

I. Dynasty 277

Chapter 277: Cobalt and the 18th Century

Ten days passed in the blink of an eye. After the successful launch of the galleon ships, another joyful occasion arrived—the Lunar New Year.

As if unwilling to disturb the festive spirit in Qingzhou, the heavy snow that had lasted over ten days finally stopped on New Year's Eve.

At the entrance of the royal residence, Qian Dafu, the head steward, stood with hands on his hips, barking orders.

“Yes, yes, hang the lanterns higher! You brats—I’ve only been away a few months and already you’re ignoring me? Don’t forget, I’m still the chief steward of this palace!”

With the roads blocked by snow, Qian Dafu had returned to Qingzhou. After a year of hard work, he wanted nothing more than to spend New Year's at home—and this royal palace was his home.

Ziyuan stood beside him respectfully. Now that the real steward was back, she'd naturally step aside. She was well aware that her standing in Prince Qi's heart couldn't compare to Qian Dafu's. Still, since he had always treated her and Lülao well, she admired and respected him from the bottom of her heart. As soon as he returned, she took on the role of his assistant.

On New Year's Eve, Xiao Ming slept in, reluctant to leave the warmth of his quarters. The temperature outside had plunged to nearly minus fifteen degrees Celsius. Curled up beside the brazier, he had no interest in going outside.

He couldn't help but feel a little melancholy. After today, they would officially step into the 18th century. In this world, the Great Yu Empire, like many ancient dynasties in history, was plagued by arrogance, self-absorption, and a near-total rejection of science.

If his guess was correct, by now most of the world—especially beyond East Asia—was likely colonized by Western powers. Yet the Great Yu Empire was still caught in internal strife and backwardness, not unlike the late Ming Dynasty. If the barbarians managed to invade, the next regime might be even worse, like the corrupt Qing dynasty from his past life.

Frowning, Xiao Ming felt a growing sense of helplessness. He was perhaps the only person who truly understood the global situation from a historical perspective. Everyone else was still lost in their fantasy of being a heavenly kingdom above all others.

Just then, Qian Dafu's voice called from outside.

"Your Highness, the sky's cleared up. Why not come out and get some fresh air?"

Xiao Ming mumbled, "It's too cold. I don't feel like going out."

"That won't do, Your Highness! There's singing and dancing tonight. You're really not going to watch?" Qian Dafu knew exactly how to bait him.

Sure enough, Xiao Ming perked up.

“Well, that’s worth seeing. Have Ziyuan and Lülao finished getting ready? I’m waiting to see them dance.”

“They went to prepare right after the lanterns were hung,” Qian said. “But Your Highness, beyond the performances, perhaps you’ll consider other festivities tonight as well. After all, General Niu Ben and Chief Advisor Pang will be here to celebrate.”

Since both Pang Yukun and Luo Xin were from the capital, Xiao Ming had invited them to stay at the palace for the New Year. Naturally, that meant inviting a few others as well—the more, the merrier. Many of them were especially eager to see the New Year’s fireworks.

Thinking for a moment, Xiao Ming said, “There will be more than just dancing tonight. I have a little surprise planned.”

“Oh?” Qian Dafu’s eyes lit up. “Another show?”

Xiao Ming just chuckled. “You’ll see tonight. Let’s keep it a surprise.”

Aside from Ziyuan and Lülao’s performance, Xiao Ming had also arranged for the palace’s singers and dancers to perform theatrical plays. In his eyes, this was the beginning of a cultural revival—a Renaissance for Great Yu. They might be lagging behind, but they could catch up. Theater was a perfect start, as it could deliver rich messages to the public in a way that was easy to spread.

Just then, Xiao Ming recalled something.

“By the way, Qian Dafu, have you heard of blue porcelain?”

“You mean porcelain with blue glaze, Your Highness?” Qian moved closer to the brazier, enjoying the warmth.

Xiao Ming nodded. “Exactly.”

“We have some in the palace. That blue glaze is called ‘peacock blue.’ But why do you ask?”

“I’m not asking about the porcelain itself,” Xiao Ming explained. “I want to know where the clay used to make that blue glaze comes from.”

At this point, Qian Dafu’s ongoing search for tungsten ore still hadn’t produced results. But Xiao Ming couldn’t just sit around waiting. After all, tungsten-carbide tools didn’t rely solely on tungsten—cobalt was just as essential.

During the sintering process, cobalt acts as a binder that fuses the tungsten particles together. Without cobalt, it’s almost impossible to make tungsten-carbide tools. And cobalt was relatively easier to find, especially since it was used in blue glazes for porcelain.

“I recall hearing about it back when I worked in the palace,” Qian said. “That kind of clay comes from Jingdezhen.”

Xiao Ming nodded—just as he expected.

“Then after the New Year, go to Li Kaiyuan and have him purchase some of that clay from Jingdezhen. Once you find tungsten ore, bring both materials back to me.”

Qian Dafu bowed. “Yes, Your Highness.”

He didn’t ask why. To him, Xiao Ming’s orders were enough—no questions necessary. That was one thing Xiao Ming liked most about Qian Dafu: he just did the job.

As Qian walked away to continue managing the festivities, Xiao Ming sighed.

“Tungsten... when will I ever find you?”

He had already asked Chen Qi to forge some high-carbon steel tools. But during testing—whether drilling or cutting—the tools quickly dulled or deformed. Sometimes they didn’t even survive a single job.

Despite advances in Qingzhou’s steel production, their tools still couldn’t meet modern standards. Once they had access to tungsten and cobalt, however, the problem would be solved. Those two elements could produce tools far more durable than high-carbon steel.

That evening, the guests began to arrive. Niu Ben, Lu Fei, and the others trickled into the palace, filling it with warmth and energy.

As the sun set, red lanterns lit up the royal residence, illuminating the snowy courtyards in a soft festive glow. The whole palace had been transformed into a vibrant, joyful wonderland.

Xiao Ming made his way from the inner chambers to the main hall, where three rows of low tables had been set up on either side. His guests were waiting at the door.

As he entered, they bowed respectfully and greeted him.

“Come in, everyone—it’s cold outside,” he said with a smile.

Inside, braziers had been placed throughout the hall, filling it with cozy heat. The New Year celebration was about to begin.