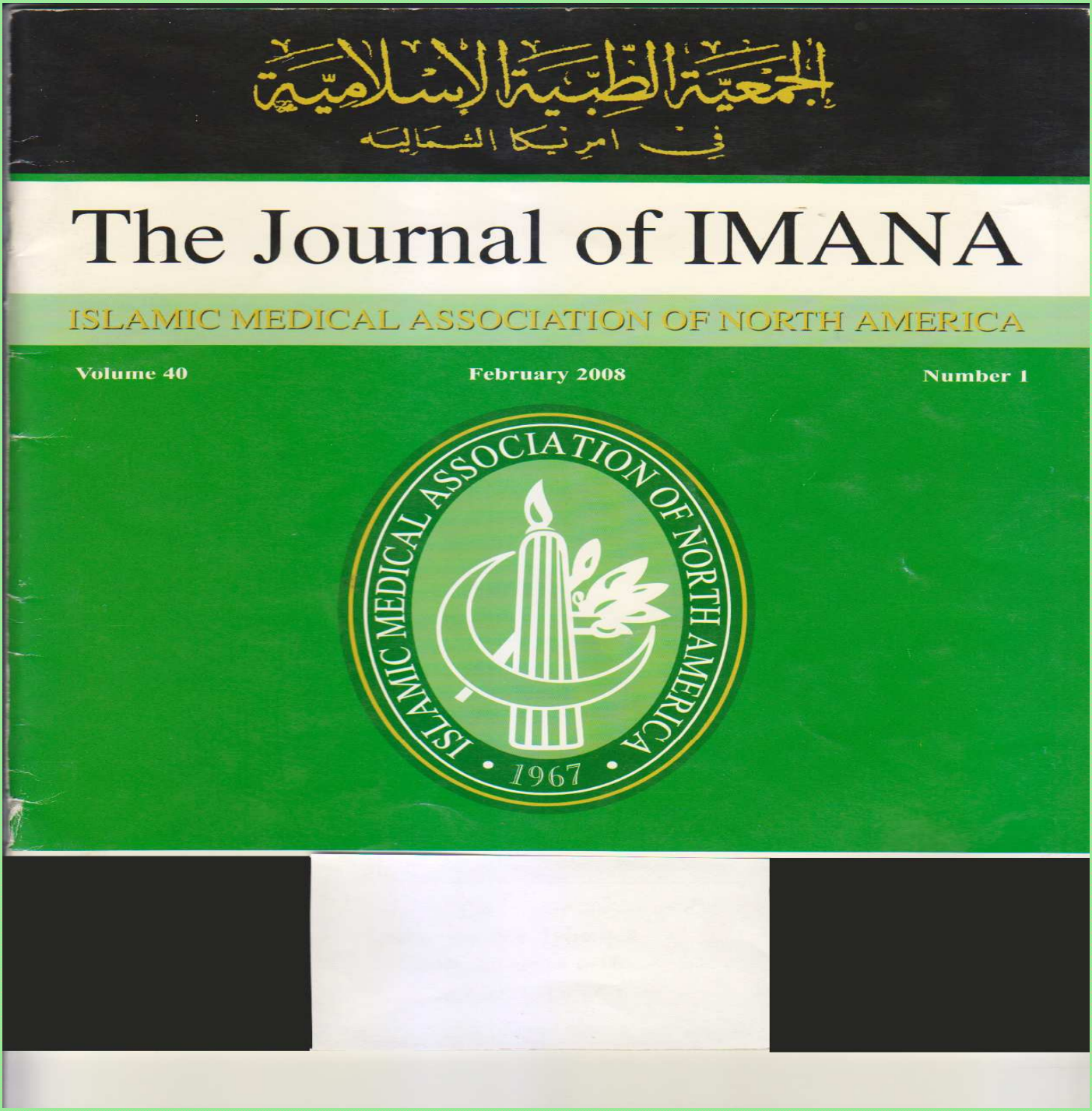

مقاله‌ی حنین‌بن‌اسحق پزشک و مترجم و بحرالعلوم طب اسلامی

نگارش: پروفسور حسین ناگامیا و ناصر پویان

مجله‌ی ایمانا، جلد ۴۰، فوریه‌ی ۲۰۰۸، شماره‌ی ۱

چاپ و انتشار: آمریکا

Message from the Editor

Assalaamu alaykum

Dear IMANA members and JIMA readers:

This is the first issue of year 2008. With it we debut "Pioneers of Islamic Medicine", a series of articles regarding the contributions of physicians in the early Islamic period. An introduction to this series is written by Dr. Husain Nagamia, an associate editor of JIMA and chairman of the International Institute of Islamic Medicine (IIIM).

Dr. Nagamia and an Iranian scholar, Mr. Nasir Pūyān, will author the series. The first article, which appears in this issue, is about Ḥunayn ibn Isḥāq, a great scholar known for his many authoritative translations of Greek medical literature.

Also in this issue we publish the IMANA position paper regarding the forced feeding of detainees in U.S. custody. The Ethics Committee authored this in response to a request from the U.S. Department of Defense. All of us should raise concerns about the treatment of these detainees, specifically those in Guantanamo Bay. There are unknown numbers of current hunger strikers and little is known about how the detainees are treated and how they are cared for. One that is known to be on hunger strike for over one year is Mr. Sami al-Haj, a photographer for al-Jazeera satellite television network.[1]

In this issue we publish the Ibn Sina Memorial Lecture Dr. Faroque A. Khan gave at IMANA's conference in Beijing, China, in 2006. In addition to reviewing briefly the accomplishments of this great Muslim scholar, it purports to show what he might say concerning our contemporary status, accomplishments, and shortcomings, as Muslims generally and physicians specifically. At the same time he "gives his opinions" on some current challenges we face because of technological advances.

Dr. Omar Alfi discusses the quest for longevity. It is not futuristic science fiction anymore. There are significant attempts to use telomerase to achieve this goal. Dr. Alfi discusses the pros and cons of these endeavors, especially their ethical and religious implications.

Dr. Santibañez discusses the pandemic of avian influenza and asserts that it will happen, although the timeframe is not known. He outlines the role of community organizations, specifically faith-based organizations, in helping to contain this pandemic.

We have two case reports, hydatid disease of the breast and radiation-associated synovial sarcoma in the digestive tract. Both are very rare conditions and well presented. It is worthwhile to keep these entities in mind and include them in the differential diagnosis when appropriate.

In our regular departments, we profile Dr. Ghaus Malik, a well-known neurosurgeon, and review the book *Three Cups of Tea* by Greg Mortenson and David Oliver Relin. This book demonstrates how sincere human relations and kind interactions can transcend differences in ethnicity, culture, religion, and nationality. We need to learn from this experience and implement it in our own lives so that we can fill our world with the peace and prosperity that Allah ﷻ wants us to enjoy.

I hope that you enjoy this issue, and I await your comments.

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Wassalaam,

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Abū Zayd Ḥunayn ibn Isḥāq al-'Ibādī: A Physician Translator *Par Excellence*

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Abstract

Abū Zayd Ḥunayn ibn Isḥāq al-'Ibādī, a physician and "Translator *Par Excellence*," lived in the early 9th century CE and 2nd century AH (after Hijra), during the Abbasid Caliphate. He was a product of the crucible of early Islamic civilization that fostered advancement of art, science, medicine, and philosophy like no other civilization before it. The practice of medicine that evolved during this period came to be termed "Islamic medicine." Because of his genius, he was able to convert nearly all accessible and extant Greek medical, philosophical and scientific works into Syriac and Arabic. Since Syriac was later to die off as a language, his translations into Arabic were the ones that have been preserved over the centuries. These were responsible not only for influencing early Islamic medicine, but through later translations into Hebrew, Latin, and other European languages, they were to influence the art, science, and teaching of medicine in the East and West for centuries to come.

In this paper we will endeavor to examine in some depth his life, his works, his achievements, and the impact that his contributions made to the practice of medicine during the Islamic civilization and far beyond.

Key words: Ḥunayn ibn Isḥāq, medical translation, Islamic medicine, history of medicine.

Introduction

Abū Zayd Ḥunayn ibn Isḥāq al-'Ibādī was a Nestorian Christian born in the city of al-Ḥīra, in what is now Iraq. His father was a pharmacist in this thriving medieval city. The city had come into prominence in pre-Islamic times under the dynasty of the Lakhmids.[1] In reference to contemporary cities, it was located close to Najaf, southeast of Baghdad and directly west of Baṣra. Al-Ḥīra was located between the pagan and tribal Arab pre-Islamic culture, which dominated to the south and spread over the Arabian Peninsula, the Syriac culture, which covered Syria in the west and Mesopotamia in the north, and the Persian culture, which extended east well into Khurāsān. These multitudinous cultures were dynamically affected by the advent of a relatively new and fervent force, the reli-

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gion of Islam. In this crucible of cultures and amidst a rising influence of Islam, Ḥunayn was born in 192 AH/809 CE.[2,3] This explains his early fluency in three languages: Syriac, which presumably was not only his mother tongue, but also the language of his church and his religion; Arabic, which was his tribal language, since he came from the *'Ibādī* tribe of Arabs; and Persian, from the influence of nearby Khorasān.[4] By his early youth he had acquired fluency over these multiple languages but had no knowledge of Greek. Only later as a result of a challenge issued to him was he to acquire knowledge and fluency in the Greek language.

Ḥunayn's Early Life and Education

Ḥunayn studied Arabic grammar under the tutelage of Khalīl ibn Aḥmad Naḥvī of Baṣra,[4] who ran a well known school of Arabic language, Arabic grammar, and syntax. This must have motivated Ḥunayn to become a very exacting and careful scholar of the language and ultimately molded him into becoming not only a translator *par excellence*, but also a lexicographer and a philologist.

His father was a pharmacist and druggist, and this explains why he became interested in medicine and pharmacy, which he studied at the ancient Sassanian medical school at Gundīshāpūr, also known as *Gondēshāpūr*.[5] At this time, this medical school was run by Yūḥannā ibn Māsawayh[6] (known as Mesuë Senior to his Latin translators), who ultimately moved to Baghdad and became a court physician in the court of Caliph Hārūn al-Rashīd (149-193AH/766-809 CE).

Sources of Information about Ibn Isḥāq

Our main sources of information about this great physician, translator, and scholar come from ancient texts written during his lifetime or within a few hundred years of his death.[2,3,7-11] These carry detailed descriptions of his life, his contributions and his works. The manuscript studied and translated by Gotthelf Bergsträsser has added much more to our knowledge and information about Ḥunayn.[12]

Ḥunayn's Chronology

Ibn Abī Uṣaybi'ā reported that Ibn Isḥāq was born in 192 AH/809 CE and died in the month of Safar 264 AH/October 877 CE.[13] According to Ibn al-Qifṭī, he may have died in 873 CE.[9] He lived most of his life in Baghdad.

Ḥunayn's Education in Medicine

In his youth he was allowed to attend ibn Māsawayh's lectures by being his drug dispenser. He got into trouble with the great master by asking him too many questions. One day, his master, who was known for his vitriolic temper, became annoyed with him and expelled him from the school with the remark: "People from al-Ḥīra were never meant to be physicians, and they should better be money changers on the streets."[9]

Disheartened and disgusted by this treatment, he vowed to get the better of his master by acquiring medical knowledge on his own. As most of the medical literature of the day existed in Greek, he knew he had to master the Greek language to excel in medicine. To accomplish this, he traveled west for 2 years. Although it is not well documented where he went, it is likely that he traveled to Alexandria in Egypt, considered at the time to be a great center of Greek learning. He spent 2 years diligently mastering the language until he was literary and fluent. He became well versed with the books of all the Greek physicians and philosophers including Hippocrates (Buqrāt), Galen (Jalinūs), Plato, Euclid, Socrates, Aristotle, Paul of Aegina, as well as those who contributed to the ancillary sciences such as mathematics, physics, geometry, astronomy, astrology, agriculture, and even veterinary science. Much later he would be able to translate these into Syriac and Arabic. On his return to Baghdad, a former school friend, Yūsuf bin Ibrāhīm, found him reciting Homer and, although physically changed by an overgrown beard and long hair, he was immediately able to recognize him as Ḥunayn.[14]

Ḥunayn's Career as a Translator and as a Physician

Caliph al-Ma'mūn (ruled 813-833 CE) was an avid collector of Greek, Byzantine, and other foreign manuscripts. He collected these from all parts of his vast dominions. As part of a treaty with a Byzantine emperor whom he had defeated in battle, he secured many Greek manuscripts. In 830 CE, al-Ma'mūn founded *bayt al-ḥikma* (literally "house of wisdom"). Within this college or library worked the most famous of the Arab translators. Ibn Abī Uṣaybi'ā gave a list of those who were attached to *bayt al-ḥikma*. Heading the list is Jurjīs II, son of Bukhtīshū' II, whom Ibn Abī Uṣaybi'ā described as "the very first of the translators of medical works into Arabic."[3]

Ḥunayn presented two of his earliest translations,

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Galen's *De Diffentiis Febrius* and *De Typis Febrium* to Jibrīl ibn Bukhtīshū'. Jibrīl recognized at once the merit of these translations and recommended Ḥunayn to al-Ma'mūn and secured for him the post of chief of *bayt al-ḥikma*. Ibn Abī Uṣaybi'ā wrote that up to 500 dinars per month was expended in salaries and expenses for the translations in this great library.

It was through Jibrīl's recognition and his intervention that he became reconciled with Yūḥannā ibn Māsawayh, who now gave him due respect and even commissioned him to do some translations for himself.

Ḥunayn's Promotion to Court Physician and Chief of *Bayt al-Ḥikma*

It was not long before his talents were recognized by the successors of Caliph al-Ma'mūn (b. 170 AH/786 CE-d. 218AH 833 CE). It is stated that after Ḥunayn had established his allegiance with Caliph al-Mutawakkil (b 206AH/822 CE), he was summoned to his court, showered with gifts, wealth and estate, and appointed as a court physician. In his capacity as chief of *bayt al-ḥīkma*, several students were placed under his supervision, including his talented nephew Ḥubaysh and his son Isḥāq. He was able to collect, collate, and discern the writings of the great Greek masters. It was because of his ability that these works were rendered into Syriac or Arabic. Many of his initial translations were in Syriac, which he had mastered. Then his nephew or son rendered them into Arabic, and Ḥunayn later checked them for accuracy.[8] However, there were some writings that he rendered into Arabic directly. By translating the entire curricula of the Alexandria medical teachings (*jawāmī` al-iskandarāniyyīn*), he was able to establish a curriculum for future medical students and thus forever influence medical instruction in the Muslim dominions.[15] It was through these translations that the peoples of this region were to become aware of the rich scientific and medical heritage of the Greeks and were later able to assimilate this knowledge and wisdom into their medical teachings and writings.

Ḥunayn's Lexicography and Philology

Ḥunayn is recognized not only for his mastery of translation, but also for his ability to coin new technical words and phrases, adding to the Arabic medical lexicon. His translation in such explicit language was well understood by physicians, scholars, medical students, pharmacists, and druggists of the day. Indeed, the Greek masters, especially the works of Hippocrates and Galen, became standard works of medical teachings and reference of the time. In addition, under his supervision there were scores of non-medical translations that were done in *bayt al-ḥikma*. These included the works of Plato, Aristotle, Euclid, and numerous other Greek mathematicians, philosophers, agriculturists and even veterinarians, thus enriching Arab scientific thought. He even did an Arabic translation of the New Testament and also compiled a large Syriac-Arabic dictionary.

Al-Rāzī (d 312 AH/925CE), who was to follow more than a half century later, was to quote Ḥunayn several times in his magnum opus, *al-Ḥāwī fī al-ṭibb* (Liber Continens), a medical compendium that covered all extant medical literature and personal observations and findings.

Ḥunayn's Trials and Tribulations

Two events in his life were to leave a terrible scar on his glowing personality and dent his brilliant achievements. Both of these occurred during the reign of the benevolent but erratic Caliph al-Mutawakkil (232-47 AH/847-61 CE). The caliph had many enemies, including many rival kings, and he was always in fear of being poisoned by his enemies, particularly through his personal physicians. It was hence imperative for the caliph to establish unequivocal allegiance and loyalty from his personal physicians. In view of this, all personal physicians were suspect until they had proven their unequivocal allegiance to the ruler. The caliph summoned Ḥunayn to the court and asked him to supply him a recipe of a lethal poison, which he could use to kill his enemies. Ḥunayn thereupon said, "O commander of the faithful, as a physician I am committed to preservation of life and not its destruction. I have not learnt of any recipes for destruction of life." The caliph was enraged at this answer and sentenced him to harsh punishment. He was imprisoned in a distant castle. After the period of imprisonment he was summoned to the court again and asked by the caliph to provide him with the poisonous recipe. On Ḥunayn's repetition of his earlier plea, al-Mutawakkil called on the court executioner and ordered him to kill Ḥunayn. Upon hearing this sentence, Ḥunayn was reported to have said, "O commander of the faithful, if you so

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desire, please proceed to carry out the sentence, but you shall in the hereafter have to answer to a higher authority for your action, and it would not be worth your while to have this blot on your soul." The Caliph asked Ḥunayn, "What power did enable you thus bravely to refuse to fulfill my request?" "Two things," answered Ḥunayn. "My religion and my profession. My religion commands me to do good to my enemies, how much more to my friends. My profession is founded for the use of my fellow men and only for their welfare. It is incumbent upon a physician therefore never to prepare a nocuous drug."[3,16] The caliph is then said to have retracted his sentence and stated that "My intention was only to test your loyalty, allegiance, truthfulness, and veracity. You have proven these to me beyond doubt, you are forgiven and all your freedoms and property will be restored to you."[14,17]

The second encounter of similar misfortune was related to the jealousy his rise to fame aroused among his peers, especially his former friend and benefactor, the court physician Jibrīl ibn Bukhtīshū'. He or one of his associates played an intrigue on Ḥunayn that earned the wrath of the caliph again. In front of an audience, and knowing his conviction and hate for idol worship and his rising participation in an iconoclastic movement, they made Ḥunayn spit on an icon holy to the Nestorian *Kathalicos*. This not only enraged the Nestorian bishops, but also induced the Caliph to take action against him. He was handed over to Theodosius, the head of Nestorian Church in Baghdad, to be punished. Theodosius in turn confiscated all his wealth, estate, and even his library. Again he was flogged, and imprisoned for 6 months.[1] He later won a reprieve on account of his ability to treat the caliph and cure his ailment. He was even granted compensation from his enemies.[18] It is stated that thereafter he was allowed to live in peace without any further annoyances.

Methods and Compensation for His Translations

Ḥunayn first started translating Greek medical works into either Syriac or Arabic, but found Syriac easier in his younger days because he had mastered the language. At that time he found scientific terminology lacking in Arabic to render a proper translation. Some of these Syriac translations were later rendered into Arabic by his nephew Ḥubaysh, his son Isḥāq, or his student `Īsā who worked with him at *bayt al-ḥikma*. The language into which he translated depended mainly upon who had sponsored the particular work. It was customary at the time for eminent and wealthy patrons to sponsor a particular text or manuscript for translation. If the sponsoring patron was a Nestorian Christian and fluent in Syriac, he would have the Greek text rendered into Syriac. If the patron was an Arab and a Muslim, the translation was requested and done into Arabic.[13] In any case, each sponsor compensated the translator handsomely, and it is stated that the caliph paid Ḥunayn for his translation by having the "scrolls" weighed in gold.

Translation of His Works into Latin

Many of Ḥunayn's works were later translated into Latin. To the Europeans he was known by his Latinized name "Johannitus". His *al-Masā'il fī al-ṭibb lil-muta`allimīn* (Questions and Answers in Medicine) was rendered in Latin as *Isagoge Johannitii ad parvum artem Galeni,*[19] and the *Ten Treatises on Ophthalmology* was rendered as *Galeni Liber de Oculis translatus a Demetrio.*[20] These served as texts in European universities for medical students and physicians, thus influencing medical teachings in Europe for centuries after his death.

Galenic Translations

Ibn Abī Uṣaybi'ā lists Ḥunayn's translations of Hippocrates and Galen and totals them to be about 129. These included the main works of Hippocrates and Galen. The fact that his translations held authority is evident because his works were enumerated by later bibliophiles such as Nadīm in his *Fihrist* and historiographers such as Ibn al-Qifṭī in his *Tārīkh al-ḥūkamā'* (History of Philosophers). Several eminent authors quoted him in their own works, including the most famous Islamic physician, al-Rāzī.

In his own *Risāla*, Ḥunayn wrote, "I traveled in many lands to collect these works, authenticated them, and then collated them, discarded the ones that appeared spurious and then translated, usually into Syriac but sometimes directly into Arabic."[10] From *Risāla* we also learn that he had numerous sponsors for his works. Most were prominent personalities whose thirst and inquisitiveness for knowledge motivated their sponsorship of translations of the Greek masters. Some of the names that appear in the *Risāla* are `Alī bin Yaḥyā, Jibrīl ibn

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Bukhtīshū`, Yūḥannā ibn Māsawayh, the Caliph al-Ma'mūn and the Caliph al-Mutawakkil.

Ḥunayn's Original Contributions

In addition to translating Greek works, Ḥunayn was also an astute physician and ophthalmologist. His original medical works are extant and have been subject to much study. His main work, *al-Masā'il fī al-ṭibb*, was divided into two parts, the theoretical (*`ilm*) and the practical (*`amal*), a motif that his successors consistently followed in their medical works.

The famous *Kitāb al-`ashar maqālāt fī al-'ayn* (Ten Treatises on the Eye) was one of the first systematized treatises on ophthalmology in Arabic.[21] It contained diagrams illustrating the anatomy of the eye.

A third extant original medical work by Ḥunayn is *al-Masā'il fī al-'ayn* or *Kitāb al-`ayn*. He wrote this for his sons Dāwūd and Isḥāq.[17]

Both *al-Masā'il fī al-ṭibb* and *Kitāb al-`ashar maqālāt* were translated into Latin and published under his Latinized name of Johannitus. On studying the details of these two works, one can easily establish that Ḥunayn was not a mere translator, but a practicing physician and an ophthalmologist. He was well respected for his knowledge by his royal patron the caliph, the nobility around him, as well as his peers.

The Impact of His Work

Much of the Arabic translations done by Ḥunayn still exist in many libraries around the world. Most of the Syriac translations are lost, as was the language. Some of the later translations in *Bayt al-ḥīkma* were not done by him, but attributed to him because of the respect his name commanded. Many times the scribes often confused the names of Hubaysh and Ḥunayn, attributing Ḥunayn's name to the former's works. Although his son and nephew both carried on their works of translations, these works were most often checked for accuracy by Ḥunayn. This is evident by an account written by Ḥunayn himself in a letter or missive called the *Risāla*. In this work, which Bergsträsser has studied extensively,[11] we get a deep insight of Ḥunayn's personal methods and preferences and the works he did earlier in life and the ones he did later in his life. His mastery of translation continued to mature in his later years, causinng him to admit that he had to revise his earlier works to render them into more meaningful translations. As detailed in the *Risāla*, his method of translation was not to translate word for word, as many times this would lead to an incoherent sentence, but to translate a whole sentence or paragraph in context, so that it made sense. His method of translation was considered superior when compared to the translators who later translated the Arabic works into Latin in the 14th and 15th centuries. Many times, the Latin translations were done word for word leading to many incoherent and meaningless sentences.[14]

It would take another paper to examine in depth the works of translation that were done by Ḥunayn. It is also well known that many of the works of the ancient Greek masters have been lost in the original Greek and only preserved in the Arabic translation.

Conclusion

It can be concluded that Ḥunayn played a vital role in the development of early Islamic medicine. He facilitated the process by actively seeking Greek books and manuscripts of Greek scholars, painstakingly collecting them, collating them, and accurately translating them into Syriac or Arabic. The Syriac versions later were translated into Arabic. By clearly and reliably translating the fundamentals of extant Greek medical knowledge that existed at his time, especially the works of Hippocrates and Galen, he enabled the physicians of the Middle Ages, such as al-Rāzī, Ibn Sīnā, `Alī ibn al-`Abbās, Abū al-Qāsim al-Zahrāwī, and others, to become worthy successors to the Greek physicians. In addition, the translations of his works into Latin in the 13th and 14th centuries influenced European medicine in the 14th and 15th centuries and beyond and laid the groundwork for the European Renaissance in medicine.

In addition to the Greek translations that he did so effectively, he has to be credited for his original works in medical student training manuals and in ophthalmology, which were to influence later physicians in the East and West.

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