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1 Artist rendering provided by courtesy of : Dr Abdul Nasser Kadaan
Summary:
Ḥunayn Ibn Ishāq Al-‘Ibādī a Physician and a “Translator Par Excellence” lived in the early 9th century of CE (Christian Era) and 2nd century AH (after Hijra), during the Abbasid Caliphates. He was a product of the crucible of early Islamic civilization that fostered advancement of Art, Science, Medicine and Philosophy like no other Arab civilization before it. The practice of Medicine that evolved during this period came to be termed as: “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 for not only influencing the early Islamic Medicine, but by being later translations into, Latin, Hebrew and other European languages, they were to influence the art, science and teaching of medicine in the East as well as in the 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 Ishāq Al-‘Ibādī
Arabic Translators of Medicine.
Medical translation.
Islamic Medicine.
History of Islamic Medicine.

Introduction.
 Hunayn Ibn Ishāq Al-Ībādī whose full name was ‘Abū Zaid Hunayn Ibn Ishāq Al-Ībādī was a Nestorian Christian. He was born in the city of al-Hira¹, located in Mesopotamia. His father was a pharmacist, in this thriving medieval city. The City had come into prominence in the pre-Islamic times under the dynasty of the Lakhāmids². It was located near the present day city of Najaf in Iraq, south east of the capital city of Baghdad and directly west of Basra. During the time of Ḥunayn the city of Hira was located between confluences of multiple cultures: the pagan and tribal Arab, (pre-Islamic) which dominated the South and spread over the great Arab peninsula, the Syriac, which covered Syria in the west and Mesopotamia in the north, and the Persian which extended well into Khorasan in the East. These multitudinous cultures were dynamically affected by the advent of a relatively new and fervent force, the religion of Islam. In this crucible of cultures and amidst a rising influence of Islam, Ḥunayn was born in 192 AH/809 CE³. 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 a tribe of Arabs, the nisbāḥ al-Ībādī and Persian from the influence of nearby Khorasan.⁴ By his early youth he had acquired fluency over these multiple languages but had no knowledge of Greek. Only later in his life, and only as a result of a challenge issued to him, (as related below), was he to acquire the knowledge and fluency of Greek.

His Early life and Education.

He was to study Arabic grammar under the tutelage of Khalīl ibn Aḥmad Naḥwī of Baṣra,⁵ where the latter 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 and ended up for the study of medicine and pharmacy in the medical school at Jundishapur, also known as “Gondeshapur”.

At this time, this medical school was run by Yūhannā ibn Māsawayh (known as Mesusē Senior to his Latin translators) who was to ultimately move to Baghdad and become the veteran director of “Bait al Ḥikmā” or “House of Wisdom” and a court physician in the court of Caliph Ḥarūn al Rashīd. (149-193AH/766-809 CE)

Sources of Information about Ḫūnayn:

Our main sources of Information about this great physician, translator and scholar come from some ancient texts written during his lifetime or within a few hundred years of his death. These carry detailed descriptions of his life, his contributions and his works and are detailed below. (Table 1) A relatively recently discovered manuscript studied and translated by Gotthelf Bergsträsser has added much more to our knowledge and information about Ḫūnayn.

3. Ibn al-Qīftī ‘Taʾrīkh al-Ḥukmā’ (1248 CE) ed. JULIUS LIPPERTL. Leipzig, 1903
5. Ḫūnayn Ibn Ishāq Al-‘Ibādī: ‘Risālaʾ t Ḫūnayn Ibn Ishāq Al-ʿIbādī : fi ḍhikr mū türjim min Kutub Jalinūs biʿilmih wa bāʾd ma lam yutarjam’. (“Letter from Ḫūnayn Ibn Ishāq to Ali bin Yahya): “On all the books of GALEN, as far as he (Ḥūnayn) knows that have been translated, and on some of them which have not been translated”) 9-10

Table I: Ancient Sources of Information about Ḫūnayn Ibn Ishāq Al-ʿIbādī 9-10
His Chronology:

His birth was recorded by Ibn Abī Uṣaibīā as being in 192 AH/809 CE. His death was in the month of Safar 264 AH / October 877 CE. But according to Ibn al-Qīftī he may have died in 873 C.E. He lived most of his life in Baghdad.

His Education in Medicine:

As already noted, in his youth he was allowed to attend lectures in a medical school run by Yūḥannā ibn Māsawayh in Jundishāpur (also called “Gondēshāpūr”), 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 got annoyed with him and expelled him from the school with the remark: “People from Hīra were never meant to be physicians, and they should better be money changers on the streets”

Disheartened and disgusted by this treatment, he vouched 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 language, he knew he had to have mastery of Greek language, to excel in medicine. To accomplish this he traveled west for two 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 two 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 (Jalīnūs), Plato, Euclid, Socrates, Aristotle, Paul of Aegina, as well as those who contributed to the ancillary sciences like, 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 Yusuf bin Ibrahīm found him reciting Homer and although physically changed by an overgrown beard and long hair, he was immediately able to recognize him as Ḫunayn.¹³

His career as a translator and as a Physician:

On his return to Baghdad his mastery of Greek lent him immediate employment with Gibra'il ibn Bukhtīshū', who was at the time, the court physician of the Caliph al Mam'ūn.(813-33 CE). He was commissioned by the Gibra'il to do translations of many of the Greek masters and soon got introduced to the Caliph himself. Caliph al Mam'ūn was an avid collector of Greek, Byzantine and other foreign manuscripts. He collected these from all parts of his vast dominions. As a part of treaty with the Byzantine emperor, whom he had defeated in battle, he secured many Greek manuscripts and these were added to his collections in his library for translation. Ḫunayn was made superintendent of these works and the Library was named “Bait al Ḥikma” or House of Wisdom (established 830 CE). It is recorded by Ibn Abī Uṣaibī‘ā that up to 500 dinars per month was expended in salaries and expenses for the translations in this great library.

It was through the recognition that he received from Gibra'il ibn Bukhtīshū’ 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.

His promotion to be a court Physician and Chief of “Bait al Ḥikma”

It was not long before his talents were recognized by the successors of the Caliph al Mam'ūn.(b170 AH/786 CE  d 218AH 833 CE) It is stated that after Ḫunayn had established his allegiance with Caliph Mutawakkil,(b 206AH/822 CE) he was summoned to his court and showered with gifts, wealth and estate and was appointed by him as a court physician. Recognizing his talents as a translator and as a physician he was also officially appointed as the Chief
translator of “Bait al Ḥikma” or “House of Wisdom”. In this capacity several students were placed under his supervision, including his talented nephew Ḥubays'h and his son Ishāq and he was able to collect, collate and discern the writings of the great Greek Masters. It was because of his masterly ability that these works were rendered into Syriac or Arabic. Having a mastery of Syriac, many of his initial translations were in Syriac and these were then rendered into Arabic by his nephew or son and later checked for accuracy by the master himself\(^1\). However there were some that he rendered into Arabic directly. By translating entire curricula of the Alexandria medical teachings (Jawāmi' al-iskandaraniyyin) he was able to establish a curriculum for future medical students and thus forever influence medical instruction in the Arab dominions.\(^1\) Also it was through these translations that the Arabs 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.

His 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 medical lexicon of Arabic Medicine and rendering the translation in such explicit language that it was to be 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 the “Bait al Ḥikma”, these included the works of: Plato, Aristotle, Euclid and numerous other Greek mathematicians, philosophers, agriculturists, and even veterinarians, thus enriching Arab Science and scientific thought. He even did an Arabic translation of the New Testament and also compiled a large Syriac-Arabic dictionary.

Al-Razi (d 312AH/925 CE ) who was to follow more than a half century later ,was to quote Ḥunayn several times in his opus magna “Al Ḥawī fil Tiibb” or Liber
Continens, a medical compendium that covered all extant medical literature and personal observations and findings.

His 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/ 847-61CE) The Caliph had many enemies, including many rival kings and he was always in fear of being poisoned by his enemies. One way to achieve this was through one’s 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 having again repeated his earlier plea, al Mutawakkkil called on the court executioner and ordered him to be killed. Upon hearing this sentence Ḥunayn was said to have said. "O commander of the faithful, if you so 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 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.”
The second encounter of similar misfortune was described as follows: His rise to fame must have aroused lot of jealousies amongst his peers, especially a former friend and benefactor and court physician, Gibra'īl ibn Bukhtīshū'. He or one of his associates played an intrigue on Ḫūnayn that earned the wrath of the Caliph again. During an audience, and knowing his conviction and hate for idol worship, and his rising participation in an iconoclastic movement, they made Ḫūnayn 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 six months.\textsuperscript{18} He later won a reprieve on account of his ability to treat the Caliph and cure his ailment. He was even granted compensation, which had to be paid by his enemies.\textsuperscript{19} It is stated that thereafter he was allowed to live in peace and without any further annoyances.

Methods and compensation for his translations:

When Ḫūnayn started translating Greek medical works, he did the translations either into Syriac or Arabic. He had great mastery of Syriac and hence in his younger days he found it easier to translate his works into Syriac rather than Arabic. 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 Ḥubay'īsh, or his son Ishāq or his student Isā who worked with him at the “Bait al Ḥikma”. As to which language he translated his works 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 had fluency in Syriac he would have the Greek translation rendered into Syriac. If he was an Arab and a Muslim, the translation was requested and done into Arabic\textsuperscript{20}. In any case each sponsor compensated the translator handsomely and it is stated that the Caliph paid Ḫūnayn for his translation by having the “scrolls” weighed in gold!
Translation of his works in Latin:

Many of Ḥunayn’s works were later translated into Latin. To the Europeans he was known by his Latinized name ‘Johannitus’. His 'al-Masai 'l fil Tibb lil Mutaallimin’ was rendered in Latin as: “Isagoge Johannitii ad parvum artem Galeni”\(^\text{21}\), and the ‘Ten Treatise on Ophthalmology’ was rendered as: ‘Galeni Liber de Oculis translatus a Demetrio’ \(^\text{22}\). These served as texts in European Universities for teaching of medical students and physicians, thus influencing medical teachings in the west, for centuries after his death.

Galenic Translations his greatest contributions:

Ibn Abī Uṣaibī‘ā lists his translations of Hippocrates and Galen, and totals them to be about 129. The fact that his translations held authority is evident because his works were enumerated by later bibliophiles like Nadim in his ‘Firhist’ and histriographers like Ibn al-Qīṭī in his ‘Ta’rīkh al-Hūkama’, or ‘History of Philosophers”. He was to be quoted by several eminent authors in their own works, including the most famous Islamic physician Al-Razi.

In his own Risāla he quotes: “I traveled in many lands to collect these works, authenticated them and then collated them, discarded the one’s that appeared spurious and then translated usually into Syriac but sometimes directly into Arabic.”\(^\text{23}\) From Risāla we also learn that he had numerous sponsors for his works. Most were prominent personalities that had a thirst and inquisitiveness for knowledge, enough to sponsor translations of the Greek Masters. Some of the names that appear in the Risāla are: 1. Ali bin Yahya 2. Gibraīl ibn Bukhtīshū 3. Yūḥannā ibn Māsawayh 4. Claiph al Mamūn, 5. Calif al Mutawakkil
Hunayn’s original contributions.

Above we have examined, the works of Hunayn as a translator of Greek works, but the fact that he was also an astute physician and an Ophthalmologist comes to light when one examines his original medical works, which are extant and have been subject of much study. The two that that we already mentioned are ‘al-Masā‘ī fil Tibb‘ “Questions and Answers in Medicine” written for his own sons but which became helpful to all medical students later. This work was divided into two parts, the theoretical and the practical (ilm wa aml), a practice that was later consistently followed, by many of his successors in their medical works. Also the famous: “Kitāb al-‘Ashar Maqālāt fi l‘ayn” Ten treatise on the Eye”24, was one of the first systematized treatise on Ophthalmology in Arabic. It contained diagrams illustrating the anatomy of the eye. These were both translated into Latin and published under his Latinized name of “Johannitus”. On studying the details of these two works, one can easily establish that Hunayn was not a mere translator, but a practicing physician and an ophthalmologist, and practiced these arts during his lifetime. 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 Hunayn 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 “Bait ūl Hikma”, 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 Hunayn, attributing Hunayn’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 Hunayn himself. This is evident by an account written by Hunayn himself in a letter or ‘Missive’ called the Risāla. In this work, which has been extensively studied by Bergsträsser 25we get a deep insight of Hunayn’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 so that he himself admits 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 a whole lot of sense. As he acquired the mastery of translation he coined new scientific words and phrases in Arabic giving the language a new lexicon for medical terms, which had not existed before, thereby enriching the language and disseminating further information of the Greek masters.

His method of translation was considered superior when compared to the translators that were to later translate the Arabic works into Latin in the 14th and 15th centuries. Many times the Latin translations were done “word for word” leading to many sentences remaining incoherent and meaningless.

It would take another paper to examine in depth the works of translation that were done by Ḥunayn. According to Ibn Abī Uṣaibī’a 129 Greek translations can be attributed to Ḥunayn. These included the main works of Hippocrates and Galen. 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 definitely be concluded that Ḥunayn played a vital role in development of early Islamic Medicine. He facilitated the process by actively seeking for 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 translating the fundamentals of extant Greek medical knowledge that existed at his time, he not only enriched the medical arts and science that was acquired and later propagated by the Arabs, but by having his translations rendered into Latin in the 13th and 14th centuries his texts were to
influence European Medicine in the 14th and 15th centuries and beyond and were indeed to lay the groundwork for the European Renaissance in Medicine.

In additions 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 East and West.

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References:

2 Ibid pp 462-63
4 Sarmadi, M.T., World Medicine and Treatment Vol I, 2002 pp 436-443
5 Ibid Vol 1 2002 pp 436
7 See Yūḥannā ibn Māsawayh in “Pioneers of Islamic Medicine” series under publication 2007-2008
8 Bergstrasser G ‘Hunain ibn Ishaq uber die syrischen und arabischen Galen-Übersetzungen,Leipzig xvii/2 1925
9 Bergstrasser G ‘Hunain ibn Ishaq und siene Shule Leiden 1913
13 Browne E G Arabian Medicine Cambridge Univ.Press 1962 pp 24-25
14 Mayeroff quoting ‘Risala’ in Isis Vol 8 No 4 Oct 1926 pp706
15 Nasr S H “Islamic Science an illustrated study” 1976 pp 175-76
16 Najmabadi Mahmud The History of Medicine in Iran after the advent of Islam, 1999 pp562 (In Persian)
17 Browne E G Arabian Medicine Cambridge Univ.Press 1962 pp 20-21
19 Meyerhoff Max “Ten Treatise on the eye ascribed to Ḥunayn Ibn Ishāq, Gov. Press Cairo 1928
20 Meyerhof Max "New Light on Hunain Ibn Ishaq and His Period". Isis Vol 8 No 4 1926 685-724
21 Steinschneider M 'Die hebraischen Übersetzungen' 710
22 Meyerhof Max Isis 'The book of ten treatises on the eye ascribed to Hunain ibn Ishaq' Vol 13 No 1 Sept 1929 pp 106-109
23 Hunayn Ibn Ishaq 'Risalat Hunain Ibn Ishaq ila Ali Ibn Yahya : fi dhikr mu turjim min Kutub Jalinus bi'ilmih wa ba'd ma lam yutarjam'.
25 Bergsträsser G 'Hunain ibn Ishaq und siene Shule Leiden 1913