

# The Laoguanshan Cemetery of the Han Dynasty in Tianhui Town, Chengdu City

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## Abstract

In July 2012 through August 2013, four earthen shaft pit tombs with wooden chambers were excavated in a cemetery of the Western Han Dynasty located in Tianhui Town, Jinniu District, Chengdu City. All of the four tombs, which had been looted and disturbed, were in similar sizes and same south-north orientation, and could be classified into two types by the presence and absence of the bottom chambers. 620 pieces of grave goods were unearthed from these tombs, most of which were lacquered wooden wares and pottery wares, as well as some bronzes and iron objects. The most important discoveries are the over 50 wooden tablets unearthed from M1, the jade seal and four loom models made of bamboo and wood unearthed from M2 and 920 (numbered) bamboo slips and lacquered human figurine with marks of meridians and acupuncture points unearthed from M3. The bamboo slips unearthed from M3 were mostly medical works, the contents of which were about medical theory, meridian and pulse, diagnoses, causes and symptoms of diseases and the treating of diseases, etc.

**Keywords:** Bamboo slips; Laoguanshan Cemetery (Jinniu District, Chengdu City, Sichuan); looms (textile tools)–Han Dynasty; medical literature–history

## A brief introduction of the excavation

Approved by the State Administration of Cultural Heritage, the joint archaeological team organized by Chengdu Municipal Institute of Cultural Relics and Archaeology and Jingzhou Conservation Center excavated four earthen shaft pit tombs (numbered as M1 through M4) with wooden chambers at a cemetery of the Western Han Dynasty in Tianhui Town, Jinniu District, Chengdu in July 2012 through August 2013. From these four tombs, large quantity of lacquered wooden wares, pottery wares and some bronzes and iron artifacts were unearthed.

The four tombs were arranged on the two sides of the Rongdu Ave; the M1 through M3 were arranged in a line from south to north: M2 was about 30m to the north of M1 and M3 was 5m to the north of M2. M4 was located about 420m to the southeast of M1.

## The structures of the tombs

All of the tombs were earthen shaft pit tombs with

wooden chambers, the sizes of which were similar and the orientations were all roughly south-north. M1 and M3, which had passages, were in the 冂-shaped plan and M2 and M4 were in rectangular plan. In the graves, wooden coffin chambers were built; the boards of the coffin chambers were jointed with mortise-and-tenon method and the inner sides of the chambers were lacquered in red and black colors. In the coffin chambers, one or two wooden coffins were placed; the coffins were made of complete log by cutting into the shape of a trough and sealing two ends with wooden boards, and the coffin bodies and lids were matched with shoulder joints. The inner sides of the coffins were lacquered into black color, and the outer sides were lacquered into black or red color and usually decorated with bronze bubbles or wooden *bi*-discs. The spaces between the graves and the wooden coffin chambers were filled with gray fine clay and their top were filled with layers of rammed-earth. The tumuli above them were severely destroyed and the original sizes and forms were no longer clear. These four tombs could be classified into two types by the presence and absence of the bottom chambers, which were another layer of wooden chambers beneath the coffin chambers, in which the grave goods were placed in the separated compartments by categories. Only M1 did not have bottom chambers.

1. The M1 was in an orientation of 192° and had a ramp passage. The remaining length of the grave at the opening was 6.24m, width was 4.04m and the depth, 4.22m. The coffin chamber and coffins were well preserved. The coffin chamber was 5.98m long, 3.6m wide and 2.2m high. In the southeast of the coffin chamber, two wooden coffins were found, both of which were in rectangular shapes. Coffin no. 1 was 2.62m long, 0.74m wide and about 0.89m high, the outer surface was fully lacquered into red color. Coffin no. 2 was about 2.46m long, 0.76m wide and about 0.8m high, and the outer surface was fully lacquered into black color. From this tomb, over 150 pieces of grave goods were unearthed, including pottery wares, lacquered wares, wooden wares, bronzes, iron objects, silver wares, coir-woven wares, bamboo objects, stone implements, etc. The pottery wares were jars, *ding*-tripods, basins, bowls, pots, models of well and oven, etc.; the lacquered wares were eared cups, *lian*-cosmetic cases, trays, plates, ladles, armrests, boxes, horse figurines, vessel stands, semicircular objects, etc. The bronzes were crossbow triggers, belt hooks, buckle ornaments, etc., and *banliang* and *wuzhu* coins. In addition, about 50 pieces of wooden tablets were also found in this tomb.

2. M2, the orientation of this tomb was 34°. The top of the grave had been damaged before excavation, and the

extant length at the opening was 8.45m, the width was 5.76m and the depth, 5.2m. On the east and west walls of the grave, there was a flight of steps dug out of the primary earth, respectively; on the four walls, fastening holes for building the coffin chamber were found, and on the top of the coffin chamber, a layer of coir-woven pads were covered. The coffin chamber was in a II-shaped plan, the length of which was 7.2m from north to south, the width was 4.5m from east to west and the height, 2.75m. The inner space of the coffin chamber was in rectangular shape, which was 6.36m long from north to south, 3.16m wide from east to west and 2.05m high (including the height of the bottom chamber). In the middle and the places 0.45m to the south side and 0.6m to the north side of the bottom chamber, partitioning boards were set to separate the bottom chamber into four compartments, and

the southernmost compartment was again separated into three small cells (Figures 1 and 2). The bottom chamber was covered with wooden boards, on which the wooden coffin was set. The coffin was placed in the northwest corner of the coffin chamber and leant against the west wall; it was 2.76m long, 0.88m wide and 0.92m high, and fully lacquered into brownish-red color. The outer surface of the coffin was decorated with bronze bubble-shaped ornaments and textiles, which had only traces left. From this tomb, over 180 pieces of grave goods were unearthed, including pottery wares, lacquered wooden wares, wooden wares, bronzes, iron objects, jades, stone implements, etc. The pottery wares were jars, basins, bowls, models of well and oven, the lacquered wares were eared cups, plates, horse and human figurines, loom models, etc., the jades and stone implements were jade plugs and seals, the bronze and iron objects were cutters and *fu*-cauldron, and *banliang* coins.

3. M3, the orientation of this tomb was 35°. The top of the grave had been damaged before excavation, and the extant length at the opening was 6.4m, the width was 4.26m and the depth, 2.7m. The general plan of this tomb was in a 卍-shape. The coffin chamber was 5.6m long from north to south, 3.26m wide from east to west and 2.2m high. In the middle and the places 0.45m to the south and north sides of the bottom chamber, partitioning boards were set to separate the bottom chamber into four compartments. The bottom chamber was covered with wooden boards, on which the wooden coffins were set. The two wooden coffins were placed in the north of the coffin chamber. Both of the coffins were fully lacquered into red color; the west one was 2.42m long, 0.8m wide and 0.71m high and the east one was 2.79m long, 0.94m wide and 0.8m high. From this tomb, over 160 pieces of grave goods were unearthed, including pottery wares, lacquered wares, wooden objects, bronzes, iron objects and artifacts made of straw, bamboo, cane, etc. The pottery wares were jars, *ding*-tripods, *fu*-cauldrons, bowls, vats, well model, etc., the lacquered wooden wares were eared cups, *lian*-cosmetic cases, armrests, plates, boxes, human figurine with marks of meridians and acupuncture points and other human figurines, horse figurines, staffs, semicircular objects, etc.; the bronzes were cutters, belt hooks, buckle ornaments,



**Figure 1** The south compartment of the bottom chamber of M2 (E-W).



**Figure 2** The north compartment of the bottom chamber of M2 (N-S).

*banliang* coins, etc.; the iron objects were spearheads, pestle and mortar. In addition, about 920 pieces of bamboo slips were unearthed from this tomb.

4. M4, the orientation of this tomb was 148°. The top of the grave had been damaged before excavation, and the extant length at the opening was 6.02m, the width was 4.04m and the depth, 2.86m. The coffin chamber was in a II-shaped plan, the length of which was 4.22m from north to south, the width was 2.38m from east to west and the height, 2.27m (including the height of the bottom chamber). In the middle and the places 0.2m to the south and north sides of the bottom chamber, partitioning boards which were about 0.3m high were set to separate the bottom chamber into four compartments. The coffin was placed in the southeast corner of the coffin chamber and leant against the east wall; it was 2.3m long, 0.84m wide and 0.88m high, and fully lacquered into red color. From this tomb, over 40 pieces of grave goods were unearthed, including pottery wares, lacquered wooden wares, jades and stone implements, bronzes and iron objects, etc. The pottery wares were jars and bowls, the lacquer wares were *yi*-pouner, *pan*-basin, eared cups, etc., the jades and stone objects were handgrips, etc.; the bronzes and iron objects were *banliang* coins, iron lamps, etc.

### Grave goods

In total more than 540 pieces of grave goods were unearthed from these four tombs, 130 or so of which were pottery wares, including jars, *ding*-tripods, basins, bowls, vats, pots, models of wells and ovens, etc.; 240 pieces were lacquer wares, including eared cups, *lian*-cosmetic cases, armrests, plates, boxes, human and horse figurines, etc.; 140 or so were wooden objects, including *bi*-discs, staffs, vessel stands, trays, semicircular objects, loom models, etc.; over 20 were bronzes, including crossbow triggers, belt hooks, buckle ornaments and *banliang* and *wuzhu* coins; the other were some iron objects and bamboo objects and straw- or coir-woven items.

#### 1. Bamboo slips and wooden tablets.

Original texts	Trial interpretations
...陇西左右内史一，道...	...The left and right <i>neishi</i> of Longxi, one, to direct...
...赐者众，«算令»曰：诸...	...Many people were conferred (by...); the <i>Suanling</i> (Statute on the poll tax on adults) said: all...



Figure 3 Wooden tablets (M1:118, M1:158 and M1:206).

(1) The wooden tablets, about 50 pieces (including fragments), were all found in M1. Their texts by contents could be classified into official documents and witchcraft guides (Figure 3). Here are some examples of the official documents.

Wooden tablet M1:118:

This document was related to the *neishi* (administrator) of Longxi Commandery, and considered to be related to the statute on the paying of the poll tax on adults.

Wooden tablet M1:158:

Original texts	Trial interpretations
...[贾]皆没入所不占，县...	...[The merchants] are confiscated which they are not to be supposed to possess, the district...
...皆益加朱十钱以均之...	All are increased by ten coins to even them...
...勿治。令诸郡国贾...	...Not to punish. Order the merchants of all of the commanderies and feudatory kingdoms (to...)
...上者，令出率：万钱出...	...Those of the top (degree), are ordered to pay (by the) rate: (each) ten thousand coins (should) pay...
...及贷钱斥物若[賒]...	...And the loaning money, selling goods, if [the payment is delayed] ...
...欲以取利而不租者，及...	...Those who want to get interests and not to pay taxes, and...



Figure 4 Bamboo slips (M3:121).

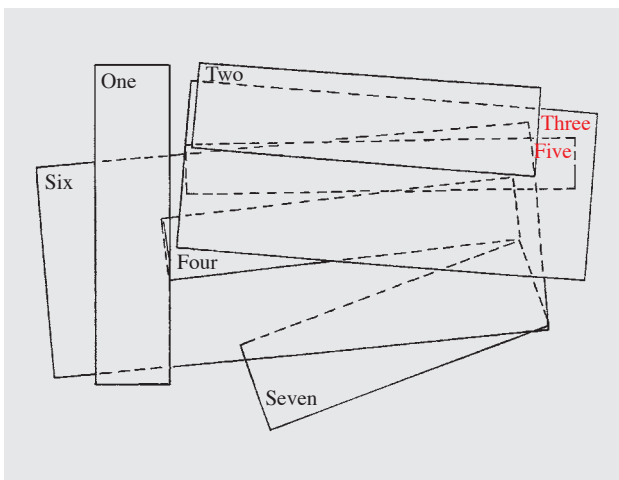


Figure 5 The diagram of the arrangement of bamboo slips M3:121 when they were unearthed.

These contents seemed to be related to the decree for stabilizing prices; because the price of some kind of goods was too low, the central government issued a decree to raise the price to keep the supply, and ordered the “merchants of all of the commanderies and feudatory kingdoms” to follow this decree.

The examples of the witchcraft guides:

Wooden tablet M1:206, the text:

Original texts	Trial interpretations
.....[ 乾 ] 冶，饮之。 女子视欲得男者，禹步三，择日取□.....	...Decoct, and let him take (the medicine or something). Woman, who wants to give birth to a boy, (should) walk in steps of Yu, three times, choose a date to fetch (something)...
使其父，毋似其母者，且以半祀以为不十(丕)，三族为三正。人皆呼□族为正。拜[ 起后 ].....	(Choose) the one looking like his father, not (to choose) the one looking like his mother, and half (of the chosen one) is sacrificed as the outstanding; the three clans as the three <i>zheng</i> . The X clans are all called as <i>zheng</i> by the people. When [getting up after] the kneeling salute...
[ 后 ] 避，使告黄工□□□□□三，而更为之，皆以月望日东方[ 呼 ]□乡(向)中央人□祝，旁人皆呼.....	[Later] evades, let Huang Gong be told...three, and do it again (or in another way), all [shout] to the east direction on the day of full moon... (to) the person in the center, the other people all shout ...

The ink color of the text of this wooden tablet was very light and many characters had been blurred and hardly legible, but could roughly be inferred as about the witchcraft for begging boys.

(2) The bamboo slips. Numbered collectively as M3:121, they are 736 pieces in total (including fragments). By the locations, lengths and contents, they could be identified into nine medical works; except for the *Wuse mai zang lun* 五色脉脏论 (The theory on the five complexions and the meridians and *zang*-organs), the other eight medical works had no titles, and the excavators assigned temporary titles for them according to their contents as *Bi Xi yilun* 敝昔医论 (Medical theory of Bi Xi, or Bian Que), *Mai si hou* 脉死候 (Mortal pulse manifestations), *Liushi bing fang* 六十病方 (Formulae for sixty diseases), *Chijian* 尺简 (One-*chi*-long slips), *Bingyuan lun* 病源论 (On the causes of the diseases), *Jingmai shu* 经脉书 (Book on meridians), *Zhu bing zhenghou* 诸病症候 (The symptoms and manifestations of the diseases) and *Gui mai shu* 归脉数 (Associations of diseases and meridians), and so on (Figure 4). For details of the lengths and arrangements of these bamboo slips, see Figure 5 and Table 1.

Table 1 The statistics of the bamboo slips M3:121 (Nos. Three and Five are the same book)

M3:121	Quantity of slips	Numbers of the slips	Box numbers	Infrared detection numbers	Length (cm)	(Temporary) title
One	57	1–55	(1)–(6)	0344–0356	All fragmentary	<i>Bi Xi yilun</i> 敝昔医论 (Medical theory of Bi Xi, or Bian Que)
Two	51	56–105	(7)–(11)	0357–0385	27.6	<i>Mai si hou</i> 脉死候 (Mortal pulse manifestations)
Three	175	106–282	(12)–(29)	0386–0439	34.5	<i>Liushi bing fang</i> 六十病方 (Formulae for sixty diseases)
Four	20	283–302	(30)–(31)	0440–0445	22.7	<i>Chijian</i> 尺简 (One- <i>chi</i> -long slips)
Five	40	303–342	(32)–(35)	0446–0454	34.5	<i>Liushi bing fang</i> 六十病方 (Formulae for sixty diseases)
	18	343–360	(35)–(37)	0452–0458	27.6	<i>Bingyuan lun</i> 病源论 (On the causes of the diseases)
Six	268	361–628	(38)–(64)	0459–0546	35.8	<i>Zhu bing zhenghou</i> 诸病症候 (The symptoms and manifestations of the diseases) <i>Jingmai shu</i> 经脉书 (Book on meridians)
	41	629–670	(65)–(68)	0547–0573	30	<i>Gui mai shu</i> 归脉数 (Associations of diseases and meridians)
Seven	66	671–736	(69)–(75)	0574–0604	All fragmentary	<i>Wuse mai zang lun</i> 五色脉脏论 (The theory on the five complexions and the meridians and <i>zang</i> -organs)

The contents of the nine medical works are preliminarily trimmed as the following.

*Bi Xi yilun* 敝昔医论 (Medical theory of Bi Xi, or Bian Que), which was placed transversely in front of other bamboo slips, and the lower parts of all of which were missing. The remaining lengths of these bamboo slips were 10–23cm, and preliminary identification found 57 pieces belonging to this work. Here are some examples of its text.

Original texts	Trial interpretations
敝昔曰：人有九窍（窍）五藏（脏）十二节，皆鼃（朝）於气。	Bi Xi (Bian Que) said, a human being has nine orifices, five <i>zang</i> -organs and twelve joints, all of which are relying on the <i>qi</i> (vital energy).
敝昔曰：所胃（谓）五色者，脉之青白相乘者，脉急甚。	Bi Xi (Bian Que) said, the so-called five complexions, are the proportions of the colors of bluish-green and white of the channels (blood vessels), the pulse is extremely rapid.

*Mai si hou* 脉死候 (Mortal pulse manifestations), which was placed at the top of the longitudinally arranged bamboo slips. The bamboo slips of this book, which were

counted as 51 pieces in total, were about 27.6cm long, 0.8cm wide and 0.1cm thick. Below are some examples of its text.

Original texts	Trial interpretations
脉绝如食[顷], 不过二日而死, 烦心与腹胀(胀)具则死; 其脉, 输, 郄, 皆其盛曰死。	(If) the pulse exhausts for (the time of having) a meal, within two days, (the patient) would die; vexation and abdomen swelling, if both shown, would die; the meridians, acupuncture points and cleft points, all...
[一曰] 刑(型)死, 二曰气死, 三曰心死, 四曰志死, 五曰神[死]。	The first is called the death of physique; the second is called the death of <i>qi</i> ; the third is called the death of heart; the fourth is called the death of consciousness and the fifth is called (the death of) vitality.

*Liushi bing fang* 六十病方 (Formulae for sixty diseases), which were piled in the upper part of the bamboo slips, are relatively long bamboo slips, which are generally 34.5cm long, 0.8cm wide and 0.1cm thick. They were piled into two layers, the upper one of which consisted of about 175 pieces and the lower one, about 40 pieces, 215

pieces in total, and the shorter bamboo slips of *Chijian* 尺简 (One-*chi*-long slips) were sandwiched between them. These longer bamboo slips are all that of the formulae for treating diseases, including 15 pieces as the list (table of contents) and about 200 pieces of formulae. Each list

slip is divided into four rows, in each of which the name of the disease to be treated is listed first, followed by the number, and in total 60 formulae are recorded on these 15 pieces of bamboo slips. The list is restored as the following:

Original texts	Trial interpretations
[ 治风痹汗出方一 ]   治疝山 (疝) 十六   治鲜 (癬) 卅一   治消渴卅六	[Treating wind arthralgia and sweating the first]   Treating the inguinal hernia the sixteenth   Treating the tinea the thirty-first   Treating the emaciation-thirst (diabetes) the forty-sixth
[ 治 ?? 二 ]   [ 治女山 (疝) 十七 ]   治肠已 [ 阴痿 ] 不用者卅二   治字难者卅七	[Treating X the second]   [Treating women's hernia the seventeenth]   [Treating impotence the thirty-second]   Treating difficult childbirth the forty-seventh
治瘕三   治肠山 (疝) 十 [ 八 ]   治伤饮卅三   治女子瘕卅八	Treating movable abdominal mass the third   Treating the intestinal hernia the eighteenth   Treating drink damage the thirty-third   Treating women's abdominal mass the forty-eighth
治心腹承瘕四   止内衄十九   治伤寒足清养者 [ 卅四 ]   治风癣卅九	Treating masses in heart and abdomen the fourth   Stop internal metrorrhagia the nineteenth   Treating cold damage, foot cold and itch the thirty-fourth   Treating wind tinea the forty-ninth
治腹后膏成农者五   治女子不月廿   治身疔伤卅五   治内瘕五十	Treating purulent bloody stool the fifth   Treating women's amenorrhea the twentieth   Treating body scabies the thirty-fifth   Treating internal jaundice the fiftieth
治金伤六   治沦廿一   治踣及要 (腰) 伤卅六   治内风五十一	Treating metal wound the sixth   Treating turbid urine the twenty-first   Treating injuries from falls and knocks and lumbar trauma the thirty-sixth   Treating the internal wind the fifty-first
治益气轻劲七   治黄瘕廿二   治婴 (癭) [ 卅七 ]   治伤中五十二	Replenishing <i>qi</i> and making light and vigorous the seventh   Treating yellow jaundice the twenty-second   Treating goiter [the thirty-seventh]   Treating diaphragmatic injury the fifty-second
治风八   治石癃廿三   治屨卅八   治内衄金伤赤沦五十三	Treating wind the eighth   Treating stony dysuria the twenty-third   Treating coma the thirty-eighth   Treating internal metrorrhagia, metal wound and bleeding the fifty-third
治风聋九   治寒热咳醪廿四   治温病卅九   治隔中五十四	Treating wind deafness the ninth   Treating cough and vomit caused by chill and fever the twenty-fourth   Treating warm disease the thirty-ninth   Treating <i>gezhong</i> the fifty-fourth
止风汗十   治目多泣廿五   治伤肺卅   治内瘕五十五	Stopping wind-sweating the tenth   Treating profuse tearing the twenty-fifth   Treating lung damage the forty   Treating internal stasis the fifty-fifth
治风热中十一   治白徙 (癖) 廿六   治风偏清卅一   治风痹初发五十六	Treating internal wind-heat the eleventh   Treating white tinea the twenty-sixth   Treating wind stroke and hemiplegia the forty-first   Treating early wind arthralgia the fifty-sixth
治寒热十二   饮消石廿七   治大伏蜡斂蛭卅二   治暴血血瘕五十七	Treating chill-and-fever the twelfth   Drinking niter the twenty-seventh   Treating large roundworm disease the forty-second   Treating fulminant bleeding and blood arthralgia the fifty-seventh
治上气十三   治下气廿八   治心腹卅三   治心暴痛五十八	Treating abnormal rising of <i>qi</i> the thirteenth   Treating farting the twenty-eighth   Treating heart and abdomen the forty-third   Treating sudden heart pain the fifty-eighth
治欬十四   治身大疔廿九   治逆气卅四   治气暴上徙喘五十九	Treating cough the fourteenth   Treating large body scabies the twenty-ninth   Treating <i>qi</i> counterflow the forty-fourth   Treating cough with dyspnea the fifty-ninth
治鼠十五   治四支 (肢) 弯曲 (屈) 卅   治内消饮少溺多者卅五   治泄而烦心六十	Treating scrofula the fifteenth   Treating spasm of limbs the thirtieth   Treating insufficient drinking and profuse urination the forty-fifth   Treating diarrhea and vexation the sixtieth

The names of the diseases listed above involved that of the internal medicine, external medicine, gynecology, dermatology, otolaryngology and ophthalmology,

traumatology, etc. The following are the texts of some intact bamboo slips.

Original texts	Trial interpretations
八 治风 石脂七分,蜀椒五分, 方风,细辛各四分, 厚附五分,陈朱臬一 分,圭(桂)十分,薑 六分,皆冶合。	Eight Treating wind Seven portions of <i>shizhi</i> 石 脂 (halloysite), five portions of <i>shujiao</i> 蜀椒 (pricklyash peel), <i>fangfeng</i> 方风 (divaricate <i>saposhnikovia</i> root) and <i>xixin</i> 细辛 (Manchurian wildginger), four portions of each, five portions of <i>houfu</i> 厚附 (official magnolia bark), one portion of <i>chen zhuyu</i> 陈朱臬 (dried Asiatic cornelian cherry fruit), ten portions of <i>gui</i> 圭 (cinnamon bark) and six portions of ginger, all of the above, decoct together.
廿二 治黄 瘰 取黄 牡牛弱(溺)饮之,能 多饮之亟已。	Twenty-two Treating yellow jaundice Let the patient drink yellow bull's urine, the more the quicker of the healing.
五十七 治血 暴发者 屑土 瓜二枚,蒙菌,圭各 一,取一籥,温美酒 半升。莫毋食,旦饮 之,日一,五日已。禁。	Fifty-seven Treating fulminant bleeding Smash two snake gourds, with <i>mengjun</i> and <i>gui</i> (cinnamon), one of each; get a <i>yue</i> -vessel, heat half a <i>sheng</i> (about 1dl) of good wine. (Let the patient) not have supper, and drink (the wine decoction of the above) at (the next) sunrise, one time a day, five days later will be healed. Forbidden...

*Chijian* 尺简 (One-*chi*-long slips), which was sandwiched between the two layers of longer bamboo slips (the formulae), consisted of about 20 slips. These bamboo slips are 22.7cm long (about 1*chi* in the Han Dynasty), 1cm wide and 0.2cm thick. They were made in the short but thick shape, which was only two thirds as long as the bamboo slips of the formulae, but twice as thick as them, and therefore they were better preserved. However, their surfaces were severely decayed, and the characters on them were mostly peeled away, no complete sentences were restorable and only known to be related to legal affairs.

*Bingyuan lun* 病源论 (On the causes of the diseases), which was placed beneath the formulae slips and over the longest ones, consisted of about 18 bamboo slips. These bamboo slips are 27.6cm long, 0.7cm wide and 0.1cm thick. The following are the texts of some of these slips.

Original texts	Trial interpretations
月(肉)风者,恶风温 寒,遇风则肤痛	The flesh wind, is the aversion to wind-warmth and wind-cold, (the patient feels) a skin pain at running into wind

Original texts	Trial interpretations
所胃(谓)骨肉(肉) 相称者,肥臞适也。	The so-called bone and flesh are well-proportioned, is that neither fat nor lean.
筋风者,其禺(遇)风 寒,析而动心,其心 汤(荡)	The sinew wind, is that at running into wind-cold, the heart is invaded and unstable.

*Zhu bing zhenghou* 诸病症候 (The symptoms and manifestations of the diseases), which are the longest ones of these bamboo slips, consisted of about 268 pieces; they are generally 35.7cm long, 0.9cm wide and 0.1cm thick. The contents of these bamboo slips are about the meridians and diseases, and therefore the excavators titled these bamboo slips as *Zhu bing zhenghou* following the precedent of the *Bingyuan lun*. The following are the contents of some of them.

Original texts	Trial interpretations
·女子红痢,赤白半。	·Women's metrorrhagia, red and white, half and half.
·内痢,弱(溺)赤,足 善栗,行不安地,数 后血	·Internal metrorrhagia, the urine is red, the feet are tending to tremble, and cannot walk regularly and steadily, and bloody stool.
·肾单(瘰),目赤而兑 (锐),得之宫。	·Kidney warm disease, red eyes caused by excessive intercourse...

*Jingmai shu* 经脉书 (Book on meridians), the part of the longest bamboo slips (35.7cm long) related to the meridians which were piled together with the *Zhu bing zhenghou* but can be separated from each other by the content. The following are the texts of some of them.

Original texts	Trial interpretations
·手大(太)阳 脉,□(系)小 指,循臂骨下 廉,出肘内廉, 出腠下廉,上 肩,循颈出耳 后,属目外眦 (毗)湄,所主 病颌痙(肿), 痛侯(喉)	·The hand greater <i>yang</i> meridian, starts from the little finger, runs along the posterior side of forearm through the inside of the elbow, and then the posterior side of the upper arm, arrives at the shoulder; then goes to the back of the ear along the neck, finally ends at the outer canthus. The diseases associated with this meridian are the swelling of the neck and the pain in the throat.
·手阳明脉,□ (系)次指与 大指之上,出 辟(臂)上廉, 入肘中,乘 腠,出肩前 廉,循颈穿 颊,入口中。 其病齿龋, 痛口,辟(臂) 肱(屈)痙(肿)。	·The hand <i>yang</i> brightness meridian, [starts at] the tips of the index finger and the thumb, runs along the anterior side of the forearm, enters the elbow, goes through the upper arm, arrives at the anterior side of the shoulder, and goes along the neck into the mouth through the cheek. The diseases associated with this meridian are dental caries, mouth pain and the spasm and swelling of the arms.

*Zhu bing zhenghou* 诸病症候 (The symptoms and manifestations of the diseases), which are the longest ones of these bamboo slips, consisted of about 268 pieces; they are generally 35.7cm long, 0.9cm wide and 0.1cm thick. The contents of these bamboo slips are about the meridians and diseases, and therefore the excavators titled these bamboo slips as *Zhu bing zhenghou* following the precedent of the *Bingyuan lun*. The following are the contents of some of them.

*Gui mai shu* 归脉数 (Associations of diseases and meridians), which was piled beneath the *Zhu bing zhenghou* and *Jingmai shu*, consisted of 41 bamboo slips; they are 30cm long, 0.9cm wide and 0.1cm thick. Their contents are about the diseases and the meridians and acupuncture points associated with them. The following are some examples of the texts.

Original texts	Trial interpretations
逆气，两臂（臂）肘阳明各五及督...	Counterflow of <i>qi</i> , the <i>yang</i> brightness meridians on the two arms and lower legs, five (acupuncture points) of each, and the governor (meridians)...
疸病，多卧，两肘阳明少阳各五...	Jaundice and somnolence, the <i>yang</i> brightness and lesser <i>yang</i> meridians on the two lower legs, five of each...
转筋，足钜阳落各五...	Spasm, the <i>juyang</i> (greater <i>yang</i> ?) meridians and collaterals on the feet, five of each...

*Wuse mai zang lun* 五色脉脏论 (The theory on the five complexions and the meridians and *zang*-organs), which was covered by all other bamboo slips, was all damaged. Most of the fragments were 15-25cm long, 0.9cm wide and 0.1cm thick. In total 66 pieces were identified to belong to this book, the contents of which are on the relationship between the five complexions associated with the changes in the five *zang*-organs and their respective meridians and the spirits; on one of these bamboo slips, nine characters reading “逆顺五色脉臧（臧）验精神 (the normality and abnormality of the five complexions and the meridians and *zang*-organs to examine the spirit)” are identified, which are suggested as the title of this book. The following are some of the recovered texts.

Original texts	Trial interpretations
·凡五色，以 [ 显五不足，有余 ]	—All of the five complexions are showing the five insufficiencies and overabundances.
·臧（臧）生气，气生月（肉），月（肉）生脉，脉生血	—The <i>zang</i> -organs produce <i>qi</i> (vital energy); the <i>qi</i> produces the flesh; the flesh produces the meridians and the meridians produce blood.

M3:137, 184 pieces in total. The lengths of this pile of bamboo slips were generally 30.5cm, the widths were generally 0.6cm and the thickness, 0.1cm. No title was found, but the identified contents were mainly about treating horses' diseases, so the excavators temporarily named them as *Yi ma shu* (Book of horse veterinary). The following are some identified texts.

Original texts	Trial interpretations
马医者，其口中上腭癰，养疾，其食善如集，多吻，见食而鸣。	The horse veterinarian, if see abscess on the palate in the horse's mouth... (hardly understandable) ...it neighs at seeing the feed.
尽入马鼻，[ 浸 ] 出，□（谷）以药，灌鼻中。	All into the nostrils of the horse; (soak and) take out, X with the medicine, and drench it through the nostrils of the horse.
夕勿饮，旦灌，灌欲复之。	Not to water (the horse) at sunset, and drench it at sunrise; the drenching needs to be repeated.
马操，相之时，衣驾，驾□（踊跃）前后跳，亟奉以引车，不可止。	When observe a horse, equip it with drafting harness; when it is harnessed, it jumps back and forth; if it is at once used to draft a cart, it would not be stopped.

2. Lacquer wares and wooden wares, about 400 pieces in total. The lacquer wares included wooden wares and pottery wares, the former of which were eared cups, plates, *yu*-basins, *lian*-cosmetic cases, ladles, trays, armrests, figurines, etc. The latter were *ding*-tripods, jars, etc. The wooden and bamboo artifacts included combs, ladles, mortars, suitcases, loom models, house models, etc.

(1) The lacquer wooden wares.

Eared cups, all in the similar form. Most of them have no designs, a few have zigzag, whorl and round dot patterns on the ears, or bird design on the inner bottoms. The sample M3:80, which was unearthed from the second compartment from the north of the bottom chamber of M3, is in an oval shape with two raising crescent-shaped ears, curved belly, flat bottom and false ring foot. Its inner surface is lacquered into red color and the outer surface, black color. No decorative patterns are found on it, but on the outer belly, a character “*Gong* 弓” is written. It is 13.4cm long at the mouth, 9.2cm wide with the ears, 5.4cm long and 2.8cm wide at the bottom, and 3.5cm high (Figure 6). M2:109, which was unearthed at the top of the coffin chamber, is in an oval shape with two raising crescent-shaped ears, curved belly, flat bottom and false ring foot. Its inner surface is lacquered into red color and the outer surface, black color. On the inner belly, a black bird is painted. It is 17.6cm long at the mouth, 12cm wide with the remaining ears, 8.9cm long and 4.8cm wide at the bottom, and 5.5cm high (Figure 7).



Plates, mostly in the same form, are generally lacquered into red color on the inner surfaces and black color on the rims and the outer surfaces; on the outer bottoms and bellies, red string patterns are painted. On the rims and inner surfaces, bird design, string pattern, parallel lines, round dots, curling cloud, flying cloud and whirl cloud designs are usually painted. The sample M2:282, which was unearthed from the second compartment from the south of the bottom chamber of M2, has a flaring mouth, flat bending rim, curved belly and flat bottom. The flat rim and the outer surface are lacquered into black color and the inner surface is lacquered into red color. On the flat rim and the inner surface nearby the rim, five fine concentric circles are painted in red color; between the outermost and the outer second circles, parallel line and dot patterns are painted; between the third and fourth circles and the fourth and fifth circles, parallel line patterns are painted. On the inner bottom, three concentric circles are painted in black color, in which black parallel line and curling cloud patterns are painted, and in the center is painted a black bird. On the outer belly and bottom, a ring of red string pattern is painted respectively, and above the one on the belly, red parallel lines are painted. This plate is 19.2cm in diameter at the rim, 12.3cm in diameter at the bottom and 4cm in height (Figure 8).

Figurines, including that of animals and human beings. The animal figurines were that of the horses, pigs, oxen, dogs, birds, etc. The horse figurine is elaborate and vivid, and the human figurines are the most, which are human body model with marks of meridians and acupuncture points, weaver figurines, standing servant figurines, kneeling figurines, driver figurines, etc.

The horse figurine M2:234, which was unearthed from the second compartment from the south of the bottom chamber of M2, is in a standing posture with slightly raising head, on each of the two cheeks are three grooves; the eye sockets are protruding and the eyeballs are slightly in triangular shape; the nostrils are large and round, the mouth is opening and the teeth are shown. The neck is thick and strong, the entire body shows a sinewy manner. The tail is attached to the body by mortise-and-tenon joint, but had been lost when the horse figurine was unearthed. This horse figurine is fully lacquered in red color, the ear edges, eye sockets, nostrils and mouth have cinnabar traces. Its remaining length is 78cm, height is 78cm and width, 20cm (Figure 9).

The human body model with marks of meridians and acupuncture points (M3:44), which was unearthed from the second compartment from the south of the bottom chamber of M3, is a wooden nude figurine in standing posture. The two arms are hanging on the two sides of the torso with palms to the front and the two legs are slightly forking. The facial features are clear and the entire figure is well-proportioned. On the body, complex lines representing meridians and round dots representing acupuncture points are engraved, and characters are marked beside the acupuncture points. This human body



Figure 6 Lacquered eared cup (M3:80).



Figure 7 Lacquered eared cup (M2:109).



Figure 8 Lacquered plate (M2:282).



**Figure 9** Lacquered horse figurine (M2:234).

model is 14cm tall, 4.2cm wide at the shoulders and 2.6cm thick (Figure 10).

The weaver figurine (M2:200), which was unearthed from the first compartment from the south of the bottom chamber of M2, is a wooden figurine in standing posture. The hands have been missing; the legs are slightly bending, and the hairs, the facial features and beards are clearly painted. The body is fully lacquered in white color as the ground, on which the costumes are painted in colors, and on the left chest, characters written with black lacquer are seen. This figurine is 26cm tall, 8cm wide at the shoulders and 4.3cm thick (Figure 11).

Standing servant figurine (M2:101), which was unearthed from the coffin chamber of M2, is a wooden figurine in standing posture. The hands are folding before the chest, the hairs, facial features and beards are clearly painted. The costumes are wide and loose. The body is fully lacquered into white color; on the left arm, a character written with black lacquer is seen. This figurine is 32cm tall, 9cm wide at the shoulders and 4.9cm thick (Figure 12).

(2) The lacquer pottery wares.

*Ding*-tripod M3:62, which was unearthed from the



**Figure 10** Lacquered human body model with marks of meridians and acupuncture points (M3:44).

Left. Anterior view; right. Posterior view.



**Figure 11** Color-painted weaver figurine (M2:200).



**Figure 12** Color-painted standing servant figurine (M2:101).

second compartment from the north of the bottom chamber of M3, has a vertical rim to fit the lid, two attached ears, shallow straight belly, flat round bottom and short cabriole legs. The outer surface is lacquered into black color as the ground, and decorative patterns are painted with red lacquer on the upper belly, foot heels, foot tops, outer surfaces and sides of the ears, etc.; the patterns are parallel line, water wave, strip, whirl cloud, string patterns, etc. It measures 18.2cm in diameter at the rim and 18.5cm in height (Figure 13).

(3) The bamboo and wooden artifacts included combs, ladles, mortars, suitcases, loom models and house models.

Loom models, four pieces in total, were unearthed from the northernmost compartment of the bottom chamber of M2. Three of them had similar sizes and structures, and one was different from the three in both size (larger) and structure. They were all made of bamboo and wood, and some of them had yarns preserved. The sample M2:191 is 0.66m long, 0.21m wide and 0.42m high (Figure 14).

3. The pottery wares, 130 pieces in total, can be classified into glazed ones and unglazed ones; most of them are fine clay pottery, with a few of sandy wares. Except for the models, all of the wares are wheel-thrown ones. Most of the pottery wares are decorated with net pattern, cord pattern, attached repousse pattern, bowstring



**Figure 13** Lacquered pottery *ding*-tripod (M3:62).

pattern, etc. The types are mainly jar, pot, basin, vat, *fu*-cauldron, censer, vessel lid, and models of barn, oven, well, etc.



**Figure 14** Loom model (M2:191).

## Conclusions

### 1. The natures and dates of the four tombs.

From M1, *wuzhu* coins minted in the reign of Emperor Wu of the Western Han Dynasty were unearthed; referring to the tomb structure and the unearthed artifacts, the date of M1 is estimated to be in the reign of Emperor Wu.

From M2, M3 and M4, *banliang* coins of the Western Han were unearthed, and their structures and the styles of their grave goods were all very similar to that of the wooden construction tomb at Fenghuang Shan (Ssü Ch'uan 1959), and their dates are estimated to be in the reigns of Emperors Jing and Wu of the Western Han Dynasty. On the lacquer wares unearthed from M1, the inscription of "Jing Shi 景氏 (Jing Family)" is found. According to the historic literature, the Jing Family was a high-ranking noble family of the Chu State in the Warring-States Period; in the early years of the Western Han Dynasty, the Jing Family was moved to the Guanzhong region, and later a branch of the Jing Family migrated into the Shu Commandery and the occupants would have relationship with it. M2 yielded several loom models and M3 yielded medical books, all of which provided important clues for understanding the identities of their occupants.

### 2. The academic significances.

The large quantity of bamboo slips and wooden tablets of the Western Han Dynasty unearthed from these tombs is the first discovery of the same kind in Sichuan, which makes Chengdu area a new important discovery location of the textual artifacts. The contents of the nine medical works showed that parts of them are very possibly the long-lost classics of the Bian Que School of the Traditional Chinese Medicine, which is an important discovery on the development history of TCM. The intact lacquered human body model with marks of meridians and acupuncture points is the earliest and most complete human body model showing meridians and acupuncture points; associated with the bamboo books on the meridians, it is significantly meaningful for revealing the origins and developing procedure of the meridian-channel and acupuncture theories of TCM. The four loom models are the unprecedented discoveries of the intact models of patterning looms with exact unearthing location found in China to date, which are greatly important for the researches on the origin and development of the silk weaving technique of China even the whole world.

## References

The Ssü Ch'uan Provincial Museum 四川省博物馆 . 1959. 成都凤凰山西汉木椁墓 (A Western Han tomb of wooden construction at Fêng Huang Shan, Chengtu). *Kaogu* 考古 (Archaeology) 8: 413–8.

## Postscript

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