

*Avicenna (980-1037) was an outstanding example of the many Islamic individuals who produced great creative and intellectual achievements. Known primarily as a philosopher, Avicenna was also a mathematician, physician, theologian, astronomer, and philologist. He wrote extensively, and some of his works were later translated and circulated in Europe. The following is a selection from his autobiography, indicating the breadth of his learning as well as aspects of social and cultural life in the Islamic world.*

My father was a man of Balkh, and he moved from there to Bukhara during the days of Nuh ibn Mansur; in his reign he was employed in the administration, being governor of a village-centre in the outlying district of Bukhara called Khar-maithan. Near by is a village named Afshana, and there my father married my mother and took up his residence; I was also born there, and after me my brother. Later we moved to Bukhara, where I was put under teachers of the Koran and of letters. By the time I was ten I had mastered the Koran and a great deal of literature, so that I was marveled at for my aptitude.

Now my father was one of those who has responded to the Egyptian propagandist (who was an Ismaili); he, and my brother too, had listened to what they had to say about the Spirit and the Intellect, after the fashion in which they preach and understand the matter. They would therefore discuss these things together, whilst I listened and comprehended all that they said; but my spirit would not assent to their argument. Presently they began to invite me to join the movement, rolling on their tongues talk about philosophy, geometry, Indian arithmetic; and my father sent me to a certain vegetable-seller who used the Indian arithmetic, so that I might learn it from him. Then there came to Bukhara a man called Aka 'Ahd Ain al-Natili who claimed to be a philosopher; my father invited him to stay in our house, hoping that I would learn from him also. Before his advent I had already occupied myself with Muslim jurisprudence, attending Isma'il the Ascetic, so I was an excellent enquirer, having become familiar with the methods of postulation and the techniques of rebuttal according to the usages of the canon lawyers. I now commenced reading the *Isagoge* with al-Natili. When he mentioned to me the definition of genus as a term applied to a number

of things of different species in answer to the question 'What is it?' I set about verifying this definition in a manner such as he had never heard. He marveled at me exceedingly, and warned my father that I should not engage in any other occupation but learning. Whatever problem he stated to me, I showed a better mental conception of it than he. So I continued until I had read all the straightforward parts of *Logic* with him; as for the subtler points, he had no acquaintance with them.

From then onwards I took to reading texts by myself; I studied the commentaries, until I had completely mastered the science of *Logic*. Similarly with *Euclid* I read the first five or six figures with him, and thereafter undertook on my own account to solve the entire remainder of the book. Next I moved on to the *Almagest*; when I had finished the prolegomena and reached the geometrical figures, al-Natili told me to go on reading and to solve the problems by myself; I should merely revise what I read with him, so that he might indicate to me what was right and what was wrong. The truth is that he did not really teach this book; I began to solve the work, and many were the complicated figures of which he had no knowledge until I presented them to him, and made him understand them. Then took leave of me, setting out for Gurganj.

I now occupied myself with mastering the various texts and commentaries on natural science and metaphysics, until all the gates of knowledge were open to me. Next I desired to study medicine, and proceeded to read all the books that have been written on this subject. Medicine is not a difficult science, and naturally I excelled in it in a very short time, so that qualified physicians began to read medicine with me. I also undertook to treat the sick, and methods of treatment derived from practical experience revealed themselves to me

such as baffle description. At the same time I continued between whiles to study and dispute on law, being now sixteen years of age.

The next eighteen months I devoted entirely to reading; I studied Logic once again, and all the parts of philosophy. During all this time I did not sleep one night through, nor devoted my attention to any other matter by day. I prepared a set of files; with each proof I examined, I set down the syllogistic premises and put them in order in the files, then I examined what deductions might be drawn from them. I observed methodically the conditions of the premises, and proceeded until the truth of each particular problem was confirmed for me.

Whenever I found myself perplexed by a problem, or could not find the middle term in any syllogism, I would repair to the mosque and pray, adoring the All-Creator, until my puzzle was resolved and my difficulty made easy. At night I would return home, set the lamp before me, and busy myself with reading and writing; whenever sleep overcame me or I was conscious of some weakness, I turned aside to drink a glass of wine until my strength returned to me; then I went back to my reading. If ever the least slumber overtook me, I would dream of the precise problem which I was considering as I fell asleep; in that way many problems revealed themselves to me whilst sleeping. So I continued until I had made myself master of all the sciences; I now comprehended them to the limits of human possibility. All that I learned during that time is exactly as I know it now; I have added nothing more to my knowledge to this day.

I was now a master of Logic, natural sciences and mathematics. I therefore returned to metaphysics; I read Aristotle's *Metaphysica*, but did not understand its contents and was baffled by the author's intention; I read it over forty times until I had the text by heart. Even then I did not understand it or what the author meant, and I despaired within myself, saying, 'This is a book which there is no way of understanding.' But one day at noon I chanced to be in the booksellers' quarter, and a

broker was there with a volume in his hand which he was calling for sale. He offered it to me, but I returned it to him impatiently, believing that there was no use in this particular science. However, he said to me: 'Buy this book from me; it is cheap, and I will sell it to you for four dirhams. The owner is in need of the money.' So I bought it, and found that it was a book by Abu Nasr al-Fārābī *On the Objects of the Metaphysica*. I returned home and hastened to read it; and at once the objects of that book became clear to me, for I had it all by heart. I rejoiced at this, and upon the next day distributed much in alms to the poor in gratitude to Almighty God.

Now the Sultan of Bukhara at that time was Nall ibn Mansur, and it happened that he fell sick of a malady which baffled all the physicians. My name was famous among them because of the breadth of my reading; they therefore mentioned me in his presence, and begged him to summon me. I attended the sick-room, and collaborated with them in treating the royal patient. So I came to be enrolled in his service. One day I asked his leave to enter their library, to examine the contents and read the books on medicine; he granted my request, and I entered a mansion with many chambers, each chamber having chests of books piled one upon another. In one apartment were books on language and poetry, in another law, and so on; each apartment was set aside for books on a single science. I glanced through the catalogue of the works of the ancient Greeks, and asked for those which I required; and I saw books whose very names are as yet unknown to many—works which I had never seen before and have not seen since. I read these books, taking notes of their contents; I came to realize the place each man occupied in his particular science.

So by the time I reached my eighteenth year I had exhausted all these sciences. My memory for learning was at that period of my life better than it is now, but today I am more mature; apart from this my knowledge is exactly the same, nothing further having been added to my store since then.