuments. They are of two kinds:

- open-air museums and

- local museums.

Scientific museums collect and preserve fauna and flora, stones, soils, fossils and every item not made by man. These museums could be of various kinds specialized in keeping and preserving natural history objects, fauna, flora, fishes, and marine life.

Technological and industrial museums exhibit technical and industrial products of man in the fields of invention, discoveries, transportation vehicles, machinery, etc. and are sometimes called:

- museum of inventions.
- museum of discoveries,
- museum of machinery,
- museum of transportation vehicles and so forth.

Art museums procure fine painting, sculptures, architectural objects, decorative arts and handicrafts. Museums for painting, architecture, and sculpture are classified according to period. Museums for decorative arts and handicrafts are categorized according to classification systems and called museums for furniture and household appliances, calligraphy and scripts, books & book binding, ceramic & tiles, carpet and carpet weaving, wood work, wood carving, marquetry, jewels and jewelers, and finally textiles.

Tracing the exact starting point of museum, museology and collection is not possible, for the simple reason that, with the passage of time, as a result of developments in archaeology and enthusiastic meticulousness of archaeologists, discovering are made that break the secrets of the past. There are still many unknown civilizations lying in the soil, seas and oceans. Yet researchers and experts in the fields of museums and curatorship while tracing the etymology of the word *museum* have confined themselves to the Hellenic sources; it seems they have not learned or may have forgotten that Muḥammad 'Alī Furūġī, in the introduction of his *A history of philosophy in Europe* asserts that: "When the Greeks started pursuit of knowledge and art and set to acquire it from eastern nations, it was a long time since those peoples had blazed the path of

civilization acquiring formidable knowledge, and had traveled a long way in this direction; nevertheless the talented Greeks acquired the gist and outcome of that knowledge."

The mentioned temple of deities of arts, poetry and music was located on top of a hill in Athens. This is the first museum mentioned in museums' history. The Alexandria museum of Egypt, founded about 280 BC by Ptolemy I and surviving for seven centuries, had beside images of some scholars, astronomic and surgical instrument, and samples of natural products such as elephant ivory, leather and hide of exotic animals on exhibit to make people cogitate and learn. In ancient Rome masterpieces of art and relics were kept in emperors' palaces, temples and public buildings.

In the Middle Ages, churches and chapels exhibited objects which were very rare both quantitatively and qualitatively, combining reality and legend. Kings, celebrities and affluent people relative to their affluence formed private collections, most of which were foundations of future museums.

In 1626 AD, Paris witnessed the inauguration of the Musée & Histoire Naturelle, and British Dulwich saw the opening of Dulwich Gallery. The Ashmolean Museum, founded in Oxford in 1683, was the first museum to hold oriental monuments in its collections. The museums of this century were not more than the number of one hand's fingers.

In Ireland, in the 18th century, the Dublin Museum, with antiques industrial, scientific and art objects, was opened to the public in 1731. In 1750, the first real museum of the world was established in Luxembourg. Institutes such as the British Museum in London, 1753, the Musée du Louvre in Paris, 10 August 1793, and the first museum in the Americas, the Charleston Museum of Natural History, was opened in 1773. Founded in 1764, the "Hermitage" in St. Petersburg could be considered the first Russian museum.

In the 19th century, as the already existing museums were developing, other countries took the steps to found museums. Pioneering among them was India, which opened the Indian Museum in Calcutta in 1818,

containing scientific and industrial objects. In this century a great variety of museums are witnessed. Before the turn of the century 153 museums in Asia, Europe, Australia, Africa and South America and 53 museums were opened in the United States one after another.

From the beginning up to the middle of the 20th century, almost 170 museums were opened to the visitors in different parts of the world. Now the total number of world museums could be estimated at about 330.

The latest statistics concerning 1970 indicate that the USA, with about 6000 museums, has had the largest number and most varied museums of the world. France with 1183, USSR with 1012, Italy with 972, Spain with 518, Czechoslovakia with 436, Switzerland with 368 and Poland with 335 museums follow. These statistics show rapid and widespread growth of museums in the second half of the 20th century. A glance at the increasing number of museums in Iran proves this view point.

There are examples and indications in the history of Iranian culture and civilization which proves the existence of treasuring, treasures, treasure builders and treasure hunters together with antiques and relics collections. Archaeologists, unearthing coins, seals and collections of emblems together with ceramics in one place, discovering Hammurabi's Code of Law and a vat with a height of 51 cm and diameter of 20 cm of about 2400 BC containing copper and marble objects at Susa, archeological remains in Ziviyeh cave in Kurdistan, research and survey in designs and architecture of princes palaces, fire temples, and idol temples well testify to the existence of treasures or a sort of museum in ancient Iran. Historians of the Islamic period, too, have some indications to this. Gardīzī writes in Zainu'l-ahbār that "... he was informed that on the shore of the [Indian] Ocean there is a large city, called Sūmnat, as dear to Hindus as Mecca to Moslems, wherein there are numerous idols and huge amounts of gold and silver and money, which were transfered from Mecca to that civilization during the era of the holy Prophet (s). In that city, they took the gold, inlaid with jewels, kept huge treasures in those temples".

Sultan Maḥmūd of Ghazna's 16 campaigns in India have been justified by Islamic historians as a measure taken to spread the religion of Islam and annihilate paganism and idolatry, but his incentive in acquiring the jewels and treasures of India cannot be ignored. It goes without saying that safeguarding these treasures and war booties necessitated building treasuries. It has been written that during the reign of the Mongol Il-Hāns some excavations were carried out to unearth relics and antiques.

The Ṭabarak Citadel or Castle north of Isfahan was the treasury of Safavid kings, wherein jewelry, antique and armaments were preserved, and Nādir Šāh-i Afšār reconquered it (from the Afghans). There was another castle of the same name on a mountain near the town of Rey (south of Tehran) that was destroyed by Sultan Toghrol; there must have been treasure kept in that place. Most important of all are the sacred places and shrines of the holy imams (religious leaders of Prophet's descent) and their offspring, scattered all over Iran. Not only the buildings, their cupolas and courts, their furnishings, doors and gates are among precious objects and antiques, but they preserve numerous objects and jewels dedicated to them. The above mentioned examples testify that the term of "museum" didn't exist, but instead those places were called "treasury", "citadel" etc., and these were the museums in Iran with antiques and preciosities.

The Qajar monarch Nāṣir ad-Dīn Šāh, after having visited European museums during his 1873 voyage, brought home the word "museum" together with the concept of museum building and founded the first Iranian museums in the royal citadel. In Persian texts and documents the first usage of the word museum is noticed in the work of Muḥammad-Ḥasan I'timādu's-Salṭana: "In the language of the French, a museum is a place for safeguarding antiques, fine, novel and rare objects of the world."

In *Ma'sar wa'l-āṣār*, p. 98, we read: "We (Nāṣir ad-Dīn Šāh), King of Persia, ordered the construction of a museum of rarities of nature and a small collection of Persian kings' relics." Further we observe in *Mir'ā-tu'l-buldān*, vol. 1, page 30, appendix, the phrase "Director of the Royal museum". The absurd agreement of 12th May 1895, signed by Nāsir ad-

Nāṣir ad-Dīn Šāh (the year before his assassination) and the charter given the French by Muẓaffar ad-Dīn Šāh on 11th August 1900, according to which the monopoly of any king of excavation and archaeological research was conceded to the French, are not only a stigma to the history of archaeology of that age, but is not lesser in gravity than the Tobacco Monopoly concession. This concession brought about the looting of considerable cultural and intellectual properties and the relics unearthed in that period of excavations, nowadays ornate and enrich foreign countries. This miserable agreement was cancelled and annulled in 1927. In 1917 AD Murtażā Qulī Ḥān Mumtāzu'l-Mulk, the Minister of Science, Endowments and Fine Arts, organized a department of antiquities at the new Highschool *Dāru'l-Funūn* headed by Īraǧ Mīrzā. Among its staff the names of Riżā Qulī Rafī'u'l-Mulk, Sulaimān Sipahbudī and Ḥaidar Qulī Sāmlū are seen.

In the same year, the first Iranian museum, the National Museum of Iran, was founded and inaugurated. The catalog of this museum, named Catalog of the National Museum of Iran's Statutes, was printed in 1917 at Bāqirzāda Brothers' printing house in Tehran. This publication included an introduction, the museum's statutes and the characteristics of 270 relics. This museum was later transferred to the Mirror Hall of Masʿūd Mīrzā Qāǧār's palace on Ekbatan Street. This building accommodated the Ministry of Science, Endowments and Fine Arts (later Ministry of Education).

In 1925/26 the society for national relics was organized by a group of experts in antiquities. This society, up to 1978/79, undertook several projects including building monumental tombs for Firdausī, Avicenna, Sa'dī, 'Aṭṭār and Ḥayyām, organizing a specialized library and publishing books on Iranian history and culture. In 1927/28 the preliminary measure for the cancellation of the 1895 agreement and 1900 charter were taken and these were annulled in the same year.

In the year 1930/31 the law concerning the protection and preservation of national monuments, comprising 20 articles, was ratified by the Iranian National Assembly. In 1944/45, the Iranian National Assembly

approved the return of all gold inscriptions of 'Alī Riżā 'Abbāsī to the Holy Shrine of Imam Riżā (pbuh).

In 1967/68 the Iranian National Assembly permitted taking a 20 Rial toll from each ton of cement to be used by Iranian National Relics Society. In 1968/69 the Iranian National Assembly passed the law permitting the purchase of land, buildings and plants for better protection of historic and archaeological monuments. In 1973/74 the Iranian National Assembly passed the law of inventorying historical and ancient monuments. Since the establishment of the Islamic republic, galleries and museums not incompatible with objectives and norms continued their unbroken previous functions. Museums considered unsuitable or in need of reconstruction, like Marmar Palace, Nigāristān, Āzādī, Āb-Anbār, Dāniškada-i Afsarī (Military Academy), Pīšāhangī (Scouts Museum), Khoy, Abadan, Haft Tappeh, Gorgān, Pāsārgād and the Harandi Museum in Kerman were closed. Some museums like Police University of Ālāst became libraries, and the Āq Bābā Museum of Qazvin and the Zangan museum were handed to a committee. The museums of culture and people (Islamic Republic of Iran's Radio and Television), Zoology of Karağ, Vānk Cathedral in Isfahan (Jolfa), Miyān-Dū-Āb, Park Museum (Karīm Hān citadel in Shiraz) and Saqqez museum have ambiguous conditions; other museums are being refurnished. This is the situation in Iranian museums according to the 1983/84 annual cultural report by the Ministry of Culture and Islamic Guidance.

Within the last years the Organization of Cultural Heritage and the Treasury & Theatre Management among others, have restored and opened new museums everywhere in the country to keep them away from former stagnation.

Medicine is without any doubt one of the basic sciences and techniques, since from the beginning ache and suffering has always tangled man's life and he has constantly searched for remedies. Being one of the oldest and healthiest human cultures, the knowledge of medicine has always had a prominent position in Iranian civilization.

One of the earliest cases of surgery in the world was performed on the skull of a 13 year old girl around 4850 years ago; the girl apparently suffered from hydrocephalitis and the skull was unearthed during excavations at Šahr-i Sūḥta excavations in Sīstān-wa-Balūčistān Province.

Iran was the central empire situated between East and West. The term is derived from *arya* and *aryan*, and the country boasts of more than 7000 years of history.

The subject of medicine (tibb), practice of medicine (tibāba) and hospitals, in ancient Iran has often been considered by historians and medicine. Just like other sciences, it has had a prominent place since ancient times, and in the Achaemenian, Parthian and Sasanian eras it was of great honor. Avestā, the sacred book of Zoroastrians, is a mine of information on Iranian medicine in the Achaemenian era and earlier times; their other religious books are also very informative in this regard. In ancient Iran and the age of Zoroaster, the ancient Iranian prophet, there were many legends and narratives about medicine and its practice. Zoroastrians believe that the first physician of that age was Thrita, like Imhotep (in Egypt) and Asklepios (in Greece). In Mazdayasnā School founded under the leadership of Zoroaster, the techniques of health and cure were taught to people.

Another medical school of ancient Iran was the one of Ekbatana, founded 100 years after Zoroaster by one of his disciples, Senapur Ahum Stut, who cured sick people with 100 of his disciples.

The climax of ancient Iranian Medical Science was the establishment of Gondīšāpūr university by Šāpūr I, son of Ardašīr (241-271 AD), the mighty Sasanian king. He founded this university after defeating the Roman emperor Valerian. Later, in the 6th century AD, Ḥosrau Anūšīrvān, one of greatest Sasanian kings, contributed a lot to its brilliance. In 489 AD, after the celebrated university at Edessa was shut down by the Christian Orthodox Church, Christians, especially Nestorian scholars, took shelter at the Sasanian court.

Athens University, too, was shut down in 529 and Neo-Platonic philosophers from Athens and Alexandria immigrated to Iran and started

teaching and training at Gondīšāpūr university, thus bringing about its ascension to the zenith of perfection. Hosrau Anūšīrvān, with all famous scholars busy teaching at Gondīšāpūr, formed a forum which can be considered the first "Academy of Medicine" in the world. Medical teaching at this university was in Pahlavī, but especially in Aramaic languages. In the 7th and 8th centuries AD, this university greatly contributed to enhancing medicine in Western Europe, through the translation of medical works authored by two families of Iranian physicians named Baḥtīšū' (including six generations of physicians during 259 years); and Māsūya family (father and son) who were Nestorian Christians. Later, at the outset of the advent of the venerable Prophet of Islam, this university played an eminent role and opened a new chapter in medicine in Iran and in the Islamic world.

The origins of Islamic medicine itself date back to the age of the great Prophet of Islam (s) particularly at the establishment of his divine rule in Medina. Emphatic commandments of the Holy Qoran and numerous recommendations of the Prophet on observing cleanliness, introduced as one of characteristics of the faith, in addition to numerous commands concerning the believers' cleanliness, purity, avoiding impurity, and religious commandments generally concerning human beings against the challenges of nature, society and self, opens a new horizon to everybody of any age and necessarily calls concentration of all humans on the health of their souls and bodies.

Gathering and classifying Qoranic verses and traditions narrated from the Immaculate Imams² on the above topics would take authoring several books, some of them already materialized, in this regard, particularly emphatic advice of the revered Prophet and the Immaculate Imams on keeping healthy and curing maladies, several compendiums have been compiled. Prominent among there are *Ṭibb an-Nabī* (Medicine of the Prophet), *Ṭibb aṣ-Ṣādiq* (Medicine of the 6th Imam aṣ-Ṣādiq), *Ṭibb ar-Rizā* (Medicine of the 8th Imam ar-Rizā). Obviously it is worth mentioning that since the divine teaching of the religious authorities concerns happiness of man in life and the world after death, they inevitably concerned physical health, too; otherwise, the status of physicians and

religious authorities are emphatically distinguished from each other in many traditions and reports (riwāyāt) and those grand authorities visited physicians themselves in giving practical lessons to their own pupils. Thus Hārit b. Kalda, a physician living in the time of the Prophet (s), enjoyed great veneration by the Prophet and his great companions (= God's Friends³) on several occasions advised the people who requested their blessings to visit a physician's, too. The repeated emphasis of the Holy Qoran on delving, cogitating and experience and learning from cradle to grave and seeking knowledge even in a remote place as china, stimulated the Moslems' full attention to spiritual and physical sciences, including medicine and gave rise to a great movement in compiling and translating religious and scientific books. Just translating scientific books from Sanskrit, Pahlavī, Greek, Syriac and Hebrew, during a period of 250 years (125-375 AD) belongs to the most unprecedented events throughout history, and through collective endeavor the bulk of written heritage of ancient cultures and civilizations were transferred to the Islamic world.

Two medical schools of the day, Gondīšāpūr and Alexandria, facilitated this and the objective was realized rather easily, and for this reason Moslem scholars completed translating medical texts and compiling separate medical monographs much earlier than in other sciences. The physicians and translaters of the first and second century of Islam were mostly Christian and Non-Arabs, but gradually they gave up this position to Moslems and were absorbed in the new Islamic nation. The first known translation, the Commentary of the Book of Ahran b. A'yan, was translated from Syriac into Arabic by Māsūğūya from Basra in the time of the Omayyad dynasty, drew considerable attention. In the early Abbasid era, an Iranian, Ibn Muqaffa^c, translated Pahlavī medical texts into Arabic, and the Barmakids fully encouraged translating scientific works from foreign languages, particularly medical texts from Sanskrit. Nevertheless the most renowned translator of the time was Hunain b. Ishāq, who, in collaboration with his son Ishāq b. Hunain, translated authentic Greek and Syriac texts. Besides, he practiced medicine and was one of the great physicians of his time. During this movement of translating foreign medical books into Arabic, the sapling of independent Islamic medicine sprouted and the first medical work in the Islamic world, *Firdausu'l-ḥikma* (Paradise of Wisdom), was compiled by 'Alī b. Rabn aṭ-Ṭabarī in 236 AH. Ṭabarī is not only famous for this great œuvre, but because he trained a genius pupil who reached world fame. This pupil, Muḥammad b. Zakaryā ar-Rāzī, known as the "Galen of the Arabs", was the greatest of all clinical and experimental physicians in the Islamic world and his works, together with those of Avicenna (Ibn Sīnā) have had the most profound effect on the medicine of East and West.

As far as we know, the Moslems' medical knowledge during the 3rd and 4th centuries AH reached its zenith, when Muḥammad b. Zakaryā ar-Rāzī began compiling his major medical works at the end of the 3rd and beginning of the 4th centuries. According to Abū Raiḥān al-Bīrūnī's list, he wrote more than 53 big and small books. The most prominent among ar-Rāzī's compilations is *Kitābu'l-ḥāvī*, being considered as a comprehensive medical encyclopedia. He himself asserts that compiling this book took 15 years of his life, days and night, leaving him with poor visibility and feeble muscles.

What remains of the Arabic text is about half of the book. After his demise, his pupils were commissioned by Ibn 'Amīd to arrange the text according to ar-Rāzī's personal notes. The prominence of the book is firstly because it is a compendium of all medical knowledge up to the age of ar-Rāzī and secondly because it contains many experiments and observations personally carried out by him. One of his other famous books is *Kitābu'l-manṣūrī* or *Ţibbu'l-manṣūrī*. More concise in comparison to *Kitābu'l-ḥāvī*, this book is compiled in ten sections. *Aš-šukūk* is another of his works in which some viewpoints of Galen are rejected.

According to Ibn Aṣīb'a, his *Kitāb man lā yaḥḍarahu'ṭ-ṭabīb* (Book About the One Who Does Not Need to Visit A Physician), was famous under its name *Ṭibbu'l-fuqarā'* (Medicine of the Poor), because in this book simple prescriptions and remedies for treatment of diseases, needless of visiting physicians, were introduced.

Bara'a's-sā'a is another one of his famous books including prescriptions for fast treatment of diseases.

His other prominent works are: Al-fāḥir fī'ṭ-ṭibb(The One Who Is Proud In Medicine), Daf'u'l-maḍārri'l-aġḍiyya (Elimination of Detriment of Food), Al-madḥalu'ṣ-ṣaġīr wa'l-fuṣūl fī'ṭ-ṭibb (Small Introduction And the Chapters of Medicine), also known as Muršid. Furthermore he has other books and treatises which in spite of their brevity are important from medical viewpoint.

Ar-Rāzī's works, like other works of the 3rd, 4th and 5th centuries, are all in Arabic.

The second prominent physician after ar-Rāzī and one of the most brilliant physicians of the 4th century AH is Abū'l-Ḥasan Aḥmad b. Mu-ḥammad aṭ-Ṭabarī. He was the personal physician of Rukn ad-Daula ad-Dailamī, and the famous book *Al-Mu'āliğatu'l-buqrātiyya* is his.

Another renowned physician of the 4th century AH is Abū Manṣūr Ḥasan b. Nūḥ al-Qamarī, whose book *Ġanī wa manī* has survived. His old age coincided with Avicenna's youth.

Another prominent physician after ar-Rāzī was 'Alī b. 'Abbās al-Maǧūsī al-Ahvāzī, the personal physician of the Dailamite prince 'Aḍud ad-Daula; his famous book is Kāmil aṣ-ṣanāʿa fī 'ṭ-ṭibb(The Complete Art of Medicine), also known as Ṭibb-i malikī (Royal Medicine). Another physician to be mentioned is Abū Sahl 'Īsā b. Yaḥyā al-Masīḥī al-Ğurǧānī, who was a contemporary of Avicenna. His outstanding œuvre is Kitābu'l-mā fī 'ṣ-ṣanāʿati'ṭ-ṭibbiyya (Book About What Is Existing in the Art of Medicine).

Avicenna (Abū ʿAlī Ḥusain Sīnā), the great physician of the late 4th and early 5th century AH, who perfected Islamic medicine and bestowed it with a logical and scientific system, wrote numerous treatises, short poems and medical books. Among them, only the treatise on *nabż* (the pulse), *Tašrīḥu'l-a'ḍā'* (Description of Anatomy) and *Risāla-i ǧūdiyya* (Treatise of Generosity) are in Persian. His *Qānūn fī'ṭ-ṭibb* (Canon medicinae) bestowed huge credit to medicine, and for many centuries it

was the major source and authority for Medical Science all over the world, especially in Europe.

Up to 5th century colossal development took place in pharmacology and pharmacy. Among the works in this field is *Qarābādīn* (pharmacopoeia), the famous book of Šāpūr Sahl-i Gondīšāpūrī, compiled in the 3rd century AH. This book was of common usage in the late 3rd, all 4th and 5th, and part of 6th centuries AH in all pharmacies and hospitals in Baghdad and other centres of science and culture everywhere in the Islamic world, until another *Qarābādīn* written by Ibn at-Talmīd replaced it in the 6th century. But in the 4th and 5th centuries, important books about pharmacology were written, like *Al-abnya ʿan ḥaqāʾiq al-adwya* (The Base of the Thruths of Drugs) by Abū Manṣūr Muwaffaq b. ʿAlī al-Harawī, which was written in Persian.

From the middle of the 5th to the beginning of the 7th century AH there are several famous works, the most important of which is written in Persian. The physicians of this age did not advance the medical science of Avicenna's period much further, but their contribution, particularly Sayyid Ismā'īl Ğurğānī's, is that their major works were the cause of enriching the Persian terminology concerning medical science. One of the major physicians of this period is Šaraf az-Zamān Muḥammad Īlāqī, the renowned physician and philosopher of the early 6th century AH, pupil of Bahmanyār-i Marzbān, Avicenna's pupil. His major work is *Alfuṣūlu'l-Īlāqiyya* (Chapters of Īlāqī). It is an Arabic summary of the first book of Avicenna's *Qānūn*.

Another physician of this period is Ibn Abī'ṣ-Ṣādiq Abū'l-Qāsim 'Abdu'r-Raḥmān b. 'Alī b. Abī'ṣ-Ṣādiq an-Naisābūrī, surnamed as al-Buqraṭ aṭ-ṭānī (Second Hippocrate). He was Sayyid Ismā'īl al-Ğurǧānī's teacher, and his commentary on Hippocrates' book is considered as one of the best in this regard.

The greatest of all 6^{th} century AH physicians, Sayyid Ismā'īl al-Ğurğānī is, according to Baihaqī, the one who revived medicine and other sciences through his compilations. His $Zah\bar{i}ra-i h^w\bar{a}razm\bar{s}\bar{a}h\bar{i}$ has, from its compilation onwards, been one of the pillars of medicine. His other

works are: Ḥafī-i 'alā'ī, Al-Aġrażu'ṭ-ṭabī'iyya wa'l-mabāḥisu'l-'alā'iyya and Yādigār (Souvenir) in Persian.

In the 7th and 8th AH centuries though most Islamic medical books were written in Arabic, a tendency toward writing books in Persian became discernable. In addition, writing commentaries on authentic medical books, becomes more frequent, to the extent that several reliable commentaries were written on Avicenna's Qānūn. One of the most important ones among them is the fine work of Ibn Nafis al-Ourašī, the renowned physician of the 7th century AH. After Avicenna, there hasn't been anybody like him again in the Islamic world. He was Egypt's greatest physician. His book is known as Qurašī's Description of the Qānūn. He wrote Kitābu'š-šāmil (The Comprehensive Book) in 80 volumes which is the most important book about Islamic medicine. Furthermore he summarized Avicenna's Qānūn and named it Mūğaz alqānūn. Several physicians, including Abū Ishāq Ibrāhīm b. Muhammad as-Suwaidī, physician of the 7th century AH, Sadīd ad-Dīn-i Kāzerūnī, the physician of the 8th century AH, Ğamāl ad-Dīn Muhammad b. al-Āqsarā'ī, physician of the 8th century and Burhān ad-Dīn Nafīs 'Iważ-i Kirmānī wrote a commentary on it.

At-tuḥfatu's-sa'diyya (The Gift of Happiness), compiled by 'Allāma Quṭb ad-Dīn-i Šīrāzī is another commentary written on Qānūn in 710 AH which is written in Arabic, too. Among other famous physicians of the 7th century AH there is Naǧīb ad-Dīn as-Samarqandī who wrote another important book, Al-asbāb wa'l-'alāmāt (Reasons And Signs) about illnesses, their reasons and how to cure them. This book became even more famous, after its Arabic commentary by Burhān ad-Dīn Nafīs b. 'Iważ-i Kirmānī in 753 AH. From Naǧīb ad-Dīn as-Samarqandī some of his treatises like Uṣūl-i tarkību'l-adwiya wa'l-adwiyati'l-mufrada (The Principles About The Combination Of Drugs In General And In Particular) and Qawānīn-i tarkību'l-adwiyati'l-qalbiyya (The Laws Concerning The Combination Of Drugs Against Heart Illnesses) have survived.

In the same period there were some more books written about pharmaology, one of those written in Arabic by Yūsuf b. Ismā'īl-i Ḥū'ī, also

known as Ibn Kabīr, in 711 AH was named *Mā lā yasa'u'ṭ-ṭabību ğahluhu* (What the Physician Does Not Know Because of his Ignorance). In 770 AH 'Alī b. Ḥusain-i Anṣārī, known as Ḥāǧǧī Zain al-'Aṭṭār wrote the famous book in Persian named *Iḥtiyārāt-i badī'ī dar-bāra-i adwiya-i mufrada wa murakkaba* (Newly Invented Methods About Drugs In Particular And In Combination).

One of the physicians and authors of the 9th century is Muḥammad b. 'Alā' ad-Dīn b. Habbatullāh-i Sabzawārī, known as Ġiyāṣ-i Muṭabbib, who wrote a book in Persian titled *Qawānīnu'l-'ilāğ* (The Laws of Therapy) or *Šafā'u'l-amrāḍ* (Cure Of Physical Diseases), or *Risāla dar muʿāliǧāt-i amrāż-i badan* (Treatise About the Therapy of Physical Diseases) completed in 871 AH.

Another medical work in Persian is *Tašrīḥu'l-badan* (Description Of The Body) by Manṣūr b. Muḥammad b. Aḥmad b. Yūsuf b. Ilyās from Shiraz. He wrote another book in Persian, *Kifāya-i muǧāhidiyya* (The Right Measure of Effort), also known as *Kifāya-i Manṣūrī* (The Right Measure of Manṣūr). The first part of this book contains theoretical medicine and the second practical medicine. From the beginning of the 10th century onwards medicine lost some of its previous robustness. Of the major works written in this period, *Dastūru'l-ʿilāǧ* (Instructions for Therapy) by Sulṭān ʿAlī Gunābādī, compiled in Persian in 933 AH, is worth mentioning.

Another famous physician of that century was Yūsuf b. Muḥammad b. Yūsuf, physician of Heart and known as Yūsufī. He was important, because he wrote some Persian poems in this regard making it easier to study medicine. One of them is 'Ilāğu'l-amraż (Therapy Of Diseases), a collection of 289 quatrains, whose commentary is named Ğāmi'u'l-fawā'id (Collected Of Benefits). He wrote a long poem on hygiene, named Ḥifzu'ṣ-ṣiḥḥa, in 946 AH. His other collection of poems, Fawā'i-du'l-aḥyār (The Benefits of the Best), written in 912 AH has survived, too, as well as his versified treatise Ma'kūl wa mašrūb (Food And Drinking). And his Ğawāhiru'l-luġa (Jewels Of Language) is written about medical terms and lingual expressions.

Another physician of that century was Ḥakīm 'Alā' ad-Dīn-i Tabrīzī, who wrote the *Kitāb-i kāmil-i 'Alā'ī* (The Complete Book of 'Alā'). In this book he gives an alphabetical list of medical terms and expressions. Ġiyās ad-Dīn Manṣūr Dastakī-i Šīrāzī, the great physician and theologian who was famous in this period, wrote two scholarly books, as well: *Ma'ālimu'š-šifā'* (Scientific Hospital) and *Aš-šāfiyya* (The Healing). Moṇafar b. Muḥammad Ḥusainī Šafā'ī-i Kāsānī, known as Ḥakīm Šafā'ī, one of the physicians of the 10th century AH wrote some books on medicine and pharmacology, one of which is *Ṭibb-i Šafā'ī* (The Medicine of Šafā'ī) or *Qarābādīn-i Šafā'ī* (Pharmacopoeia of Šafā'ī).

'Imād-ad-Dīn Maḥmūd b. Mas'ūd b. Maḥmūd Ṭabīb-i Šīrāzī, known as 'Imād-i Ṭabīb, was of great fame in the end of the 10th century AH. He wrote a book on pharmacopoeia and pharmacology in Arabic, titled *Almurakkabātu'š-Šāhiyya* (The Imperial Combination). His other Persian works are *Mufarraḥ-i Yāqūtī* (The Enjoyment of Yāqūtī), *Afyūniyya* (Opiomania) and *Yanbū* (The Source).

In the same period a number of books were compiled in India, among them *Ma'danu'š-šifā'-i Sikandaršāhī* (The Healing Mine of Sikandaršāh), written by Bihābin Ḥawāṣ Ḥān are more remarkable.

In the 11th up to the middle of the 12th century AH there is a famous and prominent physician, Kamāl ad-Dīn-i Gīlānī, a contemporary of Shah 'Abbās I, and his book about pharmacology named *Ğāmi'u'l-ğawāmi'* (Collection Of The Collections) has survived.

Muḥammad Mu'min Ḥusainī Tunukābunī-i Dailamī, known as Ḥakīm-i Mu'min ("the Physician of the Believer"), is one of the famous physicians and pharmacologists serving the Safavid Shah Sulaimān. His famous book *Tuḥfatu'l-Mu'minīn* (Gift To The Believers) is on simple and compound drugs. Muḥammad Masīḥ Ṭabīb was one of Ḥakīm-i Mu'min's pupils, too. He was also skilled in pharmacology, and his *Dastūr-i Masīḥī* (Instructions Of Masīḥ) is still existing.

Another physician, contemporary of Suleimān Šāh, is Muḥammad Hāšim b. Muḥammad Ṭāhir-i Tihrānī. He completed his Persian *Miṣ-bāhu'l-ḥazā'in wa miftāḥu'd-dafā'in* (The Lamp of Treasury and the

Key of Hidden Treasury) in 1103 AH. Of course this should not be mistaken with its namesake written by Ḥāǧǧ Zain alʿAṭṭār, the author of *Iḥtiyārāt-i badī̄vī* (Invented and Elected Things). Muḥammad Hāšim wrote another Persian book about the knowledge of the beneficial characteristics of Chinese Wood, titled 'Ainu'l-ḥayāt (The Source Of Life). His other book written in Persian in 1079 AH is *Tuḥfa-i Sulaimānī* (The Gift Of Sulaimān).

Another Iranian physician of the 11th century AH is Nizām ad-Dīn Aḥmad Gīlānī. In India he was at the service of the Quṭb-Shahs, the rulers of Gulkanda. His book written in Persian is <code>Asrāru'l-aṭibbā'</code> (The Secrets of Physicians) on pharmacology. And he wrote another Persian book named <code>Darmān-i bawāsīr</code> (Treatment Of Haemorrhoids). Another physician whose Persian works we find in India was Mīr Muḥammad Arzānī Mīr Ḥāǧǧī Muqīm, known as Šāh Arzānī or Mīr Muḥammad-i Akbar ("The Great"). His <code>Tibbu'l-Akbar</code> (Medicine of Akbar) is a translation of Nafīs b. 'Iważ Kirmānī's <code>Šarḥ-i asbāb wa 'alāmāt</code>, with additions taken from other books. He completed this work in 1112 AH. He also wrote <code>Mīzānu'ṭ-ṭibb</code> (The Right Measure of Medicine), which was a concise manual on medicine to be utilized by his pupils. Further, his prominent works of <code>Muǧarrabāt-i Akbarī</code> (The Experience of Akbar), on compound drugs, and <code>Qarābādīn-i Qādirī</code> (The Qādirī Pharmacopoeia), written in 1126, are worth mentioning.

Other pharmacologists of this age left behind some notable books. Some of them are: Masīḥu'l-Mulk Muḥammad Yūsuf and Muḥammad Šarīf Ḥān Dihlawī, the author of the Persian book *Ta'līf-i Šarīf* (Book of Šarīf) on drugs in India.

There are some veterinary books, both on cattle and the life and breeding of birds of prey, from this period, including some books on horses. One of Iranian authors in India who had written such works is Šaiḫ Muḥammad b. Abū Ṭālib Zāhidī-i Gīlānī who wrote his *Farasnāma* (Treatise On Horses) in 1127 AH, describing horses, their cognition and diseases.

Mīr Nizām ad-Dīn Aḥmad, too, was commissioned by Shah 'Abbās II in 1071 AH to write the Persian *Miżmār-i dāniš* (Hippodrome of Knowledge) on horses. After the Safavid era and the arrival of the Qajar period, the Iranians' encounters with modern medicine were remarkable. Before the establishment of Dār al-Funūn Highschool, no change is discernable in medical publications, but after the foundation of this polytechnic college, some professors of medicine were invited to Iran and they translated and wrote a number of new books on pharmacology, pharmacy, anatomy and pathology.

In the same period some Iranian physicians who had studied in the West started translating and writing books. In the way Abū'l-Ḥasan Ḫān wrote his *Darmān-šināsī* (Science of Therapy), there were many physicians who translated the works of their professors at Dār al-Funūn Highschool. At the same period there were also physicians who opposed the methods of Western medicine, like Mīrzā Bābā-yi Šīrāzī Maliku'l-Aṭibbā' who wrote a treatise in this regard entitled *Risāla-i ğauhariyya* (Precious Treatise).

The most famous physicians of this period were court physicians, like Mīrzā Ḥakīmbāšī, Nāṣir ad-Dīn Šāh's famous personal physician who wrote *Anwār-i Nāṣirī* (Lights of Nāṣir) on Anatomy. Thus Iranian medicine followed its own path towards a new medicine replacing the old while no trace is left of what was once the pillar of historical experience of the peoples of the entire Islamic World in the field of medicine.

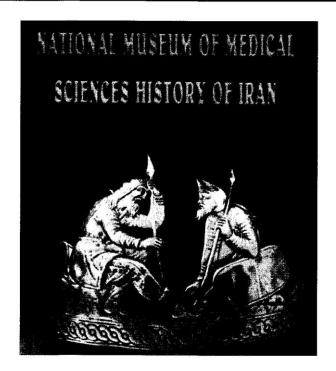
Looking at the past, Medical Science has had a high reputation in Iran, but unfortunately most scientists and people being involved in medicine as well as students are left without any information about this matter, or there knowledge is limited. To deal with this glorious past and to give it a place where it can be shown to people under the name of National Museum of History of Medical Science is an old desire. It was possible to be realized by some executive institutions and universities of human medicine.

The founding of the National Museum of History of Medical Science of the Islamic Republic of Iran with the intention of keeping the values, the rich culture and civilization of the past and showing the achievements of constant and indefatigable endeavors of physicians and other people involved in related vocations throughout Iranian history, started as a joint project in 1377 by Tehran University of Medical Sciences and Services in direct cooperation and with participation of the Iranian Cultural Heritage Organization, the Academy of Medical Sciences of the Islamic Republic of Iran and all medical universities and colleges, as well as organizations and institutions in connection with the department of medicine, under the supervision of the Ministry for Health, Treatment and Medical Training.

The principal goals of this museum are, as follows:

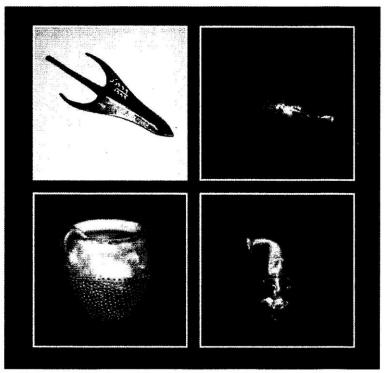
- 1- Spreading and forming of researching activities for the purpose of knowledge of the valuable heritage of the various medical sciences of the past for the present and future generations to raise public culture and to draw their attention to the illuminated image of the glorious past of the medical sciences in Iran.
- 2- Knowledge, review of the collection, restoration and preservation of the works, instruments, drugs, and documents concerning medical sciences from past periods until today, to draw the attention of everybody, especially of people concerned with the medical department for research and providing information for studying, knowing, analysis, teaching, and further benefit by those objects.

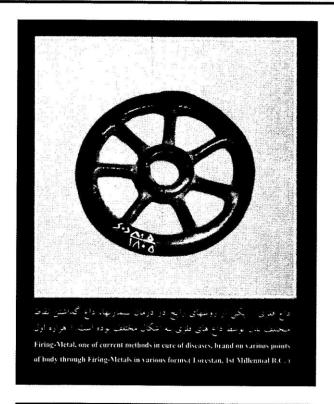
This museum will have numerous departments: instruments and medicaments connected with medicine, manuscript books and documents, great and famous personalities concerned with medicine, medical herbs, and traditional medicine, as well as ancient anthropology, science of pathology, science of gynaecology, history of dentistry, history of veterinary medicine, history of nursing and midwifery, etc. All of these departments will exhibit documents and objects that prove the high level of medical science in Iran.



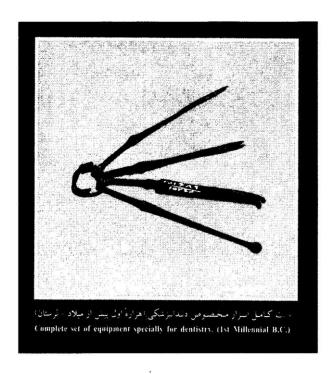




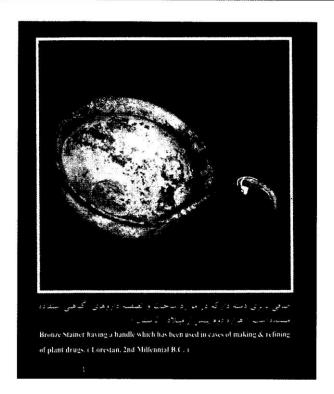


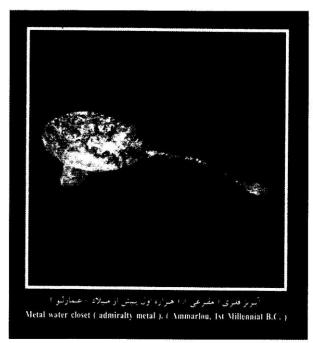












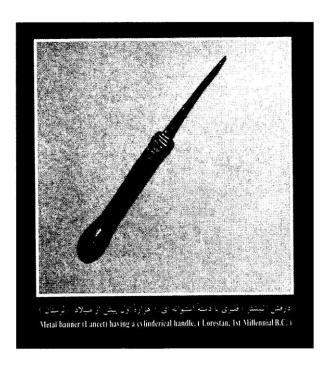




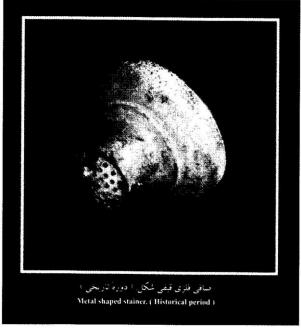


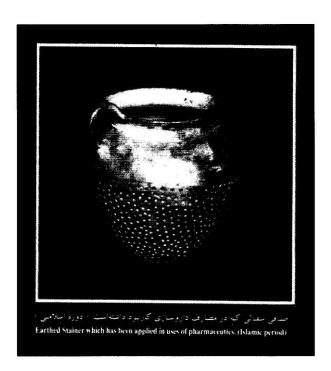




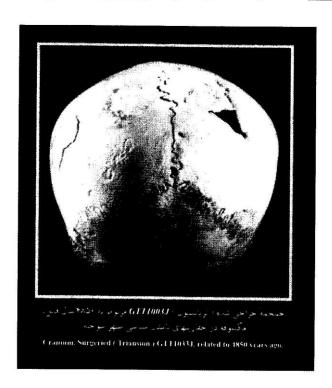


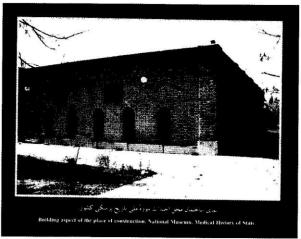


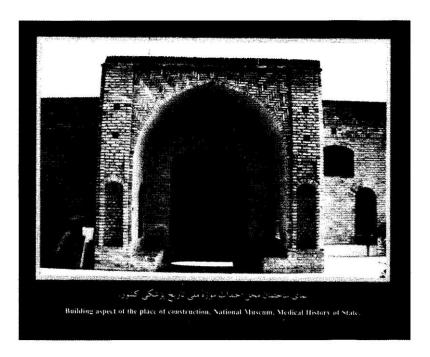












¹ Die Transkription aus dem Persischen sowie aus dem Arabischen entspricht den Transkriptionsregeln der Deutschen Morgenländischen Gesellschaft, wobei nur im Falle von *mūzeh* (*mūza*) aus naheliegenden Gründen die moderne Aussprache wiedergegeben wird. (Anm. d. Red.)

² These are the twelfe Shiite Imames. (Anm. d. Red.)

³ Arab. *auliyā'u'llāh*, meaning pious people who are next to God. They enjoy religious authority.(Anm. d. Red.)