

# Miniature Arms

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The Journal of the  
Miniature Arms  
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Society

The Worlds Biggest Miniature Arms Publication



Minis  
from  
China



Auction  
Highlights

## A George Jones Crossbow



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# Three Members Honored by Internet Craftsmanship Museum

by Shelley Xu



**ED.** In previous issues we were proud to announce that Members David Kucer, and Michel Lefaivre had been selected for the Internet Craftsmanship Museum. A third miniature gunsmith was recently added. His name is Xu Yan, and he too is a member of the society. As a matter of fact, he is one of our newest members, and the first from the Peoples Republic of China. What follows is an the article written about him, for the Internet Museum, by his daughter Shelley Xu.

Born on January 18, 1954, in Tianjin, Xu Yan developed an early interest in arms at around six years old. He often spent the whole afternoon watching posseman training not far from home, dreaming of firing a real gun one day. With an enthusiasm in craftsmanship and a little knowledge of mechanism taught by his father, an engineer, Xu Yan started to make the first model gun of his own—a Mauser 98K Rifle in 1/6scale. The material for the gun's body was his mother's wood ruler for cloth making, and the tools are an awl and a knife. Later he replaced the aluminum parts with tin and strengthened the structure to withstand shooting action. The next year, in 1964, he produced a more mature model—a Type 38 Carbine in 1/6scale, which can perfectly complete the shooting action. This success encouraged him to keep on miniature gun making, which has unexpectedly lasted for more than 40 years.

Like most young people in the 70s' in China, Xu Yan became a factory worker after graduation from middle school. His familiarity with arms enabled him to repair guns for the military office of his chemistry plant. Not long after that, he invented a small installation to enhance the shooting accuracy of Type 56 Submachine Gun. This invention brought him an exciting chance to visit the weapon storehouse of Tianjin Guard Area, where he saw most of the real guns he had dreamed of and studied their internal structures carefully. The experience in the plant not only allowed him to learn more about their mechanism, but also polished his skills in craftsmanship.



When Xu Yan became a mechanic in the vehicle department, he found a knowledge of electronics was needed, so he took advanced courses on Electronics in junior college of Nankai University. During the four years (1986-1989), he had to go to classes after work, and sometimes brought along his little daughter who was born in 1982. It was definitely a difficult time for a husband and father, not to mention that he missed the training from high school. That period of time also developed his aspiration for learning. He has never stopped reading since then, and recently he published three articles in a major



*Left & above: A 1/6 scale 16th Century British wheel lock pistol, and a detail of the firing mechanism. The gun consists of 56 separate parts. Completed in 2002, the gun won a prize at the 2004 China International Folk Art Treasures Festival and the 2nd Zhong Hua (TianJin) Folk Art Treasures Exposition. The pistol is complete with a presentation case and tools needed to load and fire the weapon.*

*A 1/6 scale Type 38 Carbine made by Xu Yan in 1964, complete with bayonette.*



*A 1/6 scale M2 Carbine was made in 1966. It is 154 mm long.*

*Above: scale Imperial Italian Guard's match lock was completed in 2002. It is 129 mm long and consists of 31 separate parts made from brass, iron and redwood.*



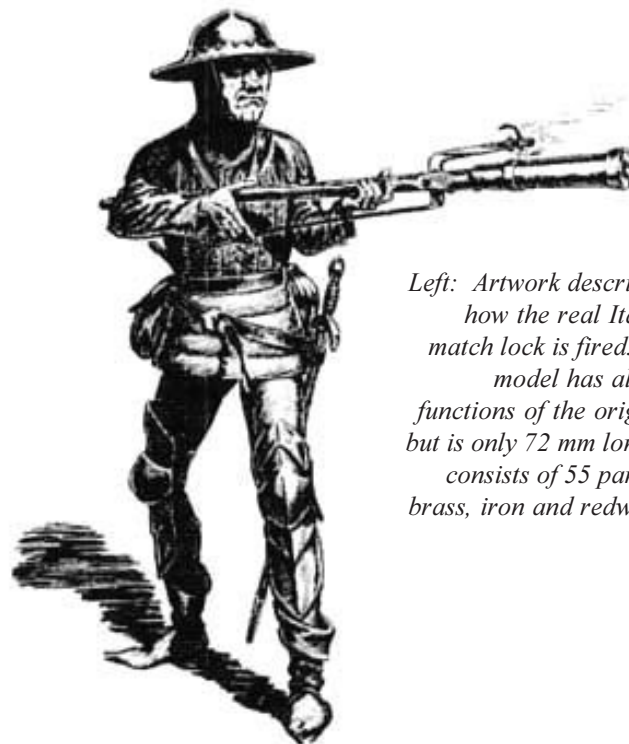
magazine in China—Small Arms. In his articles, he not only introduces guns to the amateurs, but also presents his understanding of miniature arms after decades' commitment in the field.

Admittedly, Xu Yan's craftsmanship also comes from beyond the books and self training. He visited watchmakers, jewelers, locksmiths and lathe machinists who have excellent techniques for making miniature things. He is also assisted by his handy tools, which have to be redone many times for special uses. To Xu Yan, miniature gun making is an art that can combine man's skills and inspirations. You cannot reach the peak within one day, but every thought and minute you poured in will be rewarded in your work.

Xu Yan also enjoys classical music and making broadcast equipment. He has been adjusting the self-produced amplifier and sound boxes to achieve better acoustics. Right now, more miniature making plans are on his schedule. He believes that there is always room for improvement, and to make things better is absolutely an inviting challenge for him.

He prefers to choose milestones in the history of mechanical guns as his models. They reflect the level of scientific and technological development, as well as the taste in arts and decoration of the time. Special attention should be paid to the fact that recorded history of the development of wheel lock/matchlock firearms is lacking in China. Collections in this area are also rare. Thus his works can help people remember and understand this period of history.

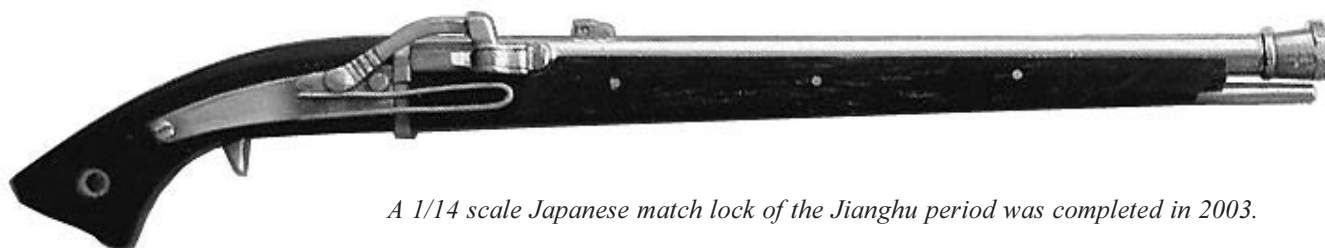
The graceful figures and the mystical charms of classical guns are often so delighting that one's eyes can scarcely be taken off it. Moreover, almost every gun has its own history of design and application. Some famous guns even possess their own legends. Before making a



*Left: Artwork describing how the real Italian match lock is fired. The model has all the functions of the original but is only 72 mm long. It consists of 55 parts of brass, iron and redwood.*

miniature, he will study the references to learn why the original gun has become what it is, compare it with others of the same catalogue, and then try to grasp its characteristics.

According to the laws in China, private possession of a gun in scale of 1/2-1/1 copied from the real one is strictly prohibited. Relevant laws also stipulate that the power energy of bullets shot by toys/models should not exceed an average of 0.5 J. Hence the scale of his miniature guns ranges from 1/6 to 1/14. He also uses rubber bullets and make sure the shooting energy is smaller than 0.007 J. As a result, the internal structure must be re-designed, because the limit of internal space and the fierce force



*A 1/14 scale Japanese match lock of the Jianghu period was completed in 2003.*





the miniature has to stand when it shoots. That is really a complicated project to do the re-design.

There also exist challenges in the external operation mechanism. For example, after the trigger and the roll protector become a miniature, nobody's finger can click from inside the trigger. So he combined the trigger and the roll protector to make a synchronous movement. By pulling back on the roll protector, one can fire the miniature. This creative combination balances the exactness in appearance and the smoothness in action.

He hopes that his miniature guns can always surprise people with their creative qualities, and help them share the joy of creativity.

Xu Yan's shop is small like the guns he makes.

Given our income and limited space, it is impossible for my father to have a separate workshop. His "workshop" is a reading desk in the corner of his bedroom, and sometimes, the balcony of our apartment. He stores his tools in the cabinets on both sides of his desk. Generally speaking, his tools are simple. He also has several microscopes and other magnification devices.

My father's philosophy regarding craftsmanship is "to be persistent, but not to be too concentrated."

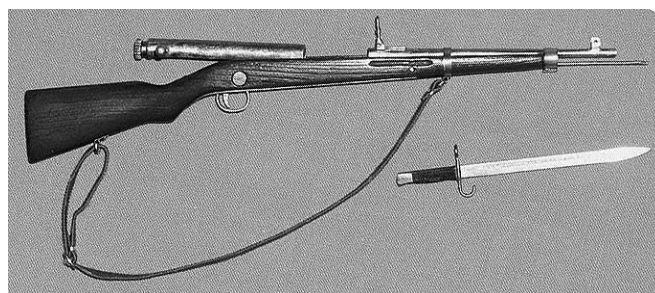
He never rushes to finish a work and often spends months reading related materials, polishing his design, and experimenting. Even after his work has come into being, he hardly considers them completed. Adjustments are made everyday, and sometimes polishing and re-making of the accessories. Tests of intensity and longevity of the works are also necessary. He leads discussions with friends who are experts in different fields. He believes that solutions

come into mind when the brain is prepared. One cannot reach the peak within one day, but every thought and minute one pours into it will be rewarded in his works.

After many years of making miniatures, my father spends more time on details and has become more critical of his work, especially in the artsy quality showed by his works. He believes that the aesthetic dynamic movements and the accuracy of the works as well as the effective factual shooting feelings in hand are the top two elements that define an outstanding gun miniature.

Those wishing to contact Xu Yan personally by e-mail may do so at [xuyan540118@163.com](mailto:xuyan540118@163.com)

*A 1/6 scale Type 38 Carbine made by Xu Yan in 1964, complete with bayonette.*



*Below: Xu's workbench. On the side shelves, we see some of the magnification tools Mr. Xu uses to help him do the very small, detailed work necessary to produce parts for his small guns.*

