

Civilization 294

Chapter 294 Experiments with Primitive Gunpowder Weapons

The gentle breeze of spring swept across the surface of the lake, also trimming the new sprouts along the shore. April was a season of burgeoning life. The warmth of a smile reflected in the eyes of a young potter girl, flowing into her heart like spring water, breathing life into the seeds of longing.

Talaya's face bloomed with a joyous smile. She stepped forward and tightly embraced Xiulote's increasingly mature form. Then, tilting her head slightly upwards, her bright eyes like liquid pools, her tender gaze lingered on the young man's face, unwilling to part even for a moment.

Xiulote stood silently, his thoughts indescribable. His body initially stiffened, his arms slightly resisting, an instinctive desire to break free from the embrace. Soon, however, he felt Talaya's clingy attachment and saw the affection in her eyes. Not wanting to hurt her and harboring feelings of his own, he sighed and focused on the matter at hand.

"Talaya, how is the progress on the production of gunpowder?"

"Your Highness, all the women have mastered the techniques for mixing gunpowder. The complete set of wooden tools and steps have been written down. Given ample supplies of the three ingredients, we can mix large quantities at any time," she reported.

Xiulote nodded. Primitive black gunpowder didn't store or transport well—left too long or jostled, its three ingredients often separated into layers. Thus, the young man preferred to stockpile ingredients, mix the gunpowder on the spot, and use the gunpowder weapons as soon as they were made.

"Any results in the research of the new gunpowder?" Xiulote asked.

"Your Highness, I tried adding different ingredients and have broadly grasped the burning and explosive effects of various gunpowder mixtures. But that critical step you mentioned—I haven't found a clue to it yet," she confessed.

Talaya's gaze dimmed slightly, and her face showed a hint of self-reproach.

Xiulote smiled gently. Without the clues of Divine Revelation, technological innovation was always going to be slow. Improving gunpowder wasn't something that could be completed quickly.

"Talaya, don't rush. Take your time and be safe... How are the experiments with the three types of gunpowder weapons I ordered going?"

Talaya's smile returned. She nodded vigorously, reluctantly released her embrace, and resumed her efficient demeanor as the gunpowder manager.

"Your Highness, the fire arrows are now ready for combat use. The Clay Tribulus is very unstable, and igniting them is extremely dangerous; many laborers have been injured by explosions. The wooden cannon makes a loud noise, quite frightening. But we can't load too much gunpowder into it for firing, since it's exploded once already," she explained.

Hearing about the explosion accident, Xiulote's expression grew serious. He looked at the potter girl's slender, weight-reduced face with concern. Stretching out his hand, he took hold of Talaya's soft palm. Feeling the onset of callouses beginning to form in her smooth palm, he gripped it firmly and said tenderly.

"Talaya, don't personally engage in mixing the gunpowder... Take me to the weapon testing ground. I want to see their effects in person."

Talaya nodded joyfully. Walking side by side, surrounded by the protective circle of samurai, they quickly arrived at a spacious clearing. The ground was studded with straw dummies, some clad in Cotton Armor and Leather Armor, with distance markers on the floor.

The craftsmen involved in the weapons development had been waiting for a while. The young potter girl gave some detailed instructions, and a large group of laborers followed orders, carefully bringing out the three types of weapons for the craftsmen to demonstrate.

The finished fire arrows didn't look much different from regular war arrows. The difference was a spherical paper gunpowder bag tied to the back end of the arrowhead, filled with a little over two ounces of gunpowder. The craftsmen used flint to ignite the match cord of the gunpowder bag and then drew a Tlaxcalan Bow, mounted the fire arrow, and shot it with great force.

Loaded with a gunpowder bag, the fire arrow's weight nearly doubled. It wasn't very fast and arced clearly through the air, landing beside the straw dummy more than twenty meters away. Everyone held their breath and watched as, after three or four seconds, the fire arrow suddenly burst into a bright flame. Instantly, the flames leaped up, quickly lighting the straw dummy, and smoke began to drift away. The intense flames lasted for two seconds before weakening, continuing to burn steadily on the dummy.

Xiulote estimated in his mind that, with the proportion of saltpeter reduced, the burning time of the gunpowder was noticeably longer. Looking at the distance of the straw dummies, he ordered the Head Warrior nearby.

"Arrange twenty samurai, with longbows," he instructed.

Bertade nodded and followed the order. Soon, twenty Longbow Warriors stood in line, each holding a longbow. They looked at the fire arrows in their hands with some trepidation, then carefully lit them, quickly mounted, drew, and aimed before releasing a "whoosh" of an arrow.

Twenty fire arrows traveled different trajectories, landing dispersedly between fifty and a hundred meters. The heavier arrows had a noticeably reduced range but, within the skilled hands of the Archers, they still maintained stable precision. Then, the fire arrows one by one exploded into bursts of flames, igniting the nearby straw dummies, like fireworks blooming in the daytime. Soon, the rising smoke carried a pungent scent, spreading across the weapons testing area, like breathing from mythological creatures. In no time, the field was ablaze with rapid flames.

Xiulote internally calculated the different ignition speeds of the fire arrows, with deviations of a few seconds—apparently, the quality of the match cords was indeed inconsistent. He then ordered a long-distance shot.

The Longbow Warriors fired again, this time with a high angle of elevation. This time, the horizontal motion of the fire arrows slowed, drawing an elongated arc, falling between one hundred and one hundred and fifty meters. Many of the arrows exploded mid-air, like heavenly fire falling from the sky. The accuracy of the fire arrows decreased significantly, with many missing their targets, burning far from the straw dummies.