

## Terra Cotta Warriors of Xi'an

Written by Kaisertour

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### Terra Cotta Warriors: A Full-scale Replication of the Qin Dynasty Army

If you were allowed to visit one site in Xian, the Terra Cotta Warriors and Horses Museum is where you should come. There is no other place in the world you can see a full-scale life-size army of over 2,000 years old. Rarely is an archeological find actually a "discovery," as often labeled. Triumphs, when they come at all, follow years of careful research, exploration, and just plain dirty, dusty, digging. But what happened in 1974, a few miles outside of Xi'an, China, was very different. While digging a well, three brothers accidentally came upon one of the 20th century's greatest archeological treasures. There, buried just a few feet below the surface, were found the first of over 8,000 life-size terracotta figures of armed warriors, horses and chariots.

One day in 1974, near Xi'an, some farmers accidentally stumbled upon this site of the terracotta soldier built to guard the Mausoleum of Emperor Qin Shi Huang. They are over 2,200 years old and still stand just as proudly today.

These life-sized figures are located in Jiangzhai xichang village. It is around one mile from Emperor Qin Shi Huang's Mausoleum. There are about 6,000 of these warriors covering a massive area. Later, a second and third pit was discovered also full of soldiers and horses. Each of the pits are called #1, #2 and #3 in order of when they were discovered. Together, there are 20,000 sq meters covered with around 8,000 figures.

To protect and preserve this historical treasure, a building with a bow-shaped steel framework was constructed over the #1 pit forming a vast exhibition hall. The building is 230 meters long, 72 meters wide, and 22 meters high, larger than two football fields. The Qin Shi Huang Terracotta Warriors and Horses Museum was officially opened to the public in 1979.

From inside the hall, you can over 1,000 horses and soldiers that have been excavated and cleaned up; the rest of the 5,000 are in the process of being carefully cleaned. The army forms a rectangular formation facing east with 210 warriors lining each of the first three rows making up the front ranks. Behind them are the marching soldiers and horses drawing chariots, making up the main body of this army. The two sides of the army and the rear each have a line of warriors, divided to face south, north and west to protect the body of the army from attack in other directions. All the structures are in the same proportions and the same actual size reflecting the skill of the Qin dynasty sculptors. From the location, hair, clothing and weaponry, one can generally deduce their rank and position. Soldiers with relatively long beards, most likely older generals, are placed towards the rear. Each has a special pose according to his duties such as the kneeling arrow shooter ready to shoot arrows.

The statues are so well made that each soldier has different lifelike facial expressions. So it is clear that these soldier were make one by one by sculptors and not from a mold. Some of the statues are clearly minority people from the northwest which gives an idea of who the actual Qin

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dynasty soldiers were.

The horses were unique from the horses we see today. The ones in the pit are fat with erect ears. They were around 1.5 meters high with short legs and small heads. Some believe these are the Hequ horses found in Gansu today or the Hetian Horses found in Xinjiang, which are great for racing or fighting since they are fast and strong.

Chinese weaponry became quite advance during the Warring States period, when the warring seven powers made great advances in weapon design in order to gain advantage in the war. Thus, this was carried over into the Qin dynasty. The pit told modern historians just how true this was. The weapons and fight strategy were all very advanced. All the weapons in the pit were made of made of bronze and carefully crafted. There were the three main kinds of cold weapons (as opposed to what Chinese call hot weapons which came only after the invention of gunpowder) were distant firing weapons, such as bows and arrows, weapons for close combat and longer weapons for distance combat. All of these were represented in the pit.

The most amazing thing is that these weapons are still shiny after all these years. After 2,000 years they had not rusted at all! This shows that the Qin-dynasty craftsmen were in possession of very high metallurgical technology. The blades of the weapons had an oxidized layer that was later proved the result of a salt oxidizing process. This is how the weapons stayed shiny after all these years. This treatment of the surface is a modern technology that the Qin dynasty already used over 2,000 years ago.

This site is especially famous because it was so strange and mysterious to bury a whole army underground. It is hard to understand why anyone would create so many glorious sculptures just for burial. This site makes the sophistication and advanced culture of ancient China evident to the entire world. Everyone who sees these soldiers has a similar reaction to that of the former French Premier who exclaimed "The Qin terracotta pit is one of the marvels of the world. To go to Egypt and not see the pyramids is not really going to Egypt; to go to China and not see this sight is not really going to China."

### At A Glance

c.246 BC: Creation

1974: Discovery

Nature: Sacrificial objects of Qin Shi Huang, the First Emperor of Qin

Location: 1,500 meters east of Qin Shi Huang Mausoleum, Xian, China

Objects found: a total of more than 8,000 terra cotta warriors, horses and chariots together with numerous weapons

1979: Terra Cotta Warriors and Horses Museum open to public

1987: Listed as a Heritage Site by UNESCO

### Who Built the Terra Cotta Warriors?

Qin Shi Huang – The First Emperor of Qin Dynasty. Soon after he succeeded the throne, he ordered to build his mausoleum at the foot of Li Mountain in Xian. Terra cotta warriors were actually part of his grave goods. It is believed that manpower of 700,000 was involved through a period of 40 years.

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Take a look at his bio [here](#).

Discovery of the Underground Military Force from Qin Dynasty  
(221 BC - 206 BC)

The site being the most significant archeological discovery in the Twentieth Century was discovered in 1974 when farmers digging a well unearthed broken pieces of terra cotta warriors.

Further discoveries included thousands of terra cotta soldiers, war chariots, terra cotta horses and weapons, all in life-size. Arrays of terra cotta soldiers were set up like an actual battle field. The Qin terra cotta warriors and horses reflect a great marvel of ancient Chinese civilization. The objects found demonstrated extremes of human capabilities in many aspects such as creativity, magnificence, skills of sculpture, pottery making and preservation.

### What Were Found?

Over 8,000 terra cotta soldiers, horses and chariots, all facing east were unearthed. Basically there were four types of figures: generals, soldiers, archers and military advisers. So far, only seven generals were found. However nobody can explain the absence of a commander-in-chief.

Currently three trenches had been excavated. As they were over 2,000 years old, you would expect some soldiers had missed their heads and with broken or fractured bodies. Heavy restoration work has been ongoing.

Each of the trenches is five meters below ground level. Figures were placed in corridors or chambers separated by earthen walls. Large wooden planks were placed on top to form the roof which was covered with reed mats topped by a layer of moisture-proof red clay. Bricks were used to form the flat floor where the soldiers and horses stood.

Let's look at the trenches one by one.

#### Trench One

Largest in size with most number of terra cotta warriors.

230 meters by 62 meters, five meters deep, total area 14,260 square meters.

The floor plan is based on an actual army in a battle field.

Estimated to contain 6,000 terra cotta horses and armoured warriors with the four arrays representing the vanguard, main body, flank and rear guards, mostly infantrymen.

Armoured warriors were armed with real weapons. Archers were at the front and soldiers with long-handled weapons to the rear.

The soldiers not only look real. The way soldiers held weapons and charioteers grasping reins were all prepared for action.

Fifty wooden chariots found were pulled by teams of four horses.

Each chariot held a three-man team, including the charioteer, was surrounded by a small battle unit of between 50-100 infantrymen.

The array of vanguard forces supported by flank and rear guards truly exhibited the grandeur of the power of Qin Dynasty army.

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### Trench Two

124 meters by 98 meters, 20 meters east of Trench One.

The array, shaped like a carpenter's square, was composed of four small units which represented the powerful flank force protecting the main body in Trench One.

Unit 1 – At the east of the trench, a camp for archers. 334 crossbow archers, including 160 heavily armoured kneeling figurines in eight columns of 20 each. Other standing crossbow archers were in their shooting position.

Unit 2 – At the south of the trench, a camp for coachmen. 64 chariots divided into eight groups. Each chariot carries three soldiers.

Unit 3 – At the centre of the trench, a camp for infantrymen. Consists of a combination of chariots, infantrymen and cavalrymen. The 19 chariots supported by over 100 armless infantrymen are divided into three columns of six by seven by six.

Unit 4 – At the north of the trench, a camp for cavalrymen. Crossbow archers, six chariots and 124 cavalrymen were in column array. Each chariot held two figurines, a charioteer and a scout.

The four units can fight as a group or individually. It was extremely flexible as to advance or evacuate.

### Trench Three

Around 500 square meters, the smallest among the three trenches.

Yielded 66 terra cotta soldiers, four chariot horses and one wooden chariot. No battle arrays were found.

Archeologists believe that it is a place of headquarters or the commander's unit for two reasons. First, animal bones and deer horns were found. In ancient times, these were usually used for divination before war. Second, figurines carrying bronze weapons facing each other while standing outside the rooms of north and south were thought to be guarding the headquarters.

### Terra Cotta Warriors – Close Up

The terra cotta warriors represented unbeatable achievements in the history of ancient Chinese sculpture. You must be completely impressed by their tremendous attention to details.

All the 8,000 life-size terra cotta soldiers were unique in appearance. You won't find two of them look the same. It is obvious that they were crafted from life models. Each figurine's head appears to be unique in facial features, expressions and hair styles. Even their belt hooks, shoe ties and costume details were finely sculpted. The uniform they wore represented their post and ranking in the army.

The figurines are in various postures including standing infantry and kneeling archers as well as charioteers with horses. Their posture is usually related to the weapon they hold.

The colouring of the terra cotta figurines was another major achievement. Despite the 2,000 years of corrosion, the paint fragments on the figurines indicated the terra warriors were originally covered with various bright and brilliant colours. The imposing terra cotta warriors

must have presented a magnificent scene prior to being buried in the trenches!

### Weapons – Close Up

Terra cotta warriors not only replicated the Qin army in a macro view, they were designed in way to replicate the weapons as well. Each figurine was, in fact, armed with a real weapon. Over 10,000 bronze weapons of extensive varieties have been unearthed.

Here is a short list of the weapons held by the terra cotta soldiers: Varieties of swords, Daggers, Battle-axes, Halberds, Double-bladed spears, Bows and arrows, Numerous wood and bamboo weapons.

The weapons were finely finished in a way beyond our imagination. Archeologists found that the bronze weapons were coated with a 10-micron layer of rust-proof chromic salt oxide – a technique not developed in Europe and America until recent times.

**Terra Cotta Horses and Chariots – Close Up** Soldiers and horses were warring partners in ancient times. Horses constituted a significant number in the terra cotta army. More than 600 terra cotta horses have been excavated from all the three trenches. They were mainly battle steeds and chariot teams. Horses have an average measurement of about two meters in length and 1.72 meters in height, quite close to actual size.

Terra cotta horses featured strong limbs, large heads, protruding noses, short necks and wide shoulders. The muscular horses appear ready for action with ears erect and flaring eyes. Some with raised heads and open mouths appeared to be neighing.

### Why Were the Terra Cotta Warriors All Facing East?

Qin was the west-most in terms of location among the seven warring states. Therefore their enemies were all from the east. The terra cotta army was buried east of the Qin Mausoleum. All the terra cotta soldiers were facing east. These demonstrated the designers' critical thinking and strategic wisdom.

Usually burial objects are not placed as far away as 1,500 meters from the tomb. However the terra cotta army was set there to safe guard the king, the 1,500 meters therefore made sense. Qin Shi Huang not only wanted to be the greatest king when he was alive, but after life and even forever. Therefore he wouldn't allow a chance for the other six warring states to rebel. The terra cotta army set there was meant to suppress them. It was also the terra cotta army who had executed his dream of everlasting.

### What Made the Terra Cotta Army Long Lasting?

Research showed that even with today's technology, it is difficult to reproduce a pottery figure of same quality as the terra cotta warriors unearthed in Xian. Consider these 2,000 years old life-size pottery figures, their construction technology had reached the extreme of human capabilities for the period.

Studies indicated that the terra cotta warriors were fired at high temperature of between 950 and 1,100 degrees Celsius. With hollowed heads, bodies, arms and solid legs, the terra cotta

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warriors were exceptionally hard.

Xian is located at the southern part of the Loess Plateau of China. Weather is generally dry and cool. This forms a perfect natural storage environment for the terra cotta soldiers to sleep for 2,000 years without much erosion.

Are There Burial Objects Other Than the Terra Cotta Army?

Yes, quite obviously.

Though 1,500 meters formed a security zone for the king, would there be any other burial objects in that area? Probably yes.

In June 1996, a small trench of 153 square meters nearby Qin Mausoleum was discovered. Unlike others, there were no figurines. Instead, thousands of stone warring customs were found. Obviously it was the supplies unit of the terra cotta army.

In 1980s, a bronze horses and carriages trench was unearthed 20 meters west of the Qin Mausoleum. The replicated imperial carriages of Emperor Qin Shi Huang had given us the first ever glimpse of its kind and helped us visualize the magnificent scene of an imperial tour.

In June 2000, another small trench was found. Other than bodies of steeds, there were 12 figurines however none of them looked like a warrior. They looked more like civil officers. From the objects they held, archeologists were able to define two of them to be Heads of Justice.

Hence, the other 10 could be members of the Justice Department. As Qin Shi Huang ruled his country by law, it was obvious that he brought his legal officers along with his army.

It was likely that Qin Shi Huang wanted to bring with him not only treasures and army, but the whole of his empire to his after life. At Li Mountain of Xian, areas with the Qin Mausoleum as the center, there are likely to be treasures of every kind. Archeologists strongly believe that there is an underground miniature of the whole of the Qin Empire.