

## THE SCIENTIFIC LEGACY OF ABU ALI IBN SINA

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The biography of Abu Ali Ibn Sina is divided into two parts. The first part was narrated by Ibn Sina himself. This section encompasses the period when the scholar traveled to many cities due to life's demands, eventually settling in the city of Jurjan in the territory of Iran. This period spans from 980 to 1012. The second part starts from Ibn Sina's life in Jurjan and continues until his death. This period spans from 1012 to 1037 and was written by Ibn Sina's student, Abu Ubayd Juzjani. Later, Juzjani combined these two parts into a work called "Tarikh Akhwal ash-Shaykh ar-Rais" ("The Biography of the Chief Scholar (Ibn Sina)").

"Tarikh Akhwal ash-Shaykh ar-Rais" is very concise, consisting of only 3 pages (6 sides). It does not fully express the multi-faceted life and activities of Ibn Sina. Many events in Ibn Sina's life are not included in this book. These shortcomings were later supplemented by other scholars and historians of that era. They added necessary details based on their observations or what they had heard. For instance, historians such as Abul Hasan al-Bayhaqi (1105-1169), Ibn al-Qifti (1172-1248), Ibn Khallikan (1211-1282), and the previously mentioned Ibn Abi Usaybi'a (1203-1270) added much information and clarification to Ibn Sina's biography. Juzjani himself also provided additional information about his teacher in the preface to Ibn Sina's "Kitab ash-Shifa." Thus, a relatively complete picture of Ibn Sina's life and activities has been gathered.

However, there are also many legends and stories about Ibn Sina's life and medical practice. Many of them are filled with various myths and fabrications that do not align with reason, while some are closer to real-life events. The Orientalist historian A. Irisov, who wrote many works about Ibn Sina's life, compiled these stories in a small book titled "Legends, Tales, and Stories about Abu Ali Ibn Sina" in 1980. It includes nearly twenty different stories, legends, and tales.

Among the stories in A. Irisov's book, "The Young Man's Disease," "I am an Ox," "The Paralytic King," "At First Sight," "You are Late," "Not a Word More," and "You are not a Linguist" are noteworthy. The events described in these stories are quite close to reality. However, as mentioned earlier, many of the stories in the book consist of mythical events that do not occur in real life.

In describing Ibn Sina's life and medical activities, we avoided such mythical fabrications. According to historical data, Ibn Sina (Abu Ali al-Husayn ibn Abdullah ibn al-Hasan ibn Ali ibn Sina) was born in 980 (370 AH) in the village of Afshona near Bukhara in the month of Safar (August), though the exact day is not known. According to the famous historian Abu Bakr Muhammad Narshakhi, Afshona was once a large city, but over time, it lost its status and became a smaller village known as Isfana. This village is now again called Afshona.

According to Ibn Sina's own account, his father, Abdullah ibn Hasan, was in charge of administrative services in the neighboring village of Kharmaysan (now Romitan) to Afshona. Ibn Sina does not specify what kind of administrative service it was. Many historians write that Abdullah ibn Hasan was a tax collector. Therefore, he was likely the head of tax collectors.

Kharmaysan was one of the major villages in the Bukhara province. Taxes collected from surrounding villages were initially gathered there before being handed over to the royal treasury. Tax collection was a lucrative job, and since Abdullah headed this work, he was quite wealthy. Due to his duties, he frequently traveled to the surrounding villages of Kharmaysan. On one of these trips, he saw a beautiful girl in the village of Afshona, liked her, and married her. He then moved to live with her family. In this family, two sons were born: Husayn (Ibn Sina) and later, Mahmud.

Abdullah ibn Hasan was an enlightened person for his time, valuing science and knowledge. He himself was interested in some sciences (philosophy, mathematics, theology) and strived for his children to become learned individuals. Thus, when his elder son Husayn reached school age, Abdullah moved his family to Bukhara, a center of learning.

After moving to Bukhara, Abdullah enrolled Husayn in one of the better-known religious schools in the city. There, Ibn Sina learned the Arabic alphabet and began studying the Quran and literature. The "Quranic science" included memorizing, reading with recitation, and explaining its surahs and verses. "Literature science" involved mastering Arabic grammar, poetry, and the proper use of meaning, expression, and rhyme. Usually, students spent years, even up to a decade, mastering these sciences. However, Ibn Sina comprehensively mastered the Quranic and literary sciences in a very short period. As a result, despite his young age, he excelled in hadith and tafsir, surpassing many others. He was also interested in literary arts and began writing poetry. According to contemporary historians, Ibn Sina absorbed his studies so quickly and thoroughly that it amazed those who saw it.

At that time, a philosopher named Abu Abdullah an-Natili came to Bukhara. Ibn Sina's father, wanting his son to learn philosophy from this scholar, invited an-Natili to their home. Husayn began taking lessons in philosophy, logic, and geometry from this scholar. However, it soon became apparent that an-Natili was not very proficient in these subjects. Ibn Sina himself wrote in his biography: "Whatever subject he (an-Natili) spoke about, I had a better understanding of it than he did. Finally, I learned the elementary topics of logic from him, but he was unaware of the finer points. Thus, I started studying books on logic on my own. I read their commentaries and eventually mastered logic. The same happened with Euclid's book. I learned the first five or six theorems under his guidance. Then, I started solving the problems in the rest of the book by myself. Next, I turned to 'Almagest'... an-Natili was not very knowledgeable in this science either. I began studying this book on my own. I would explain many figures to him, but he did not know them."

Ibn Sina wrote that an-Natili soon left for Khwarezm. After that, Ibn Sina increasingly studied independently, reading extensively on philosophy, logic, and jurisprudence, and also delving into books on natural sciences. Ibn Sina mentioned that among the books he studied was Abu Nasr al-Farabi's "Fusus al-Hikam" ("The Pearls of Wisdom").

Thus, Ibn Sina mastered many of the known sciences of his time at a young age. He even participated in scholarly debates with great scholars, often surpassing them with his deep analytical reasoning and logical thinking. This was not only due to his extraordinary talent but also his tireless hard work. Indeed, Ibn Sina was incredibly diligent and determined in his pursuit of knowledge. He wrote: "Then, for a year and a half, I devoted myself to learning and reading. I thoroughly studied all branches of logic and philosophy again. During that time, I did not sleep enough even for a single night. I did not engage in anything but learning during the day. At night, I would light a lamp and be engaged in reading and writing. In this way, I mastered all the sciences independently."

Here, Ibn Sina provided an example of his dedication and perseverance in learning: After mastering the main natural sciences, he began studying metaphysics and started reading Aristotle's "Metaphysics." However, he could not understand its content despite reading it multiple times. He read the book forty times until he memorized it entirely, yet he still could not grasp its meaning. Finally, he gave up hope, thinking it was an incomprehensible book.

However, a fortunate event helped him understand the book. One day, while at the book market, a bookseller showed him a beautifully bound book and encouraged him to buy it, saying it was excellent. It turned out to be a commentary on "Metaphysics" by Abu Nasr al-Farabi. At first, Ibn Sina refused to buy it, thinking "Metaphysics" was incomprehensible. But the bookseller convinced him by saying the book's owner needed money and was selling it cheaply for just 3 dirhams. Ibn Sina bought the book, read it, and finally understood the content of "Metaphysics." He recounted this event to his student Abu Ubayd Juzjani, concluding with the following words:

"I was so happy that day. I thanked God and distributed a lot of alms to the poor the next day."

This event attests to three important aspects. Firstly, Ibn Sina's immense perseverance in the pursuit of knowledge. Secondly, Bukhara's high cultural level, where one could freely buy such a rare commentary on "Metaphysics." Thirdly, the presence of deeply knowledgeable scholars in our country at that time who could write commentaries on the works of great philosophers like Aristotle.

Ibn Sina quickly and easily mastered the science of medicine. Successfully treating patients, he earned great respect among the people of Bukhara. Even influential people in the city began to seek treatment from him when they fell ill. As a result, his reputation grew further. Eventually, word of this "young miracle-working" doctor reached the royal court. One day, Ibn Sina was summoned to treat the king himself. With his deep knowledge and sharp insights, Ibn Sina diagnosed the king's illness and assisted the royal physicians in treating him. Consequently, he earned the king's respect and joined the ranks of those close to the royal court.

In his autobiography, Ibn Sina wrote:

"The ruler of Bukhara was Nuh ibn Mansur. By chance, he fell ill with a disease that baffled the physicians. Due to my intense studies, my name became known among them. They spoke about me to the ruler and requested to call me as well. The ruler agreed. I went and participated with the physicians in treating the ruler, and thus became known to him."

The royal court in Bukhara had a large library rich in rare books. This was known to Ibn Sina. However, only court officials and those close to the king were allowed to use this library. After becoming one of those close to the court, Ibn Sina gained access to the library. He eagerly wished to read the books there. One day, finding a suitable opportunity, he asked the king for permission to enter the library and read the books, especially those related to medicine. The king granted this permission. Entering the library, Ibn Sina was amazed by the abundance and variety of books. There were many books that he had never even heard of before. About this library and its books, Ibn Sina wrote:

"I entered a library consisting of many rooms. In each room, there were chests of books, with books stacked on top of each other. In one room, there were books on Arabic language and poetry, in another, works on jurisprudence. Thus, each room was dedicated to a particular branch of science... I saw books there that many people probably hadn't even heard of. I myself hadn't seen them before and didn't encounter them again."

With his characteristic diligence and perseverance, Ibn Sina began reading the rare books in the library. However, he did not write about the specific medical books he saw and read there. But there must have been such books, because among the books written and translated into Arabic at that time, medical works were plentiful.

Ibn Sina became so engrossed in reading that he spent day and night in the library. According to those who were aware, he would only stop reading when the king himself or a court official fell ill and summoned him. Thanks to his diligent efforts, Ibn Sina managed to read and absorb many of the books in the library in a short time. As a result, his knowledge expanded immensely. At this time, he was only eighteen years old. At this age, he had mastered almost all the worldly sciences known at that time.

In 997, the ruler Nuh ibn Mansur passed away. His eldest son, Abul Harith Mansur ibn Nuh, who had previously met and befriended Ibn Sina in the royal library, succeeded him. Abul Harith appointed Ibn Sina to a higher position in the court.

Court duties took much of Ibn Sina's time, slowing down his scientific and creative work. Additionally, other troubles befell him. Soon (in 999), Abul Harith Mansur ibn Nuh was killed in a court conspiracy. His brother, Abul Fawaris Malik ibn Nuh, succeeded him. The new ruler did not show much favor towards Ibn Sina, leading to Ibn Sina leaving his court service.

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