International Conference on Science in Islamic Polity
19-24 November 1983 Islamabad.

OUR RELATIONSHIP GOES BACK TO ANCIENT TIMES

The Scientific and Technological Cooperation and Exchange Between China and Islamic Countries

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Islamic culture has played a great role in human civilization. The science in Islamic countries developed when the science of the western Christian countries began to decay. Its civilization continued to flourish for several centuries since Abbasaid Dynasty in 800 A.D. It is universally acknowledged that it splendid achievements in astronomy, mathematics, philosophy, medicine etc. have paved the way for the development of modern sciences.

China is an old cultural country with a history of five thousand years. Formal friendly intercourse between China and Islamic countries started as early as over 1300 years ago. Scientific and cultural cooperation and exchange between China and moslem countries dates back to ancient times.

(I)

Islamic faith was introduced to China shortly after its founding. According to 'MinShu' (historical records of Fujian Province), Mohammad the Prophet had four great disciples. They came to visit China in the middle stage of Wude (title of the emperor's reign), Tang Dynasty, and remained there to preach the Islamic faith, one disciple in Guangzhou, another in Yangzhou and the third and the fourth in Quanzhou. The Prophet once said, 'Knowledge distant as it is in China, shold be explored'. His words encouraged vast numbers of moslems to search for knowledge. In the second year of Yonghui, Tang Dynasty (August 25th, 651 A.D.), or on January 2nd of the 31st year of Hijra, the third Caliph Osman sent his envoy to China. He arrived at Chang'an and paid a visit to Emperor Gaozong of Tang Dynasty. This was the first envoy coming from Arabian moslems. Henceforth, over a period of 5-600 years until the end of Southern Song Dynasty (1300 A.D.), the Arabian Empire (so-called Da-shi in Chinese history) sent envoys to China as many as 47 occasions. Large numbers of Arabian merchants came to Chang'an to engage in trade and to preach Islam by sailing across the Arabian Sea, the Bengal Bay and the South China Sea to Guangzhou, Quanzhou, Hangzhou and Yangzhou, or by climbing over Chongling mountains and passing through Hesi Corridor to Chang'an. Not a few merchants settled in China and were married to the Chinese. Their descendants became Chinese moslems.

In 1300 A.D., large numbers of moslems of Central Asia and a part of Persians and Arabians were compelled to migrate eastward by the Mongolian army. They came to China, lived there and were married with the Hans, the Mongolians and the Uygurs and became the Hui nationality. Islam has thus been disseminated over a large part of China. Besides, since the middle of the 10th century Samanids Dynasty of Central Asia introduced Islamto Kashi. Xiniing Uygur Autonomus Region and then it spread over the whole regio...

Now, in the People's Republic of China, in the great socialist family of multiple nationalities, some 10 million people in ten different minorities such as Hui, Uygurs, Kazak, Wuzibek, Kerkez, Tatar, Tajik, Bao'an, Sala and Donxziang, are moslems. Among them 5 million moslems belong to Hui nationality.

Along with the spread of the Islamic faith, Islamic science and civilization were introduced to China, such as astronomy, mathematics, medicine, etc. They gave a great impetus to the development of Chinese ancient culture. At the same time, the Chinese great inventions, i.e. paper-making, method of making pills of immortality, compass, gun-powder, pulse-feeling and printing method were brought to Arabia, and finally introduced to the west. The scientific and cultural exchange between China and the moslem world has made great contribution to world civilization.

(II)

Persian and Arabic calendars were introduced to China in Yuan Dynasty, and this led to a major revolution in

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Chinese calendar. The Arabian astronomer Jamal al-Din was once appointed to be 'Sitianjian' (head of astronomical bureau) in China by the Emperor of Yuan Dynasty. He formulated 'Wan-Nian-Lie' (calendar of ten thousand years). This was issued by Yuan-Shi-Zu, Kublai Khan (Emperor of Yuan Dynasty) over the whole country. Jamal al-Din the astronomer also established in Beijing as antronomical observatory (Guan-Xiang-Tai), and made seven kinds of astronomical instruments, i.e. Duo-Huan-Yi (Dhatu halag), Fang-Wei-Yi (Dhatu Sumut), Xie-Wei-Yi (Luhma-i-mu - wajj), Ping-Wei-Yi (Luhma-i-mustawi), Tian-Qin Yi (Kura-i-sama), Di-qiu-Yi (Kura-i-ardz) and Guan-Xiang-Yi (Ustur-lab). This series of instruments were entirely new ones at that time that Chinese observtories had never had before.

Chinese astronomer Guo Shoujing, basing himself on Jamal al-Din's Wan-Nian-Lie and selecting the essence of Arabic and Persian calendars, worked out in 1281 'Shou-Shi-Lie' calendar. It divided a year into 365.2425 days, which differs only 20 seconds from the actual time of the earth moving around the sun in a year cycle and is similar to the year cycle of the [illegible] calendar. Over a period of 400 years and more from Yuan Dynasty to the beginning of Qing Dynasty, the moslem calendar Hijra remained to be an important reference and basis for the formulation of Chinese calendar.

Here we must point out in particular the Egyptian astronomer Ibu Yunus (who died in 1007 A.D.), he worked out in Cairo astronomical observatory a well-known calendar which became one of the important references for the Chinese astronomer Guo Shoujing. This caldndar book is probably included in 'Zidg of Forth-Eight volumes'. Here 'Zidg' is an Arabian word in the sense of astronomical calendars. Islamic culture has inserted a great influence on Chinese astronomy. Until the end of Yuan Dynasty, the Arab names of many constellations remained to be used in China.

Islam held so important a position in astronomy that in Yuan Dynasty (1300 A.D.) there was set up a 'Huihui' Astronomical Bureau (Huihui Sitianjian), and in Ming Dynasty a 'Huihui' calendar was specially established in National Astronomical Bureau. At the beginning of Qing Dynasty, before the western calendar was wholly adopted in China, there still was a Huihui Division (Huihui Ke) in the National Astronomical Bureau (Qintianjian). In 1382, Mashayehai was appointed by the emperor of Ming Dynasty to translate the calendar books, to which the imperial court attached great importance. His descendants inherited his office work. They were also experts in astronomy.

Mathematics is the basis of astronomy. Alongside the introduction of calendar to China were Arabic mathematical literature and publications. The achievements of astronomy and mathematics in Yuan and Ming Dynasties in China were directly related to the introduction of Arabic scientific knowledge.

Moslem medicine and pharmacology also held an important place in the history of Chinese pharmacology. From the middle of the 13th century, not a few medicines produced in Arabia and Persia were brought to China by moslem merchants. Medicines, medical prescriptions and their properties and functions introduced by moslems can be found in abundance in Chinese literature of medicine and pharmacology. 'Zheng-lei-ben-cao' (botany of woody plants and herbs) published un 1200 A.D. and (Ben-cao-gangmu' written by Lin Shizhen in 1600 A.D. have records in this connection. Ru-xiang (frankincense), Long-yan-xiang (ambergris) and Me-yao (myrrh) were named after the Arab names Kundur, Anbar and Murr. These were all wellknown medicines at that time used as perfumes. In the government official prescriptions of Song Dynasty and in some prevailing specific medicines, not a few drugs produced in Arabia and Persia were used as main drugs already. In the book 'General Catalogue of Economics' of the Song Dynasty were recorded eight kinds of frankincense pills, three kinds of frankincense powder and one kind of frankincense pellet; five kinds of costusroot pills and one kind of costusroot decoction; five kinds of myrrh pills and two kinds of myrrh powder; [illegible] kinds of benzoin pills and one kind of nutmeg pills. This provided ample proof for the rich variety of moslem medicines of the time. The Yuan Dyrasty paid greater heed to moslem medicine. In the year 1270, Kublai Khan, the first emperor of the Dynasty, ordered a special institution to be set up to manufacture Hui (meaning moslem) medicine. In 1292, the Emperor established Hui Pharmacy in the Great Yuan Capital City (now Beijing) and the Upper Capital City (now somewhere in Mongolia). The well-known moslem pharmacologist Danish Mand was appointed chief of Royal Medical Institution. In the collection of books of the Beijing Library people can now find Huihui Prescription in 36 volumes, which was translated into Chinese from Arabic towards the end of the Yuan Dynasty and printed by xylography at the beginning of the Ming Dynasty.

For a thousand years and more, generation after generation of various brotherly ethnic groups in China who believe in Islam have lived and engaged in common struggle and inventive labour alongside other ethnic groups of the Chinese nation, and have contributed their part to the prosperity of the country and to the development of fraternal relations between China and the Arabic and Islamic countries and peoples.

During the Yuan Dynasty a great moslem architect, well versed in architecture and with great ingenuity, was charged with civil engineering of the Great Yuan Capital City. The laying out and construction of the city, magnificent and broad in scale, was full of unique craftsmanship and artistic talents. The capital city of China, Beijing, has been developed on this basis.

A moslem was nominated chief administrator of Yunnan Province. He was responsible for dredging six [illegible] the Dianchi Lake, greatly [illegible] agriculture around Kunming and the Lake. As for the chinaware produced in the Ming and Qing Dynasties, main raw materials of [illegible] awarded by moslems in Yunnan. On some cloisonne bronzeware were even enameled Arabic words, [illegible] they were of moslem origin.

Moslem cannon-manufacturing technology was well renowned during the Yuan Dynasty. Alai al-Din and Ismail, both moslems, and their descendants, showed ingenious artisanship in making cannon for the court. In 'History of the Yuan Dynasty', Ismail was mentioned with adoration because the artillery he made could project stone shells mechanically "with ease and great speed".

The famous Chinese navigator Zheng He was a moslem from Yunnan Province. His grandfather and father had both been to Mecca for pilgrimages. By order of the Emperor Yongle of the Ming Dynasty, Zheng He went to Asian and African countries on diplomatic missions. Among his entourage were officers and men, translators, businessmen, sailors, craftsmen and doctors totalling more than 27,800 people. They carried with them large quantities of gold and silver, silk, chinaware, ironware and piece goods. They left Liujiagang Port in a huge fleet of 62 boats, each 440 chi (roughly 147 metres) long and 180 chi (60 metres) wide. The largest boats of the time. From 1405 to 1433, Zheng He's fleet took to the sea seven times and called at ports of more than 30 countries in South and West Asia, such as India, Iran, Bangladesh and some Arab countries, going as far as the East Coast of of Africa and the Red Sea. In the year 1430, they put out to sea for the last time and some people on the mission went to Mecca and drew maps of the "heavenly" place.

Zheng He's [illegible] going voyage, earlier than Christopher Columbus' by over half a century, highlighted the dauntless spirit and superb navigation techniques of the Chinese, and was tantamount to an unparalleled feat in the world history of navigation. Zheng He's missions promoted economic nd cultural [illegible] between China and other Afro-Asian countries, among them many islamic countries, and enhanced friendship among the peoples.

Since the founding of the People's Republic of China, many from the minority groups have received education and special training and quite a number of moslems have become senior research and technical specialists of fine calibre, working in the Chinese Academy of Sciences and other institutions. Their endeavour has been fruitful and creative. Some moslems acquired their academic titles abroad but, following the spirit that patriotism is part and parcel of Iman (meaning belief in Arabic), determinedly returned to their motherland after the Republic was set up.

Hundreds of thousands of moslems, working such fields as maths, physics, astronomy and medicine, have been engaged in advanced and sophisticated research work and are giving [illegible] to their wisdom and knowledge. Their achievements have added new and glorious pages to the annals of the Chinese nation.

Safeguarded by stipulations of nationalities equality and freedom of religious belief in the Chinese Constitution, the Chinese moslems have bright prospects before them in the realm of scientific [illegible] nical research.

(IV)

Friendly contacts and scientific and technical intercourse between China and the Islamic polity were once adversely affected by aggressive activities of the colonialists and imperialists, but have never ceased. The founding of the People's Republic of China and the proclamation of independence of many Afro-Asian countries have lent fresh impetus to such fraternal relations. It is particularly worthwhile to note that there has existed a traditional friendship between the Chinese people and moslems and their counterpart in Pakistan. Our common fate and struggle and tasks facing us in construction have bound us closely together. Since our independence and liberation, the leaders of our two countrries have exchanged visits on many occasions. The Chinese Academy of Sciences sent a delegation to visit Pakistan in 1973 and has, in recent five years, sent scientists to participate the Annual Summer College sponsored by Pakistan on Physics and Contemporary Needs. They have learnt a lot from specialists and moslems of various countries, widened their field of vision and enriched their knowledge. It's hoped and believed that the intimate relations existing between the peoples and moslems of our two countries will be further consolidated. The Chinese people and mosiems are determined to do their best to contribute to the strengthening and reinforcement of the fraternal academic and cultural interchanges between China and the Islamic world.

In the new era, ancient culture will continue to give forth magnificent beams, and traditional spirit of goodwill and friendship will provide us with additional strength. Friendship and cooperation among the peoples of various countries in general and among moslems in particular will be a powerful guarantee in the common search for the knowledge of building a new world.