

REDISCOVERING MANCHU ARCHERY

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INTRODUCTION

It is hard and perhaps impossible to trace back the exact origins of Manchu archery but it is known that archery was practiced among the people that have inhabited present day Manchuria since ancient antiquity. The Manchu archery tradition probably influenced, and was influenced by, the traditions of neighboring cultures. Among them were the Mongols, Koreans and Chinese who all had strong and long-standing archery traditions of their own. This article serves as a short introduction to this very distinct and historically significant archery tradition and its peculiarities.

DEFINING MANCHU ARCHERY

When discussing Manchu archery in this article, I strictly aim at describing the archery tradition that was introduced into China by the Manchus around the 17th century, the time when they conquered China from the Ming dynasty. Where many military aspects from the Ming dynasty were preserved under the Manchu Qing dynasty, such as musketeers, cannon divisions, long two handed sabers and the rattan shield divisions, the Manchu bow got to supplant the native Chinese bow completely. It was used both on foot and from the horse, but by far most Manchu warriors were mounted archers. By the 18th century, Han Chinese were as good with Manchu bow and arrow as the Manchus themselves, as is exemplified by published findings of garrison inspections. Eventually its Manchu origins became obscured and today these bows are, with some justification, often referred to as Chinese bows. In this article I will adhere to the term Manchu bow because I find it more appropriate to name them after the people that developed and introduced them.



Manchu officer Tanibu. A portrait dating from 1760, commissioned by the Qianlong emperor. Note his thumb ring on the right thumb and compare to the example below. Anonymous private collection.



A typical Manchu thumb ring, or fergetun, made of bone. Many fine examples of such rings exist in all kinds of precious materials such as jade, other stones, ivory, silver, agate, lapis lazuli, etc. But when it comes to actual use one frequently finds thumb rings very similar to this one on artwork depicting officers, and they were even used by the emperor himself. Author's collection.

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THE MANCHUS

“Manchu” was not so much a race of people as it was an identity under which a number of peoples had united themselves in the 17th century. The vast majority of these people were Jurchen, a people that originated in present day Manchuria. The peoples of Manchuria were highly diverse, ranging from steppe people to reindeer herders to hunters to farmers. The Jurchen that set up the Qing lived primarily from hunting, fishing and gathering and had accumulated considerable wealth in the trade of ginseng, furs and other animal derivatives to neighboring countries. It is especially notable that they were not agricultural until as late as the 16th century, and had until then largely relied on (mounted) archery not only for warfare but also for daily survival. Special fishing arrows show that they even used the bow for fishing. The Jurchen tribes typically lived in small villages of up to 300 inhabitants and were largely self-sustaining. They were lead by *beile*, local landlords who lead the hunts and controlled the local arrow production.

The Jurchens had conquered much of Northern China before under the Jin dynasty (1115-1234) but otherwise had been divided most of the time, frequently fighting among each other and plundering nearby settlements. This was ended by the charismatic and cunning *beile* Nurhaci, who managed to unite all the Jurchens for a common cause: reclaiming the old Jin lands from the Ming. He united the Jurchen and other peoples living in the area under the “latter Jin” dynasty and had some of his officials form the Manchu writing system that would be used for internal communication in the Jurchen language.

Nurhaci brilliantly divided the hunting settlements under four different banners, the more hostile tribes being split over many divisions in order to dilute them and maintain peace. These banners would later multiply into eight Manchu banners, eight Mongolian banners and eight Chinese banners that were to become the backbone of the Manchu military system. In 1616 Nurhaci proclaimed a new dynasty, the Latter Jin, under which his armies set out to conquer Northern China from the Ming. When Nurhaci died after being wounded during an attack on Beijing, his ambitious son Hung Taiji took over. It was Hung Taiji that promulgated the common name “Manchu” for his people in 1636.

In 1636 Hung Taiji claimed the Qing dynasty and managed to take over Beijing in 1644. In the subsequent decennia the Manchu armies succeeded in conquering all of China and break the final Ming resistance in the south. In the 18th century the Manchu armies set out to expand China’s borders to unprecedented vastness, claiming vast lands including Eastern Turkistan, Tibet, Taiwan and Mongolia. An entire Mongol empire, Dzungaria, was destroyed in the process. The Manchus remained China’s ruling elite, the banner households living in walled cities separated from the native Chinese population until almost the end of the dynasty in 1911. For more information on the rise and decline of the Manchu Qing dynasty -of which many fine books have been written- I refer the reader to the selected bibliography below so that we can now turn to the archery equipment used by the Manchus.



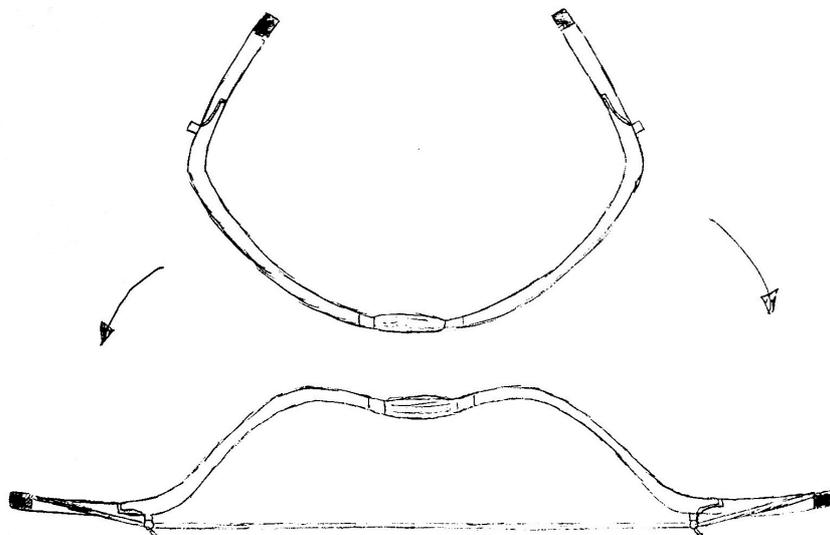
Heavy and light Manchu composite recurve bows in unstrung state. Both dating from the 19th century. Author's collection.

ARCHERY EQUIPMENT

The Manchu bow was a very distinct type of Asian composite recurve bow that, as I will attempt to argue, was initially tailored for use by the pre-conquest Jurchen hunters / warriors. Like most of the composite bows from Asia its limbs were made from water-buffalo horn on a wood or bamboo core with sinew on the back. Either end of the bow had rigid wooden ears attached to them that act as levers to help bend the bow limbs. This construction was also used for what are frequently considered the most advanced of traditional bows; the Turkish and Korean composite bows. The efficiency of these bows comes from the fact that they makes best use of the composite construction with relatively short limbs and light ears. The large Manchu bow is quite different with massive rigid ears on comparatively large and heavy limbs that all slow the bow down. Because of this, the arrow velocity is relatively low and the range is rather short.

One wonders why the Manchus, with access to goods from all over Asia, kept so true to their own seemingly inefficient bow design. The answer probably lies in their hunting history: The Jurchen hunted a wide range of animals in the forests of present-day Manchuria, among them were many types of small game but also many ferocious beast such as boar, bear, and the mighty Siberian tiger. As hunters they did not bet on long distance volleys of arrows but rather on maximizing the impact and immobilizing effect of their arrows from on fairly short distances. For this purpose they developed large wooden arrows that frequently exceeded a meter in length and were fitted with large and heavy steel arrowheads. They were fletched with long feathers of vulture, stork or large steppe eagles often exceeding 30 cm in length. The feathers were so large as to stabilize the heavy arrow quickly after release even on very short distances. The weight of the arrow provided considerable impact and their sheer size helped in preventing a wounded animal from getting far after being hit. They are also remarkably durable and easy to retrieve in the wild.

The long rigid ears of the Manchu bow help in drawing the bow to such extent that the increase in draw weight is minimal in the last stages of the draw. I quote W.F. Paterson from the Society of Archery Antiquaries Journal 9, 1966, who had a working example of an antique Manchu bow at his disposal: *"The force-draw curve [of the Manchu bow] is superior to any modern composite and the stored energy, for a given maximum effort, is probably the highest of any bow that has ever been in general use."* The rigid ears also help in the stability of the bow as slight fluctuations in draw length do not result in significant fluctuations in arrow velocity, thus solving one of the archer's main concerns: the need for consistent draw lengths. The wide and heavy limbs of the Manchu bow also enable its use in the field in a wide variety of conditions with less risk of permanent damage or deformation that the more delicate high-performance bow designs are rather susceptible for.



DECORATION

Manchu bow decoration underwent an interesting change over time. The earliest bows we see depicted in artwork are of a rather simple design with ears covered in white birch bark, and limbs covered with birch bark in shades of brown, or in an irregular camouflage pattern that may resemble tiger stripes. The horn bellies are always exposed. This design was common from the 17th to at least the late 18th century. In the first half of the 19th century stingray skin becomes a popular material for use on the rigid ears and on either side of the cork handle. The decoration in this era is getting ever more elaborate -but not necessarily better executed- with more and more use of luck symbols that were not present on the earlier bows. The camouflage pattern has turned from natural to geometrical, repetitive and predictable. In the late 19th century, as the dynasty declines, there is a major increase in the popularity of luck symbols that are now often highly standardized. These symbols include stylized swastikas, *shou* longevity symbols, coins, bats, and meander patterns. This is in parallel to the development of the decoration of other items such as mandarin ranking badges that evolved from natural designs in the 18th century to ever more colorful designs with more luck symbols nearing the end of the dynasty. Perhaps, with the dynasty in decline, people felt they needed a little more luck.



The “knee” (the bend where the limb turns into the rigid ear) of a rather well-made military bow of the mid. 19th century. Inlaid in ray-skin is a highly stylized longevity character (寿) with bats and swastikas in their design, also lucky symbols. Anonymous private collection.

As can be expected from a people doing little else than hunting and fighting with bow and arrow, Manchu arrows come in an extraordinarily wide variety. The 1759 *Huangchao Liqi Tushi* (Illustrated Precedents for the Ritual Paraphernalia of the Present Dynasty) mentions 64 different arrows, over forty of which are hunting arrows. They include special “duckbill arrows” (Manchu: *ašumbuha fadu jan*) that were oiled to resist water, heat treated arrows for use in humid regions, whistling arrows for a variety of purposes, “rabbit fork arrows”, fishing arrows (Manchu: *nimaha gabtara šaka*), and even special “tiger arrows”. The rabbit fork arrow, belonging to a category of arrows referred to as *garma* in Manchu, is of a particularly interesting design with a pointy bone or wooden whistle as arrowhead and four steel or wooden prongs pointing forward. The whistle probably startles the animal from the moment the arrow is released, while the prongs deliver the nerve overload that is required to instantly kill small game.

Manchu military arrows also come in a number of varieties, ranging from those fitted with wider arrowheads called *pi* (鉞), mail piercing arrows, lamellar armor piercing types to those with spearhead shaped arrowheads (Manchu: *nama sirdan*). The most common military arrow in the Qing was the so-called plum-needle-arrow, *meizhenjian* (梅針箭) with a sharp and slightly widening tip on a long steel neck of usually round or sometimes octagonal cross-section. Where the spectacularly large and wide arrowheads from this era are often assumed to be military, no military arrowhead mentioned in the *Huangchao Liqi Tushi* appears to be wider than 14 mm. This is probably because of the many layers of silk and cotton worn by the various warrior people in the region, which were hard to penetrate with anything but a slim and sharp arrowhead. The standard Manchu military quiver contained some 9-30 arrows, mostly plum needle arrows and often only three *pi* arrows. It is no coincidence that they are multiples of three: Manchus practiced shooting in sets of three arrows in rapid succession.



The tip end of an imperial deer hunting arrow of the 18th century. The whistle probably causes the animal to respond in a predictable manner in order to make it easier to hit. Anonymous private collection.



Military arrowheads. The top is a 19th century example that may have simply been referred to as “war arrow”. The bottom one is of the “plum needle” type. This one is of pretty good quality manufacture with faceted cross-section. Author’s collection.



Various hunting arrowheads from different periods. The middle two of classic Manchu shapes. The other shapes were also used by them, but not of a design that was exclusive to the Manchus. Author’s collection.



The repetitive camouflage pattern on a Qing military bow of the mid. 19th century. The green material on the bottom is the ray-skin covering either side of the handle. Anonymous private collection.



The characteristic tips of Imperial Rabbit Fork Arrows attributed to the Yongzheng Emperor (reigned 1722-1736). Even after their conquest, many Manchu emperors still organized great hunts in the Manchu homelands which they lead themselves like the local Beile had done in their past. Collection of the Palace Museum, Beijing.



The tip ends of two arrows. Top a late 19th century military arrow, Manchu: sirdan. Bottom is a whistle arrow used for a peculiar Manchu target shooting game. This type of whistling head is called yoro in Manchu, the whole arrow goes by the same name.

RANGE AND POWER

The Jurchen were used to drive game to an open space from horseback and shoot them from short distances, and they appeared to have held close to these methods in warfare. The diary of a 17th century Manchu soldier named Dzengeose also shows that their main concern was to close the distance between the opposing armies' musket range and that of the Manchu's bows. Once in close range, the Manchus were considered superior and usually decided the battle in their favor with bow and arrow, spears and sabers. Lt. Col. W.F. Paterson: *"It is not unreasonable to say that the Sino-Tatar bow [the Manchu bow] was one of the most deadly forms of this weapon ever devised for warfare. Though the maximum range of typical examples is only about 150-180 yards (150-165 meters), at half these distances they would hit with great force and drive their way through almost any form of protection that their enemies might have devised."* This is quite in line with the distances they focused on during the military examinations as explained by Jesuit Etienne Zie in the 19th century. A translation of his account in French is published as follows in Stephen Selby's *Chinese Archery*: 123 metres at the beginning of the dynasty, 77 in 1693 and 46 metres in 1760. The same book also quotes a passage on the early Manchus: *"The Manchus had long emphasized mounted archery... ..when they first established their state their archery was as follows: they used bows of eight li draw weight [approx. 106 pounds]... ..whatever they hit, they pierced, and they could even transfix two men with some power to spare."*

On draw weights, members of the Macartney mission to the Qing court in 1793 noted that their bows took from 70 to 100 pounds in drawing them. Other period observers seem to confirm this. A 1736 inspection report from a tour to the Hangzhou and Dezhou garrisons shows us that most were proficient with bows of around 100 pounds, with some soldiers using bows up to 170 pounds of draw weight. Many of the very late bows that remain to our time are much lighter, probably because they were for exclusive use on the examinations and / or target archery rather than hunting and warfare. Some of the early to mid. 19th cent. bows are still of considerable draw weight. Special heavy bows of up to 240 pounds in draw weight were used in the military examination strength tests, but were generally not used for actual shooting. An exception is the incredible story of a soldier that won a tournament amongst the empire's 100 best archers with a 240 pound bow in the first half of the 18th century. Would I have loved to see that tournament!

HISTORICAL SIGNIFICANCE

The Manchu bow was successfully deployed over a vast area, from Siberia to the deserts of Eastern Turkestan, and from the Southern Chinese rain-forests to the Himalayan plateau. It was also effectively used against armies that already mainly started to rely on firearms where the Qing had kept using a combination of firepower and archery. Thus their bow played a key role in building the Qing Empire that at its height housed just over 36% of the entire world's population. By this criterion the Qing was the largest empire that has ever existed. Even up to the 1860's many eyewitness accounts state that most Qing soldiers were still more expert with the bow and arrow than they were with firearms. Unfortunately for them, the rapid development of Western firearms and their own reluctance to modernize their army eventually played a significant role in their downfall. It reminds of the last battles of the Japanese Samurai who, against all odds, also kept true to traditional ways of warfare until Western technology got the best of them. A British commander who fought the Manchus in the late 19th century noted their bravery despite being at odds against Western firepower. He witnessed a whole Manchu garrison having lost their life, the survivors of the initial battle all killed themselves as to not fall in enemy hands. He wrote in his diary: *"If this is war, I won't have none of it anymore."*

CONCLUSION

The Manchu bow is not the crude and inefficient bow it is often taken for by fans of other bow designs that focus on speed and range. With its impressive *curriculum vitae* it was much more likely a conscious trade-off where range and arrow velocity were deliberately sacrificed in favor of stability, durability, and the ability to launch large and heavy projectiles. Exactly how much of the efficiency is sacrificed and how great the advantages of the bow are need yet to be discovered by actual field-testing. The tests should aim at using Manchu bows of historically accurate draw weights combined with accurately reproduced arrows. Perhaps only when its merits are proven in numbers, can it reclaim its rightful position among the legendary bows of old.

By Peter Dekker

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