## A COPY OF THE CELESTIAL GLOBE OF FERDINAND VERBIEST SJ AT LEUVEN UNIVERSITY (BELGIUM) As symbol of friendship and exchange between China and Europe

南怀仁在比利时鲁汶大学的天球仪复制件: 作为中欧之间友谊和交流的象征

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## ABSTRACT

In the year 1675, at the request of Emperor Kangxi, Ferdinand Verbiest drew the plans for six bronze astronomical instruments that stand till today on top of the Ancient Observatory in Beijing. The most remarkable of them is the Celestial Sphere. This happened at the peak of the friendly exchange between the Jesuits and China initiated by Matteo Ricci, Adam Schall von Bell and Ferdinand Verbiest during the 17<sup>th</sup> and 18<sup>th</sup> centuries which are the golden period of the relations of China with the West. The Opium Wars during the 19<sup>th</sup> century and the Boxer Rebellion in 1900 destroyed all that. The astronomical instruments witnessed this historical drama which makes them witnesses of the good and bad times of East-West relations. That fact inspired the Ferdinand Verbiest Foundation of Leuven University (Belgium) to order a perfect bronze copy of the Celestial Globe, manufactured in Beijing. From Leuven University the copy of the Celestial Sphere tells the world today to restore the old relationship of equality, mutual respect, and friendship between East and West.

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An identical copy of the original bronze Celestial Sphere made by Ferdinand Verbiest at the Old Observatory in Beijing stands in front of Verbiest Institute at Leuven University (Belgium). I visited the Old Observatory in Beijing for the first time in May 1982. Professor Yi Shitong accompanied me and explained to me the history of the eight astronomical instruments. Six of them were designed by Ferdinand Verbiest (Belgium), two by Kilian Stumpf (Germany). Most impressive, I thought, was the celestial globe, light and elegant with fine sculptures. Experts are surprised that the bronze casting is still perfectly kept after 300 years. Professor Yi Shitong explained that, to design the sphere, the experts from the West had to overcome several prejudices of scientists of the time. He considered the making of the Celestial sphere in Beijing a milestone in the relations between China and the West. In China some other globes were made earlier but they all disappeared. The one in Beijing was the biggest and is the only one remaining. I was so impressed that I told Professor Yi: Let us make a copy of the celestial sphere and put it at our Verbiest Institute at Leuven University because these instruments have a message for people of our time in East and West.

I was impressed not only because the Celestial Sphere is a piece of art and has its own scientific importance, but more even because it carries a message for our time. The globe was designed by Ferdinand Verbiest (from Belgium) at the request of Emperor Kangxi in 1675 at a time when there was open cooperation and scientific exchange between China and Europe. On the globe is expressed the most advanced research done by Chinese and European astronomers at that time. The 1888 stars on the globe represent the astronomical knowledge of Tycho Brahe (Denmark), the most advanced astronomer of the time in Europe, as well as the knowledge of Guo

Shujin, the oldest prominent Chinese astronomer as well as of other scientists such as Xu Guangqi (China), Matteo Ricci (Italy), and Adam Schall von Bell (Germany). The exchange that happened between these scientists from East and West at the Beijing Old Observatory was historic. It may be seen as a peak moment in East-West cooperation. Sure, there were also disagreements East and West at that time as, for example, the quarrel between Yang Guangxian, Adam Schall and Ferdinand Verbiest, but both sides were able to pass over the misunderstandings so that fruitful exchange could continue.

Next to the exchange in positive sciences there was at that time also an intensive exchange in the field of human sciences. Philippe Couplet and François Noël -- both from Belgium -- translated the classical books of China from Chinese into Latin and so they introduced Chinese thinking and culture to philosophers in Europe. Famous philosophers in Europe -- as Malebranche, Voltaire, Montesquieu -- learned to know and appreciate China and its culture by

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reading the book of Couplet "Confucius Sinarum Philosophus" (Confucius the Philosopher of the Chinese). After reading this book the previously existing contempt and distrust of European scientists towards China changed into admiration. And that developed into a historic relation of equality and mutual appreciation between East and West.

Neither the scientists of China nor the European actors in intercultural exchange have changed this positive development. Politicians in several countries in the West changed it. Through their colonialism and imperialism they destroyed the positive relationship between East and West causing thereby a series of historic conflicts. In 1842 there was the Opium War. In 1900 the Boxer Uprising happened. These dramas turned the friendly relationship into a confrontation which till today neither China nor Europe has been able to overcome. The Celestial Globe witnessed these dramatic events. It was already standing on top of the Old Observatory when in 1900 the armies sent by eight European countries attacked Beijing. Historians say that their bullets hit and even harmed the astronomical instruments. Worse even, the German Field Marshal Count von Waldersee ordered the Celestial Sphere and other astronomical instruments to be taken to Germany where they stood from 1901 till 1921 at the Potsdam Palace in Berlin, as if they were spoils of war. The Conference of Versailles after World War I in 1921 -- in its article Nr 121 -ordered Germany to ship the instruments back to Beijing from where they came. And that's what happened.

I suggested making a replica of the Celestial Sphere and bringing it to Leuven mainly because the globe had been a witness to the good and the bad times in the relations of the West with China: the time of Verbiest and Adam Schall as well as the times of the Opium War, the Boxer

Uprising, and the 8 foreign armies in Beijing. We wanted a replica of the Celestial Sphere in Leuven because in 1982 we established Verbiest Foundation precisely to promote dialogue, exchange, and cooperation between China and Europe today. We wanted to do that by linking up with the time of Verbiest and Schall. For us the Celestial Globe symbolizes friendly cooperation on a basis of equality and mutual respect.

The opportunity to make a copy of the globe occurred in 1988 when we planned to commemorate the 300th anniversary of the death of Verbiest. In preparation for that, the Verbiest Foundation, together with the China-Europe Institute of Leuven University agreed with the International Science Center of Beijing to organize in Leuven an exhibit on the History of Science and Technology in China. That exhibit, called "China Heaven and Earth" became the biggest exhibit ever organized in Belgium. More than 250,000 visitors from Belgium, Netherlands, Germany, Luxemburg, and France came to admire the achievements of China throughout history in the fields of science and technology. The agreement to make a replica of the globe was not part of that exhibit but was signed at the time of that exhibit.

In China a Scientific Committee was created with Prof. Yi Shitong, Engineer Li Shuguang and the famous expert in bronze casting Mr. Rong Ke. The replica was manufactured by Beijing Metal Crafts Factory. I went personally to observe the progress of the work, together with Professor Yi. When the production was ready, the Belgian Ambassador Mr. Baeckelandt with Prof. Jan Delrue of KU Leuven went to Beijing in the name of the Verbiest Foundation to preside at the official handover of the globe. The cost for the manufacturing and shipping were paid by the Verbiest Foundation and the benefactors of KU Leuven. The globe was shipped by boat from

Tianjin in November 1988. It arrived in Antwerp on December 23, 1988 and was transported to Leuven. Upon arrival local experts and advisors in Leuven checked the globe. Among them: Vicerector André Deruyttere, Prof. Smeyers, Prof. Boxtael, and Mr. Sergeys. The technical experts of KU Leuven -- Mr. Decoster and Mr. Van Laere -- took care of transporting the globe from the port of Antwerp to Leuven and placing it precisely in the correct direction in the internal garden of Atrecht College in front of the Verbiest Institute.

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The globe was installed on June 2, 1989, in a ceremony that marked the end of the commemoration of the 300th anniversary of Verbiest's death. H. Exc. Mr. Liu Shan, ambassador of the People's Republic of China and Rector Roger Dillemans of Leuven University presided at the academic session in the presence of the administration of the Verbiest Institute KU Leuven, professors and friends of the university and the Verbiest Foundation. Both the ambassador and the university rector stressed the symbolic meaning of the globe. They pointed to the need to promote unity and friendship between East and West in the footsteps of the early pioneers in the field of cultural exchange.

Professor Yi Shitong and Engineer Shu Liguang were present at the inauguration. In his speech Prof. Yi said: "As a product of Sino-Western cultural exchange, the Celestial Globe of Kangxi represents the union of Chinese and Western culture, academically as well as technologically. It reflects the long traditions and achievements in Chinese and Western astronomy."

In China and in Europe we establish monuments in our cities, along the streets, in parcs and institutes because we wish to carry our past along with us today. They remind us of our national leaders and heroes, men of science, philosophers, poets, and music composers. We hope that these great men and women of our past remain with us and accompany us today with their wisdom and inspire us with their courage. We walk daily by these monuments most of the time without ever paying attention. Only occasionally do we look at them as if we need their advice. These monuments are alive. They speak their own language and carry a message from the past to us. Some monuments make us proud; others make us feel ashamed because we were not able to do today what they achieved in the past. Monuments are our teachers.

The Celestial Sphere at the Old Observatory in Beijing as well as the replica in Leuven University (Belgium) both proudly point to the China-Europe cooperation which produced them. They make us ashamed of the Colonial-Imperialistic events of the 19th-20th century of which the globe in Beijing was a first witness.

Everyday many groups of tourists from the Netherlands, France, Germany, and Great Britain visit the old city of Leuven. They all pass by the replica of the Verbiest globe in front of the Verbiest Institute. Tour guides tell them the history of the globe, about Verbiest and his colleagues. They listen in admiration when they hear the

history of Verbiest. But they are ashamed when they hear what happened in the 19th century. The replica of the globe in Leuven reminds people in Belgium and Europe of the need to pass beyond the bad days of the past. It provides a warning that no country should again impose its culture on another. We now live in an age of globalization. For the process of globalization to proceed fruitfully it requires that each country in East and West should learn to know its own history, be proud of its achievements and admit its own limitations and eventually even mistakes. No country may consider its own culture as superior to any other culture. Building a new relation between East and West on a basis of equality and mutual respect is precisely the reason why the Verbiest Institute was established at KU Leuven and why we made the replica, putting it in front of our Verbiest Institute building as a symbolic reminder to all visitors.

Many visitors enter our institute and ask what the Verbiest Institute is doing with China today. In admiration they learn that the Verbiest Institute has existed now for 40 years. It has organized 14 international conferences where scholars from East and West - from ten to fifteen countries - meet and present their papers on the history of East-West relations, pointing to remarkable achievements while not hiding the many times we failed in the past. The institute has published 65 volumes in English, Chinese and French. Its semi-annual Verbiest Courier is published in English, French, Chinese and Dutch and reports on all its activities of research and cultural exchange. The Verbiest Institute spreads the same message as the Celestial Globes of Beijing and Leuven: let exchange and dialogue between East and West help us all to pass beyond the confrontations of the past and develop equality and friendship.



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