

THE LIFE AND TEACHINGS OF IBN SĪNĀ

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Ibn Sīnā is one of the greatest philosophers, scientists in natural sciences and medicine, a poet and music expert, a scholar possessing deep knowledge of the Arabic language, the founder of the scientific terminology of Persian. He was born and lived in that cultural-historical atmosphere, in which the genius of Rudaki, and Firdowsi, Abu Bakr Razi, and Abu Mahmud Khujendi, al-Fārābī and al-Bī-rūnī* was formed and flourished. The appearance of such titans of thought was not an accident. That epoch in many respects had the Renaissance character.

Studying the history of the formation of Caliphate's culture, which is known under the names of Arab or Moslem, one cannot help noting that it originated on the basis of heterogeneous cultural traditions. These traditions came from Syria, the centre of then collapsing Hellenistic civilization. But Syria was not the only source of Arab culture. The Arab Caliphate embraced such centres of ancient eastern civilization as Egypt, Mesopotamia, Iran, Mawara-an-Nahr, Khorasan, India (its north-western part). Long cultural traditions of these centres directly or indirectly are connected with the culture of Ancient Greece and Ancient India. The epoch of Ibn Sīnā is the epoch of the Renaissance not only of ancient Greece but ancient Eastern culture on the whole as well. In its humanistic value the culture of this epoch is similar to the culture of the epoch of the European Renaissance. That is why the originality of the culture of East in early medieval centuries, the part and parcel of which is the creative legacy of Ibn Sīnā, should be regarded in the context of intellectual interactions between East and West.

THE MAIN LANDMARKS IN IBN SĪNĀ'S LIFE AND CREATIVE WORKS

Ibn Sīnā lived and worked at the end of the 10th and the beginning of the 11th century. He got his education and was formed as a scientist in Bukhara ; he wrote a number of his brilliant works in Gurganj (Urghench, the capital of Horezm) ; then he moved to Iran, where he spent the greatest part of his life.

*The spellings of the proper and place names and titles of books have been retained as in the original MSS except Ibn Sīnā.—Editor.

The epoch of Ibn Sīnā is characterized with peculiar drama in the history of The Central Asia and Iran. Samanid state, which at the time of its glory practically covered all the territory of Central Asia, a considerable part of Afganistan and Iran, had already lost its former strength and was falling into decay. Peasants uprisings and feudal disturbances shook the State. Rich feudals were only formally the subjects of the ruling Samanid Abulkasym Nukh (976-977 A.D.) ; in fact they governed as independent rulers.¹ The activities on the side of the Buids increased in Khurasan. Under these conditions the consideration of the Turkic tribes headed by Ilek or Karahanid dynasty launched an attack on Samanid state from the North-East. It resulted in the Samanids' complete defeat in 999 A.D. Karahanid state covered Seven Rivers, Zarafshan Valley and adjoining areas, and also Eastern Turkistan. The southern part of Central Asia was ruled by Ghaznevid state, which gained its glory under the sultan Mahmud Ghaznevi (998-1030 A.D.). His empire covered Afganistan, a part of Northern India, Eastern and a part of Western Iran, the South of Central Asia and Khorezm.

At the end of the 10th and the beginning of the 11th century the dynasty of the Mamunids ruled in Khorezm. The Shahs of Khorezm had to get on with Ghaznevid and Karahanid states. In 1017 Khorezm joined Ghaznevid state. There were several states on the territory of Iran at the end of the 10th and the beginning of the 11th century. The most powerful of them was the Buids State, which stretched from Oman and Syrian borders to the Caspian Sea. The Buids conquered Iraq and deprived the Abbasid Caliphs of their power. They restored the title of "shahan-shah" (the King of Kings). But at the end of the 10th century and especially in the first half of the eleventh, the state of the Buids was collapsing : every region was ruled by its own Amir and a substantial part of the Buids' lands was under the rule or influence of the Ghaznevids.²

The centralized Samanid state gave rise to the growth of the productive forces. Artificial irrigation was highly developed. The system of canals, different water-obstacle constructions and dams allowed to turn great areas into the sequence of gardens and cultivated fields. Mining, metallurgy, crafts took a new stage in their development. Trade objects manufactured resulted in increase of the scale of domestic and external trade. Such towns as Bukhara and Samarkand, Nishapur and Urgench, Gherat and Hulbuk were flourishing, the process of urbanisation on the whole was taking place. Construction was going on in the towns, wonderful monuments of architecture were being built ; among them are such masterpieces as the Samanid Mausoleum in Bukhara and Arab-Ata Mausoleum in Tim.³

The level of culture too was rather high. The names of about a hundred of philosophers, mathematicians, astronomers, medical men, chemists, geographers, historians, phylologists and scientists of other branches as well as writers living

in the 10th-11th centuries in Bukhara, Samarkand, Merv, Termez, Balkh, Urgench, Fergana, Khojent are well known. This period of time gave rise to a whole galaxy of literary men and scientists who were the founders of scientific trends and schools. Both spiritual and material culture in the epoch of Ibn Sīnā in Central Asia and Iran was developing first of all on the basis of local traditions. Pre-Moslem tendency in the cultural and intellectual life was dominant. It must be noted that in the 10th-11th centuries in Maverannahr, Khorasan and Sistan, where the mother-tongue of the major part of the local population was Farsi-Dari (Tajik), favourable conditions were created for appearance and development of fiction in this language. That epoch gave birth to such outstanding poets as Rudaki, Dakiki, and Shahid Balkhi. "The galaxy of remarkable poets of the 10th century created Tajik-Persian poetry, which in the forthcoming centuries gave birth to such greatest geni of poetry as Firdowsi and Saadi, who outlined the general tendency of poetry of the so-called countries of Moslem East for centuries ahead".⁴ Numerous manuscripts preserved till now bear testimony to the fact that Farsi-Dari became the language of historic and scientific prose. It was more often used in social and administrative life, thus ousting the Arabic language which had been dominant before. The level of scientific and cultural life of the Buids in Iranian lands was high. But the dominance of the Arabic language added a peculiar character of elite to culture. Such were historical and cultural prerequisites which made possible the appearance of such scientists-encyclopaedists as Ibn Sīnā (980-1037) and Abu Reikhan Muhamad Ibn Ahmed Al-Bīrūnī (973—c. 1048).

The Medieval East almost did not know the traditions of autobiographies. In order to reconstruct the life history and creative activity of men of its culture now, we have to collect grains of information, scattered in the pages of their works, through historical and literary chronicles, or annals. To this effect Ibn Sīnā is a gratifying exception. His biography, written by himself and by his devoted disciple Abu Ubaid Juzjani, has reached us in its two close versions; the most ancient version by Arabic author Abul Hasan Beykhaki (his work *Continuation of Depository of Wisdom* was compiled in about 1160 A.D.), and the latest one in the works of Arabic authors by Kifti (*History of Sages*, written in about 1248 A.D.) and by Usabia (*Sources of Information on Biographies of Doctors*, written about 1270 A.D.)⁵ There is some information available in the works of other authors too.

Ibn Sīnā was born on 16 August 980 in the village of Afshan near Bukhara. His father, Abdullah, townsman of Balkh, moved to Bukhara governed by Samanid Nukh Ibn Mansur. Ibn Sīnā's mother, Sitorabonu, was from Afshan, which was a small, but well-fortified hamlet in the 10th century and was famous for its weekly bazars.⁶ The level of intellectual life in this town was sufficiently high. Abdullah

served as an official and he occupied a notable position among the town's nobility. He had two sons : Husein (proper name of Ibn Sīnā) and Mahmud (5 years younger). In 986 Abdullah's family moved to Bukhara where Husein began his schooling.

History and topography of Bukhara in the 10th century were described by V. V. Bartold based on the written original sources.⁷ Investigations, followed by Soviet historians and archaeologists, enable us to describe the structure of the town in a new fashion.⁸ The city proper (Shahristan), lying out of the citadel (ark, kuhan-dez) and its suburbs were fortified by strong walls. "Bukhara is a large city, most flourishing in Maverannahr. Here is the residence of the King of the East", says the author of the work in Farsi-Dari *Hudūd al-‘Ālam*.⁹ The 10th century Arabic geographers mentioned that in Khorasan and Maverannahr this is the most thickly built up and densely populated city. In the citadel surrounded by a strong wall was the residence of Samanid emirs. There were a book depository (library), an office and a prison there. At the Reghistan square there stood a palace with nearby apartments for divans, *i.e.* departments of central government. In the city there were many other palaces too. The palaces of suburban locality, Jui Mulion, were of particular fame, the beauty of which was glorified by Rudaki. Numerous minarets, medresas, and mausoleums were decorating the city. There were many public buildings such as caravansaries and bath-houses. The pulse of the city life was most intensively felt at markets (bazars), where merchants from various countries used to gather.

Bukhara of the 10th century was not only the main political centre of the Samanids and the most important trade and industrial city of Moverannahr, but also the largest centre of science and culture, literature and art in the East. Scholars, poets, and men of culture from most intellectual centres of the East would come here. Amidst such conditions the school-years of Ibn Sīnā began. He distinguished himself for his outstanding abilities ; by the age of 10 he already knew the Qurān by heart and mastered the grammar of his native tongue and Arabic, stylistics and poetry. His father was a follower of Ismaelism which was widespread in Bukhara. Ismaelite scholars of those days included free-thinking into their doctrine which was considered heretical from the point of view of the orthodox Islam.¹⁰ Often social and philosophical problems in the spirit of Ismaelism were the subject of discussion and the works of *Brethren of Purity* were read in the house of Abdullah, the latter as a society which emerged in the middle of the 10th century in Basra. Members of the above circle advocated secular knowledge, and their task was to purify Islam from ignorant dogma through philosophy. Mahmud, like his father, became the follower of Ismaelism. Iba Sīnā also acquainted himself in detail with Ismaelite doctrine which then affected his world outlook though he officially dissociated himself from that doctrine.

The range of Ibn Sīnā's learning gradually broadened. He studied mathematics (arithmetic, geometry, algebra) at Mahmud Mossoh's, the trader ; he learned logic and *fiḥ* (Moslem jurisprudence) from Ismail Zahid's, medicine he studied with Bukhara doctor Abu Mansur Kamari's. When the famous scholar Notili¹¹ came to Bukhara, his father lodged him in his house in order to give his elder son systematic education. The teacher was amazed by the gifts of his pupil. In a short time it appeared that the boy had already learnt the works by Euclid and Ptolemy better and gained a deeper knowledge of logic than his grey-bearded teacher.

Ibn Sīnā was 15 or 16 years of age when he began to study independently, acquiring rapidly the results of all the known sciences. The works by Abunasre Farabi (870-950), whom Ibn Sīnā considered his second teacher after Aristotle greatly influenced the formation of his philosophical views. And Aristotle's 'Metaphysics' he learned from Farabi's commentary which he bought by chance at the book market. But even before that he read the translation of "Metaphysics" in Arabic, though he could not properly understand it, because the translation was bad. At the same time Ibn Sīnā did not take anything on trust. "I checked all the proofs", he writes. He participated in disputes with the learned ceaselessly. Having mastered natural and mathematical sciences, logic, philosophy and theology, he started learning medicine and began medical practice. "I turned to medical science and began studying the books on medicine", he writes in his autobiography.

"As medicine is not a difficult science, in a short span of time my knowledge in this field achieved such heights that many well-known doctors of that time studied medical science under me. I also had medical practice, and the gates of healing and experience were open before me so that I cannot even say...And I was then 16 years of age."¹²

By that time Samanid Nuh Ibn Mansur fell seriously ill. Doctors could not cure him and the disease grew worse. "And I was popular with doctors as a man having much medical practice. The Sultan was told much about me, and he asked that I should be called to him. I came and participated in the treatment of the Sultan until he was cured. Due to that I earned an immense prestige at the face of the Sultan. Once I requested the Sultan to allow me to enter his library and to study books on medicine. The Sultan complied with my request, and when I entered the library I saw a large house with many rooms in it. In every room there were boxes full of books ; in one of the rooms there were Arabic books and books of poetry, in the other there were books on *fiḥ*, and so on ; in every room there were books on one of the sciences. I read the list of books by ancient authors and drew the one which I needed. I saw and read the books which were unknown to many people even by their titles. I never saw such a collection of books either earlier or later. I had read those books and derived benefit from them, and I appreciated the contribution made by every scholar to a science."¹³

By the age of 18 Ibn Sīnā completed his studies and he began his scientific creative work. At the request of his neighbour Abulhusein Aruzi he wrote a summary book *Al-Majmah* (or *Al-Aruzia*), in which he described "all sciences" except mathematics. At that time he was 21 years of age. At the request of his other neighbour Abubakre Bakri from Khorezm he wrote a book on philosophy (in 20 volumes). For him he wrote a book on ethics too. At that very time the young scholar experienced a personal tragedy: his father passed away. In order to keep the family, the youth joined the state service. That was the period of the decay of the Samanids, years of anarchy when "nobody was quiet either for his property, or for his life".¹⁴ Soon Bukhara came under Karakhanid power. Ibn Sīnā was obliged to leave it and move to Khorezm, the capital of Gurganj.

The Medieval Gurganj towns of Ak-Kala and Tash-Kala were situated in the environs of the present-day Kuna-Urgench of the Turkmen SSR. In the middle of the 10th century it was a large and flourishing town, and at the end of the century it became the Khorezm capital.¹⁵

The town consisted of two parts, inner and outer ones.¹⁶ According to Makdisi's description, Gurganj was built up so closely that it was difficult to make any canals inside it. Near one of its gates there was a castle which was built by Khorezm Shah Abul-Abbas Manun Ibn Manun. The abundance of markets distinguished the town. The boom itself of Gurganj was connected with the growth of the caravan trade in many ways. Its palaces were the main sights.

The capital of Khorezm was also an important cultural centre. On 18 September, 1016 Abu Reikhan Al-Bīrūnī made astronomical observations in one of Emir's palaces.¹⁷ There in famous "Mamun's Academy" a galaxy of scientists gathered, such as Bīrūnī, Abu Sakhl Masihi, Abu Nasr Arrak (Irak is the other reading), and Abul Khair Khammor. Ibn Sīnā joined them all. The Khorezm scientists welcomed him warmly. The Vezir as-Sukhaili, one of the most educated men of his time, was extremely kind to him. There Ibn Sīnā continued perfecting his education and ideas in disputes and enriching his medical practice. However, his active and creative life was not long in Gurganj. Mahmud Ghaznevi demanded that Khorezm Shah Mamun II should send the "Mamun's Academy" scientists to Ghazna.

Ibn Sīnā did not wish to go there and to serve Mahmud, and he and Abu Sakhl Masihi escaped from Khorezm to the south across the Kara-Kum desert. On their way they saw such cities as Nisa, Abivard (in the south of present Turkmenia), Tus (the Nishapur district), Samangan (the Khorasan district). The destination of his wandering was Jurjan, the capital of the region of the same name near the south-east coast of the Caspian Sea.¹⁸

Masihi could not bear the trails of their travelling and died. Ibn Sīnā hoped to find protection in Jurjan and it was not by chance, as it was the capital of the Ziyarids. Since 977 A.D. there ruled Kabus Ibn Vashmghir, "a talented poet who searched for specimens of pre-Islamic Arabic poetry for himself, a wonderful stylist, whose letters were long considered a classical example of Arabic epistolary style. Kabus surrounded himself with best representatives of science and art and made his little Jurjan a literary centre which set a fashion for feudal courts of West Iran."¹⁹

There are two versions of Ibn Sīnā's stay there. According to one of them, he did not meet Kabus; according to the other, he was still in power there. When Ibn Sīnā arrived there he put up at the caravanserai and had his medical practice quite successfully too. For instance, he exactly diagnosed a relative of Kabus and consequently was received by the emir and was given rich gifts.²⁰ Bīrūnī tells us that he saw Ibn Sīnā's message for Kabus's daughter Zarrin Ghis ("Fair-haired"). It said that he had performed measurements and calculations defining the day's length of Jurjan at the princess's request.²¹ There he also met Abu Ubaid Juzjani, who later became his disciple and a devoted friend to the end. It was there that Ibn Sīnā began writing his well-known *Kitob al-Kanun fi-t-Tibb* (Canon of Medicine) which he continued in Rai and Khamadan. In Jurjan he also wrote *Kitob-al-Avsat-al-Jurjan fi-l-Mantik* (Jurjan Middle Book on Logic), *Kitob-al-Mabda va Ma'ad* (A Book of Travelling and Return), *Kitob-al-Irsod-al-Kullia* (A Book of General Observations).

Soon, however, Ibn Sina left Jurjan for fear of persecution by Sultan Mahmud. He came to Rai which is 5-10 km away from present day Teheran. Rai was one of the scientific centres of Iran in 10th-11th centuries. There was a large hospital, where once well-known Muhammed Ibn Zakaria ar-Rai (Razes) worked. It was there that Abu Mahmud Hojendi built the sextan which was described by Bīrūnī. Stories of two libraries in Rai have come down to us. The catalogue of one of them included 10,000 volumes.²² Many scientists who lived in the town were specialists in many fields of science. Rai was the Buids' residence. Emir Majad-Daula and his mother Saiida ruled there.²³ Ibn Sīnā bought a letter of introduction and began to serve Saiida and her son.

But the scientist did not stay long in Rai, as he changed his master (it was Shams-ad-Daula) and moved to Hamadhan, a town in Central Iran, which was situated in a fertile valley, in the south of the Alvand ridge. The climate was temperate, but cold in winter. Spring water was excellent. The place of interest in Hamadhan was Bāb al-Asad ("Lion's Gate"). It opened into the road leading to Rai. It was probably the first thing that Ibn Sīnā saw approaching Hamadhan. They had stone lions on columns. It yielded to Rai in population, richness and culture, but it was an important trade point.²⁴

Ibn Sīnā stayed in Hamadhan till 1023 A.D. Having cured Shams-ad-Daula of a stomach disease, he became a vezir. Occupaying this high post, he attempted to realize his advanced ideas on state rule, which the court aristocracy and military did not like. They arrested Ibn Sīnā, demanded his execution, and robbed his house. Shams-ad-Daula released him but deprived him of his post of vezir. For forty days Ibn Sīnā hid himself in the house of an acquaintance of his, where he started writing his *Book on Healing*. Meanwhile Shams-ad-Daula needing badly his treatment and advice, again appointed him as his vezir. After emir's death his son Sama-ad-Daula succeeded the throne who wanted Ibn Sīnā to serve him as well. The scientist refused and conflict ensued. Ibn Sīnā had to escape, but was found and put into prison. He spent 4 months there and continued to work. He wrote the *Al-Khidoyat* ("A Manual"), the *Khai Ibn Yakzan* ("Alive, Son of the Man Awake"), and the *Kitob al-Kulunj* ("A Book on Colic").

On his release, Ibn Sīnā, his brother and Juzjani fled to Isfahan. This town is situated in a wide valley, surrounded with mountains on three sides and changing into the steppe in the south-east. The river of Zaiinda-Rud and springs irrigated it. Isfahan changed into a big and flourishing town during the Buids. There were splendid state and private buildings, baths, orchards, hospitals, markets. The population, according to some estimates, exceeded 100,000.²⁵ Several decades later Nasir-i Hasrau visited it and left his description full of rapture: "This town lies in the valley, the air and water are extremely good there..... There are running rivulets and tall beautiful buildings there.

"In the Centre of the town there is a beautiful cathedral mosque. The whole town is flourishing, I never saw any ruins. There are a lot of markets..... Every market-place is surrounded with a high wall and a gate, and street blocks are also surrounded by walls with strong gates.

"There were fine caravanserais and there was a street called Embroiders Street in which fifty good caravanserais were situated; in them there lived many merchants and lodgers..... In all countries where Persian is spoken, I have not seen more beautiful, more populous and more blooming (flourishing) town, than Isfahan."²⁶

Isfahan enjoyed an intensive intellectual life. In it there was a wide circle of writers and poets, experts on canon law, philosophers, physicians. The well-known Iran hospital was also functioning. Ibn Sīnā was received there enthusiastically. Isfahan's emir made him his retainer. On Friday evenings scholars of various subjects gathered in the emir's palace for discussion and debate. Usually, Ibn Sīnā started them. No one could excell him in any discussion. The Isfahan period of Ibn Sīnā's life (1023-1037) is the most fruitful in so far as his creative works

are concerned. Here he finished his *Book of Recovery, Canon of Medical Science*. He studied astronomy, invented astronomical tools not known before, and began to construct an observatory; he worked on the problems of logic, mathematics, physics, poetics, music. As one of his pupils said, in every field, in every composition he did not only confine himself to generalization or elaboration of what had been known before, but carried out investigations, new in principle. In Isfahan Ibn Sīnā created the philosophical encyclopedia, named *Danishnama*, devoted to Ala-ad-Daula, in his native Farsi-Dari language, in which he composed his verses. In spite of the fact that his state service took much time, he worked hard and very fruitfully, and sometimes he was writing all nights long. His pupils sitting beside him could not bear the strain, but Ibn Sīnā went on reading and writing. His capacity for work and his memory were striking; sometimes he wrote or dictated the whole treatises, not referring to any of the books. At the same time he was not an ascetic and did not renounce the pleasures of life.

The Isfahan period of Ibn Sīnā's life, however, was not quiet. The palace intrigues constantly distracted him; sometimes they threatened his life. The greatest tragedy was suffered by him, when in 1030 the viceregent of Sultan Masud I Ghaznevi attacked Isfahan and subjected it to massacre. The house of Ibn Sīnā was plundered too, and many of his works were lost, including the 20-volume *Kitob-ul-Insof* ('The Book of Justice'). His intense life, dangers, privations, and former wanderings undermined the scholar's health. Being quite ill he accompanied Ala-ad-Daula in his march against Hamadan. On the way on 18 June, 1037 Ibn Sīnā died and was buried at Hamadan. A mausoleum was erected over his grave. In connection with Ibn Sīnā's 1000th anniversary celebration in 1952, his mausoleum at Hamadan was reconstructed.

The scientific legacy of Ibn Sīnā is enormous. As Said Nafisi had calculated, he wrote 456 works in Arabic and 23 in Farsi-Dari (or some of these may be ascribed to him).²⁷ There is an opinion that 274 works really belong to the pen of Ibn Sīnā.²⁸ Anyway, according to the catalogues in libraries of different countries, 160 of his works are preserved now. "Ibn Sīnā, as all the genius of the feudal epoch, aimed at universalism and was a genuine encyclopaedist. He showed extraordinary talent in two fields, giving them the most complete definition..... These fields are medicine and philosophy."²⁹

THE PHILOSOPHIC DOCTRINE

Ibn Sīnā's world view was formed in a complicated and contradictory atmosphere. On the one hand, religion occupied a dominant position; on the other, there was a great interest to secular sciences and philosophy. The thinkers of the Medieval East did not have to begin from the zero point. They had an opportunity to master

the treasures of the ancient culture, as well as the problems and methods of rational and empirical analysis which had been put forward and developed by it. The ideas and discoveries of the ancient Greek philosophers had thus become accessible to the people of the Middle and Near East. The translations and copies of the works by Plato and Aristotle, Galen and Archimedes in Arabic began to spread from Central Asia and India to Pyrenee and North Africa, thus giving a great stimulus for the development, in these regions, of science and especially philosophy, physics, mathematics, and medicine. The natural scientific trend of thought and the striving after experimental knowledge of nature had prompted the thinkers of the East to give preference to Aristotle as against Plato, though the influence of the latter also remained considerable. But the representatives of the Eastern culture were not only successors of the peripatetic teaching. They faced the philosophical and theoretical problems of their own epoch, and that is why they took over and interpreted the logic and metaphysics of Aristotle, as well as the psychologic and ethical doctrines of this "universal mind" among the ancient Greek philosophers,³⁰ basing on their own achievements made in various fields of science.

The books written by many generations of astronomers, geographers, chemists, mathematicians, botanists, physicians, and philosophers of the Arab speaking world had become the ground on which the activity of Ibn Sīnā, one of this world's scientific leaders, has grown up. In his theories various contradictory tendencies of his epoch were reflected. In it, two practically incompatible trends—metaphysics and natural science—were united. At the same time this teaching can in no way be considered as an eclectic one and representing some mosaic and bright picture of the components of different conceptions which have no inner connection. Even various teachings of the antiquity of which Ibn Sīnā had been successor and reformer, had often had the imprint of struggle between different trends. Such had been the teaching of Aristotle who had been hesitating between idealism and materialism.³¹ In some parts of his teaching, *e.g.* in conceiving the senses as the sensational copies of real things, he had been a materialist; in others, *e.g.*, in the notion of the supreme intellect to which the soul acquiring abstract notions is drawn, Aristotle had been expressing idealist conceptions.

In analysing the concrete social and cultural conditions in which a theory emerges, develops and exercises some ideological function, one should distinguish in it trends which, though historically limited, express progressive tendencies that promote free thinking, strengthen the scientific understanding of nature and man, and stimulate further development of world culture, on the one hand, and trends which hinder this development and serve the reactionary forces, on the other. In making this distinction, one may estimate the philosophy of Ibn Sīnā as being progressive, although it would be a deviation from historical truth to ignore the

influence on it of such idealist doctrines as Neoplatonism with its conception of a supreme immaterial intellect being a specific extra-spatial force, of which imperfect emanations are reduced, according to the degree of perfection, souls that derive from it their content.

This Neoplatonic version of a supreme incorporeal essence, "ruling all by means of all", is in fact identical with Plato's teaching of the one and inimitable first principle of being, and with Aristotle's doctrine of the First Mover, that is, the supreme intellect, "which thinks the most divine and the most precious and is not exposed to any change".³² In his ontological views, Ibn Sīnā had been under the influence of this idealist conception, according to which the first cause of being is a spiritual principle. This course, expressed both in the theory of emanation and in the doctrine of the First Mover, had made it possible to coordinate the idealist tradition with the tenets of Islam thus avoiding conflict with the ruling ideology. The conflict, however, emerged since there had been, together with some points of contact with the official dogmas of Islam, principal divergences as well. It was these divergences that determined the most progressive, and perspective for the future science, conceptions of Ibn Sīnā which exercised strong influence on his concrete and scientific theories in various fields of knowledge, especially in his teaching about man, his faculties and ways of improving them.

The development of such a teaching cannot be estimated only from the point of view of widening the empirical store of knowledge about reality, owing to the positive investigation of nature that was involved in the stock of new scientific knowledge not known to the ancient science. One should also remember the development of natural scientific methodology which is based on the need of a precise knowledge proved by means of experience. Having reflected this need, Ibn Sīnā put forward the ideas that nature is eternal ("co-eternal with deity"); that its laws do not change by volution and are accessible to human knowledge; that the life of soul is conditioned by the activity of a body; that its immortality as individual essence is impossible. Ibn Sīnā rejected bodily resurrection, which view was against the religious tenet of Islam.

In the philosophy of Ibn Sīnā one should distinguish between its ontology (the theory of being), idealistic in its principles, and gnoseology (the theory of knowledge) in which materialist tendencies prevail. The idealist interpretation by Ibn Sīnā of the main problem of philosophy—on being—is expressed in his theory of Necessary Existence and Possible Existence. The Necessary Existence, that is, immutable being is a spiritual essence; it is a pure good, pure truth, and pure intellect. The Necessary Existence according to Ibn Sīnā, is no other than One (God) of Plato and the outstanding Neoplatonist Plotinus, and the First Mover of Aristotle; in other words, it is God. The Possible Existence is Nature, the spiritual

and material world. There is a causal and consequential connection between the Necessary Existence and the Possible Existence. The Necessary Existence conditions the Possible Existence. This connection is permanent. The removal of cause leads to the removal of result.

Such determinism in understanding the relations between God and Nature inevitably led Ibn Sīnā to assume the eternity of Nature, for *causa efficiens* (God) is, according to him, also eternal. This does not mean that Ibn Sīnā was a dualist, as some scholars studying his philosophic teachings have supposed. Ibn Sīnā's philosophy is in its principles monist, that is, idealist; so God, intellect, and soul are depicted in it as the creators of reality. However, Ibn Sīnā's idealism is, in comparison with the other forms of idealism, and especially with the doctrine of Moslem theology, *kalām*, more objective, more rational, and it differs from them in many points. According to Ibn Sīnā, the activity of God is confined to the single creation of the universal intellect, which contradicts the Islamic theological concept of God's permanent interference with the world's affairs. Moreover, Ibn Sīnā considers the relation of God and Nature as an interaction, like the causal and consequential connection, not as the relation of the Creator with his creation. God, he says, creates the world not by his will, but on account of some "supradivine" necessity, which is obviously a restriction, in a manner, of God's omnipotence.

Original also is Ibn Sīnā's theory of emanation (of natural forms from each other), which is in contradiction with the creationist idea (idea of the momentary creation) of any religion. In this theory Ibn Sīnā expresses, though in a mystical form, the self-development of Nature. Describing various stages of "descending" and "returning" of emanation, Ibn Sīnā arrives at the realistic conclusion of the evolution of Nature: rise of mineral kingdom, its transition to the world of plants, then, in turn, to the world of animals and finally to rational beings. The anti-dogmatic tone of Ibn Sīnā's philosophy had aroused the wild and angry reaction of Moslem theologians. Mohammad al-Ghazali, the most outstanding theorist of *kalām*, had claimed that philosophers like Ibn Sīnā who deprived God of his qualities of omnipotence, free-will creation, omnipresence, and omniscience, had brought him closer to the state of a dead man who knows nothing of what happens in the world.³³

Ibn Sīnā, like Aristotle, asserts that the world has no beginning. Using logical and rational arguments, recognizing that God has no start and that He is as eternal as matter and motion, time and being, he strengthens Aristotle's theory of "co-eternity" of God and Nature which was also against the views of the Moslem theologians. Many theorists of *kalām*, such as al-Ghazali, Fakhr al-Din Razi, Taftazani and others, had been fiercely struggling against the teaching of peripatetics, the followers of Aristotle. The materialist tendency in Ibn Sīnā's philosophy

is much stronger when he discusses the relation of matter and form. It is well known that Aristotle could not overcome the Platonic disconnection of matter and form. While affirming the unity of matter and form in man-made objects, he nevertheless assumed their disconnection in natural things that had had their origin outside human activity. As regards Ibn Sīnā, he thought that matter and form are united not only in artificial things, but in natural things as well.³⁴

In his materialist interpretation of motion, space and time, Ibn Sīnā is even more consistent than Aristotle. The latter had determined the objective character of space which is a boundary surrounding every body, and at the same time thought it to be an independent specific reality, while the former claimed that the nature of spatial and corporeal extension is one and the same. According to Ibn Sīnā, the existence of a body without space is impossible, as well as the existence of a spatial, incorporeal extension which is based only on imagination.³⁵ Time, according to Ibn Sīnā, has also the objective character, which follows from the objectivity of motion and changes. In this problem also, Ibn Sīnā takes more consistent materialist stand than Aristotle. Since the world has no beginning and is eternal, time is also eternal and has no limits. "If time has a limit, that is, it has a beginning in the past and end in the future", he says, "then this past must have anteriority, and this future must have posteriority."³⁶ Ibn Sīnā came close to thinking that motion, space, and time are inalienable properties of matter and differ from its other properties (*e.g.* blackness and whiteness, hardness and softness, *etc.*); besides, they are inseparably connected with matter.

As to the structure of matter, Ibn Sīnā sided with the incorrect opinion of Aristotle and rejected the atomist theory. This was due to the fact that the latter had at the time a metaphysical appendix, that is, the assumption of emptiness so that atoms could move in it.³⁷ As for Ibn Sīnā, he could not reconcile himself to the existence of emptiness. He strengthened Aristotle's arguments contra conception of emptiness and put forward new ones; but at the same time he rejected atomism.

Of immense value for the development of the philosophic thought is Ibn Sīnā's theory of knowledge which was materialist in its main trends and had a solid natural scientific base. Having no doubt as regards the objective existence of the object of knowledge, he considered it as the reflection of things' images in the sensations and reason of a knowing person. "The knowledge, as I see it", he says, "consists in reflecting, in some way, of the object of knowledge by a knowing subject. If an intelligible thing is a material one, then the knowledge emerges the same instant the knowing subject abstracts the intelligible from matter." Explaining his understanding of the essence of knowledge he stresses as follows: "In my mind, the meaning of the saying 'I have sensed some extraneous thing' consists in that this extrane-

ous thing had been reflected in my senses. As to the saying 'I have sensed in my soul', its meaning consists in that the very image of the thing had been reflected in my soul."³⁸ Ibn Sīnā thought the things to be reflected in sensations and reason, since they possess objective properties and qualities that afflict the knowing faculties and invoke certain sensations. Reflecting the claims of subjective idealists—*mutakallims* and al-Inodiya, Ibn Sīnā said, "Wonderful is the ignorance of this people as regards the claim that figures are only conceivable when they have colours, taste-qualities, smells, and some other properties, and that a figure devoid of all qualities is in no way perceived."³⁹

Ibn Sīnā's inconsistency in the domain of gnosiology is expressed in that he considered knowledge as the result of human soul's interaction with the Active Intellect, in which the forms of all the world's events had been imprinted beforehand. As soon as human soul interacts with the Active Intellect, the forms of things that had been imprinted in it are reflected in the soul, and hence result in man's knowledge of them. Such an exposition of the problem makes it difficult to interpret it in a materialist and natural scientific way. In Ibn Sīnā's works, much attention had been paid to the analysis of gnosiologic problems such as immediate knowledge, the truth of knowledge, the role of intuition being the human knowing faculty to quickly find the truth without any additional investigation.⁴⁰ The materialistic trend of Ibn Sīnā's gnosiology is fully manifested in his classification of sciences: they all have an objective subject-matter; those studying human actions and conduct are called practical philosophy, it includes politics, house-management, and ethics. The sciences which investigate nature are, according to him, theoretical philosophy of which the main components are mathematics, physics and metaphysics (proper philosophy).

Ibn Sīnā's scientific—rationalist and analytical—synthetical method of thinking which later gave an impetus to the development of progressive European thought is a great contribution to the development of scientific and philosophic knowledge. Let us note, in this connection, some peculiarities of Ibn Sīnā's style of thinking. First of all, he possessed a phenomenal memory, so that many legends have been told on this subject. When the famous Bukhara library had been destroyed by fire, people said, "The Bukhara library has not been burnt down, for the contents of its books are all preserved in the memory of the Shaikh ar-ra'is."

Ibn Sīnā critically estimated the teachings of his predecessors. Here is what he wrote about his first teacher, Aristotle:

"Aristotle has noted things unknown to his teachers and companions, has clearly differentiated sciences and synthesized them better than anyone before him. Yet, this and other merits of the First Teacher cannot be an excuse for worshipping his philosophy."

Any scientific notion he considered as being true only after strict logical analysis and comparison with experimental data. That is why Roger Bacon, the founder of experimental knowledge, considered Ibn Sīnā as his teacher.

Ibn Sīnā's rationalistic philosophy was directed against the teaching of *mutakallims* and sufis. So it was natural that the ideologists of *kalām* and sufism criticized Ibn Sīnā's teaching. It is sufficient to remember Gazali's and A. Jami's criticisms of Ibn Sīnā. In this connection we consider the efforts of certain modern scholars to reconcile Ibn Sīnā's philosophical views with sufism as groundless. They are incompatible.

Ibn Sīnā threw new light on logic as the science of truth concerning the studies of propositional forms as well as the process of reasoning; the logic, according to him, is necessary for a scientist to tell the truth from falsehood, trustworthy knowledge from plausible one, knowledge from dubious opinions. It is all the more necessary in those branches of science where lucidity, exactness, inambiguity, consistency and specific exposition are needed.⁴¹ All the investigators of Ibn Sīnā's works, from the medieval monk Roger Bacon⁴² to the modern scholars,⁴³ who noted Ibn Sīnā's independence and originality in these matters,⁴⁴ underline his contribution to the development of logic.

Ibn Sīnā, in fact, brought significant improvement in all parts of Aristotle's logic. For instance, he expanded Aristotle's teaching of determination with his own theory of description being a variety of determination. "If a thing", he said, "is determined by means of saying consisting of all its accidental and essential indications, it means that this thing is described."⁴⁵ As is well known, Aristotle had mainly elaborated the teaching of categorical propositions. Conditional sayings, according to him, are not an apophatic speech, that is, they are not a proposition. But Ibn Sīnā proved (independently from Stoics) that conditional sayings *are* propositions, because they affirm or deny something of something. He distinguished between conjunctive-conditionals ("If toward two lines the third one is drawn, then external angles are equal to internal ones".) and disjunctive-conditionals ("This angle is either acute, or obtuse, or right"). Disjunctive-conditionals he further divided into real and unreal, which corresponds to weak and strong disjunctions. He made a great contribution to the theory of propositions. He said about it as follows: "All the logicians had paid their attention only to syllogisms made from categorical proposition, for they believed that syllogisms containing conditional propositions may only be exceptive. But we shall discuss at first the classes of syllogisms made from categorical propositions, then.....syllogisms containing conditional propositions, then continue to analyse exceptive syllogisms, and at last we shall tell of some particular cases of syllogism and syllogism of contraries."⁴⁶

In the teaching of Ibn Sīnā we can also witness some elements of dialectics which is manifest in the theory of natural causality. The principle of universal causal interdependence is present throughout his natural scientific works, and especially in his "Canon of Medicine". Ibn Sīnā tried to find material causes to explain even "supernatural" phenomena and to prove that they do not lie outside natural regularity. In his book "Instructions and Remarks" he explained the essence of miracles performed by the "holy men" and mystics through some natural regularity and categorically rejected fortune-telling, predicting and shamandom as pseudosciences. In connection with the principle of natural causality is Ibn Sīnā's idea of intercommunication and universal development of phenomena. It is most fully expressed in his geologic theory; he recognized the evolution of the earth's crust and, together with al-Bīrūnī, had done much to substantiate this concept.

CONTRIBUTION TO THE DEVELOPMENT OF MEDICAL SCIENCE

In the epoch of Ibn Sīnā there were hospitals in the large cities of Central and Middle East. At the same time these hospitals served as a kind of research centres. In Rai, for instance, there was a hospital where a large group of doctors were working under the guidance of the famous scientist Abubakr Muhammed Ibn Zakariya ar-Razi (865-925 A.D.). There were written numerous books on medicine including the works by Razi in 30 volumes. In these works there were records about the achievements of Greek, Iranian, Indian, and Chinese medicine. The process of further specialization in medical practice was in progress. Al-Bīrūnī stated: "Here amongst our doctors we observe interesting things happen, in particular some of them direct their efforts(only)to one art and perfect themselves in it; they are called oculists, or surgeons, or bone-setters, or phlebotomists."⁴⁷ Preparation of drugs from plants, minerals and animals was undertaken on a large scale. The necessity of combating infectious diseases stimulated the search and preparation of new kinds of drugs including chemical ones. That kind of work was usually carried out in the laboratories of alchemists. It was at that time that Razi obtained in particular a drug of mercury sublimate.

Some great services performed by Ibn Sīnā were that he with his encyclopaedic mind and outstanding erudition could generalize preceding achievements in medicine and enrich it by his own observations, his abundant medical experience, and his bold theoretical conclusions. The heritage of Ibn Sīnā in medicine enjoyed incontestable authority, and his "Canon of Medicine", one of the greatest monuments of human culture,⁴⁸ as to its importance and content, served as a handbook for doctors in the East and the West for many centuries.

The list of Ibn Sīnā's works on medicine and biology numbers over 40 titles.⁴⁹ Most of them were written in Arabic. But at the request of his friends and the

rulers he wrote a number of his works in his mother tongue. Among them are "Studies about Pulse" (*Risolai Nabz*, or *Ragshinosi*), and "Pieces of Good Advice" (*Jādiya*). In 1954 another of his book on medicine, treatise *Alvohia*, or *Faizia*, was discovered. This is a manual of useful prescriptions.⁵⁰ Today this book has been translated into the Tajik and Russian languages and it will be issued in his 10-volume "Selected Works", the publication to be prepared by the Tajik Academy of Sciences. In *Alvohia* the author tells about the use of drugs depending on their intensity and character of their pharmacological effect. This treatise served as reference for general practitioners. It consists of 149 chapters, each of them dedicated to a certain group of diseases requiring one and the same method of treatment. Substances stimulating memory and mental capability of a man (psychostimulators) are described for the first time in this treatise.

*Al-Urjuza fi-t-tib*⁵¹ was written by Ibn Sīnā and it is a poetical guide on medicine consisting of 1329 couplets and containing information about all theoretical and practical problems of medicine. It is evident that this is a kind of Canon of medicine in miniature written in verses. "Poets are the lords of a word", and "doctors are the angels of health", he writes, "the first with their eloquence rejoice the soul, the latter with their devotion and benevolence cure the body." In his *Urjuza* Ibn Sīnā decided to unite these two arts. As far back as the 12th century *Urjuza* was translated into Latin by a famous Italian translator of Arabic works Gherard Kremensky under the title *Conticum*. Later Ibn Tibbon translated this long poem into Hebrew. In the 16th century in Venetia *Conticum* was reissued several times as Appendix to "Canon". I. I. Ginzburg⁵² and V. N. Ternovsky⁵³ acquainted the Soviet readers with its content.

At the request of the Emir Saidmānsur Muzaffar A'la-ad-Daula the great physician wrote the treatise about pulse *Risolai Nabz*.⁵⁴ It consists of nine chapters. In the above the author gave a traditional description of the nature of four elements (fire, air, water, earth) and human organism juices (blood, phlegm, and black and yellow bile); he describes pulse as a witness of the state of a heart according to ten indices (over 60 varieties of a simple pulse and about 320 varieties of a complex pulse) and its dependence on climate and geographical conditions; while asleep and when awake, physical load, on emotional factors. Ibn Sīnā distinguishes the pulse) of men, women, children, those in love, and pregnant. The treatise about pulse had a purely linguistic meaning because the medical terminology in Farsi-Dari with its Arabic equivalents had been worked out in it which gave a clue to the understanding of other classical texts on medicine.

A special place in Ibn Sīnā's creative work belongs to the "Canon of Medicine", which was a code of the knowledge accumulated till that time in that field of science, a medical encyclopaedia of the medieval century. What differentiates the "Canon"

from other works in this field are a complete coverage of problems, logically proved structure, terseness and clearness of speech, a new approach to old problems, and original thoughts and solutions. The book consists of five parts—some general problems of medicine, drugs, internal and external diseases, common diseases, human beauty, and preparation of medicine.⁵⁵ Here are some original facts from this work: the exact description of eye's muscles,⁵⁶ the anatomy of an eye's apple and the mechanism of eyesight, the role of retina in eye sight;⁵⁷ the function of brains as a centre where the nerves meet; the influence of geographical and meteorological conditions on people's health, recommendations concerning the choice of construction sites for residence considering conditions of hygiene; the studies about invisible carrier of diseases and the spread of infectious diseases through the air; about necessity to isolate in shelters those people who are ill and protect those who are not,⁵⁸ about such measures against "invisible" reasons of diseases as fumigating the residence; the participation of rodents in the spread of diseases,⁵⁹ the description of diabetes,⁶⁰ the usage of obstetric forceps, the description of male and female sterility, the signs of pregnancy and the reasons for premature births and recommendations concerning the food of pregnant women and babies. Ibn Sīnā was the first to distinguish smallpox from measles and consider smallpox as a separate disease.

The *Canon* devotes much attention to prevention of diseases, and preservation of healthy organisms. He also pays much attention to exercise the regime of nourishment and rest, personal hygiene, the way of life of those people who live long, psychotherapy. The *Canon* informs the readers about more than 1500 different kinds of drugs. More than 70 of these drugs described by him are being used in the USSR now, while many others have not been deciphered yet and consequently not used. There is no wonder that the *Canon* has been a handbook for all the physicians of Europe for six centuries. When printing was developed the *Canon* was one of the first books published in Latin. During a short period of time it was published 15 times.⁶¹ At present there are about 40 publications of the *Canon* only in Latin. It was translated and published in other languages too. In the USSR there is a complete edition of the *Canon* in six books in Russian and Uzbek languages. Now this work by Ibn Sīnā will be republished. And the scientists of Tajikistan are preparing the edition of the work of Ismail Jurjoni, *Zahīrai Khorazmshohi* (12th century), which is a commented translation of the *Canon* into Tajik.

Ibn Sīnā's *Canon* is well known in India. It was translated into Urdu. Numerous commentaries on the *Canon* were written in India in Urdu, Farsi and Arabic languages. The Indian Institute of History of Medicine and Medical Researches is publishing the complete text of the *Canon* in the original Arabic under the guidance of Hakim Abdulkhamid.

POETIC AND SOCIO-ETHIC OUTLOOK OF IBN SĪNĀ

Abu Ubaid Juzjani, a disciple and a true friend of Ibn Sīnā, wrote that his great teacher had not confined himself to generalizations and conceptions known earlier, but he had done essentially new investigations in natural science, medicine and philosophy. He was also an innovator in poetic, aesthetic, and socio-ethic ideas.

Ibn Sīnā was an excellent poet, and it was not by accident. He grew up in Bukhara's cultural surrounding, where everybody recited charming lines of the *Adam* of oriental poets Rudaki, when at the parties songs were performed on Dakiki and Shakhidi Balkhi verses, and great Firdowsi was in his heyday.

To Ibn Sīnā several scores of quatrains-rubais have been ascribed. Some of them, undoubtedly, belong to him. Others are ascribed simultaneously to Ibn Sīnā and Omar Khaiyam, the latter being an unsurpassed master in this genre. Khaiyam is known to regard Ibn Sīnā as his teacher, the former translated his works from Arabic into Farsi-Dari.

As many Rubais were composed by Rudaki and his contemporaries the Rubai as a genre obtained its highly philosophical meaning in Ibn Sīnā's writings. Khaiyam followed his example, and today not only Eastern poets, but many European and American poets use the genre of quatrains.

We cannot say that Ibn Sīnā was a discoverer of scientific poetry. Perhaps he was acquainted with the famous poem "On Nature of Things" by Titus Lucretius Carus. However, the *Urjuza* is quite a new phenomenon in Oriental poetry. It is not a system of world conceptions, but a system of conceptions of a man and his constitution, of medical achievements and hygienic rules. It is like a miniature of "Canon of Medicine" in verses, which is crystal clear and simple. Being a genuine humanist, Ibn Sīnā deemed it his duty to propagate scientific achievements, especially medicine in an easy and attractive form. The influence of his scientific poetry on European poetry of Middle Ages has not yet been studied, but there cannot be any doubt about it.

The *Kasyda* genre of panegyric, where heroes and rulers were glorified, was transformed into something quite new by Ibn Sīnā. Such poetical and philosophical parables had never been met with before. I mean the "Kasyda of a Soul". It is regrettable that it has not been thoroughly studied.

Ibn Sīnā is an innovator not only in literary genre, but also in prose. His allegorical stories *Salaman and Absal*, *Attair*, and *Khai Ibn Yakzan* are also a bridge between antiquity and Middle Ages, which are developed and varied repeatedly in the East and in the West. His influence on the humane ideas may be traced in the works of such gifted masters of words as Nizami, Dante, Jami, and Navoi.

Ibn Sīnā's research in poetics is of great value. He wrote excellent commentaries on the "Poetics" of Aristotle. Thanks to his efforts, humanists of the European Renaissance learnt about the "Poetics of Stagirit". This work of Ibn Sīnā, just like his other works, is characterized by new ideas. He tries to make a comparative analysis of the peculiarities of Greek and Arabic poetry, to find universal principles of poetry common for poetics of all or the majority of peoples.

Ibn Sīnā thoroughly analyses the genres of Greek poetry, distinguishes tragedy as a leading genre unlike Arabic and Iranian literatures, in which, to his thinking, the leading genre is lyrics. His conceptions about the purpose of poetry, about the relationship of poetry and music, about moral responsibility of poetry are worth mentioning. According to him poetry should provoke astonishment and pleasure.

Ibn Sīnā tried to comprehend poetic creative work as a whole. He states as follows: "Poet's character leaves its imprint on his poetry". His own proud character is fully expressed not only in the verses survived to our days, but in his studies on ethics and music too. Like his contemporaries Ibn Sīnā did not tear off one genre from another; moreover, he himself was the author of several melodies and inventor of musical instruments. The relationship between poetry and music in Ibn Sīnā's age was traditional. The pioneer of poetry in Farsi-Dari Abuhafs from Sogdian (Samarkand) was both a musician and an inventor of a musical instrument, musicor. Melodies composed by the great poet Rudaki adorn today's repertoires of performers of classic music. As a scholar Ibn Sīnā mostly emphasized the educational role of poetry and music, their emotional effect on man.

There is a legend that in order to soften a long caravan journey in ceaseless roamings Ibn Sīnā selected bells for camels so that caravan men would sink into sorrow or fling themselves into a dance. Legend is legend, but as a founder of psychotherapy Ibn Sīnā gave a great deal of attention to the effect of music on man; he tried to subordinate it to a state of mind of a person; he paid much attention to the harmony of verse and the form of music.

Since the time of Ibn Sīnā, in the music of the East, the classification of music as to its emotional effect on a man, stimulating strength and courage, gaiety and joy, enthusiasm and delight, sorrow and grief, anguish and sadness, has been retained.

The Man, crown of Nature's creation, is in the centre of Ibn Sīnā's socio-ethical ideas. Following Aristotle and Farabi, Ibn Sīnā considers man a social being. "The first feature of a man", Ibn Sīnā writes, "is that in order to continue his existence he cannot refuse to assist the like of his own, he cannot lead a solitary life like other animals, he cannot live only on what Nature offers him". And labour performed by a man differs from work done by an animal in its purposefulness and intelligibility.

In the ideal world, according to Ibn Sīnā, there must reign reason and justice. People must strive for moral self-perfection, they must live on honest labour, take care of one another, they must together root out all evil. Stealing, usury and other socially harmful means of gaining material benefits should be banned.

According to Ibn Sīnā, men, as to their nature are inclined to beauty and harmony, to the good and knowledge. In the spiritual world all men are beautiful, they appreciate poetry, music and science. They possess healthy body and sound spirit.

Ibn Sīnā criticized both excess and asceticism as extremity. He claims to retain a sense of proportion in everything, to lead a well-regulated, steady way of life.

Ibn Sīnā's humanism could be seen in his views of woman's role in the family and society. Following the traditions of Rudaki and Firdowsi he gave a high estimation of woman's role in the society. He regards woman as a man's worthy friend in the consolidation of the family and upbringing of children. Ibn Sīnā appreciates many positive female merits, especially her diligence, culture, mind, and intelligence.

Many remarkable ideas were put forward by him in respect of bringing up children. The problem of the rising generation is touched upon by Ibn Sīnā in almost all his scientific works such as philosophic, poetic and pedagogical. Ibn Sīnā worked out a rather progressive (for his time) programme of upbringing the new rising generation. This programme included collective and individual training, physical culture, moral and aesthetic training. He made high demands on the professional and moral merits of a teacher.

Ibn Sīnā's ideas about pension grant to invalids and patients, and about people's right to development and education are full of great social significance. They are determined by the progress in the social life of his epoch and differ much from the social position of Aristotle and Plato.

Ibn Sīnā, as a great humanist, strongly condemned despotism, wars, and discord among peoples. He believed that people should live in peace and harmony. Sense and justice must dominate in the human society.

Ibn Sīnā's influence on the history of human civilization is very deep. His system of knowledge, which reflected and summarized the world achievements in science for centuries, had a definite social and moral direction; it was for people's sake. Thus he was ushering in a new epoch in the development of human civilization. His teaching became a linking unit in a chain of the development of world civilization in the cultural achievements of East and West.

The scientific heritage of Ibn Sīnā as well as the scientific heritage of his predecessor Al-Farabi and his contemporary Al-Bīrūnī convincingly proves the unity of human civilization to which the peoples of the West and East, the North and South have always contributed.

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