

Civilization 48

Chapter 48: Test Firing_2

"The overall performance is roughly 80% of the English Longbow! The English Longbow's maximum range in a high arc is 180 paces, and in flat trajectory over 100 paces," Xiulote thought excitedly, "Even though we have better materials for the bow, our craftsmanship is somewhat lacking compared to theirs. Reaching this level of performance is largely thanks to Master Craftsman Kuode's own efforts."

"Once we start mass-producing longbows, the overall power should be just slightly less than 80% of the English Longbow, capable of penetrating chain mail within 20 paces. This power is more than sufficient!" Happiness flushed Xiulote's face, and the young man couldn't keep the smile from spreading from ear to ear.

Watching the craftsmen continue to discuss the shooting and use of different arrows, the young man's feet seemed to catch the wind as he hurried to find Aweit, hardly able to wait to see his teacher's astonished expression.

Soon, a grinning Aweit was being dragged over by the young man, and Bertade had recovered some arm strength to demonstrate once again the ultimate technique of piercing leather armor with an arrow within 70 paces. This time, the Head Warrior was able to stabilize the shooting point near the heart area of the leather armor, though he still could not guarantee a headshot.

Through the ultimate test, the Head Warrior determined that even for an elite samurai like himself, the longbow's maximum rate of fire was 15 arrows/minute, with arm strength exhausted after maintaining this pace for a maximum of 3-4 minutes, that is, a maximum of 60 arrows. Whereas for steady shooting at a normal pace, the rate was 7 arrows/minute, sustainable for up to 20 minutes, amounting to 140 arrows.

As for what Xiulote had read in novels before, about firing continuously for hours like rain, fighting hundreds with one, this should belong to the super warriors of a fantasy plane, or perhaps toy bows were being used.

This time, Aweit evidently came prepared, and his shock was but a fleeting expression on his face.

Then, he clapped his hands in applause and praised with a smile, "Xiulote, your grandfather really chose a good name for you, you are worthy of the name God of Death Xiulotel. With this weapon, the samurai's lives are like leaves, fluttering down amidst a rain of arrows!"

Xiulote, clearly in an exceptionally excited state, glowed with a flushed face, exclaiming loudly, "Xiulotel is the God of Death and also the God of Thunder! This bow strikes like lightning, bringing death to our enemies, so why don't we call it 'Xiulote's Bow'? It shall sweep away all manner of demons and flatten all the pale-faced devils."

Aweit rolled his eyes, an unusual gesture from him. He reached out to touch the young man's forehead, which was a bit feverish, likely from excessive excitement that resulted in such wild talk.

"We'll talk about that later; right now, it's not suitable for you to be so ostentatious," Aweit said with a slight smile, then his grin disappeared, and he asked seriously, "How long does it take to make one of these bows?"

Xiulote regained some composure. He thought carefully before responding cautiously.

"The preparation of wood materials and the bow-making process can be separated. If there are sufficient materials and mastered skills, a skilled bowyer can make one or two usable ordinary longbows

per day. However, if there is ample time, to make a truly excellent longbow would require several months, mainly to tame the bow correctly. Another limiting factor is the tools used for processing; only hard bronze tools can slowly cut through tough woods like santal and ironwood. Compared to that, the processing costs for cedar and oak are much lower. And compared to bow-making, the production of a large quantity of quality arrow shafts is even more time-consuming."

Aweit paced back and forth on the spot, evidently pondering over something, hesitating.

After a long while, he suddenly clapped his hands decisively, then with an extremely serious expression announced, "Keep the information about these bows and arrows confidential for now, make sure your followers keep tight-lipped. Keep the craftsmen under control, I'll arrange for wood to be harvested and bring you metal tools. We need to produce at least a hundred bows and thousands of arrows this month. I'll also secretly assign a hundred samurai to your command, to rotate through practicing archery."

Xiulote realized that Aweit had a significant plan. The young man hesitated for a moment before asking, "What are you planning to do?"

Aweit simply shook his head gravely. His handsome face took on a stern aspect, "I can't say right now, nor am I certain to act on it. But we must be prepared now for that fleeting opportunity that might arise. Rest assured, I won't act rashly, nor will I risk you. We are now in this together!"

Xiulote no longer hesitated. The youth stepped forward, holding Aweit's shoulders firmly and nodding with conviction, "I believe in you."

Aweit smiled slightly after hearing this, hinting at deeper meaning, "We will change everything!"

Their eyes met for a moment, and a nameless impulse surged within them. They then burst into hearty laughter, the sound reaching the heavens, where a majestic eagle was soaring freely above the Nine Heavens.

Subsequently, Xiulote gathered his followers to strictly guard the news of the Longbow. Bertade arranged for twenty Samurai to closely protect Kuode and the Craftsmen's safety while also assisting them with various tasks.

In the following days, Kuode designed different types of Arrows, each handed over to Bertade for testing.

Of course, the arrows for the bow were not of a single type, and different arrows had different functions. The commonly used War Arrows were about 75 centimeters long, similar to those used by the English. The shaft was made of sturdy oak, making it less likely to deform or be destroyed by the force of launch. Most arrowheads were made of cheap wooden Bone materials, while a few costly Bronze ones existed to deal with different targets. The light arrows with stone or wooden tips were for unarmored or Light Armor targets. At that time, Bronze arrowheads were considered Heavy Arrows, designed to penetrate Samurai Leather Armor.

For a high-quality Longbow with considerable draw weight, the shaft must be sturdy, made of good wood, and sufficiently weighty. Too light of a shaft cannot fully handle the kinetic energy transfer from the bow and may cause irreversible damage to it. Inferior shafts can break under the immense kinetic force, and worst case, burst at the moment of launch, potentially blinding the Archer. Similarly, once the arrow strikes the target, the shaft and fletching are usually completely destroyed, and those with cracks cannot be reused. Often, crafting the shafts took more time and resources than making the Longbows themselves.

"The Longbow really is a massive consumer of wood, luckily, we can still afford it, " Xiulote remarked, no wonder the English not only planted their trees but also imported timber in large quantities.

With current production capabilities, standard arrowheads were made of Bone and Obsidian, while sharp Copper heads were used temporarily as Armor-Piercing arrowheads. In the future, with the availability of iron, they could make even stronger Armor-Piercing iron or steel tips.

In terms of the arrowhead's design, slender arrowheads had greater penetrating power against chainmail, while broad arrowheads had a better stopping and killing effect against Light Armor. Regarding the dimensions of the shaft, slender shafts were more suited for long-distance flight, whereas short, thick shafts increased close-range lethality.

Therefore, historically, the Jurchen favored thick, short shafts with large heads for their Heavy Arrows, which worked well with their war bows that had high draw strength and draw length to severely injure Ming Dynasty Light Armor infantry and Cavalry. The Ottoman preferred slimmer shafts with pointed tips for their conical arrows, maintaining armor-piercing capability at a certain distance to defeat European chainmail Cavalry.

Of course, when the distance was close enough, everyone would use Heavy Arrows to up the killing power.

As for blunted, whistling, Crescent, and Triangular arrows, Xiulote didn't need them at the moment. He just wanted the Craftsmen to have a concept of them.

A month quickly passed by, and over a hundred Longbows had been completed. Xiulote had his followers and Aweit's confidants practice Archery Martial Arts together. He also incorporated archery into his daily training routine.

"Being skilled in archery is an essential trait for a lord, " Xiulote joked with a self-deprecating smile.

In the blink of an eye, two weeks of May had passed, and the most important spring plowing of the year was finally completed. The thunderous rains of the rainy season came along with a dark sky, bringing incessant rain and Lightning.

In the interval between storms, a Scout covered in wounds hurriedly arrived from the mountains in the south, bringing important news to Totec, "The Tarasco people across the Lerma River have mobilized. Tens of thousands of troops are amassed at Akanbaro on the southern bank of the great river, only a week's march from our army!"