

The Legend of Cang Jie

2570 BCE

Yangcheng, China (Present-day Dengfeng)

Light rolled over the dusty peaks of Mount Song and came to the Yin River, shining like a streak of gold in the rocky surface, before scaling the walls of the palace courtyard and pushing shadows to corners like scolded children. This was not particularly noteworthy. This morning, like every other before it, the sun rose. Pang Yun, a court astrologer, was there watching just in case it didn't.

It wasn't a great job, but Pang Yun knew in today's economy you took what you could get. In the past fifteen years, since the beginning of the Yellow Emperor's reign, crop yields of wheat and millet tripled. Times of plenty led to a baby boom. (A bit of a misnomer, actually, as babies arrived at the same rate. The extra food simply pacified the common caregiver enough to reconsider

drowning the more petulant ones.) The population soared and job scarcity followed. It truly was, Pang Yun thought, a double-edged sword, if such a weapon were possible.

The sun now several fingers above the horizon, Pang Yun climbed down from his observation tower – less a tower than a few extra stone blocks atop the city wall – certain the great luminary orb would not reverse course.

In his sixteenth year, and second on the job, he'd grown weary of his work. The field presented limitless paths for exploration and advancement, but Pang Yun's every proposal was vetoed by the other 136 members of the court's astrology department: shadow tracking, astral mapping, a standardized unit for day length. Even something as basic as hiring volunteers to count all the stars in the sky got shot down.

Department heads bound the cosmos to discussions of the divine. As for Pang Yun's task, the worry was an angry Di, displeased by insufficient sacrifice, would bring a long night to the valley. As the first line of defense, Pang Yun would warn the astrology heads, who would consult the diviners, who would inform the emperor.

They never specified what constituted "a long night," though. Pang Yun knew some nights were longer than others – he'd even counted to make sure. He suspected the heads of the astrology department had given him this duty as punishment. It was, in fact, the result of a sarcastic comment – "How about you be in charge of making sure the sun comes up?" – though, in all fairness, sarcasm was a recent addition to Bronze Age discourse even the speaker himself didn't fully grasp.

The old heads didn't care much for new arrivals like Pang Yun, whose position was the result of a jobs program meant to curb unemployment, a problem compounded by recent technological advancements. It seemed every few years a new type of tool or weapon was invented and nowadays only eighty-five percent of the labor force had to be devoted to farming. The bronze

rush similarly displaced many urban laborers. The aristocracy, for example, began storing bedside dates in decorous vessels, instead of human hands.

In the past, a nice war campaign would solve these redundancies, but the Yellow Emperor was, if not a pacifist, at least a cautious man who didn't want to be strangled with own his intestines like his predecessor.

Pang Yun walked across the clay courtyard, ready to punch out and return home to his wife, Zhang Zifei. Thoughts of the cosmos were replaced by those of her salty, delicate neck and her hard, bulging belly.

They had waited longer than most of their friends to have children. Pang Yun respected Zifei's desire to see more of the world before turning seventeen. But they'd had their fun and were a couple of months from becoming parents. Pang Yun was hoping for a boy, but didn't get too hung up on the gender; one of the next fifteen was bound to be male.

Outside the candlelit employee break room of the palace's west wing – a dark corner room in the basement – Pang Yun queued to punch out. It wasn't long before he greeted the personnel officer.

"Name?" the man said, with tiny eyes and a stiff face he wore like a mask.

"Pang Yun."

"Department?"

"Astrology."

"Position?"

"Director of Solar Positioning Systems."

"What?"

"I'm the... I'm the guy who makes sure the sun comes up."

"Oh, that's right. Well?"

"It came up."

"That's good news."

"Can I have my ration stone now?"

"There you are. Let me just find your stamp." The personnel officer tossed aside the vessel palm-sized, flat

granite stones and picked up the wood carvings. He grabbed Pang Yun's name, dipped it black ink – a mixture of soot and fish glue – and pressed it to the flat edge of the blank stone. "All set."

Pang Yun started to walk away before he looked down at the stone.

"That's not my name."

"I'm sorry?"

"This stone you gave me. That's not my name."

"Are you sure?"

"Yes, I'm sure. There should be a foot next to a cloud. This is... I don't even know what the hell this is. It's just a bunch of lines."

"Huh? Well, just use it all the same. Nobody in Rations will know the difference."

"But what if this belongs to someone else?"

"Then I'll just give them someone else's. To be honest, that's what I've been doing. These carvings just came in today. I... have no idea what they say."

Pang Yun struggled to find the words. The immaturity and unprofessionalism on display was staggering, especially from someone who looked to be nearing twenty.

"Where... is there someone else I can talk to about this?"

"Xu Wenyan in HR might know something I don't."

Pang Yun spun around without a thank you, "his" ration stone in hand. He climbed the ladder out of the break room, returning to the ground floor.

He reminded himself not to take the personnel officer's glibness personally, but these palace halls bred self-consciousness. Men of great power and influence strode past, clothed in animal skins. Pang Yun, meanwhile, had a thin layer of hemp between the dust on his clothes and the dust on his skin.

Inside the HR office, Xu Wenyan said goodbye to two young men who walked past Pang Yun without a second glance. Sitting on a wooden chair, she uncorked a

narrow-necked vessel of plum wine, the bottle another recent addition to Xia society. Still unfamiliar with the concept, she poured the wine into her hand.

"Ahem?" Pang Yun said meekly.

"What is it now?"

"Um... is there a better..."

"No, no. I'm sorry. Come on in. Just don't tell me you're one of them, too."

"No, I don't think so. I just wanted to ask a question."

"Good. Would you care for a handful?"

"No thanks."

"You won't believe it, but those gentlemen have been commissioned to open a healing center for the sick. As if we didn't have enough people already. I was just told by the census bureau our population is projected to exceed 50,000 by end of the century. And where does it end? Today we dress cuts and scrapes, tomorrow the lepers ask not to be boiled alive." Xu slammed another handful of wine.

"Anyway, I came to ask about my name change. I was talking to personnel and ..."

"Oh, yes. New script developed by the language department. Damned if I can make a lick of sense of it. Yet another example of government overreach."

"I suppose so. But all I really need to know is what my name looks like in the new script."

Mrs. Xu scanned the mostly empty office. Her head wobbled.

"Yes, where did I put that list? It came in yesterday and... Oh, right, it's over there," she said, pointing to the wall in front of her.

The script had been carved into the wall from ceiling to floor. It was portioned into columns, each character in the new logographic script paired to the corresponding pictogram in the old script. Pang Yun found both of his on the far left end near the floor. He knelt down to inspect the new symbols.

“Still looks like a foot and a cloud, I suppose. Much less detail, though. Where’s the artistry?”

“Your taxes hard at work! Pointlessly replacing a system that was perfect as it was. What if it doesn’t stop at names? Apparently, this is only a small portion of the entire script. What if we found a way to write down things people actually said? Think how much more difficult it would be to get away with lying and contradicting oneself. I don’t think it’s hyperbole to say such a system would completely destroy life on this planet as we know it.”

Pang Yun’s mind started to wander. He wasn’t sure why, but the crazy thought of being able to write complete thoughts intrigued him. There would be huge privacy concerns, of course, but some fields would certainly benefit. Storytellers, for example, given an opportunity to structure their ideas, might not always kill everyone off at the end to distract the audience from all the plot holes.

“Where is the language department?”

“I relocated them to the subbasement. But the way things are nowadays, with all this newfangled architectural integrity, we can’t even hope for a good building collapse. Give them a piece of my mind all the same, son.”

Through the archway at the end of the hall, Pang Yun could see princelings on the southern courtyard set aside the anxieties of royal succession with a light game of *cuju*. Another recent appendage to Xia culture, the sport was designed by the Board of Parks and Recreation. Pang Yun began to understand Xu. Though he’d been born in it, it was understandable elders in their thirties and forties might feel threatened by progress.

It wasn’t until he reached the first basement level before his mind questioned his body’s momentum. Why was he going to the language department? He’d gotten the answer he needed. And his favorite part of the day – laying beside his wife before she awoke, kissing the back of her neck, the warmth of the three of them melting into

each other – was about to pass. Curiosity propelled him forward all the same.

The language bureau was cool and damp, offering a nice reprieve from the dusty summer heat. And the dampness, on the closer inspection, turned out to be from the large open drums of wine scattered about. If this room was meant to be punishment, it obviously wasn't well thought out.

A man emerged from a dark corner with a narrow wispy beard, his hair long except for the parts where it had stopped growing entirely. He was tall, though his short neck and stout frame made it look like his body had been pressed down like clay.

"Are you the new assistant?" He spoke with a thick accent.

"No."

"That makes sense. I was wondering why nobody had mentioned one."

"Okay."

"Then what do you want?"

That was a good question. Not sure himself, Pang Yun tried to sound cultured, confident in his purpose.

"You the man who is changing the names?"

"I've done more than that, my dear boy. Come, take a look." It didn't sound like an invitation. "And watch out for the rats on the floor. They're mean drunks."

The man led Pang Yun to a crumbling, wooden table covered in flat, foot high strips of bamboo. The inch-thick strips were tied together with hemp string, forming meter long sheets. Each strip had the new script carved down it, each character roughly the size of a fingernail. On the table now there were dozens of sheets.

"What is this?"

"This... is every single word in the Xia language." The man's sigh of relief gave the impression this was a recent accomplishment. It was the sound Xia men usually reserved for the burial of a nearly-dead relative who just wouldn't take the hint.

“Really? That seems impossible.”

“Not at all. It helps that the Xia aren’t a particularly expressive people.”

“I don’t know about that. But whoever they are, your team must be really, really, really... good.”

“Team? It’s just me. I’m the whole department.” Pang Yun’s astonishment quickly soured into jealousy. He told the stranger of his dissatisfaction with his position in the overcrowded astrology department.

“I can sympathize,” the man said. “I got this position through a jobs program as well.”

“Really?”

“Yeah. I’m not from here originally, as you could probably tell. I was a member of the *xiongnu* tribes to the north, but was brought to Yangcheng in my twelfth year.” That explained the accent. “Anyway, the jobs program was meant to promote ethnic diversity in the workplace and offer assistance to those at a structural disadvantage.”

“How are you at a disadvantage?”

“I can’t say for sure, but it probably has something to do with you guys slaughtering every other member of my tribe.”

“Oh. Sorry.”

“Anyway, the emperor said people would appreciate a more diverse workforce. I’m not actually sure where he got that idea. Although I guess the Xia soldiers that conscripted me did enjoy working alongside different cultures, especially when they got to rape them and cut out their tongues for speaking foreign languages.”

“So the jobs program...”

“Yeah, I mean it was mostly a PR thing. They just wanted to tuck me into some corner where I couldn’t do any damage. I don’t think they expected the language department to amount to anything.”

Pang Yun bent over to inspect the writing more closely. Some of the characters were easy enough to intuit: fire, dog, turtle, financial regulation.

"Can you tell me how it works? Some of these pictograms don't look too different from our old script."

"Ah, but these are logograms, not pictograms. It's a key difference. Our old system relied entirely on pictograms, which are just simplified pictures illustrating the word they signify. It can be kind of limiting. For example," He pulled out a stone tablet from under the table. "In the old script, we have this sentence: '*Bird mountain water tree.*'"

"Lovely sentiment."

"Yeah, well, unfortunately people don't actually talk like that. But logograms are different. Each logogram is a single grapheme that represents a single morpheme."

"I understand completely. But if I had to explain it to a less intelligent person, what would I say?"

"A logogram represents one word; some logograms still have pictographic qualities and look like the things they represent. But others are more abstract. With logograms, we can write out a whole sentence resembling natural speech. Take a look at this." The man grabbed a sheet from the left end of the table and slid it in front of Pang Yun. He ran his finger down the strip on the far-right end of the sheet and read the sentence aloud:

'The buxom woman slowly dropped her tunic to the floor.' "

Pang Yun said the first thing that came to mind:

"That's the most amazing thing I've ever seen."

However there was one thing bothering him. "But if you're the only one who knows what each logogram represents, how will people ever be able to use this? Some of these characters aren't easy to figure out. I mean, I'd have thought buxom would be a pair of large breasts."

"Not all logograms can have pictographical aspects. And I'd already used a large pair of breasts for a different word."

"Milk? Nursing?"

"Happiness."

"Makes sense. But how are you supposed to know what logogram is what word?"

"That's the rub. It will take a good deal of study. Children will most likely learn these at a young age. I actually created a phonetic alphabet originally. One symbol for each sound made with the Xia tongue. Would've been a lot less work, for me and for everyone else. But the emperor didn't want to stray too far from the rudimentary pictographical system already in place. I guess you have to make compromises when you work in government. Also, the carvings of the phonetic alphabet burned in a fire and I didn't really feel like doing the whole thing again. Speaking of, would you mind taking your lantern off that stack of bamboo sheets."

"Oh, God. These are originals? You don't have stone carvings of each character?"

"These designs took me two years to complete. Carving them into stone would've taken six."

"But what if something did happen? Two years of your life wasted..." Pang Yun trailed off, realizing that was about as long as he'd been at his post.

"I'm not too worried. If there ever is a fire, there's plenty of wine in here to put it out."

"What if... would you like to have an assistant?"

"I never felt like I needed one. Then again, I *am* always throwing out good rat meat."

A transfer out of the astrology department? Was it even possible? In the past, royal assignments were lifelong (Actually, they were even longer, as appointees were told these roles continued into the afterlife). But with constant coups, plagues, famines and floods, transfers were never really an issue. The Yellow Emperor had been in power for over fifteen years, so some had started to question the necessity of eternal employment. Tax collectors, for example, found that by age sixty their upper-right hook had lost a good deal of its effectiveness, making their jobs all the more difficult.

“Do you think you could ask the emperor personally? He’s a wise man. He’ll understand how important this is.”

“Yes, I suppose so. But if I let you do this, I expect you to work hard, follow my orders, and supply your own wine barrels.”

“Thank you. I won’t let you down. By the way, my name is Pang Yun.”

“Cang Jie.”

Pang Yun walked up the ladder and out of the language department, turning down Cang Jie’s offer of boiled rat head porridge. He imagined his wife crawling out of bed alone, sliding her feet along the stone floor of their home, hands at her aching back. He felt guilty leaving her alone, but at least he could go home and share the new light the sun had brought into the day.