

## Civilization 253

### Chapter 253 Gunpowder Test Production\_2

Xiulote looked at Moreno seriously and instructed in a deep voice.

"Moreno, do you have any improvements? Speak in detail!"

"Your Highness, I have found that these saltpeter soils can actually be leached repeatedly. After leaching the nitrate, by putting an egg in the brine, we can determine whether the leaching is complete. Actually, we used a similar method when boiling salt before, but I only realized its feasibility after recent experimentation..."

Moreno replied respectfully and quietly. He sneaked another glance at the fearsome Head Warrior and shivered inside.

"Your Highness, I have also found that when boiling the saltpeter, in addition to adding wood ash, small pieces of pumpkin can be added to increase the purity. It seems that adding egg whites also works..."

At this point, the leader of the salt workers slightly blushed with embarrassment. In fact, he had initially just wanted to boil some bird eggs while working... but accidentally stumbled upon some discoveries.

Xiulote contemplated for a moment, then nodded slightly. These methods felt vaguely familiar and should be feasible. Repeated leaching and judging the salt content in the brine by the buoyancy of eggs. Porous media such as pumpkins and radishes can adsorb the particulate impurities in the nitrate water, improving the purification effect.

A moment later, Xiulote's face broke into a smile.

"Moreno, you've done well. What reward would you like?"

The leader of the salt workers once again stole glances at the prince's expression, feeling that his mood was quite good, and then hesitantly made a suggestion.

"Your Highness, I haven't been home for a month; I was wondering if I could take my brothers home for a visit... Actually, I am more familiar with the southern trade routes than with making salt..."

Xiulote smiled slightly, nodding and interrupting.

"Good! Moreno, you have made a great contribution and will be promoted to a senior craftsman, rewarded with gold, silver, and cloth! Summarize your experiences in saltpeter making, and I will send an Assistant Priest to record them in a book, and your name will be noted as well. In the next two days, I will directly relocate your relatives and those of the salt workers to the community of Divine Revelation Place. You need not go home to see them; they will come to see you!

Next, a batch of cesspool soil will be delivered. I have a new request: you must experiment with different methods to extract qualified saltpeter from these soils as well. This is crucial! From now on, settle your heart here and focus on your work, the Divine Revelation Place will not treat you unfairly!"

Having said this, Xiulote's gaze was calm as he watched the leader of the salt workers.

Moreno looked around at the warriors, then down at the blood-covered Esko, slowly and feebly collapsed on the ground. His heart still yearned for the vast lands of the south, yet he was to be trapped on a tiny island for a long time.

"Your Highness, I will abide by your will... Can I, perhaps, have a wooden hut built here for me?..."

Xiulote nodded with a smile and then turned, heading into the island.

Passing through the wooden fence that divides inside from outside, the young man looked up momentarily at the displayed heads, then continued forward. Under Esko's guidance, he first checked the store of saltpeter soil, then tested the purity of the nitrates, and nodded slightly. Although he was not certain if this purity would meet the requirements for black gunpowder manufacturing, it was indeed slightly better than before.

Next, Xiulote visited the newly-established gunpowder workshop. There were several warehouses here, storing pitch-black charcoal, bright yellow sulfur, snow-white saltpeter, and a small amount of newly made black gunpowder. The youth looked around, where a group of female workers who had been waiting for a long time kneeled and saluted.

Xiulote nodded slightly, revealing a smile.

Now, these women workers were in charge of the gunpowder's mixture and management, as well as the storage of saltpeter. These women were pottery artisans from the Capital City, with many years of experience in firing pottery, patient and meticulous, skillful with their hands. They were accustomed to precisely blending clay proportions, thus equally adept at mixing gunpowder. The making of gunpowder required precision and caution, down to the smallest detail, and these pottery artisans were most suitable for the job.

Xiulote gestured for them to rise, and the leading woman worker stood up and looked up at the young man, with glowing eyes and a delicate face, her pale hands gracefully poised, smiling gently at him.

Seeing the familiar face, Xiulote paused for a moment. After a brief thought, he guessed something and turned his head to look at Bertade.

"How is she here?"

The Head Warrior awkwardly raised his head and looked at the clear sky—he did not find a single white cloud to hide behind.

"Talaya is one of the daughters of the heroic mother Tanali. After she last met with His Highness, she was taken into the High Priest's Mansion and then dispatched by the High Priest to manage the gunpowder here..."

Bertade spoke succinctly, trimming the story from both ends and giving a rough overview.

In fact, when His Highness had taken the artisan girl's hand and gazed at her affectionately for a long while without letting go, he silently noted her address and went back to report to the High Priest. He did so, partly to consider the young man's feelings and partly out of self-interest, hoping to insert some common girls into the young man's circle. After all, Xiulote's mother also came from a commoner background, and the future was yet unknown.

Upon hearing the Head Warrior's report, the High Priest frowned slightly but still sent someone to ask for the name and to bring the pottery girl Talaya into the mansion, temporarily as a maid. As it turned out, Xiulote was busy all day long and never mentioned the matter; it seemed he had forgotten. Later on, during a grandfather-grandson nighttime chat, the High Priest verbally encouraged the young man to relax and enjoy himself, hinting at the matter, but deep down, he was very satisfied with the young man's response and therefore did not wish for him to engage in early encounters with the opposite sex.

As operations on Heavenly Fire Island continued, the Gunpowder workshop needed a manager, and so Talaya was dispatched to represent both the High Priest and His Highness in overseeing the important task of gunpowder production. With this identity and her mother's prestige, she could indeed command the older potters.

His thoughts whirling, Xiulote glanced at the Head Warrior sharply, before recalling the look the brick kiln manager Tanali had given him two weeks prior, causing him to blush.

Moments later, Xiulote composed himself and offered Talaya a slight smile.

"Talaya? Bring out the new batch of gunpowder you configured and demonstrate the burning effect. Be careful!"

The artisan girl nodded her head and after giving a bold couple of glances, turned and went back inside. Shortly after, the female workers brought out several pottery jars, which contained the deep black gunpowder. Then, one of the jars was placed on the testing platform, surrounded by straw dummies.

Xiulote inspected carefully. A female worker took a one-meter long torch, the cotton at the tip soaked in oil and ablaze. She approached the gunpowder jar as if about to ignite it directly. The young man was immediately horrified and shouted repeatedly.

"Stop, stop right now!"

The female worker paused in surprise, but saw His Highness rush forward, snatch the torch away, and throw it far off.

"How could you directly ignite gunpowder? You should use a match cord to lead the fire and stay away from the explosion!"

The surrounding female workers glanced at each other, before Talaya, who held the highest rank among them, spoke up softly after a moment.

"Your Highness, this gunpowder is only meant to burn fiercely; there is no explosion."

Xiulote paused slightly. He asked everyone to keep their distance and then attached a match cord to the pottery jar, before igniting it.

After a short moment, the gunpowder in the jar was suddenly ignited, a vigorous flame shot up fiercely, bright and brilliant. The bright flames burned for several dozen seconds before slowly extinguishing, filling the air with smoke and the pungent scent of sulfur. When the smoke cleared, the young man observed closely: the gunpowder had almost burned out, leaving behind only a little black residue while the pottery jar itself was completely unharmed.

Xiulote stood dumbfounded for a moment before turning to the artisan girl.

"Talaya, what is the ratio of the formula you used?"

"As per the instruction you left ahead of time, it's one saltpeter, two sulfur, three charcoal. That is, one part saltpetre, two parts sulfur, and three parts charcoal. The charcoal was ground into a powder and then carefully mixed with the sulfur and saltpeter. The subsequent batches of gunpowder all used a similar ratio, with only a slight increase in the saltpeter amount. It seems to improve the burning effect, but there's no explosion."

The artisan girl replied in detail, her gaze fixed seriously on His Highness.

Xiulote pondered in silence; clearly, there had been a mistake somewhere. Obviously, the Mnemonic Verse he had heard before had a different meaning and was not simply about the weight ratio of one to two to three.

With this realization, the young man called for paper and pen and sat cross-legged on the ground once again. In crucial moments, one still had to search the memories in one's mind, deduce the chemical formulas, and complete the calculation of the molecular masses.