

# A Vivid Research on Gundīshāpūr Academy, the Birthplace of the Scholars and Physicians Endowed with Scientific and laudable qualities

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**Abstract:** Iran also known as Persia, like its neighbor Iraq, can be studied as ancient civilization or a modern nation. According to Iranian mythology King Jamshīd introduced to his people the science of medicine and the arts and crafts. Before the establishment of Gundīshāpūr Academy, medical and semi-medical practices were exclusively the profession of a special group of physicians who belonged to the highest rank of the social classes. The Zoroastrian clergymen studied both theology and medicine and were called Atrāvān. Three types physicians were graduated from the existing medical schools of Hamedan, Ray and Perspolis.

Under the Sasanid dynasty Gundīshāpūr Academy was founded in Gundīshāpūr city which became the most important medical center during the 6th and 7th century. Under Muslim rule, at Bayt al-Hikma the systematic methods of Gundīshāpūr Academy and its ethical rules and regulations were emulated and it was stuffed with the graduates of the Academy. Finally, al-Muqaddasī (c.391/1000) described it as failing into ruins.

Under the Pahlavī dynasty and Islamic Republic of Iran, the heritage of Gundīshāpūr Academy has been memorized by founding Ahwaz Jundīshāpūr University of Medical Sciences.

**Keywords:** Gundīshāpūr Academy, medical school, teaching hospital, Bayt al-Hikma, Ahwaz Jundīshāpūr University of Medical Science, and Medical ethics.

## Introduction

Iran, also known as Persia, its official name until 1314/1935, though one of the most ancient kingdoms in the world, has existed as a national state in the modern sense only since the beginning of the 16th century. Like its neighbor Iraq, Iran can be studied as an ancient civilization or a modern state. Persia, the old name for Iran, is famous as an ancient empire that invaded Greece (EI, Vol.9, PP.394-395) and founded Gundīshāpūr Academy (University) including a Medical school and teaching hospital.

According to Iranian mythology King Jamshīd (Avestan Yima) is one of the Iranian kings that introduced to his people, the science, medicine and the arts and crafts. His name is in Avestan and Pahlavī texts, and also in the texts of Islamic era. Zoroastrian believe that Thrīta (Fereydūn) as Imhotep in Egypt, Asclepius in Greece, was the first physician of Iran.

Before the establishment of Gundīshāpūr Medical School and Teaching Hospital medical and semi-medical practices were exclusively the profession of a special group of physicians who belonged to the highest rank of the social classes. Those who were connected to the classes of formers studied and practiced medicine rarely. The Zoroastrian clergymen studied both theology and medicine and the other groups who were permitted to practice medicine were called Atrāvān. Three types of physicians were graduated from the medical schools of the main cities such as Ecbatana (Hamadan, city of northwestern Iran), Ray, and Per-

sepolis (residential and ceremonial capital of the Achaemenid dynasty).

Under the Sāsānian dynasty (ruled Iran from 224 to 644) Gundīshāpūr Academy (or Gundīshāpūr University) was founded in Gundīshāpūr city of Khuzistān. The Academy education and training included medicine, philosophy, theology, and other sciences. According to the Cambridge History of Iran, "Gundīshāpūr was the most important medical center of the ancient world during the 6th and 7th centuries."

From hospital point of view, they were linked with religions and most of them made it a holy duty to look after the sick. For example in ancient Egypt and Greece the temples had places in which patients could stay while the priest cured them (fig.1). Alexander the Great (356-323 BC), one of the greatest leader in history (EI, Vol.1, P.277), built the city of Alexandria in Egypt where a university with a medical school was established in 313 BC. There, the medical knowledge from Egypt, India and Greece was collected, and augmented by the learned men who studied there. Romans, following the Greek example built hospital to look after soldiers. (Cochrane, P.30.)

In the 5th century, at the Council of Ephesus when the opponents of Nestorius (c.380-452), early Christian theologian, after whom Nestorianism was named (EI, Vol.12, P.548.), won their case by declaring that Nestorius was denying the through Godhead of Christ since he deified the one Christ into two persons. Nestorius was deposed a patriarch and forced to emigrate with his followers to Anti-

och, Arabia, and finally Egypt. His cause was also supported in Assyria and Mesopotamia, where at Edessa (modern Urfa, Turkey) a medical school was founded, soon to rival the famous center at Alexandria. In 489, however Beshop Cyril of Alexandria had the Byzantine emperor Zeno condemn the school and expel its heretical founder (Nestorius) from the empire. Therefore, the Nestorians went to Persia and founded the medical school at Gundīshāpūr which flourished for many centuries. (Lyons, P.274.) In Gundīshāpūr they had also found Greek physicians whose forebears had been in the east since the time of Alexander the Great's empire in the fourth century BC. Greek philosophers had also gone to Gundīshāpūr when Justinian closed the academy in Athens in the fifth century AD. Even earlier, when Jerusalem was destroyed by the Romans in 76AD Jews had fled to Arabia bringing with them much Greece – Roman knowledge. (Lyons, P.295.) Under Muslim rule, in 217/832, the Caliph al-Ma'mūn bolstered the famous Bayt al-Ḥikma (House of Wisdom). At Bayt al-Ḥikma the systematic methods of Gundīshāpūr Academy were emulated; indeed the House of Wisdom was staffed with the graduates of the Academy. Seemingly Bayt al-Ḥikma was disbanded under al-Mutawakkil (al-Ma'mūn's successor) (caliphate: 232-247/856-861). However, by that time the intellectual center of Abbasid Caliphate had definitively shifted to Baghdad, as henceforth there are few references in the contemporary literature to the Academy of Gundīshāpūr and its medical school or teaching hospital. Al-Muqaddasi c.391/1000 described Gundīshāpūr as falling into ruins. Under the dynasty of Pahlavi the heritage of Gundīshāpūr was memorized by founding Jundīshāpūr University and its twin institution Jundīshāpūr University of Medical Sciences near the city of Ahwāz. Jundīshāpūr University in 1981 was renamed Shahīd Chamrān University of Ahwāz. It has been renamed again as Ahwāz Jundīshāpūr University of Medical Sciences recently.



**Figure 1. The interior of the Asclepius Temple showing him as a god with a staff and sacred snake in his left hand, medical diviners and patients on the right and left sides, and in the middle a man is praying.**

## History

In conformity with the writing of historians and writers, medicine has had a significant position since Achaemenids, Parthians, and Sasanids eras.

Avesta (Fig.2), canonical literature of Zoroastrianism which still used by the Parsis as their holy book, is a treasure of knowledge on Persian medicine during Achaemenid time and earlier eras. Zoroastrians who believe in Zoroaster as their prophet, say that he has written four books and each of them contains a special science. They believe that this four books have been written on 12000 skins of oxen, of which 1000 skins is peculiar to medicine. When Alexander conquered Persia, set on fire all the Zoroastrian books, but before that he had ordered to translate several books of astronomy, medicine, and philosophy into Greek, and then sent them to Greece.

Zoroastrian also believe that thrīta (Fereydūn) (Fig.3), as Imhotep in Egypt, and Asclepius in Greece, was the first physician in Iran.

In ancient Iran, medical and semi-medical practices were exclusively the profession of a special group of physicians. Those who were physicians by profession at that time, belonged to the highest rank of the social classes. But, individuals belonged to the class of farmers studied and practiced medicine rarely.



**Figure 2. An old manuscript of Avesta, canonical literature of Zoroastrian.**

Zoroastrian clergymen studied both theology and medicine. The aptest students became Magūs (Zoroastrian priest), and the other groups who were permitted to practice medicine were called Atrāvān. The leading scientific and historical centers were established in the main cities such as Ecbatana, Rayy, and Persepolis (Fig.4). The subjects of study of medicine were theoretical and practical. Three types of physician graduated from these centers: Healers with religious principles, herbal medicine heaters, and healers with scalpel. Hospitals has their own places in the large cities as well.



Figure 3. According to the Zoroastrian Thritha (Fereydūn) as Imhotep in Egypt and Asclepius in Greece was the first physician in Iran.



Figure 4. The leading scientific and historical centers of Rayy, Ecbatana (Hamadān), and Persepolis.

### Birth of Unique Scientific and Medical Academy

Sasanidae, Persian dynasty (ruled Iran from 224 to 641) founded by Sasan, a Mazdean priest at Persepolis. About 555 years after the fall of Achaemenid empire, the Sāsāniāns, claiming descent from the Achaemenids re-established Iranian traditions undiluted by Greek influence. This period marks the apogee of Zoroastrianism. Ardashīr I, grandson of Sāsān in 224 seized power from the Parthian king, Artabanus V, and claimed the title “King of kings” (Shāhanshāh). Ardashīr’s son, Shāpūr I (241-272) (Fig.5) established the international prestige of the dynasty by capturing Roman Emperor (r.253-260) at Edessa in 260 (he died in captivity). Gundīshāpūr was founded by Romans who were captured by Iranian, army. Shāpūr I also established an academy with co operation of the scholars from Greece, Egypt, Jewry, India, and China.



Figure 5. The illustration of Shāpūr I, Sāsānian king on a silvery cup (Najmābādī, Vol.1, P.343).

Wars with Rome were recurrent in the 4th and 5th centuries, but the balance of power at first tipping in Iran’s favour, especially under Shāpūr II (Fig.6), in whose reign (309-379) a Medical School including a teaching hospital (Fig-

ures.7,8,9,10) was established. (Pouyan, P.235.)

Khusrau I (reigned 531-597), famed in Persian history as “the just”, ended the Ephthalite threat, temporarily halted Roman encroachments, asserted the monarchy above all contending factions. In this relative stable political and social climate, Iranian civilization especially their medical sciences reached its apogee. (EI, Vol.14, P.205)



Figure 6. Bast of Shāpūr II, the Sasanian king (Najmābādī, Vol.1, P.347).



Figure 7. Plan of the teaching hospital of Gundīshāpūr in the region of Khusrau I (r.531-597).

Khusrau I who himself was a scholar and philosopher and also interested in developing the school of law and philosophy at Gundīshāpūr and freedom of philosophical discussions. He made every endeavour to raise the Medical School of Gundīshāpūr to a higher rank. Khusrau appointed the Persian medical scholar Burzūya (Perzoes) as the head of the medical school. Probably, the first congress on medicine was held at Ctesiphone in 550 A.D, at the middle of Khusrau’s reign. The Gundīshāpūr University comprised of 18 schools. Presumably, in that time this University was the only one of its type in the world. (Ibid, P.235.)

### Immigration of Scholars and Philosophers to Gundīshāpūr

In 489, after the famous university of Edessa was closed by firm supporters of Catholic orthodoxies, Christians with prominent scholars among them, and Nestorian scholars went into exile and sought refuge to the court of Sasanids. In Mesopotamia where st. Efraem had established a hospital, subsequently founded another hospital at Gundīshāpūr in Persia. There, they had also found Greek physicians whose forbears had been in the East since the time of Alexander’s empire in the fourth century B.C.



Figure 8. Khusrau I (left) beside an exiled scholars and philosophers.

Justinian I (483-565), Bizantine Emperor (527-565), when his uncle died in 527, he succeeded to the throne. He was perhaps the greatest of the Bizantine emperors. Among the buildings he erected the most notable is the Church of

Hagia Sophia in Istanbul (for Constantinople). He was an autocratic emperor, and intervened actively in the affairs of the church and did not hesitate to interfere in matters of doctrine. In 529, after severe religious persecution ordered closing of the schools. Consequently the university of Athens was shut down and neoplatonic philosophers from that city and Alexandria immigrated to Iran. They were welcomed by Khusrau I (Fig.8) and started teaching at Gundīshāpūr. One of this scholars, Psicianus had personal debate in philosophy with Khusrau I. These debates are gathered and some of them translated and are kept at St. German Library. In this collection, the topics of psychology, Physiology, philosophy, astronomy, and history of the world are debated (Ibid, P.237)

The scholars and philosophers were: Damaskios (Damascius), Simplicios, Eulamios, Hermeias, Periskianos (Psicianus), Diogene, and Isidororus (Najmābādī, Vol.1, P.400-401).

### Scientific Languages and Branches

In this university, the sciences were first though in Greek. In the reign of Khusrau I, national language of Iran was Pahlavī (Figures 9 and 10). Thus, many books were translated from other languages into Pahlavī. Consequently, medical teaching of this university was in Aramean Pahlavī.

The scientific branches which were taught at Gundīshāpūr were medicine, pharmacology, philosophy, theology, mathematics, botany, and several other branches, but teaching of medicine was considered important.

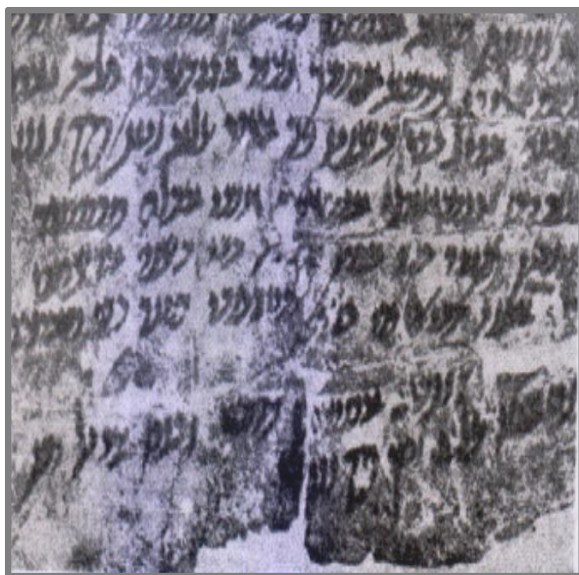
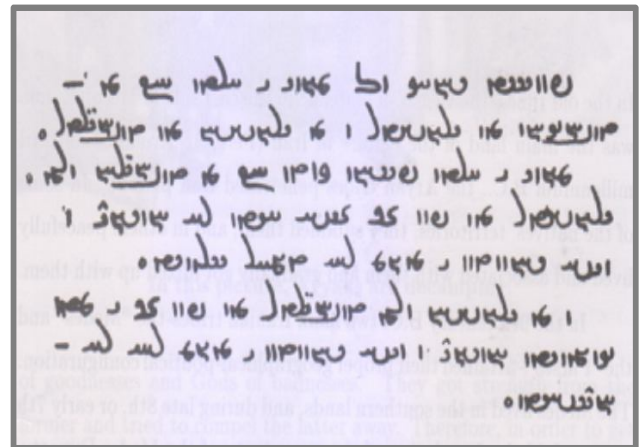


Figure 9. Pahlavī writing during partians (c.250 BC- c.226 AD).



### Manī's Execution of Gundīshāpūr

Manī (Fig.11) the son of Fatak, the founder of Manichaeism born in Ctesiphone. He was brought up in an eclectic Babylonian Christian cult. About 242 he proclaimed his own “revealed” religion, adding to Babylonian and Christian factors dogma as adapted from Buddhism and Iranian mythology. It focused on the opposition between light and darkness. He proselytized in northern India, Tibet, Chinese Turkestan, and Khurāsān.

Returning to Shāpūr's court, he had to flee to avoid arrest. Hormizd (reigned 272-273 AD) apparently was friendly, but Bahrām (reigned 273-276 AD) did not protect him. The Magians were alarmed by his heresy and by the fact that Mānī had set up a celibate clergy of his own and in 272 AD, they succeeded in having him put to death. They flayed (c.276) him alive; his stuffed skin was publicly hung as an example, at the gate of the city. This gate was called Mānī Gate, for a long time. After execution of Mānī, his followers were relentlessly persecuted.

However, Manichaeism survived for many centuries in Asia, and as far to west as Egypt. Near the 5th century Mazdak advocated a doctrine which stemmed from Mazda'ism, but included such new features as vegetarianism, abstinence from violence, and communal life. Firdawsi describes Mānī's death through these poems:

The king said: Because Mānī's invites others to worship face. He deserves not this world, but death.

His skin should be filled with straw. So that nobody wishes to behave like him.

Thus, the king ordered Mānī to be hanged at the city gate. Next to the hospital wall.

The king's orders were carried out. He was hanged where

he was ordered to.

All people admired the king's decision. And threw earth over Mānī's body. (Pouyan, PP.241-242.)



**Figure 11. Mānī and his famous book Artang (Arzhang). Gundīshāpūr Academy after the Defeat of Iran**

After Khusrau II (Khusrau Parvīz) Sasanian king (reigned from 589-628) a series of 12 short – lived rulers strove to establish their authorities. In 632 Yazdegird III did achieve a measure of success, but this time Arabs were bursting out of the Arabian peninsula. Victorious at the battle of Kadisiya / Qādisīyya in 636, the Arabs moved on to capture Ctesiphon / Tīsfūn and inflicted a final, crushing defeat on the Sasanian forces at Nihavand in 641. Yazdegird III (Fig.11) was relentlessly pursued until his assassination, ten years later in 651 marked the end of nearly 2000 years of control of the plateau by Iranian stock. (EI, Vol.14, PP.205-206). The Academy / University of Gundīshāpūr survived the change of rulers and persisted for several centuries, by projecting itself as a Muslim institute of higher education. In 217/832, Cliph al-Ma'mūn founded the Bayt al-Ḥikma/the House of Wisdom. In Bayt al-Ḥikma the methods of Gundīshāpūr were emulated since the Bayt al-Ḥikma was stuffed with graduates of the older Academy of Gundīshāpūr who had been trained heavily in Indian and some Greek and Iranian medical traditions. It is believed that the House of Wisdom was disbanded under al-Mutawakkil, al-Ma'mūn's successor who felt learning conflicted with the information given in the Qura'n. In addition, the intellectual center of the Abbasid Caliphate had shifted to the Arab stronghold of Baghdad, as henceforth there are few references in contemporary literature to universities or hospitals as Gundīshāpūr. (Gundeshapur- Wikipedia, P.3 of 5.)

### Scholars, Physicians, and Teachers of Gundīshāpūr Academy

According to Najmābādī the scholars, physicians and teachers of Gundīshāpūr are as follows:

- 1- Bukhtīshū', the senior.
- 2- Georgius, the son of Bukhtīshū' who was the chief of Gundīshāpūr Hospital and physician to caliph al-Manṣūr (169 AD).
- 3- Bukhtīshū' III (d.801 AD), the son of Georgius and physician to caliph Maḥdī (reigned 774-785 AD), and caliph Hādī (reigned 786-808 AD).
- 4- Jibrā'il, the son of Bukhtīshū' II who was one of the celebrated physicians of Gundīshāpūr Hospital, and physician to caliphs Hārūn al-Rashīd, Amin and Ma'mūn.
- 5- Georgius II, the son of Bukhtīshū' II.
- 6- Bukhtīshū', the son of Georgius. He was a famous physician of Gundīshāpūr, and physician to caliph al-Mu'ttez (876 AD).
- 7- 'Ubayd Allāh I, the son of Jibrā'il and physician to caliph al-Muttaqī.
- 8- 'Ubayd Allāh I, the son of Jibrā'il and physician to caliph al-Muttaqī, Michael, the son of Bukhtīshū' III.
- 9- Yaḥyā or Yūḥanna the son of Bukhtīshū' III.
- 10- Bukhtīshū' IV (d.904 AD), the son of Yaḥyā (Yūḥanna), physician to al-'Aḍud al-Dowla.
- 11- Jibrā'il II (d.1005 AD), the son of 'Ubayd Allah I, and physician to al-Muqtader.
- 12- Abū Sa'īd 'Ubayd Allah II, the son of Jibrā'il II (d.1058).
- 13- 'Isā, the son of Sahlāfa who was the private physician of the caliph al-Manṣūr.
- 14- Shāpūr, the son of Sahl (d.868), a competent physician and skillful pharmacologist who was physician to caliph Mutavakkil.
- 15- Dahishtak, Māsawayh's brother and the manager of Gundīshāpūr Hospital.
- 16- Michael, Dahishtak's brother.
- 17- Sergius, the famous pupil of Georgius and his deputy in managing the Gundīshāpūr Hospital.
- 18- Masawayh (Mesué), one of the great professors of the Gundīshāpūr for about 30 years. As well as pharmacology, he was a skillful oculist ("kaḥḥāl").
- 19- Georgius the son of Michael, the son of Masawayh.
- 20- 'Isā bin Sahārbukht (or 'Isā bin Chaharbukht), one of the pupils of Georgius and a Syriac physician of Gundīshāpūr.
- 21- Theodosius (or Thedodrus) the head of Greek physician in the reign of Shāpūr I (241-272 AD), the Sāsāniān Persian king.
- 22- Georgius, one the Syriac physicians of Gundīshāpūr and physician to Khusrau I (reigned 531-579 AD), famed in Persian history as Anūshīrwān "the just".

- 23-Qubād the Sasanid king and Anūshīrwān's father had a Byzantine physician, Stephen of Edessa. Anūshīrwān also was under his medical supervision during his usefulness. Later Qubād appointed Tribunus, a Roman physician as his private doctor. When Anūshīrwān (Khusrau I) became the king to Iran Stephen of Edessa and Tribunus returned to their native countries. Anūshīrwān at the beginning of his reign ended the Ephthalites threat and by holding a five- year peace treaty with Rome, temporarily halted Roman encroachments. According to this treaty Tribunus had to return to his service. Tribunus therefore became physician of Sāsāniān court for the second time. Anūshīrwān was so pleased at the end of his first year service that he offered to present him with whatever he desired. Tribunus instead of asking money or honors asked for the release of 3000 Romans who were held prisoners in Persia.
- 24- Jibrā'īl, a non- Iranian physician who was the head of the physicians of Khusrau II (Khusrau Parviz). He owed his position at the court to his successful treatment of Shīrīn, the favorite wife of Anūshīrwān. Jibrā'īl was a Nestorian Christian by birth who forsook Nestorian for Monophysism.
- 25- The physician Perzoes (or Burzūya in the Pahlavī form of the name, or Buzurjmīhr in Arabic form), endowed with laudable qualities, the only physician of Sāsāniān times of whom we have any detailed information. Ibn al-Muqaffa' used his autobiography as preface to his own retranslation of the "Fables of Bidpai". This preface has been translated into German by Noeldeke. It is said that Perzoes attracted Anūshīrwān when he was future of his son Hurmīzd. He was then made the chief minister of the court and physician to himself. According to tradition he was ultimately put to death on account of his Christian views. A work by Simon of Antioch, translated out of Arabic into Greek (c.1070 AD), on the "Wisdome of the Indians" is ascribed to him and may be more of the fruits of his journey to India. In the British Museum, there is also a book on divination, written in Persian verse, which is said in the beginning of the poem to be from his pen. Perhaps, the formula for some pills found in the Antidotarium of Ibn Serapion is to be attributed to him, for they are described in the Latin version as "Pillulae Barzuiāti Sapientis".
- 26- Kanga (or Manga) who came from India to Iran and translated some book from Indians to Pahlavī and then into Arabic.
- 27- Biyādiq-i Ṭabīb (Biyādiq the physician), one of the physicians and philosophers of Anūshīrwān's time. He wrote al-Ma'kūl wa'l-Mashrūb ("Edible and Drinkable).
- 1- Ḥārith bin Kalda, an Arab who studied at Gundīshāpūr. While he was in Iran met Anūshīrwān and his reputed conversation with this great king has been preserved. On his return, Ḥārith settled in Mecca and became the foremost physician of the Arab of desert. The prophet of Islam sent his sick friend to consult him. (A Medical History of Persia..., P.66.)
- 2- According to Ibn Khallikān Ḥārith bin Kalda was impotent and the sons that he had were only sons by adoption. One of these adopted sons was al-Naḍr, a cousin of the Prophet. He followed the profession of medicine, like his father and also he received his medical knowledge at Gundīshāpūr. Avicenna ascribes to him certain pills for the treatment of vitiligo and rheumatic pains. He became the bitter enemy of the Prophet. In 624 AD he was captured and put to death. (A Medical History of Persia..., P.68.)
- 3- Ḥasan bin Sahl, the son of Nūbakht, teacher of medicine, pharmacology, astronomy and philosophy.
- 4- Sahl, the son of Shāpūr, teacher of medicine and pharmacology.
- 5- Ḥasan bin Khaḍīb, teacher of astronomy and mathematics.
- 6- Sanān bin Thabīṭ, teacher of medicine.
- 7- Ḥasan bin Savār, teacher of logic and Islamic literature.
- 8- Ḥabish bin Ḥasan, teacher of medicine and translator of Syriac text into Arabic.
- 9- Salmūya bin Banān, teacher of medicine and pharmacology.
- 10- Suhayl bin Bashīr famous to master Hānan (Jewish), teacher of mathematics and astronomy.
- 11- 'Umrān bin Farkhan, teacher of astronomy and fellow workman to the group of translators at Bayt al-ḥikma.
- 12- Shāpūr, the son of Sahl, teacher of medicine and alchemy. In the time of caliph Mutavakkil (847-861 AD) was the translator of Pahlavī texts into Arabic.
- 13- 'Umrān bin Muḥammad Khalid, teacher of astronomy and mathematics.
- 14- 'Isā bin Aslyā, teacher of pharmacology, and sometime he taught philosophy and wisdom.
- 15- 'Isā bin Macé, teacher of medicine.
- 16- 'Isā bin Qusṭantīn-i Masīhī (Constantine the Christian), teacher of medicine and philosophy.
- 17- Faḍl bin Ḥatīm, teacher of astronomy, arithmetic and geometry.
- 18- 'Isā bin 'Alī, oculist (a pupil of Ḥunayn's household).
- 19- 'Isā bin Yaḥyā, teacher of medicine ( a pupil of Ḥunayn's household).
- 20- 'Isā bin Shahlāfā, teacher of medicine, and for some time he was the manager of the Gundīshāpūr Hospital.
- 21- 'Isā bin Chahārbakht (or Ṣahārbukht), teacher of medicine and pharmacology. He was also the chief of medical realms and Gundīshāpūr Hospital.
- 22- Faḍl-i Gīlī bin Muḥammad, teacher of astronomy and mathematics.

According to Dr. Shahrvinī the teachers and graduates of Gundīshāpūr University are as Follows:

- 23-Isrā'īl Sahl, teacher of medicine.
- 24-Dahishtak and his nephew Michael.
- 25-Faḍl bin Nūbakht, one of the celebrated Islamic scientists, teacher of medicine and translator of Pahlavī texts into Arabic.
- 26-Farkhān bin Naṣīr Farkhānshāh, teacher of astronomy and mathematics.
- 27-Kanga (Indian physician).
- 28-Ibn Athāl (a Nazarene), graduate of Gundīshāpūr and teacher of it.
- 29-‘Isā bin Khālīṣ, teacher of medicine.
- 30-Māsarjoyah (or Māsarjawaih) was a Jew, born in Baṣra. He knew Greek, Syriac, Arabic, Hebrew and even pahlavī very well. The earliest of the known translations of Greek medicine into the Arabic language is that of the “Pandects” of “Ahrun”, by Māsarjoya.

According to bar Hebracus the Pandects consisted of 30 chapters and to these Sergius of Rā's al-‘Ayn added two chapters. The original work was in Syriac and Māsarjoyah translated it from Syriac into Arabic. Some authorities believe that the original text was in Greek and the version which Māsarjoyah translated was Syriac version made by Sergius. ‘Isā bin Māsarjoyah who was physician, wrote a book on colours and another on odours and flavours. He worked in Gundīshāpūr for a short time, and was one of the translators of Bayt al-ḥikma.

Family of Mūsā bin Shākir, the astronomer of caliph al Ma'mūn. Mūsā and his sons, Muḥammad, Aḥmad, and Ḥasan known collectively as the Banī Mūsā who have the fame of having introduced the court of caliphs both Ḥunayn and Thabit bin Qara. Banī Mūsā also drew translators from distant lands to Baghdad and Bayt al-ḥikma by offering ample rewards and thus made evident the marvels of science. (Pouyan, P.172-177.)



**Figure 12. The last Sasanian King, Yazdegerd III (632-651), after being driven from Mesopotamia in 636 was finally defeated by the Arabs at Nihawand in 641, and then Iran became a Muslim country. (EI, Vol.16, P.200.).**

### **Gundīshāpūr, the Rising place of outstanding and endowed with laudable qualities physicians**

Some famous physicians that haven risen from Gundīshāpūr:

- 1- Perzoes, (Burzūya/Borzuya/Burzōé/Burzzōy/ Buzarg-mihr/Burzūya Ṭabīb) was an outstanding physician in the late Sasanid era, at the time of Khusrau I. During Khusrau's relatively stable political and social climate Iranian civilization reached its zenith. Khusrau's reign was notable for its translations. The most Greek and Indian works were translated into Persian, notably the books of Plato, Aristotle, and the “Fables of Bidpai”, also known as “Kalīla wa Dimna”. To secure this last, the “Physician Perzoes” (Burzūya Ṭabīb) was secretly sent to the Ganges with instruction to procure this work at once and at any price.

Abu al-Qāsim Firdawsī (c.940-c.1020 AD) renowned Persian epic poet thus refers to this commission:

The Physician who started talking was Burzua

He had reached old age and was an eminent speaker

It happened one day that at the time of audience

He came near the famous king

He said “O science-loving king

The researcher of science and a good learner

Today I was observing the Indian books

I was deeply considering them

It was written that at the Indian mountain

There is a bright herb, as soft as Roman silk

If you put this herb over a dead body

It would immediately start talking

Anybody who was wise

And expect in medicine went there

When Burzūya started ascending the mountain

A group of physicians accompanied him

He selected all kinds of herbs: dry and wet



Both faded and bright herbs

He put the dry herb and wet one



Figure 13. Perzoes (Burzūya-I Ṭabīb).

Over a dead body

Not a single dead became alive with the herb

Truly that alchemy did not work

Everybody had done a lot of effort but of no avail, alas!  
(Pouyan, PP.192-193.)

There is also in the British Museum a book on divination, written in Persian verse, which is said in the beginning of the poem to be from Perzoes' pen.

Perhaps, also the formula for some pills found in the antidotarium of Ibn Serapion is to be attributed to him, for they are described in the Latin version as "Pillulae Barzuiati Sapientis". (Elgood, P.53)

Among his more important and better known work is *Andarz-i Buzargmihr* (Good Counsels of Perzoes).

Like Alexander the Great the conqueror of the Persian empire and one of the greatest leaders in history, Perzoes already legendry during his lifetime, passed into the literature of Iranian after his death, and such wise saying as were not ascribed to Aesop (Luqmān-i Ḥakīm) were attributed to him. Sa'dī (died c.1292) the Persian classical writer and

poet reports him to have said to the countries of Khusrau I that "Ministers are like physicians". "The physician administers medicine only to the sick. Therefore when I see that your opinions are judicious, it would not be consistent with wisdom for me to obtrude my sentiments. But if I see a blind man in the way of well, if I keep silence, it is a crime". (Gulistān, chapter I, P.38.) His remark: "To think differently from a king is to wash the hands in one's own blood. If he call the day night, it is prudent to say "Behold the Moon, and the Pleiads", shows that his skill as a physician was equaled by his wisdom as a courtier. (Gulistān, chapter I, P.31.) (Elgood, P.511)

2- Bukhtīshū's, were Persian or Assyrian Nestorian Christian physician from the 7th, 8th, and 9th centuries, spanning six generations and 250 years. The Middle Persian- Syriac name which can be found as early as at the beginning of the 5th century.

3- Yuhanna ibn Masawaih, also written Ibn Masawaiyh, Masawaih, and in Latin Janus Damascenus, or Mesué, Masuya, Mesué Major, Msuya, and Mesué the Elder was a Persian or Assyrian Nestorian Christian physician from the Academy of Gundīshāpūr.

4- Muḥammad b. Aḥmad b. Abī Sahl Abū Bakr al-Sarakhsī, was a Persian jurist, or Islami scholar of the Hanafi School. He was traditionally known as Shams al-Immam.

5- Sābūr ibn Sahl was a 9th-Century Persian Christian physician from the Academy of Gundīshāpūr.

6- Nāfi' Ibn Hārith (ibn Kaladah ath-Thaqafi) was an Arab physician of the Ban Thaqif. He was recommended by Prophet Muḥammad, and treated Sa'd ibn Abī Waqqas and Abū Bakr. When the latter was dying, he designated his illness as poisoning.

7- Hārith ibn-i Chalada, Hārith ibn-I Chalada who belonged to the tribe of Banī Thaqif first was educated in Arabia and then went to Gundīshāpūr to complete his education. Then he practiced medicine at Fars, in Iran. Hārith was contemporary with the Prophet Muḥammad, Abūbakr, 'Umar ibn al-Khattab, Uthman, Imām 'Alī, and Mu'āwīya. Sa'd ibn-I Vaqqās was reported to the Prophet to have been sick in Mecca. The Prophet of Islam visited him and ordered Harith to treat him. Hārith examined Sa'd and said "it is not important prepare for him "farīqa" (Syrup) and pour some "ajva" dates, and fenugreek seeds. Then bake it." Then did what he had ordered. Sa'd took it and got well.

## Medical Dialogue between Khusrau I (Oroes) and Hārith ibn-i Chalada

One day Hārith ibn-i Chalada got the audience of Khusrau I. The dialogue between them is very interesting and scientific. An exert of it is presented below:

Khusrau said:

- Who are you?
  - I am Hārith ibn-e Chadea
  - My job is medicine.
- Are you an Arab?
  - Yes, I belong to the genuine Arabs and I live in the central territory for Arabs.
- When Arabs suffer from ignorance lack of wisdom and malnutrition, what do they need a physician for?
  - O king: with the description you have just given of Arabs, and with the features Arabs have, they even need more somebody to remove their ignorance, cure their bodies and improve their health. This is because the wise man knows the problems and identifies where the problems are. Such a man avoids pains. Then he could manage himself well.

Osroes said to Hārith:

- How could you diagnose their pains if they were patient and knowledgeable, they would not be ignorant.
  - An infant shows its pains through vocalizations and gets treatment in this way. And snakes get conjured (charmed) so that they become safe. O king! Wisdom is God-given and he has distributed it among human-being, as he has distributed subsistence among them. He who receives wisdom from God, will go straight. God has bestowed more wisdom upon some nations. Some people are rich, the others are poor; some people are knowledgeable, the others are ignorant. Some are unskilled, some others are prudent. All these come from Allah.
- Finding Hārith a wise and component man, Anūshirvān ordered him to sit in his presence. Then he asked Hārith:
  - How much medicine do you know?
    - As high as the king's expects.
  - What is medicine based on?
    - Al-Azm.
  - What is Azm?
    - Closing your lips and treating with your two hands.
  - You Said the truth. But what is an irritating pain?
    - It is the mixing of foods which destroys both human-being and animals in the desert.
  - You are right. What is the source of all sufferings and pains?
    - That is over-eating which is destructive.
  - You are right. What do you say about venesection?

- Venesection is proper when it is a sunny day, towards the end of the month, when the heart is calm and the arteries are tranquil, and when a man is delighted because of some good news or has over-passed a problem.
- When is the right time to have a bath?
  - When your stomach is full, never take a bath. Do not sleep with a woman when you are drunk. Do not walk around naked at nights. Do not eat when you are angry. Throw down your anger. Eat less in order to have a quiet sleep.
- What is your opinion on drugs?
  - Avoid taking medicine when you are healthy. Before the start of the pain, take some medicine to draw it out. Your body is like a land; if you fertilize it, it will be productive, or else it gets destroyed.
- What kind of meat is the best?
  - The meat of young sheep. Dried meat which is salted is hazardous. Do not take beef nor the meat of lambs.
- What do you say about fruits?
  - You should take fruits when they are ripe. The best fruits are pomegranate and citrons; the best flowers are red rose and violet; and the best vegetables are chicory and lettuce.
- What do you say about drinking water?
  - Human life and strength is dependent upon water. If you drink it according to your needs, it is useful. Drinking water after sleep is dangerous. Good water is pure and shiny. The water from great rivers which is cold and clear, and the water in forests if it is pure is good. Water should pass lands with soft sands and fall from stones in the height.
- What human body limbs is the main part?
  - His head.
- What is the light which resides in your both eyes?
  - Human eye consists of three parts: Its white is suet (fat); its black part is water; and its sight is done by wind.
- What humors human body is based on?
  - It is based on four humors: Black gall which is of cool temperament; Yellow gall (or bile) which is of hot and dry temperament; blood which is warm and fluid; and phlegm which is cool and fluid.
- Isn't man created on only one of these humors?
  - If men were created only on one of these humors, he could not eat and drink and he would not get destroyed, either.
- What would happen if man's creation were based on two of these humors?
  - It would be impossible because two humors would act against each other.
- Suppose man was created on three of these humors, what would happen then?
  - There is not any harmony among two pros and one con. But four humors are in equilibrium.

- Now that Osroes (Anūshirvān) was enchanted by Hārith's intelligence and medical knowledge he told him:
  - Briefly define what you mean by cool and hot temperaments.
    - Each sweet thing is hot, each sour things is cool, each spice is hot and each bitter thing is moderate. However, you could find hot and cool temperament in bitter things.
  - Do you order for dredging?
    - Yes, I do. I have read in some scholar's books that dredging purifie's the internal of bodies and removes pains.
  - What is abstinence?
    - Being moderate in everything. This is because over-eating is a burden to human soul and will destroy man.
  - Osroes told him:
    - I am amazed that you as an Arab have added to our knowledge. You are an intelligent and wise man.
- Zoroaster, Persian name "Zarathushtra, Zardosht, Zar-tosht" (c.660-583 BC), ancient Persian reformer. According to one interpretation, he was born in Azarbaijan, near Lake Urmia; according to more recent theory, in Media, on the central pelateau. At the age of 30 he received a revelation of a new religion. Zoroaster was slain by the Tūrānians during their invasion of Bactria. The psalms, hymnd, and songs of Zoroaster are contained in the Gathes, probably section of the Avesta. (EI, Vol.19, p.597.)
  - Imhotep lived in 2650 BC, and probably is the first person who previous to Hippocrates (460-375BC) had the title of physician. Besides, in ancient Egypt, he was the architect and counselor of king Zoster and also the designer of the first pyramid at Saqqara. (Sebastian, P.1.)
  - Asclepius, was Greek god of medicine, and usually represented holding a staff encircled by a snake, which is the sign of medicine.
  - The discovery of wine by Jamshid: Wine is the naturally fermented juice of the grapes (eaten raw or used to produce wine, raisins, currents or sultanas), historically libation scenes extolling wine were painted on panels found at the site of Ur and Babylonia and dated around 3000 BC. (EI, Vol.19, P.398.)

Khusrau I (Khusrau Anūshīrwan) then ordered to grant some precious gifts and also the dialogue to be put down and kept in the libraries Ibn-i Abī Uṣaybia', PP.278-285.)

#### More Researches

Persia, a name long current in the western world for Iran, is a country in southwest Asia. The word is derived from the Greek Persis which in ancient times was the seat of the Persian Empire founded by Achaemenid Dynasty (EI, Vol.14, P.203), ruling Persia from c.550-330 BC (Ibid, Vol.1, P.39).

According to Iranian tradition and folklore Jamshīd Avestan Yima (Fig.13) was responsible for a great many inventions that made life more secure and healthy for his people: the manufacture of armor and weapons, the weaving and dyeing of clothes of linen, silk and wool, the building of houses of brick, the mining of jewels and precious metals, the making of perfumes and wine, the art of medicine, the navigation of the waters of the world in sailing ships. The sudreh and kushti of the Zoroastrianism are also attributed to Jamshid. From the skin-clad followers of Keyumars, humanity had risen to a great civilization in Jamshid's time. (Jamshid-wikipedia, P.4 of 6.)

- Zoroasrianism Persian religion founded by the reformer Zoroaster in the late 7th or early 6th century BC. The official religion of Achaemenid Dynasty, it was revived by the Sasanid rulers. As a state religion, Zoroastrianism was abolished after the Islamic conquest in the 7th century AD. It still practiced by the Ghebers of Iran and Parsis of India. (Vol.19, P.597.) Avesta, Canonical literature of Zoroastrianism, still used by the Parsis as their holy book.(EI, Vol.19, P.597.)



Figure 14. Jamshid the fourth king of Pishādīān dynasty who made many great invention including medicine.

- In ancient Iran King Jamshid featured prominently in one apocryphal tale associated with the history of wine and its discovery. According to Persian Legend, the king banished one of his harem ladies from his kingdom, causing her to become despondent and wishing to commit suicide. Going to the king's warehouse, the girl sought out a jar marked "poison" which contained the remnants of grapes that had spoiled and were deemed undrinkable. Unbeknownst to her, the "spoilage" was actually the result of fermentation caused by the breakdown of the grapes by yeast into alcohol. After drinking the so-called poison, the harem girl discovered its effects to be pleasant and her spirits were lifted. She took her discovery to the king. Who became so enamored with this new "wine" beverage that he not only accepted the girl back into his harem but also decreed that all grapes grown in Persepolis would be devoted to winemaking. While most wine historians view this story as pure legend, there is archaeological evidence that wine was known and extensively traded by the early Persian kings. (Jamshid-Wikipedia, P.5 of 6.)
- In the third century AD, when Valerian was defeated by Sasanid king Shāpūr I, Antioch was captured. The people of Antioch including engineers, artists, physicians, craftsmans, and priests were transferred to "Bēth Lapaṭ", a very old city (an Aryān city). They founded a new city resembling Antioch. This city was named Gundīshāpūr/Jundīshāpūr which is Arabicized of Vahi-Andiok-Sapuhr (which means "better than Shāpūr's Antioch"). Gundīshāpūr became one of the oldest Christian cities of Iran with scientific centers, churches, and monasteries. (Āyetullāhī, P.11.)
- According to Wikipedia the Middle Persian word Gundīshāpūr (or Gundēšāpūr) is a corrupted form. It may be from wandēw šāpūr, means "acquired by shapur", or from Gund-dēz-i Shāpūr, means "military fortress of Shapur", or from weh-Andiyok-Shāpūr, "Better-than-Antioch of Shapur". In Classical Syriac, the town was called Bēth Lapaṭ, in Greek Bēndosabora; in Arabic: جندیسابور Jundīshābūr, and in New Persian: گندی‌شاپور. (Gundeshapur- Wikipedia, P.2 of 5.)
- Rudolf Steiner, the Austrian philosopher, educator and founder of anthroposophy pointed out the role Gundīshāpūr played in world history. (Gundeshapur-Wikipedia, P.1 of 5.)
- The town fell into decline after the Muslim conquest of Persia, the city surrendering in 638, however it continued to remain an important centre in the Muslim period. It was chosen as the capital by Y'qub ibn al-Layth al-Saffar, the Saffarid dynasty founder (Ibid, P.2 of 5.).
- Shāpūr's wife, the daughter of Aurelian, lived in the capital with him. She brought with her two Greek physicians who settled in the city and taught Hippocratic medicine. (Ibid, P. 2 of 5.)
- At the time of the Prophet Muḥammad (570-632 AD), over the next 100 years, Islam swept through the Near and Middle East into Africa, Spain, and part of France. The extent of this dispersion led to the emergence of three principal dynasty caliphates: in Baghdad, the Abbāsids (750-1258); in the Spain West, particularly at Cordova, the Umayyads (756-1258); and in Egyptian Cairo, the Fāṭimīds (909-1171), (Medicine: An Illustrated History, P.295.)
- The school of Athens, which has been philosophy's home for almost a thousand years, was the last bastion of Greek paganism. In 529 the Byzantine emperor Justinian, as a defender of the Orthodox faith, ordered that school to be closed, because its teachings constituted a threat to Christianity. After the school's closing, seven of its teachers headed by Simplicius and Damascus, crossed the border into Persia, lured by reports of the philhellenic sympathies of the Persian sources as Anūshīrvān (the Just). Around 555 AD, Anūshīrvān founded the school of Gundīshāpūr, which became a staging station in the transmission of Greek medicine and science to Muslim world. When Baghdad became the capital of the Abbasid Empire in 145 AH/762 AD, Gundīshāpūr provided the caliphs with long list of court physicians such as the members of the famous Nestorian family of Bakhtīshu'. These physicians served the caliphs well and were instrumental in setting up the first hospital and observatory in Baghdad, modeled on those in Gundīshāpūr during the reign of caliphs Hārūn al-Rashīd (r.170-194/786-809) and his second son al-Ma'mūn (r.198-218/813-833). Medicine, astronomy, and philosophy flourished in Gundīshāpūr, primarily because of Yaḥyā al-Barmakī (d.190/805, Hārūn's vizier and mentor, whose zeal for Hellenic studies was instrumental in promoting the translation of Greek philosophical work into Arabic. (The Oxford History of Islam, PP.271-272.)
- A teaching hospital or university hospital is a hospital or medical center that provides medical education and training to future and current health professions and that is involved in medical research. Teaching hospitals are often affiliated with medical schools and work closely with medical students throughout their period of matriculation, and especially during their clerkship (internship) years. In most cases, teaching hospitals also offer Graduate Medicine Education (GME)/physician residency programs, where medical school graduates train under a supervising (attending) physician to assist with the coordination of care. (teaching hospital-Wikivisually, P.1 of 9.)
- Mu'jam al-Buldān is a book about geography, cities, habitation as well. This book is authored by Abū'Abd Allāh al-Ḥumawī al-Romī al-Baghdadī renowned to Yāqūt-i Humawī (died in 626 AH/1228.).
- Nuzhat al-Qulūb is an important book in geography, astronomy and description of cities and roads of Iran

authored by Hamd Allāh Mustūfī in 740 AH/1339 AD (Mu‘īn, Vol.1, P.466.).

- According to Qiftī, in the twentieth year of reign of Khusrau I Anūshīrvān (531-597), the physicians of Gundīshāpūr assembled for a scientific symposium by the king and their debates were recorded. The president of the symposium was Jibra‘īl Drustbad Khusrau Anūshīrvān’s official physician.
- One example how the suppression of heresy impacted the development of medicine can be found in the rise of importance to medicine in the city of Gundīshāpūr, in the present day Iran. The city of Gundīshāpūr founded in 271 AD by King Shāpūr of Sasanid empire, the third Persian empire, following a victory over a Roman army led by emperor Valerian. In 489 AD, members of the Nestorian faith, which were viewed as a heretical sect by the Catholic Church, were forced to leave Edessa by the edict of emperor Zeno and Bishop Cyrus, closing down the Nestorian School of the Persian. While the religious portion of the school of the Persia relocated to another city, the secular aspects of the school relocated to Gundishapur. Under the most celebrated of Sasanid rulers, Khusrau I, who reigned between 531 AD and 597 AD, Gundīshāpūr became known as a center of science, education, and medicine, welcoming refugees from the Byzantine Empire. Khusrau I commissioned the translation of scientific text into the local language and also invited Indian and Chinese scholars to come to Gundishapur. The resulting Academy of Gundīshāpūr brought important changes to the education of physicians. The first teaching hospital where students were authorized to practice methodically on patients under the supervision of physicians as part of their education, was Academy of Gundishapur in the Persian Empire. One expert has argued that “to a very large extent, the credit for the whole hospital system must be given to Persia.
- In the eleventh century, Arabic medical theories and practices-which had come from Gundīshāpūr and Greco-Roman-started to filter into Europe. In fact, medieval Islamic medicine entered Europe through three main channels:
  - 1- Through the written word;
  - 2- Through traders’ transportation of commodities;
  - 3- Through the observations of the travelers to Middle East.
- The border areas of Spain under Italy, with their multi-lingual communities provided continuous points of contact between Europe and Islamic Middle East. In these areas arose two paths of translation from Arabic into Latin. Through Italy started by Constantine the African/Africanus (c.1010-1087) who was crucial to the establishment of the spirit of Hippocrates and Galen in the School of Medicine of Salerno and through Spain Gerard of Cremona (d. 1187), the most prolific translator, with sixty-eight works to his credit. (Loudon, P.44; Lyons, P.319; Pouyan, P.247.)

- Instead of the prospective physician apprenticing to single practitioner to learn medicine, those attending the Academy of Gundīshāpūr were trained in the hospital under the tutelage of the entire faculty of the Academy. According to an Arab text, Tarikh al-ḥikama, students were required to pass exams before they could be accredited as Academy Physicians. Thus the Academy of Gundīshāpūr was the first teaching hospital. Cyril Elgood, in “A Medical History of Persia” states that the credit for the whole hospital system, to a large extent, goes to the Academy of Gundīshāpūr.

The Sasanid Empire was conquered by Arab in 638 AD under the lead of ‘Ūmar, the second caliph of Islam. The Academy of Gundīshāpūr persisted for hundreds of years but in 832 AD (232 AH), Caliph al-Ma’mūn established “The House of Wisdom” (Bayt al-Ḥikma. The “House of Wisdom” was modeled upon the Academy of Gundishapur and staffed with graduates of the Academy.

One of the great Muslim Physicains, al-Razī spent several years in Baghdad as the chief director of a hospital within the city. (Trauma: Emergency Resuscitation, perioperative Anesthesia,....,P.7.)

- Sasanidae (Sāsānān), Persian dynasty which ruled Iran from 224 to 641, founded by Sāsān, Mazdean priest at Persepolis. Some 555 years after the fall of the Achaemenid empire, the Sasanians claiming descent from the Achaemenids, reestablished Iranian traditions undiluted by Greek influence. This period marks the apogee of Zoroastrianism. Ardashir I, grandson of Sasan, in 244 seized power from the Parthian King Artabanus V, and claimed the title “King of Kings”. Ardashīr’s son Shāpūr I (241-272 AD) established the international prestige of the dynasty by capturing Roman Emperor Valerian at Edessa in 260. (EI, Vol.16, P.190.) Shāpūr I established his capital, Shāpūr, the chief Sāsānīan center, in the home province of Fars and Gundīshāpūr near Susa, later a medical center under KhusrauI. (EI, Vol.14, P.205.) He authorized construction of large-scale public works including the extant Karūn dam (EI, Vol.16, P.397.) The last Sasanid (Sāsānīan) king, Yazdigird/Yazdegird III, after being driven from Mesopotamia in 636, was finally defeated by the Arabs at Nehavend (Nihāwand/Nihāvand) in 641. Iran then became a Muslim country. (EI, Vol.16, P.190.) The Sasanid kings who ruled Iran, according to Encyclopedia International were: Ardashīr I (224-248), Shāpūr I (240-272) who founded Gundīshāpūr, Hurmuzd I (272-273), Bahrām I (273-276), Bahrām II (276-293), Bahrām III (293), Narseh (293-302), Hurmuzd II (302-309), Shāpūr II (309-379), Ardashīr II (379-383), Shāpūr III (383-388), Bahram IV (388-399), Yazdegird I (399-421), Bahrām V (421-439), Yazdegird II (439-457), Hurmuzd III (457-459), Peruz

(459-484), Valāsh (484-488), Ghubād/Qubād (488-531), Khusrau/Chosroes I (531-597), Hurmuzd IV (579-590), Bahrām VI (590-591), Khusrau (Chosroes) II (591-628), Ghubād/Qubād II (628), Ardashīr III (628-629), Pūrandukht (female king/queen) (629-630), Huermuzd V (c.630-631), Khusrau/Chosroes III (c.631-632), Yazdigird III (632-651). (Cortis, P.105.)

## Highlights

### 1- Gundīshāpūr Academy on the Celebration of UNESCO

The secretary of the International Congress of Gundīshāpūr, Muḥammad Riza ‘Aṣṣārī said that document of the 1750th anniversary of the university foundation was issued at the general annual conference of UNESCO (United Nations Educational, Scientific and Cultural Organization) in Paris on Friday, November 3, 2018. “The event is among the most significant scientific, and civilizational achievements of Iran, since through the published document by UNESCO, Gundīshāpūr University is officially introduced as the first scientific academy of the world.” ‘Aṣṣārī, the Chancellor of Gundīshāpūr University of Technology said. (Gundīshāpūr Academy on UNESCO Celebration List, P.1 of 2.)

### 2- Controversial Suggestions Regarding the Existence of Gundīshāpūr

According to the Encyclopedia of the History the City of Gundīshāpūr, near the present-day village of Shāhābād in southwest Iran, also became a center of learning in the sixth century AD, blending many languages and cultures—Greek, Syriac, Persian, Hindu, and Jewish. Historians have customarily asserted that Gundīshāpūr had an important hospital and medical school which supported the translation of Greek and possibly Sanskrit text into Middle Persian and Syriac. The crucial role played by Gundīshāpūr in the development of hospital and medical teaching in the Islamic world has recently been challenged by historians. There is in fact no evidence that there was a hospital in Gundīshāpūr or that scholars forced to leave Edessa settled there, as some have suggested. There may well have been a modest infirmary where Greco-Roman medicine was practiced and a forum where medical texts could be read, as was the case in other towns such as Susa nearby to the west.

The Alleged prominence of Gundīshāpūr as a medical center and hospital was probably due to the dominance of Nestorian Christian among the early physicians and translators of medical works at the Islamic courts. They may well have wished to claim the hospital as their idea and to establish a history to support their medical authority. Cer-

tainly the Nestorian monopolization of early medicine in Baghdad meant that the medicine they advocated, based upon Greek texts, was promoted over the rival practices of the Zoroastrians or Indians and native medicine of Arabia.

The sources tell us nothing about medical care extended to the four Orthodox caliphs (11-40/632-661), that is the first four successors to the Prophet Muḥammad, and little about medical care outside the court. There is the story of an Arab by the name of al-Harith ibn Kalada, who is said to have studied medicine at Gundīshāpūr. He was said to have had learned discussions with the Sasanian ruler Khusrau Anūshīrwān, who died in AD 579, and to have lived until the time of the first Umayyad Caliph (reg.40-60/661-680). The account of al-Harith ibn Kalada includes many incongruous and legendary elements, so that it is difficult to assess the historical figure.

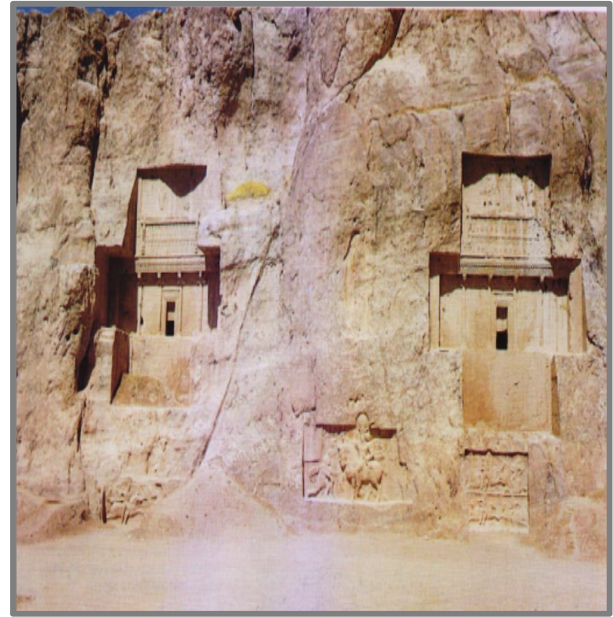
### 3- Uncertainty about the truth of Gundīshāpūr

Some scholars have cast doubts on the existence of the hospital at Gundīshāpūr by claiming that there are no known surviving Persian sources “that would corroborate the claims that (Gundeshapur) played a crucial role in medical history”. It has been assumed that a medical center at Gundeshapur would have resembled the School of Nisibis. What is more likely is there existed a seminary, like the one in Nisibis, where medical texts were read, and an infirmary, where medicine was practiced. Additionally, Gundeshapur’s reputation may have been conflated with that of Susa, a city to the west of Gundeshapur and with which Gundeshapur was administratively linked. Ath-Tha’ālibi [Al-Tha’ālabi] a scholar with access to Sasanian royal annals, says of pre-Islamic Persia: Thus, the people of [Susa] became the most skilled in medicine of the people of Ahwāz and Fārs because of their learning from the Indian doctor [who was brought to Susa by Shāhpūr I] and from the Greek prisoners who lived close to them; then [the medical knowledge] was landed down from generation to generation. On the other hand, the same source might be another confirmation of the medical reputation of Gundeshapur as Susa may represent the whole local region which included Gundeshapur (as they were administratively linked). This is enforced by the fact that Ahwāz and Fārs, mentioned in the quote for comparison to Susa, were regions as well, an indication that regions were being compared. (Gundeshapur-Wikipedia, P.3 of 5.)

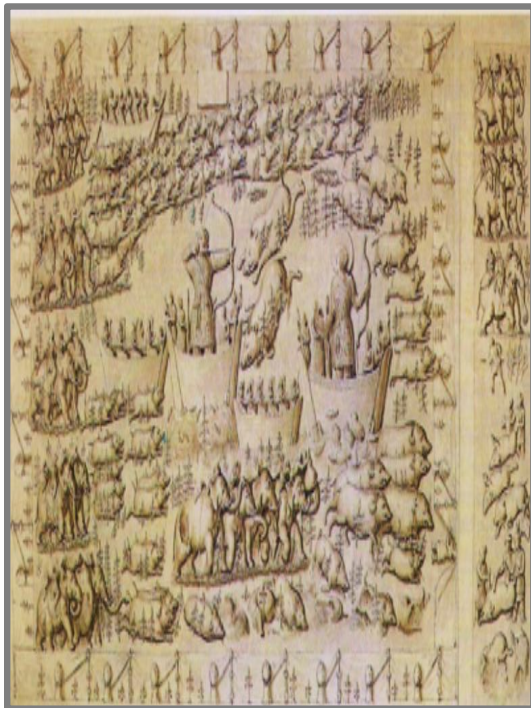
Gundishāpūr University, An Illustrated History



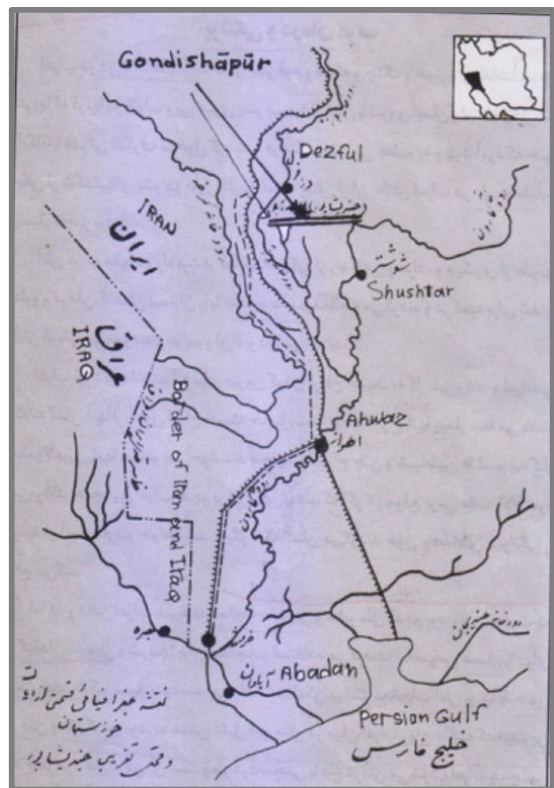
Shāpur I the Sasanid king and the founder of Gundishāpūr.



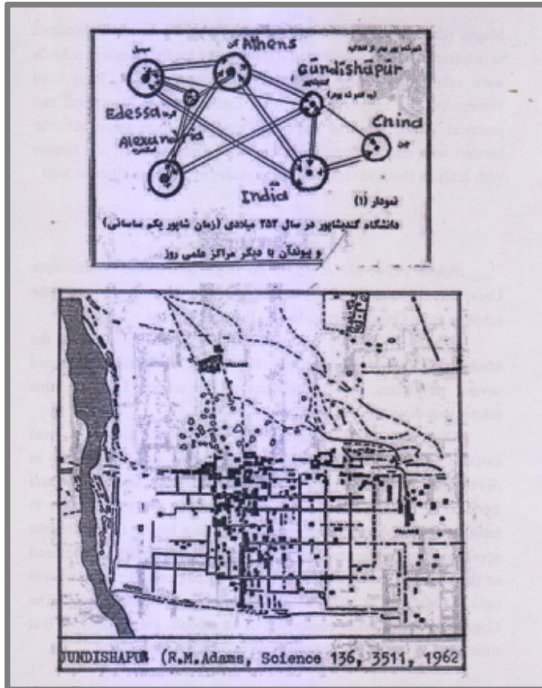
This view of the cliff Naqsh-i Rostam, showing the tombs of Ardashīr/Artaxerxes (464-424 BC) on the left and Darius the Great (522-486). In the center at the base of the cliff is a Sasanid relief showing Shāpur I (AD 240-272) triumphing over two Roman adversaries.



The relief on one of the side walls of the iwan (verandah) at Ṭaq-i Bustān, showing a royal boar hunt in a swamp. Khusrau/Chosroes II (Khusrau Parvīz) (AD 591-628), Sāsānīān King, armed with a bow, stands in a boat in the center. The hunted boars are loaded on to elephants. On the opposite of the iwan a deer hunt is shown. (Cortis, No.77.).



The approximate location of Gundishāpūr in Khuzistān province.

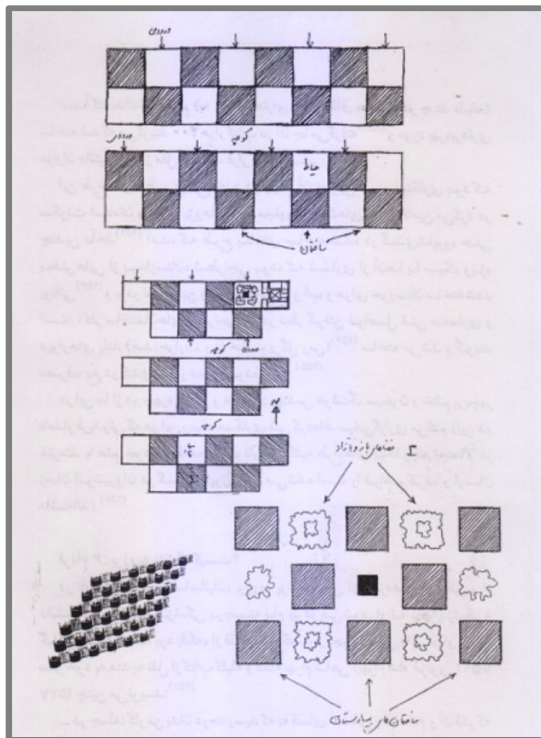


Above: Gundishapur in AD 252 and its relation to other scientific centers.

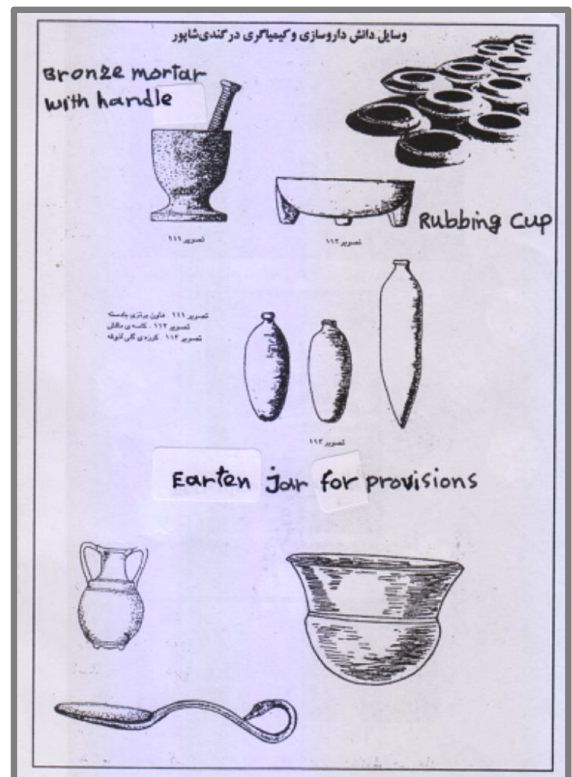
Below: Plan of the city of Gundishapur (Pouyan, P.238.).



Pharmaceutical vessels at teaching hospital of Gundishapur Academy.



A plan of constructions and houses of Gundishapur city during Sasanidae. (Shahrivini, P.133; sketching by engineer Hushang Seiḥūn.).



Pharmaceutical vessels, jars and other instruments at teaching hospital of Gundishapur Academy.



## Conclusion and Impact

The Gundīshāpūr Academy, an institution for medical and philosophic studies was founded in 271 by the Sasanid dynasty. The Academy rose to its fame when the empire of Iran was under the rule of Khusrau Anushīrwan. At Gundīshāpūr Academy, every known book on medicine was gathered, translated and compiled, making it a key scientific center of transmission of ancient medical sciences to the new world. Gundīshāpūr and its predecessor, the Academy of Vanshin are particularly thought to have had a significant role in founding the institution of teaching hospital for the first time. (Academy of Gundishapur-Academic Kids, PP.1 of 5-2 of 5.).

During the early days of Islam Gundishapur Academy including its medical school and teaching hospital was a real focus of science, particularly medicine, housing Iranian, Indian, Roman and Greek physicians active in both in theoretical and clinical aspects. Bayt al-Ḥikma is also thought to have been the immediate successor of Gundīshāpūr, but in fact modeled it. The impact of Gundīshāpūr Academy was extensive, for instance, probably the Prophet Muḥammad's personal physician Ḥarith ibn Caladeh was a graduate of Gundīshāpūr. Furthermore, the first generation of the Baghdad school were in fact graduates and scholars of Gundīshāpūr. (Ibid, P.3 of 5.).

According to Cyril Elgood "to a large extent, the credit for the whole hospital system must be given to Persia, (Elgood, P.173). In addition to systemizing medical treatment and knowledge, the scholars of the Gundīshāpūr Academy also transformed medical education rather than apprenticing with just one physician, medical students were required to work in the hospital under the supervision of the whole faculty. There is even evidence that its graduate had to pass exams in order to practice as accredited Gundīshāpūr physicians (as recorded in Tarīkh al-ḥukamā). It also had a pivotal role in the history of mathematics. (Academy of Gundīshāpūr-Wikipedia, P.2 of 5.).

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