

Results of the Drill Surveys and Test Excavations of the Kunming Pond of the Han and Tang Dynasties

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The Kunming Pond 昆明池 is an important water garden in the suburb of the Chang'an city during the Han and the Tang. The site is located near today's Doumen 斗门 and Xiliu 细柳 townships of the Chang'an 长安 District. From April to September of 2005, we did drill surveys, test excavations, and mapping at the site, and found two additional ponds, the Hao and Biao.

The Site

The drill surveys show that the pond site is about 4.25km from east to west and 5.69km from north to south, with a perimeter of approximately 17.6km. It is surrounded by Doumen Township and several villages of Shixiakou 石匣口, Wancun 万村 and Nanfeng 南丰. We found two inflow channels, four drainage channels, four high spots inside the pond, and three building sites on the banks (Figure 1).

1. The banks

The pond's west bank is found west of three villages Shangquanbei 上泉北, Doumen, and Shixiakou. The bank is formed by primary earth and is higher in the west. On top of the primary earth are layers of cobble stones used for stabilizing the bank. West of the bank is a manmade dike (Figures 2 and 3). The south bank of primary earth is found near Puyang 蒲阳 and Shixiakou villages; no cobble stone was found there. The villages of Dabaidian 大白店, Wancun 万村, and Xiadian 下店 mark the east bank of the pond; large cobble stones were found on top of the primary earth bank. The north bank is in line with the three villages of Shangquanbei, Nanfeng, and Dabaidian. We identified two strata of the bank: the early bank of primary earth, with ramped

earth from later period on top of it. The build-up of silt built along the north bank and constant collapses of the original bank led in later periods the construction of a ramped earth bank in addition to the original one. The later ramped earth bank sloped into the pond and had layers of large cobble stones on top to stabilize it (Figure 4).

The test excavations at the bank yielded some artifacts consisting mostly of flat and semi-cylindrical tiles. Based on the artifacts, we conclude that the existing banks on the east, south, west, and the later bank on the north were formed during the Tang era and used until the late Tang. The earlier bank on the north existed prior to the Tang. We assume that the earlier north bank was the north edge of the Kunming Pond of the Han.

2. Inflow channel

Two inflow channels were found on the east bank of the Kunming Pond. The mouth of the first inflow channel is found some 200m west of Wancun Village. The channel runs first to the east, and then turns to the southeast. The second inflow channel is located 570m north of the first one, running towards southeast. From their running directions, we believe that the second channel is a branch of the first one, and that they meet at certain point.

3. Drainage channel

We discovered four drainage channels at the west and north banks. Silt deposits are found in all four channels. The mouth of the first channel is found on the west bank, near the northeast corner of Yanxiazhang 堰下张 Village. It runs northeast and meets an ancient river 450m northwest of Mayingzhai 马营寨 Village (the ancient river is a former channel of the rivers of Feng or the Hao). The mouth of the second channel was on the

west part of the north bank south of Luoshui 落水 Village. The drainage system was used during the Han Dynasty, when water from the Kunming Pond would pass through the channel and over the Wolong Hill 斡龙岭 to the Hao Pond in the north. The third drainage channel starts at the middle section of the north bank 80m south of Nanfeng Village. Water first runs northeast and then runs east. The mouth of the fourth channel is found at the eastern section of the north bank 270m west of Dabaidian Village. It was paved with large cobble stones. The water goes south first, then turns northeast and east (see Figure 1).

4. High spots

Inside the pond are found four high spots, catalogued as 1 to 4. No. 1 is located in the north part of the pond, about 200m south of the southwest corner of today's Nanfeng Village. The oval shaped mound is 195m wide (north-south) and 50m long (west-east). No. 2 is an irregular shaped mound near today's Southern Baijiazhuang 南白家庄, measuring 370m from east to west and 500m south to north. No. 3 is located between two villages of Changjiazhuang 常家庄 and Northern Changjiazhuang 北常家庄. This oval-shaped mound is 500m from east to west, and 660m from north to south. No. 4 is 160m south of the Haojing 镐京 cross road. This oval-shaped mound is 260m from north to south, and 115m from east to west. No ramped earth was found in any of the mounds (see Figure 1).

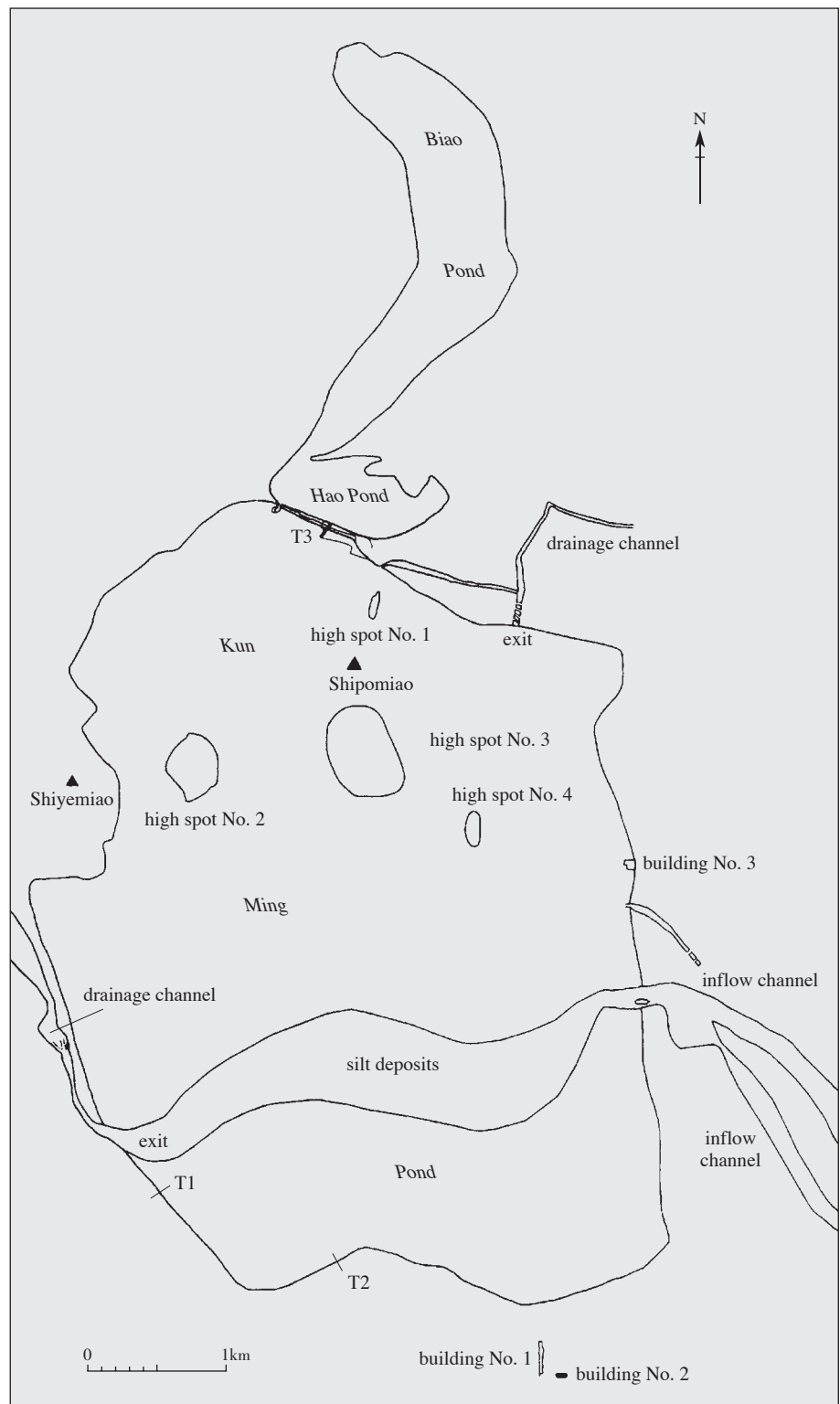


Figure 1. Schematic map of Kunming Pond site

5. Buildings on the banks

The three buildings are numbered from 1 to 3.

The No. 1 building on the south bank is 360m west of Puyang Village. The stamped earth foundation is of an irregular rectangular shape, 245m long (north-south)

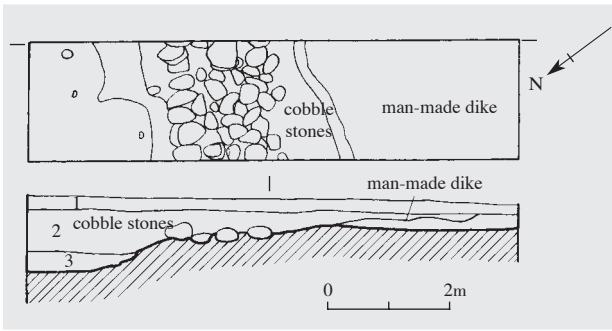


Figure 2. Plan and cross section of the west bank of Kunming Pond



Figure 3. The west bank of Kunming Pond (photo taken from east to west)



Figure 4. Cobble stone traces of the north bank of Kunming Pond (photo taken from west to east)

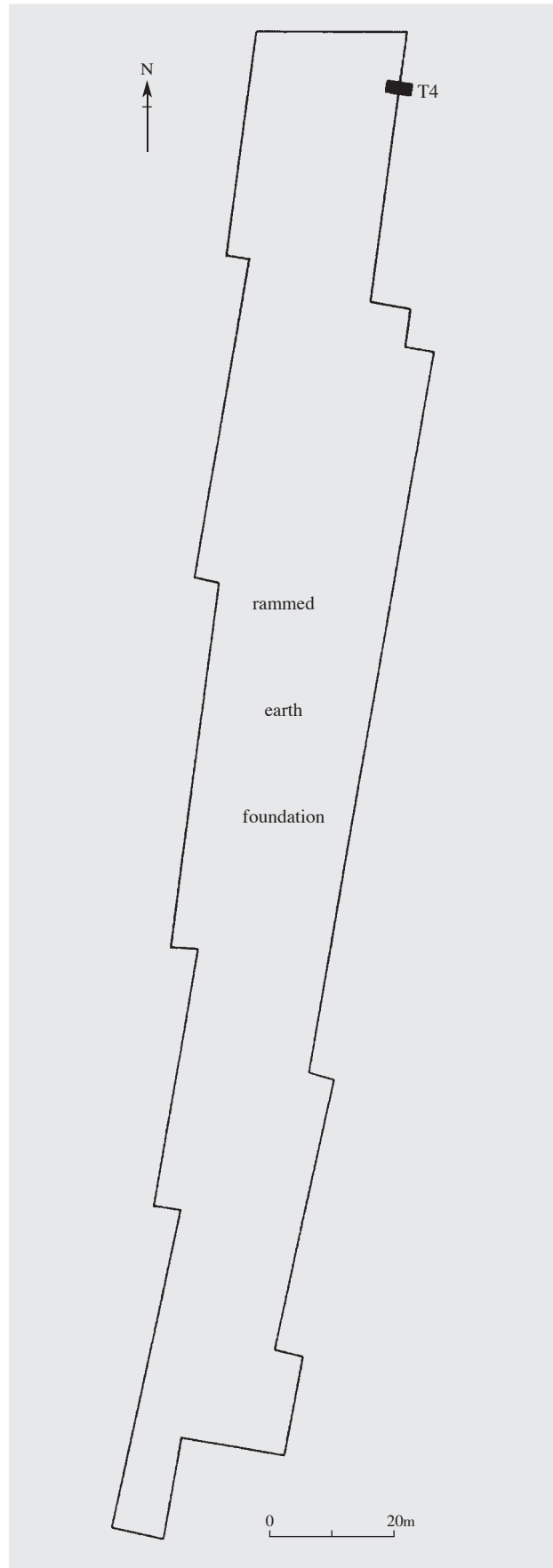


Figure 5. Plan of Building No. 1 of Kunming Pond

and 35m wide (west-east). The unearthed flat and semi-cylindrical tiles, and end tiles are building materials from prior to the mid-Western Han. Thus, the building is no later than mid-Western Han (Figure 5).

The No. 2 building is 85m east of the No. 1 building. The rectangular foundation of the building is 80m long (west-east) and 75m wide (north-south). None of the four sides of the foundation is a straight line. In the center of the ramped foundation, archaeologists found a burned surface. The excavated artifacts are similar to those found in the No. 1 building. Thus, the two buildings are of the same period.

The No. 3 building is on the east bank 760m north-west of Wancun Village. 850m south of the site is the mouth of the inflow channel. The building is a L-shaped structure of 80m east to west and 75m south to north. It was an open structure with three sides facing to the water. The ramped foundation has two layers: the upper layer contains large numbers of Western Han broken tiles of flat and semi-cylindrical shapes, and the lower layer contains cultural deposits of the Western Zhou. When the Han lower foundation was built, it damaged the existing Western Zhou cultural deposits. The lower foundation is later than the Western Zhou; probably the structure was constructed during the Han. The upper layer contained pieces of Western Han bricks and tiles, indicating that during construction, the original Western Han structure was damaged. The upper layer is later than the Western Han period, and is likely to be remains of the construction of either a later building or pond bank.

Several historical sources mentioned the Han Kunming Pond. Chen Zan's 臣瓚 annotation to the Emperor Wu's biography in the *Han Shu* 汉书 (Han History) told the location and scale of the pond: "(the Kunming Pond) is in the southwest of Chang'an, its circumference is 40 *li* 里." *Sanfu Jiushi* 三辅旧事 (The Old Affairs of the Three Capitals) tells that the "pond is about 332 acres." *Sanfu Gushi* 三辅故事 (The Ancient

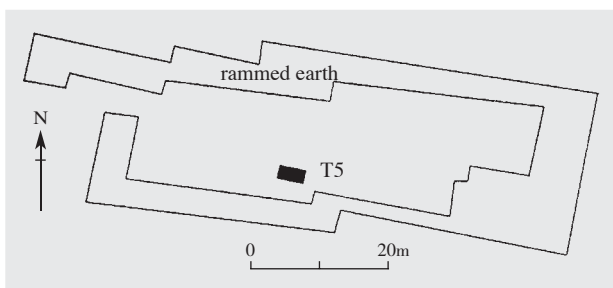


Figure 6. Plan of Building No. 2 of Kunming Pond

Affairs of the Three Capitals) describes the stone carvings in the pond: "the pond has the Yuzhang 豫章 Platform and a stone whale. The carved stone whale is three *zhang* 丈 long. Every time a storm comes, the whale moves its tale and roars." In the "*Xidu Fu* 西都赋" (Prose Poem on the West Capital), Ban Gu 班固 wrote: "the cowherd is on the left and the weaving maid is on the right. Just like the Milky Way, (the pond) has no end." Zhang Heng 张衡 in "*Xijing Fu* 西京赋" (Prose Poem on the West Capital) eulogizes: "the divine pond of Kunming, has dark water and shadowy banks. The cowherd is on the left and the weaving maid is on the right." The *Guanfu Guyu* 关辅古语 (Ancient Sayings about the Capital) also tells that "there are two stone figures in the Kunming Pond, the cowherd and the weaving maid are standing on the west and east banks to symbolize the Milky Way (flowing between them)."

Based on the test drill results, the Kunming Pond is 8.5km southwest of Chang'an city and the bank is 17.6km long. This length equals 2.3 Han *li*. The pond area is 16.6 sq km, equaling 360 Han acres. The survey also found a huge rock in a farmer's house of Mayingzhai village. The rock is buried mostly under ground, and the local legend says that it is the stone whale. Legend also says that the two stone statues of the cowherd and the weaving maid were each found on the west bank of the pond near Doumen Township and the east bank north of Northern Changjiazhuang village. When we did the test drill, we just found silt, showing the statues had been moved from their original location.

The site location and the stone statues all indicate that this site is the Kunming Pond of the Western Han. The archaeological evidence confirms the historical records.

The Hao and Biao Ponds

Two more ponds are found north of the Kunming Pond. Based on historical sources, these two ponds should be the Hao and Biao ponds (see Figure 1).

1. Hao Pond

It is located north of the Kunming Pond; the Wolong Hill separates the two ponds. The Hao Pond is an oval-shaped pond, with a north bank that has zigzags. The pond measures at most 1270m from east to west, and from north to south at most 580m. The perimeter is 3550m; and the pond area is 0.5 sq km. In the pond is silt deposit. The inflow channel is on the southwest corner of the pond, connected to the drainage system of the Kunming Pond. On the northwest corner of the Hao

Pond is the Biao Pond, and the two are connected by a channel.

2. Biao Pond

North of the Hao Pond, the Biao Pond is surrounded by the villages of Fenghao 丰镐, Jiyangzhai 纪阳寨, Yuejin 跃进, Taoyuan 桃园, and Luoshui 落水. The irregularly shaped pond is 700m wide from east to the west and 2980m long from north to south. The perimeter is about 7850m, the pond area is 1.81 sq km. In the pond is silt deposit. The inflow channel linked to where the drainage system of the Hao Pond. The Biao Pond drainage is on the north, connected to an ancient river. This river was probably the Hao River. Since the water from the Biao Pond came from the Hao Pond, the Biao Pond was abandoned at the same time that the Hao Pond was deserted.

The *Miao Ji* 庙记 (Record of Temples) tells that “west of Chang’an city is the Hao Pond. Its perimeter is twelve *li*, and it irrigates 32 acres of land.” The perimeter of twenty *li* is quite different from today’s measurement of 3550m. But if we add the 7850m perimeter of the Biao Pond, the numbers come much closer. Perhaps the perimeter the “The Record of Temples” refers to is the perimeter of the Hao and Biao ponds together. This makes sense because the two ponds were originally connected.

Conclusion

1. The artifacts from the test excavations of the No. 1 and No. 2 building sites indicate that the two structures are no later than the mid-Western Han period. This discovery agrees with the *Han Shu*, which says that the Kunming Pond was built in the third year of Yuanshou 元狩 reign (120 BCE). The construction of the Kunming Pond and the pond’s name are related to the state of Kunming in the southwest and its Dian Lake. In the first year of Yuanding 元鼎 reign (116 BCE), Emperor Wu of the Western Han renovated the pond, and built some structures on the banks. The three structures found by test drills are the remains of those. After two more renovations by Emperor Wu, the scale of the pond was set.

The pond was used continually after the fall of the Western Han. In 440 CE, the pond was again cleaned. The Tang court cleaned and rebuilt the pond three more times in from 627 to 629, in 797, and in 835. After Tang, there were no more records of pond repair and cleaning.

Thus, the existing bank is the one reconstructed during the Tang. From the test excavations, the perimeter of the pond did not change much during the Tang

(perhaps the pond was a little larger in the Tang). The south bank was constructed next to the Xiliu 细柳 Mesa, the other three sides of the bank were next to raised land. Large round paving stones were used during the Tang to stabilize the north, east, and west banks, but the southern bank stayed the same as it was in the Han.

There were not many changes of the inflow channels from the Han to the Tang. The water source was probably the Chenshui 沈水 River. The major drainage channels were on the west bank, connected to the Feng and Hao Rivers. Of the northern drainage channels, one to the west was used during the Han to channel water to the Hao Pond from the Kunming Pond. The Hao Pond was abandoned during the Tang, and a dike was built to block the water from the Kunming Pond flowing into the Hao. The other two drainage channels were built with round paving stones to discharge floodwater. From the direction of these two drainage channels, the water from there likely ran back to the Chenshui River, the source of the Kunming Pond (Figure 7). The whole system is a circle.

There were no structural remains found in the four high spots inside the Pond. The open structure on the east bank is likely the remains of the Kunming viewing building of the Western Han (it was also called a *Kunming Dongguan* 东观, *Dongguan* 东馆, *Yuzhang Tai* 豫章台, and *Yuzhang Guan* 豫章观). The term “*dong* 东” (east), must come from its location on the east bank. Those structures found on the south bank would be the “*lieguan* 列馆” –lined-up buildings. Their names are no longer known.

Emperor Wu of the Western Han built the Kunming Pond in the third year of Yuanshou reign, probably to relieve the severe draught that year. The pond was planned for use in future draughts. But also, as Chen Zan’s annotation in the *Han Shu* states, the pond was built for water battle exercises prior to attacks on the southern states of Yuexi 越巂 and Kunming. The next year Emperor Wu again restored the pond for water battle exercises as a preparation for war with Nanyue 南越. In addition to this, as one of the important water gardens in the Shanglin 上林 royal hunting park, it was a place for the imperial family to spend leisure time. The Kunming Pond was also used to raise fish and other aquatic products, such as turtles which were used in ritual ceremonies and supplied to the Chang’an market.

Many emperors visited the place after the fall of the Han. The Kunming Pond became a favored place for banquets, fishing, and picnicking. The place was gradu-

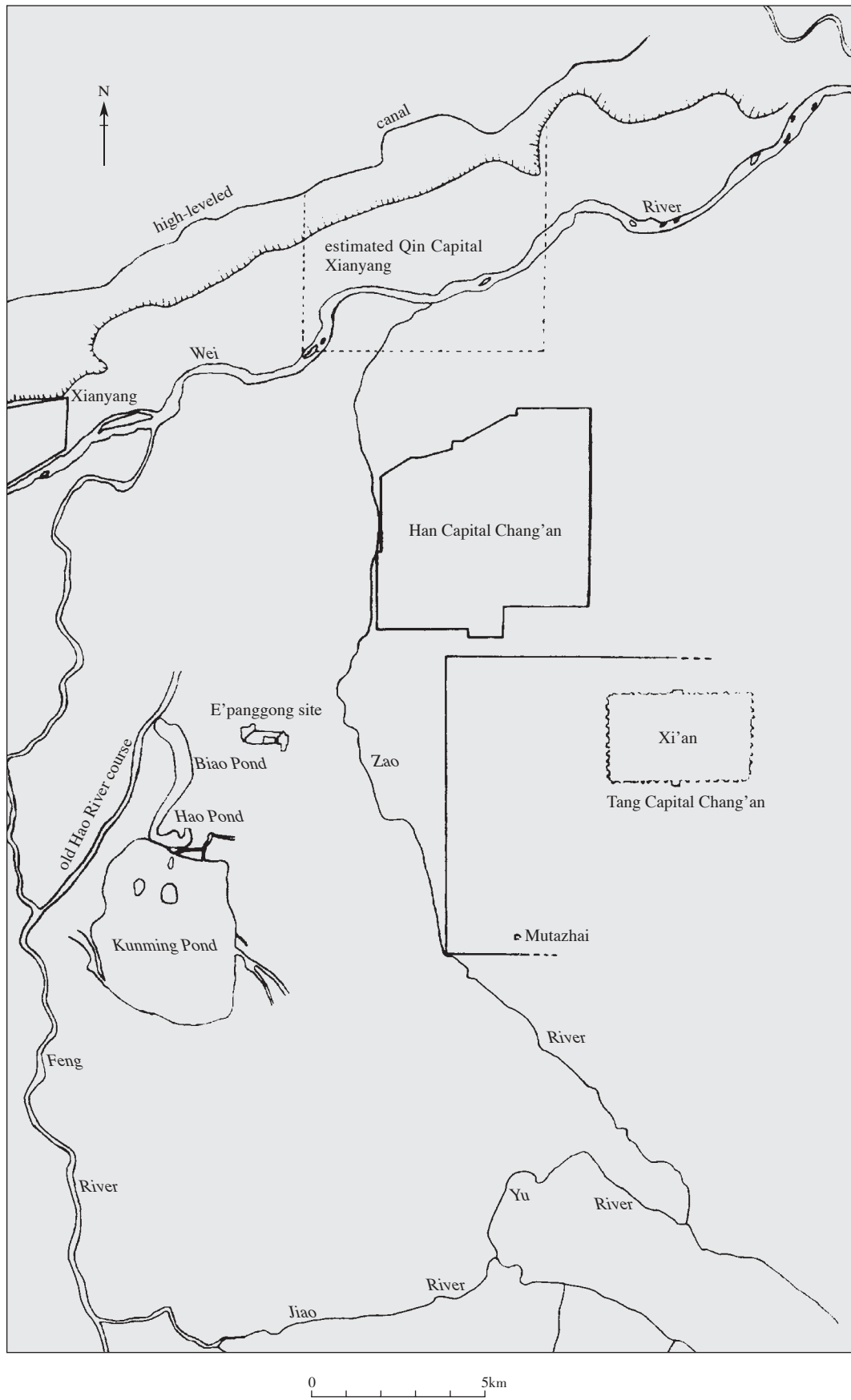


Figure 7. The waterways around Kunming Pond

ally abandoned after the Tang.

2. The excavation revealed clear relationships among the three ponds of Kunming, Hao, and Biao. Historical sources also indicated that the three ponds existed si-

multaneously at least until the Northern Wei era. When the Tang court renovated the Kunming Pond, they closed the water flow from the Kunming to the other two ponds, letting the other ponds dried.

Note: The original report, published in *Kaogu* 考古 (Archaeology) 2006.10: 53–65 with 15 illustrations and a page of plate, is written by Liu Zhendong 刘振东 and Zhang Jianfeng 张建锋. This summary is prepared by Zhang Jianfeng and English-translated by Suzanne Cahill and Ye Wa 叶娃.