

## I. Dynasty 81

### Chapter 81: The Printing Press

“Yes, while the industrial district is under construction, now is the time to build the Bowen Academy as well. This way, the common people in the fief will have a place to study,” Xiao Ming said.

As more and more people joined the Bowen Academy for classes, the current space was becoming increasingly inadequate.

Thus, Xiao Ming decided to build a proper academy, the first comprehensive school close to a modern educational institution.

The academy would cover a large area and integrate various specialized disciplines. The textbooks he had been writing day and night were prepared for the Bowen Academy.

Given that education in Qingzhou was essentially starting from scratch, and he couldn’t create countless clones like a ninja, Xiao Ming had to adopt a method where senior students taught junior students.

He only needed to teach the highest-level students, and the knowledge would be passed down layer by layer.

In isolated civilizations, people often grow complacent with their current lives and show little interest in change, which is extremely dangerous.

In modern times, it wasn't until the cannons of foreign powers blasted open the doors of the isolated civilization that the entire society woke up and sought change. But by then, it was already too late.

Therefore, Xiao Ming wanted to spread different ideas throughout his fief to break the long-standing cultural constraints and awaken the people of the Great Yu Empire, prompting them to make the necessary changes.

He wanted to usher in an era of a hundred schools of thought contending once again, ending the age where a single ideology dominated the land.

Of course, he wouldn't openly oppose Confucian culture, as that would inevitably provoke attacks from scholars across the empire, which would be detrimental to his efforts to recruit talent. He only needed to abolish the policy of "sole reverence for Confucianism" and encourage other academic disciplines.

He believed the people could distinguish right from wrong, what to preserve, and what to discard.

At this moment, only a portion of the one hundred thousand slaves had been put to work. Until new workshops were established, they could only serve as construction workers.

That's why Xiao Ming had Pang Yukun seize this opportunity to build the Bowen Academy.

Pang Yukun nodded and then brought up another matter: "Your Highness, the massacre of the seventy-two households in Dengzhou has been solved. Congratulations, Your Highness, on gaining another prefecture. The Wang family has also suffered heavy losses."

A faint smile appeared on Xiao Ming's lips. "Qingzhou, Cangzhou, and Dengzhou—we've already taken control of half of the military and administrative power. Let them continue to fight among themselves. We just need to steadily consolidate our power from top to bottom. Chief Secretary Pang, your task is not light."

Pang Yukun smiled, "This official is not afraid of hard work, only that Your Highness might not support me. Now that Your Highness is backing me, I will naturally devote myself fully, even to the point of death."

Xiao Ming was grateful that, although his predecessor had been a scoundrel, there were still some talented people around him. Otherwise, he wouldn't have been able to achieve so much alone.

"Also, I see that Your Highness looks tired. You must take care of your health. I heard from Ziwan that Your Highness has been writing a lot and needs to make many copies. These tasks can be delegated to a few scholars," Pang Yukun advised, his habit of offering counsel as a former censor still intact.

Xiao Ming laughed. His fatigue was due to staying up late writing textbooks, but he had no intention of copying them himself. He said, "Chief Secretary Pang, I'm not foolish. I have a clever plan."

Hearing this, Pang Yukun became interested. For scholars, books were of utmost importance. In the Great Yu Empire, books were mostly copied by hand, which made them expensive. Many students from poor families couldn't afford them. He said, "It seems Your Highness is about to surprise me again."

Xiao Ming waved to Pang Yukun and said, "Come, I'll show you."

With that, Xiao Ming took Pang Yukun to the Machinery Department. In Xiao Ming's vision, the Machinery Department was no longer just a production unit but a research and development center.

Xiao Ming's new technologies would be born here, as it housed Qingzhou's most skilled technical talents.

Inside the Machinery Department, Chen Qi was leading craftsmen in producing small metal blocks. These blocks were engraved with standard Chinese characters—these were the type molds for movable type printing.

Xiao Ming was currently preparing to establish a new workshop: the printing workshop, which would use lead-type printing.

This was a printing technique similar to movable type printing but more advanced. Instead of using clay, the type molds were made of metal, which extended their lifespan and eliminated the need to discard them after a single use.

This method was inspired by the lead-type printing technique from the 15th century in the modern era, which Xiao Ming deemed the most feasible to implement.

If all went well, this printing technique could allow a printing press to produce three hundred sheets of paper per day, which was more than enough for Xiao Ming's needs.

After all, with enough workers and type molds, mass production was possible.

When Pang Yukun saw the movable type, his jaw dropped in astonishment. The Great Yu Empire currently used block printing, a slow and inflexible method.

What he saw now was a completely different scene. The type molds beside Chen Qi varied in size and could be arranged flexibly according to requirements.

“This... this is a monumental achievement that will benefit generations to come!” If Pang Yukun had previously looked down on Xiao Ming’s money-making products, he now admired him from the perspective of a scholar.

Xiao Ming wasn’t surprised by Pang Yukun’s reaction. This lead-type printing technique utilized lead for casting the molds, and Xiao Ming had standardized the font sizes based on modern measurements, such as “small four” and “small five.”

This was why the type molds Chen Qi produced varied in size.

“Chief Secretary Pang, Qingzhou will no longer lack books. Of course, there’s one more thing: paper,” Xiao Ming said.

Printing also required suitable paper. While establishing the printing industry, Xiao Ming hadn’t neglected the construction of a paper-making workshop. The art of paper-making had remained largely unchanged throughout history, with the main differences lying in the machinery and labor.

For power, Xiao Ming could only rely on water and oxen, so the Machinery Department was also producing ox-powered pulp beaters to improve the efficiency of pulp production. The paper-making process essentially involved degumming, pulping, sheet formation, and drying. Shortening any of these steps could increase productivity.

Degumming involved steaming and soaking the raw materials in an alkaline solution to fiberize them. Pulping turned these fibers into a paste, and sheet formation used a sieve to lift the pulp, creating wet paper, which was then dried.

For now, Xiao Ming didn't need much paper, so a purely manual and ox-powered paper-making workshop could produce enough paper for Qingzhou. After all, this was still an era where illiteracy was rampant.

Compulsory education was something he couldn't even dream of at the moment—there was no money and no teachers.

For now, he could only focus on cultivating a group of talented individuals and take things step by step.

Overall, the most important thing he had achieved was introducing lead-type printing technology. This technology had been used in the modern era until laser printing replaced it. For the Great Yu Empire, this was nothing short of a revolution in printing.