

Week 7 Forging a Unified Empire: Qin

Historical Overview

Around 350 BCE, Shang Yang strengthened Qin through comprehensive reforms. Decades later, Qin began its relentless expansion. In 316 BCE, Qin first turned southward, colonizing the non Chinese states Ba and Shu, acquiring the fertile lands of present day Sichuan Basin. In 256 BCE, the king of Zhou surrendered his small royal domain to Qin.

The reign of Zhou, which lasted 800 years, officially ended. In the last decade of the warring states period, between 231 and 221 BCE, Qin conquered the other six states one by one. It destroyed Han in 230 BCE, Zhao between 229 and 228 BCE, Chu between 226 and 223 BCE, Wei in 225 BCE, Yan between 227 and 222 BCE, and finally, Qi in 221 BCE.

In the year 221 BCE, the victorious Qin ruler declared himself the new ruler of all under heaven, or "Tianxia". He abolished Zhou's feudal and aristocratic system and implemented a centralized bureaucracy. He imposed unified systems of currency, weights, measures, and most importantly, writing.

He also contained military expansion to the north and south, and tried to keep the expanding empire connected through massive constructions of roads and canals. Concurrent to Qin's conquest and expansion was the consolidation of nomadic tribes on the northern steppes.

The resulting Xiongnu confederation was the first inner-Asian empire. To ward against the Xiongnu horsemen, the first emperor constructed the famous Great Wall, or "Changcheng". Much of Qin's institutions will live on for the next two millennia, but Qin itself only lasted 15 years. The empire crumbled soon after the first emperor's death in 210 BCE.

Section 1: Forging a Unified Empire

The third century BCE, the central states were all at war fighting one another and eventually reducing the number of central states to around seven large states. The Zhou had been nominal king over all the central states, but its power now had become so diminished that even its nominal suzerainty no longer had any effect, and it became clear that the Zhou model was not working anymore.

And that some alternative would have to be found if this period of warfare was going to be brought to an end. If we look at the situation as it existed at the time, who would we predict would be the winner in an attempt to conquer all the other states? Well, most of us, I think, would look and say it's the great state of Chu in the South. But in fact, that was not the case.

It was Qin in the West, beyond the passes. Qin, which rose in an area in which the Zhou king had abandoned. Abandoned for the east, because he was being pressed by barbarians. Today we want to talk about how Qin rose, the way in which it rose, and the consequences it left for China's history.

Section 2: Qin Finds the Path to Power

Now for much of the time, the Zhou king still existed within royal domain. And he had a nominal suzerainty over the rest of the states. Without the Zhou king, there'd be nothing but Warring States left. No one was quite willing to take the Zhou king on until around 256 BC, when one state did and saw its way to conquering other states and creating a new, unified empire.

If I look at my map here, I can see Qin expanding from the west, moving east, taking over the royal Zhou domain, conquering the rest of the states, and expanding its borders. How did this happen? Qin's unification takes place in 221 BC. The story really has to go back probably to the fourth century or the very beginning of the third century BC.

One of the many masters of the Warring States period was a man named Shang Yang. And he travels to Qin to see the lord of Qin. And he says to the lord of Qin, I see that you are an ambitious man. And the lord says yes I am.

He said, well, he says, tell me, do you want to be a king like the Zhou king, glorious, honorable, but powerless? Or do you want to be a hegemon, somebody who has the political, military power to make other states accept his will. And the lord of Qin says, I want to be a hegemon.

Shang Yang says, well, you know if you do, you have to change your policies. You have to institute laws of your making. The advisers to the king are somewhat shocked, and the lord of Qin says, well, if I have to change my policies, that will create opposition. And Shang Yang says, it will create opposition, but if they lead to great accomplishment, people will accept the changes you make.

The ministers, the high officials of the lords, gather round and they say, this is wrong. This is wrong. We know that from antiquity, ritual has been the way in which to govern well, carrying out the rituals, performing the sacrifices, providing a model for the people. Your policy, these policies of laws, break with ritual.

Shang Yang says, well, they do. That's true. But tell me, should you, lord, be making the rituals, or are you a slave to the rituals of antiquity? And again his ministers lean in and say, but the models of antiquity have proven the test of time. We should follow them.

Shang Yang says, they were good in their time. But today is a different time. To ignore the opportunities today is to give up and try to imitate the ancients, and it will never get you anywhere. Shang Yang sets up the lord of Qin to listen to his policies, to listen to his proposal about how he should reorganize his state, how he should, in effect, mobilize the state.

He says, what are your resources? Basically you have two sorts of resources. You have farmers, and they produce the wealth. And you have soldiers, and they produce power when they win battles. The third resource you have are officials to supervise the farming communities and extract wealth from the agrarian economy and to lead the soldiers into battle, to control the armies.

Section 3: New Ways of Mobilizing the Population

Now, I want to digress here and talk a little bit about extracting resources from the population, because it's not as straightforward as it seems. It's not just simply a matter of taxing.

The problem was this-- The Zhou feudal system took the territory of a state and divided it between the lord of the state and the many nobles. There was no real central control. And that meant that if a state had to go to war to defend itself, or to try to conquer another state, the lord would have to depend on the nobles to bring in their resources to form an army, which would, soon after the war, dissipate and go back home.

What the states are beginning to see is that to fight effectively, they have to control resources from the center. And that means undermining their own nobility and trying to concentrate resources in the hands of the lord of the state. There were ways of doing that. One was to make sure that the population around the place where the lord had his capital would report directly to the lord, and their resources would go directly to the central state.

The other way was when new territory was conquered and settled, to make sure that that territory would be administered on behalf of the lord of the state, and not divided up among the nobles. This had started to be a pattern among all the central states that were warring with each other.

The Qin adopted it as well, and they adopted a particular kind of administrative unit that we now call the district, or the county-- the xian. In fact, it has lasted until today in China as the lowest level administrative unit, which is guided by centrally-appointed officials.

These institutions of these counties, or districts, the xian, meant that resources now could be gathered locally and could flow directly to the center to supply the armies. And that was the launching point for power.

What made Qin special? Well, for one thing it had a fairly large territory that was under populated, and that could welcome in migrants from wars elsewhere. Second, they had, it seems, a fairly weak nobility. So imposing this district, or county, system on its territory did not bring about as much opposition from noble families as was the case in many other states.

So Qin had an advantage in mobilization. Its nobility could easily be recast as officials and as military officers. In effect, what Qin did was change the definition of the state-- the Guo, to use the Chinese term of the Zhou dynasty-- from a feudal state to a bureaucratic state. And with that, it went out to conquer all the rest of the other states.

Shang Yang talks to the lord of Qin and points out that if you look at the three groups that you depend upon-- the farmers, the soldiers, and the officials. Farmers don't like to pay taxes if they can avoid it. Soldiers really don't want to fight if they can avoid it. And officials tend to be self interested and concerned with getting greater wealth for themselves. So what can the lord of Qin do?

Shang Yang has a solution. He says, in the first place, there should be no possibility of rewards and advancement outside of the offices and the institutions you create. And this would mean, for example, that you don't really want to have opportunities for gaining private wealth. Private wealth would mean that outside of the state apparatus, without serving the state, you could become wealthy on your own. So it was a very strong anti-merchant attitude in this.

There should be no honor available to people in society outside of honors bestowed by the state. In all ways, public concerns should trump private concerns. Public concerns should outweigh private concerns. Shang Yang gives an example-- the basis for wealth in the state are the farmers who produce goods. Now, how do you make sure that they keep producing goods, and that they pay their taxes?

You distribute land to them, they pay their taxes, or in the sense, really, the rent they're paying on their land. But Zhaoxiang goes further than that. He says, well, there should be no avenues of advancement outside of the state.

Farmers have to see that there's nothing really they can do except farm. They can't become merchants. They can't get rich. Cut back on-- make sure that the rewards you give people are so low that they can't consume much with them. Don't have a lot of consumption goods. Make life simple and frugal. Make sure that people are working-- that they have no choice but to work, that they have no opportunities outside of the work that they've been assigned.

Forbid luxuries. If people have nothing extravagant to spend money on, they'll not be concerned with making much money. Don't let official families maintain slaves and estates. Don't allow people to move in search of more lenient treatment. Bind them to the land. Raise your tolls on bridges and ferries so that merchants don't find it attractive to travel far.

Xunzi, the Confucian philosopher, travels to Qin and he sees a country that's frugal, that has all sorts of good qualities-- hardworking, frugal, simple. But also, he says, a place that's dark and gloomy, with a frightened population.

Now, in practice, Qin's policies were set up so that the official system had around 18 ranks. But you could only enter it through military merit. There is no right to office on the basis of birth. There was no feudal nobility, or there was hardly left a feudal nobility to try to claim ranks in government. It demanded that elites must fight. Nobles could not pass down their titles to their descendants. Everything had to be earned.

To make sure that families stayed small and kept paying their taxes, they started to say that if there were more than two adult males in the household, the household will be taxed double. Meaning, in effect, that families would split up, and the tax burden would be equally spread, but more taxes would be coming in.

They organized households into mutual responsibility groups. People would be responsible for their neighbors, their neighbors responsible for them, to see that they paid taxes, to see that they obeyed the law, to see that they were peaceful and hardworking.

And if you did something wrong, and your neighbors knew about it-- even if they didn't know about it-- if you did something that was illegal, your neighbors would also be liable if they did not report you to the courts.

There should be-- there was, in fact-- impartial enforcement of the law. Everybody was equal before the law-- or almost. There's a story of the son of one of the lords of Qin who breaks the law, I believe it was because he was using wine-- using grain to make wine. And when he does that, that's a capital case. You're executed for breaking that law.

Well, he was the heir apparent-- the crown prince-- hard to execute him. They executed his tutor instead, holding his teacher responsible. This is not something that I'm particularly in favor of, to be sure.

Section 4: Qin Unity and the First Emperor

The Qin conquest takes place through the third century, and is completed by 221 BC. It takes its system of government and places it on all the other states. It moves the nobles from those other states to its capital. It gathers in the weapons of their armies and melts them down to create statues. It imposes a tripartite system of government across all the states it has conquered of civil administration, military administration, and overseers who keep track of what the civil officials and military officials are doing.

It demands that all states institute a single system, which will have common standards across the board. All the roads will be the same width. All walls will be the same height. Everyone will have a common currency.

By this point, the writing system is beginning to diverge. Qin says, there will be one script, there will be one calendar, one road system, one set of standards of weights and measures. Across the board, things will be unified. Those who object, those who look to the past for alternatives, well, Qin is the first dynasty in Chinese history that we know of to burn books and to bury scholars. Not necessarily Confucian scholars, but scholars who looked to antiquity to provide a counter model to the Qin Model, who looked to Zhou, rather than the Qin.

He was now, the First Emperor. He creates a new title for himself. Goes to the land and the stone monuments are erected celebrating his achievement. Let me read from a monument directed two years after the unification in 219 BC.

"Great are the Emperor's achievements. He attends to what is basic. Farming is encouraged, not trade and artisanship. The common folk do prosper, as all the heaven, are found with a single purpose. Tools and measures made uniform, writing made the same.

Wherever sun and moon shine, as far as one can drive and sail, men carry out their orders, thus to realize their desires. Our Emperor is in accord with the times, He has regulated local customs. He has made canals and divided the land. He has cared for the common folk. Working day and night unrelenting, setting laws, leaving nothing to doubt. He has made known what is forbidden. The universe entire is our Emperor's realm.

Section 5: A New Imperial Ideology – Cosmic Resonance

1. A New Imperial Ideology

I've said that we needed to look at Qin's conquest and the creation of the first great centralized bureaucratic empire in Chinese history along two lines-- mobilization, which we've just seen, and ideology. What makes Qin ideology interesting is that it really is-- one's tempted to say it's based on science. But it might be better to say it's based on a theory of the cosmos and how the cosmos works. We'll be introducing various parts of that to you.

But let me begin to introduce this ideology. Let me tell you about how the emperor constructed himself as a figure in the cosmos. He took a new title-- *huangdi*. *Di*, remember, was the name that had been used the Shang for the high God. *Huang* probably means august-- Lord on high, sort of thing. But *huangdi*, which then becomes the standard term for emperor in Chinese history, *huangdi* might be translated as august thearch. Although later on, we just say emperor. Thearch, because of the religious overtones of that term.

He sees his capital as a microcosm of his empire. The capital is the Pole Star. Across the river, which he calls the *Deshui*, the Milky Way. The capitals or the residences rebuilt the palaces of the nobles of the various states he's conquered. He's had their palaces rebuilt, replicas built.

It turns out that when the emperor starts to standardize weights and measures and widths and heights that he uses multiples of six. So all hats would be six inches tall. The axle width is to be six feet. Very important, actually, to have a standard axle width, because on dirt roads, carts create ruts. If the ruts aren't the same, then you can't pass through the roads and so on. Axle widths are set in multiples of six.

The official color of the Qing dynasty is black. Now black is the royal color, the official color. Multiples of six-- well, it turns out that we have some charts giving correlations between things from this period. And if I look down here and I say, what's the number six? That's the water element. The color is black. The season is winter. The planet that's associated with it is mercury and so on.

Well, you can see this on the screen here as well. What this is is a chart of cosmic phases, called the *Wuxing*, the five phases of change, the five elements, the five agents. And the basis for this is that everything that happens in the world happens according to a certain pattern.

You recall that when we're talking about the many masters of the warring states, that Zou Yan had had this idea that nature itself had patterns that could be discerned and if we understood the patterns of nature, the cycles of nature, human society, could be organized to fit that cycle. In a very simple sense, of course, we must do this for the agricultural cycle. You can't very well plant your crops in the middle of winter.

Now, this chart of the five phases, and you can play around with it some more. But what this has done is transformed Heaven, in this sense of the natural world or Heaven and Earth, from something that is run by gods to something that's run along what might be called constant and predictable principles of change. And that's what the five phases of change represent.

Wood, fire, earth, metal, water. There's a season for everything. There's a color for every time. There's a planet that goes with every season. There's a smell even. Wood smell, which is of the spring, is musty. The fire phase has a smell that's burnt and a flavor that's bitter. The Earth phase, which is mid-summer, is fragrant. The smell is fragrant. The flavor is sweet, and so on. Sets of parallel phenomena, organized according to the five phases.

2. Cosmic Resonance 1

Once we see the theoretical foundations that the empire is working from, these won't seem odd at all. In fact to help us understand that very last line of that stone monument, that inscription that the emperor had erected in 219 BCE-- "The universe entire is our emperor's realm." "The universe entire is our emperor's realm." I think he actually meant that, and he is, in fact, the emperor is being set up by this new ideology as master of the universe.

Now let me explain. The theory that explains these oddities, that explains why the emperor can be master of the universe, is commonly called cosmic resonance theory. And we have a wonderful piece of writing by a former student, Andrew Seth Meyer, who explains what cosmic resonance theory is about. And we'd like you to pause for a while and read that, and then we'll come back and we can discuss ways of understanding it.

3. Cosmic Resonance 2

This is my short explanation of cosmic resonance theory, and it's based on a book that was written at the Qin court-- something called The Spring and Autumn Annals of Master Lu. And it's an effort to bring together all the schools of thought under the single umbrella of cosmic resonance. And what is cosmic resonance?

The basic argument of cosmic resonance theory is that things that are like each other stimulate and attract and respond to each other. In the Chinese phrase, this is wulei xianggan or wulei xiangying. Things of the same category respond to each other. Things of the same category stimulate each other. In other words, it's not the notion of opposites attract, rather it's that like seeks like.

Now there's some very obvious examples of this that the people at the Qin court-- the scholars at the Qin court-- cited. They're true examples. I mean, they actually are true in nature.

If we had a bunch of stringed instruments in this room and they were all tuned alike, if I plucked the C string on one of them, all the other C strings would resonate. We know why that is, because of the size of the sound waves. But what they saw was that this was a sign that like stimulates like-- of like responds to like.

Here's a less obvious example. They noticed that the lodestone, a natural magnet, attracts metal filings-- attracts metal, right? And it pulls the metal to it. Amazing. Another example, they thought, of like attracting like.

And they noticed yet another example, which is also empirically true-- people die mostly at night. People die of natural causes mostly at night. Well, their explanation for this was, well, we know the sickness is

Yin, right? Yin and Yang, where the sickness is Yin, night is Yin. So what this is is the night time Yin is pulling up the sickness Yin. Like is attracting like. For the theorists at court, people dying at night was a sign that Yin and Yang, in fact, conformed to cosmic resonance theory as well.

We know at the time that daily almanacs were very popular, that they were sometimes called Yin-Yang books-- that is, during the course of the day, every hour of the day, Yin and Yang were in fluctuation, so there were certain things you should do and certain things you should not do. This is also a kind of cosmic resonance theory, and it's continued right down to the present. Chinese almanacs, even today, tell you what's a good day--a propitious day-- the things you can do on a certain day, the things you shouldn't do on a certain day, and so on.

Notice, however, that we're talking about resonance taking place across domains, so things in human life and things going on in nature-- day and night in nature, sickness in me, right-- that these resonate together. The fact that things exist in different realms, that something is-- the color of clothes we wear and the season of the year-- that these should resonate together means that if they're the same category, they may be in totally different parts of human experience, and yet they respond to each other.

4. Cosmic Resonance 3

Professor Bol, I think we have to stop the video a little bit, because I have some questions about what you have been explaining here. And I think students may also have the similar question. For instance, when we talk about the Zhou dynasty and we mention that the concept of the tianming, the Mandate of Heaven, is a very important political concept. And here, during Qin and Han periods, we also see a lot of thinkers talk about the concept of Heaven. And what's the difference between the Zhou concept of tianming, and the Qin and Han concept of Heaven, tian.

OK, fair enough. So this is one of the many things I think I probably didn't explain very well. You'll notice that before I sat in front of the terracotta warriors, and in front of a red wall. And that's because I never could figure out if I'd given an adequate explanation of Cosmic Resonance Theory. But Yu Wen is right. We need to go back to, really, this whole idea of tianming, and say what had happened to that.

Because on the face of it, it looks like there is no longer any concept of Heaven's Mandate. But as you say, people are talking about Heaven. And I think what's happened is that the idea of heaven actually deciding, heaven being like a god who decides who can rule, that's gone.

I see.

And instead heaven now has come to mean the way the universe works, the way the natural order works.
And

So it's more like nature.

It's more like nature, the natural order, and that's why it can be predictable, the four seasons, the sun comes up every day, and so on. And so you have sort of the idea of this integrated natural order, and at the same time a belief that somehow we can turn human society into a natural-- in a perfect order as well. And that sort of goes to the whole idea of empire, of orchestrating everybody, putting everybody together.

So I think that really is a good change. And good of you to point it out, because in the next module, I think you actually helped select some readings that talk about heaven in this new way.

Yes, and we will encounter readings by very important Qin and Han thinkers.

Good.

Professor Bol, I think you have been repeating yourself a little bit. You talked about the Cosmic Resonance Theory, five phases, and now you are talking about Yin and the Yang. But how exactly are those things related?

How exactly are those things related? So I agree, I've been repeating myself. But you're also right that I forgot to talk about really a basic issue. So it's important to understand that both the Five Phases of Change and Yin and Yang are actually ways of talking about the material forces, the energy, the matter and energy that makes up the universe. You know what the name for that is?

Qi.

Qi, right. And so Qi is sort of-- the air is Qi, our blood is Qi, things, the substance-- you know the cloth is-- everything is Qi. But how do we understand Qi? Well, we can understand Qi in terms of Yin and Yang is probably the earliest way of understanding it.

Is there two kinds of Qi?

Yeah, alternating kinds of Qi. One that's associated with the light. One that's associated with the dark, with the male, with the female, sort of the basic pair of procreation, with heaven, with earth, one that's light, one that's heavy. This sort of stuff. So Yin and Yang describe that. But the Five Phases of Change are also about a cycle of Qi.

So it's a movement of Qi.

Well, it's change over time through phases, right? And those phases get defined as certain categories. So the wood, fire and so on. And then you can correlate all the different things, tastes, directions, according to the phases. But the Five Phases are also about Qi, because if we think about the way the Five Phases describe the annual cycle of the year, then what it is is a movement from cold to hot back to cold again, which is again Yin and Yang too.

So the way it seems to work is that Yin and Yang was a theory. Five Phases was a theory. Both were theories for understanding cycles in nature. And they join them together. And so that Yin and Yang sort of is operating within the Five Phases of Change to make it move forward, so to speak. It's this sort of the mill or the engine that drives Five Phases of Change.

So it is that kind of interaction between the Yin and Yang that moves the Qi to change from one phase to another.

To the other. Right? But of course, the next phase is about buried-- is nascent or is in the earlier phase, which is being brought out through this process. But if you think of this in terms of Qi, of energy and matter, then it helps us understand why, for example, the lodestone picks up iron filings, because they're both Qi, and they're Qi of a similar category. That's the basic idea.

So I'm sorry for not having explained that right away. I should have said that. We actually at some point in this series will have a interview with somebody talking about Chinese medicine and the body, and Qi and the Five Phases and Yin and Yang then.

Fundamental concepts.

Fundamental concepts. And I guess we should try to edit that and get it online sooner, rather than later. My apologies, in any case. So thanks a lot. Thank you very much for calling me on this and making me do this. OK. Bye bye.

5. Students' Cosmic Resonance Diagrams

[Student Discussion]

As we move towards a conclusion on this, you will no doubt understand that, what is the theory that you are trying to diagram?

The cosmic correspondences.

Cosmic correspondence, cosmic resonance, this is it. Or as I would say, science. It's a scientific understanding of the world. And we can argue in a bit why that is or is not science, in fact.

So this is an unfinished diagram. But our thoughts is just that this delineation that we've received is a little too linear, just for descriptions of the monthly ordinances. It's unfinished, but I guess just shows the change from one sector to the other, from one season to the other one, one phase to the other.

I guess the important contribution is that it's circular. And so that makes it more cyclical, like these things turn into each other. And then the arrows are like these transition phases, where you're saying, the east winds resolve the cold, and it goes to summer or whatever. And these things go from one to the next. And it's a cyclical cycle, always goes back to the beginning. And then each step has certain things we're going to write next to it, and then to have these transition phases here too, as well.

Good, good.

So we turned it into like this. So we actually had more of a linear progression, just based on what we were given in the text. So we have this sort of transition--- we saw very persistent themes throughout the description. Each month has numbers, has a place where the sun is. The Emperor lives-- the son of heaven lives in a specific place and was a specific color. So we decided to illustrate that visually.

Everyone hold up your thing. Let's see what we see. Cycles, strong on cycles.

Lists.

Lists. Cycles. Random drawings. Somebody riding horses?

Yeah, we just tried to draw a phoenix.

Hello, what do you have up there?

Scaly creatures.

You're speaking from behind--

Sorry, scaly creatures.

Scaly creatures, different kinds of creatures.

It's linear.

Jojo? Cycle.

A lot of little pictures, some woods and fires.

OK, cycle with all the things that those guys wanted to do originally. Now, we have a pentagon with Alex. So justify.

So I guess when Eric and I were talking about it, we were thinking the five distinct phases. So we drew the pentagon showing the different ones.

So getting that number of five. And Michelle, you guys were doing bears, chickens, fish?

It's a frog.

It's a frog.

[LAUGHTER]

That's a frog?

Yeah, that's a mollusk.

That's a mollusk. But the same idea there. OK.

6. In-Class Discussion 1

There's a quote in the monthly ordinances that goes like this. In this month, referring to the first month, no war-like operation should be undertaken. The undertaking of such is sure to be followed by calamities from Heaven. Why is that true?

Because it's simply not the right time. It's the time of beginnings, a time of things growing and creating. And at least as it struck us, it's that this is a completely antithetical, just sort of the nature in kind of the season. And if you were to embark on something that large and inauspicious, it would ruin everything.

So if you ask yourself the question, what does it mean to live according to natural time? The times of Heaven and Earth? Well, you have an answer, right? Or you have a presumptive answer. So we have three solutions: Liujia, Heaven and Earth, and humankind in balance. Dong Zhongshu, the glorification of the ruler and of heaven, but also constraining the ruler.

And we have cosmic resonance theory, as represented most directly by this chart. I said that I thought cosmic resonance theory was science, and the other guys, they're not doing science, they're doing doctrine. So I have two questions for you.

One is, is this yet another attempt to create a constitution, so to speak, for imperial power? That both legitimates it and constrains it? And secondly, do you agree that this is science?

7. In-Class Discussion 2

Nadia, begin with you.

I do agree that this is science, because what it attempts to do is, it attempts to understand the regularity of the working of the cosmos.

OK. So that's the claim for science. It understands the regularities of the working of the cosmos. Jake--

In terms of prescribing order and law and rule, it definitely does that. So before you know, people referred to teachings of sages. They still did-- not to say, they didn't doubt. But this was a vital instrument in telling people how they should act, in accordance with how nature was responding to--

Zheyuan, does this require sages? Does this cosmic resonance model require stages?

I think not, as in Liujia's piece, because those resonances can be observed by normal people.

Right, right. So that makes this very different, that there's sort of special ruler. There are no sages. This is just how the world operates.

Do you agree it's science? Do you agree it's science? What do you think, Jill?

I think it is, because it follows systematically what happens with the seasons. And they put their best explanation to why. It is looking at the astral world, systematizing, predictability. But give us a reason why it ain't.

And Michelle, let me begin with you and then Derek and then Henry and then Eric.

I think, to me, it's almost like another form of ritual, like just another way of prescribing what people should do. But instead of according to the ancients, it's according to nature. That's a neat point. Derek--

I feel like there's no-- because you're talking about the cosmos and kind of how nature is. There's no way to create an experiment and replicate that experiment, see your results. It's just kind of observation and then--

So no verification built into this. Eric and then Nadia.

Yes, as what you said, that there's no empirical experiments. There's no way to actually prove any of these philosophies. So I think it's more like a way of seeing the world, like a world view of philosophy on life, as opposed to something scientific or constitutional, which has the political power.

Nadia--

I said earlier that, I think it's science. But now I see that it lacks rational reasoning. It doesn't depend on facts.

Doesn't depend on facts. I agree with no verification. This is a pigeonholing system. Everything has to fit the system, so the system pre-exists nature itself, in so much that it's fitting nature to the system.

It is concerned with cycles, predictability. I agree with all that. But it can't improve. You know everything already, in some sense here. But it is also yet another model for how an imperial system could work. Thanks a lot. See you.

Section 6: Lesson from the Qin Terracotta Warriors

I mentioned that the emperor was buried in a tomb which was meant to represent heaven and earth-- be sort of a microcosm of the universe as he thought of it. In fact, the emperor had no plans to die originally. He had sent expeditions to find the lands of the immortals to bring back the elixir of immortality. He failed, apparently-- he died.

His tomb has still not been opened. But a number of years ago, what was discovered was a set of warriors made out of terracotta-- armies arranged around his tomb. And his tomb is a tumulus, a man-made mountain arising out of a flat plain. These warriors give us something to think about, and the fact that there are so many of them.

If I look at my slides here, and look through these slides as you're looking through now, of these pits where the warriors were found arranged in great rows-- actually, one of the most interesting was a replica built in Katy, Texas, outside of Houston. And, well, you can see it for yourself, but you can see the enormous size of these pits. It was really quite something.

And we know pretty much they haven't all been dug up. They were-- after the Qin fell, there was an attempt to destroy them. But it gets us to think about a couple things that I think are important to think about in terms of the creation of empire in China. Very often in the West, we talk about technological innovations as the basis for bringing about historical change. And it's true that the Qin had the advantage, but so did the other states, of the development of the crossbow.

The crossbow means that you can take these iron bolts, which are easy to produce, and keep shooting them longer distance, reasonable accuracy. But it's the sort of thing that you can do with a mass army. If we think about these massed soldiers-- infantry, cavalry, generals, common soldiers-- created and manufactured in workshops and buried around the first emperor's tomb.

What I think we see, really, is a sign of something else, which the Qin did more effectively. And that was social mobilization. It wasn't Qin's technology that won the day. It was the effectiveness and thoroughness of its mobilization of the population, and the fact that it could say to its soldiers there was only one way up, and that was to fight well and gain merit. And that anyone who wanted to have power and status in the state could only get it through merit on behalf of the state. So that is one of the great lessons of Qin, that mobilization sometimes could be more important than technology, and technological innovation.

I think very often in the West, we've looked at China and we've tended to see masses. China is a very densely populated country, and it has been for much of its history. So we tend at the same time in the West, to look at China as somewhat uniform. And to see this mass production of soldiers in the Qin, and Qin mobilization and Qin standardization, as really saying that everybody must conform. Everybody must be alike.

I actually think that that is a profound mistake on our part in looking at China. I was once told by a Chinese friend that what he admired most about America was that we had no individuality, and Chinese were too individualistic. Very opposite, I think, of what Americans assume. But I'll save that story till later.

Let's look at the evidence from Qin. Let's look at the evidence from these soldiers. And one of the things I'd call your attention to here is, yes, when we look at the long lines of soldiers, they seem to be all the same. But now look at the hairdos that we find, and the nature of the mustache and the beards. Everyone is individualized.

The production of these terracotta warriors was done at workshops. And as far as we can tell, sort of the arms and the legs and the torso were consistent across everybody. But then they took the next step. They gave them individual faces, different beards, different moustaches. They give them different hairstyles. There's tremendous individuality. Know there's enormous variation.

And somehow, one of the things that Qin established was how to mass produce, how to create modules that could be used effectively, and at the same time, maintain a level of individuality. And as we think about Chinese history, we might want to keep in mind that that is a unique, unique accomplishment.

Now, Qin didn't last. Somehow, Qin was able to have a high degree of uniformity and maintain a sense of individuality. And we see that in the terracotta warriors.

Section 7: Epilogue: The Fall of Qin

Let's go to the end of Qin. It unifies all the states in 221 BCE. And suddenly, under the reign of the Second Emperor, it collapses. The collapse is sudden. And the story goes like this.

There were two farmers who had to report for duty, for military duty. And there was a deadline. And the rule in Qin was that if you did not make your deadlines, you were subject to execution. The farmers are going through a swap, and they are caught in a rainstorm. They can't get out in time.

And they realize they're not going to make it to their station in time, and they'll be executed. They go home. They will be executed, and their families probably, as well. If they go to the camp, they'll be executed. So they say, well, the hell with it. Let's revolt.

And there's a certain appeal to that story because it's a story about the fact that people were oppressed, that there was no leeway given in Qin. It didn't matter what your intentions were. It was the act that mattered. It was a very harsh and strict law.

What seems to be, probably, truer is that Qin had tried to extend its system to all the feudal states too quickly and that, once things started to fall apart-- and it's true that the Second Emperor was a poor, poor leader, but once things started to fall apart, all the old states in the east rose up against Qin. Their existing nobles led armies of revolt. And Qin was over very quickly.

Four years later, a new dynasty would be founded. But for the moment, the larger lesson that might have been learned by many people was that a single, centralized bureaucratic empire was not effective, was not a solution. That in fact, the Zhou model, Zhou feudalism, was still the only viable form of government and that Qin represented a failure. Why that was not so will be our concern in the next module.