

Overview of the 2011 and 2012 field seasons' excavation in Heping Island

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In early October 2011 the beginning of the excavation project in Heping Island searching for the Spanish (and Dutch) relics in that small island, which the author of this article was promoting since years ago, finally became a reality. These relics were expected to refer to a brief episode within a set of stratigraphic layers disclosing at least 3000 years of cultural occupation from Neolithic through Iron Age and continuing into the historical era, but still it was expected to be important for representing perhaps the first Western impact in northern Formosa.

The project was able to start after joining the initiative of the National Science Council (nowadays Ministry of Science and Technology), called Formosa Project, who sent a delegation to Spain in May 2010 to search for scholars to cooperate in heritage research. The trip resulted in a cooperative project among some of the delegates of the NSC team and counterparts from the Spanish Council for Scientific Research (CSIC). In the Taiwan side the P.I. of the project was the person signing this article, having as co-investigators Prof. Cheng-hwa Tsang, who was the responsible archeologist of the excavation part, and Prof. Chang Kung-chen (NTUT). The P.I. of the CSIC team of archeologists was Prof. Juan Manuel Vicent, who sent researcher María Cruz Berrocal to

Taiwan as deputy director of the field work and who later became the leader of the Spanish group, accompanied by Susana Consuegra and Marc Genè. The Spanish group was joined by Prof. Sandra Montón Subías, from the University Pompeu Fabra (Barcelona), and during the field season of 2012 by senior independent archeologist Elena Serrano (See Figure 1).

At first, the Taiwan Shipyard Corporation (TSBC), housed where supposedly the old Spanish fortress was located, did not grant permission to excavate in the particular place where the GPR studies of 2002 had identified possible remains of the Spanish fortress.

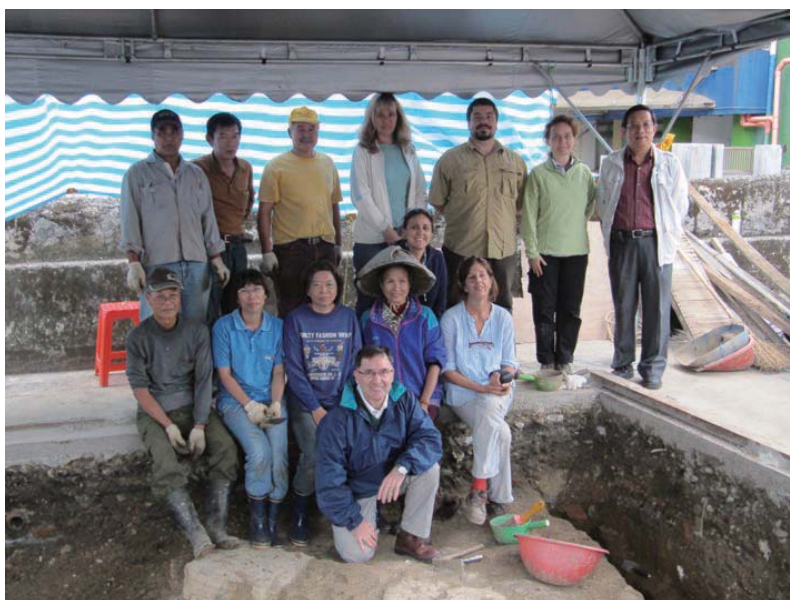


Figure 1. Researchers and workers, 6 November 2012

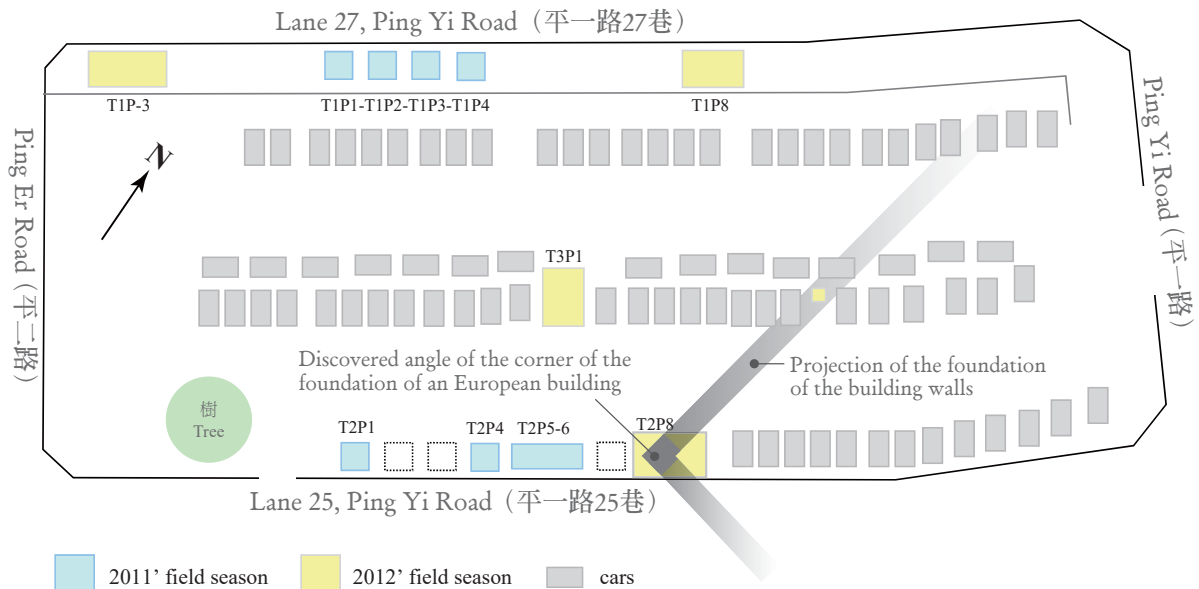


Figure 2. Parking lot of the Taiwan Shipbuilding Corporation (CSBC) in Heping Island with the location of the test pits made during the 2011 and 2012 field seasons. The foundations of the corner of a European Building (possibly the church of Todos los Santos) appeared in T2P8.

Nevertheless, the aforementioned company kindly allowed the international team to excavate in an external parking area, where according to previous geo-reference studies the church of the embryo-city of San Salvador might be located.

The first problem was to identify the specific place to initiate the archeological prospection, because the GPR research of 2002 did not offer any particular clue, nor did any new clues emerge during the first weeks of excavation. Practical concerns guided us to the most convenient place that would minimize interference with the users of that busy parking lot that the CSBC provided to the residents of the small island. Additionally, a more scientific reasoning guided our choice of excavation area, following the layout in a very well scaled Dutch map of 1667. In this fashion, pits 1 to 4 of the trench 1 could begin with excavation, named as: HPD-B-T1P1, HPD-B-T1P2, HPD-B-T1P3 and HPD-B-T1P4 (Figure 2). The reason to add “B” in the designation of HPD (HePing Dao), was under the consideration that the “A” area

referred to the shipyard, where the Japanese archeologists already had worked in 1936 and where expectations for the archeological work in a near future still are alive.

2011 Field Season: Trench 1

The excavation in T1P1 to T1P4 revealed evidence that the lanes surrounding the parking area Ping Yi, Lane 25 (in the NW) and Ping Yi, Lane 23 (in the SE), most likely had been created in the Japanese period after excavating and removing the soil. These four test pits did not show any special European structure, but they confirmed the same set of stratigraphic layers as seen in the other test pits excavated in those two years. The lowest Neolithic stratum contained pottery, ornaments, and stone and bone tools related to the Yuanshan Culture (YS). Next, an Iron Age stratum related to the Shisanhang Culture (SSH), characterized by stone tools, stamped pottery, and imported glass ornaments. Continuing in the stratigraphic sequence, Han Chinese pottery appeared, followed by Japanese and more modern

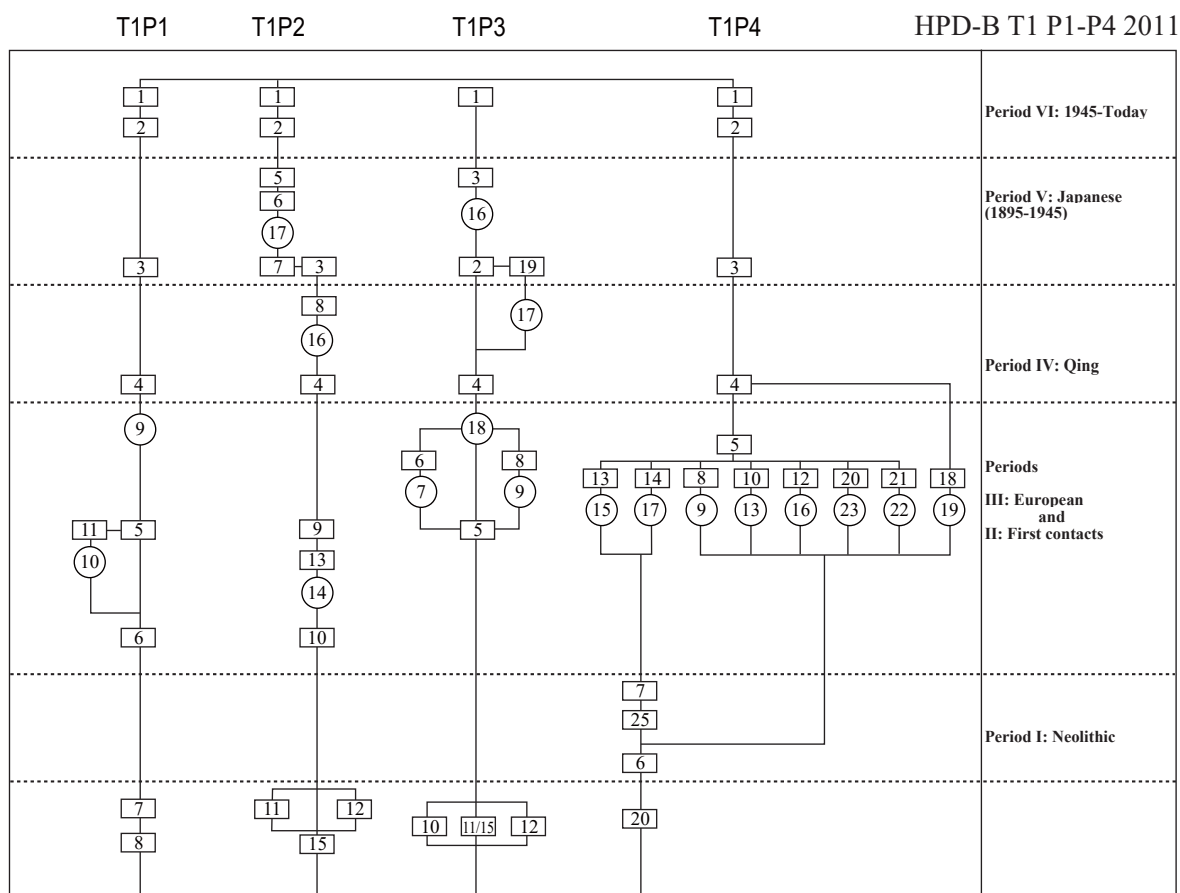


Figure 3. Stratigraphic matrix T1 P1-P4 (fieldseason 2011)

After Cruz Berrocal, M., Consuegra, S., Gener, M. y Montón, S. (2012): "Arqueología histórica española: prospección y excavación del fuerte de Quelung (siglo XVII), Hoping Dao, Taiwán". *Informes y Trabajos. Excavaciones en el Exterior 2011*, 9. Ministerio de Educación, Cultura y Deporte: 671-692, Fig. 13

artifacts. The original fear of not finding clear European artifacts (coins, garments, or even materials related to weapons) started to be confirmed, but new opportunities were developing for studying the material remnants of the past.

In the coming years, a thorough archeological report will be expected to describe, evaluate and analyze the overall excavation of the field seasons of 2011 and 2012. For the meantime, we can advance some results that may be helpful to understand the catalog of selected materials presented in the third part of this book. These

materials were exhibited during the year 2014 in the Jilong Aboriginal Hall and in the Yang Ming Cultural Foundation Maritime Museum, before being transferred to the Jilong Cultural Affairs Bureau for custody and curation.

The first three test pits of trench number 1 were not especially rich in artifacts. The upper levels of T1P1 contained ceramic of the first contacts with Chinese settlers, from which we have selected two pieces for this catalog. One piece (HPD-B-C2890) is a celadon base that could be traced to the 14th Century. The other piece



Figure 4. T1P1-T1P2-T1P3-T1P4

(HPD-B-C0364) is a sherd from an Anping jar. Among the items of T1P2, only one artifact (HPD-B-B0270) for the catalog is a bone point, similar to the Neolithic varieties but in a more modern stratum related to the SSH Culture. For T1P3, another single item (HPD-B-C0353) for this catalog is a sherd of an additional Anping jar.

Continuing to the end of trench number 1, T1P4 was particularly rich in producing material cultural

items of this two-year excavation. In the Neolithic layers, a jade arrowhead (I-SM-12) was very elegant although slightly damaged. Especially worthy of mention is a bronze buckle (I-SM-01), so far the only item found in these two years that very clearly relates with European presence. Finally the oldest of three coins from this prospection was unearthed, described as a Jing Sheng Tong Bao from Vietnam dated in 1792. Additionally, a habitation area was indicated by the presence of a dismantled stonework structure, made probably at the time of the first European contacts.

2011 Field Season: Trench 2

After trench 1 did not show traces of European buildings, the excavation moved to the opposite side of the parking. According to a re-interpretation of the same Dutch map of 1667, the area of the ruined church might not be referenced by the rectangle drawn in the map as originally interpreted. A new examination of that rectangle led us to conclude that it was not portraying the building of the church itself, but rather it possibly depicted a perimeter fence surrounding the church. According to this re-interpretation, the building would be smaller and situated inside the larger rectangle, hence the opposite part of the parking attracted our interest for an excavation.

In T2P1, a Neolithic bone point appeared in layer 9, included in this catalog (HPD-B-B0273). It was noteworthy as the location of this Neolithic bone matched with the C14 analysis conducted by a team of



Figure 5. Variety of grid paddle-impressed pottery designs of SSH Culture pottery.

archeologists who joined our excavation to study the Jilong tsunami of 1867. Their C14 result confirmed Neolithic age of 3600–3500 years BP (cal 1627–1504 BC), as described by Mr Zhuang at the end of Part I. This dating was important as the only chronometric validation of a Neolithic age in our excavation, as compared to others of Iron Age and modern dating results (see Table 1).

Additionally in T2P1, layer 5 presented a dense concentration of sherds of SSH Culture pottery with a remarkable variety of grid paddle-impressed pottery designs (see Figure 5). Although abundant, the pieces were in a poor state of preservation that made restoration impossible. Giving a fuller understanding of the context of this material, the foundation of a small wall or fence appeared there (see Figure 6).



Figure 6. T2P1

The continued absence of European material led us to forgo the excavation of T2P1 and T2P3 and instead to move directly 7 meters beyond to T2P4. There, the excavation encountered a piece of quartz (I-SM-05), probably a raw material for making stone tools. Pottery rims of two different SSH Culture vessels appeared (HPD-B-P1884 and HPD-B-P1885) in layers 9 and 13, where the texture of two new rims presented Neolithic features (HPD-B-P1853 and HPD-B-P1859).

T2P4 was challenging due to a hard ground cut in the soil, forming a deep step (similar to a rammed earth structure). It apparently was associated with a series of post-holes (see Figure 9). This structure, difficult to interpret at the present, extended to T2P5 and T2P6 (see Figure 8).

When excavating T2P5 and T2P6, the team of

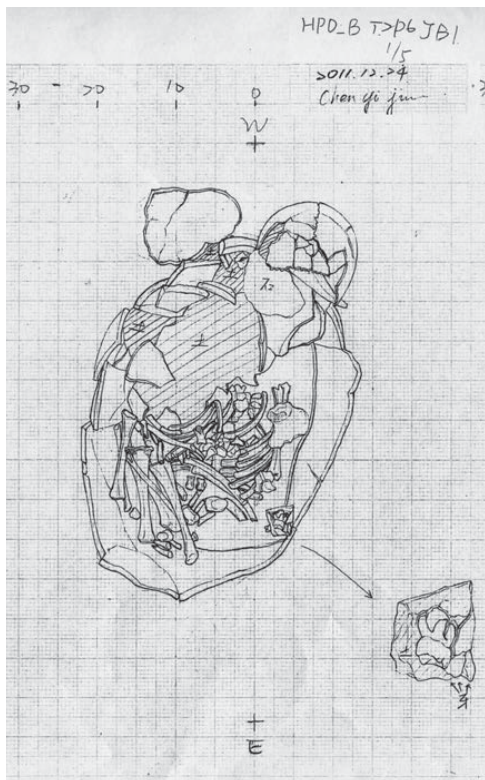


Figure 7. Burial of an infant



Figure 8. T2P5 & T2P6



Figure 9. T2P4



Figure 10. T1P-3 before reaching the bedrock.



Figure 11. Bedrock of T1P-3.

geologists we had mentioned earlier joined to study the upper layers, attracted by the possible traces of the Jilong tsunami of 1867. Their research is included in the present book.

In T2P5 and T2P6, we conducted most of our C14 analysis. A furnace and a surprising burial of a infant appeared there atop the artificial step. All of these findings will be explained in greater detail in the following article.

2012 Field Season: Trench 1

As in the previous year, the 2012 field season was sustained from early October through early November. The geologists researching on the tsunami requested to explore again in the vicinities of trenches 1 and 2, and accordingly we opened T1P8 and T1P-3. T1P8, under the main supervision of archeologist Elena Serrano,

coincided with a rubbish-dumping area, and it contained ceramic artifacts of the earlier Han Chinese period of Heping Island, including a celadon sherd (HPD-B-C2890) and two small fragments of kraak porcelain (HPD-B-C2892 & HPD-B-C2894). Other items in the rubbish-dumping area included baked clay net sinkers (HPD-B-C4165 & HPD-B-C4166), resembling those made in the Sung dynasty tradition. The most modern layers disclosed a toothbrush made of bone (HPD-B-B0273) from the Qing dynasty, as well as items of Japanese modern porcelain (HPD-B-C2888 & HPD-B-C2889).

T1P-3 was excavated under the supervision of archeologist Susana Consuegra, again with interesting archaeological discoveries. The upper layers revealed coins from the end of the 19th Century, as well as an impressive variety of Chinese ceramics, especially of the



Figure 12. Possible foundation of the corner of the church of Todos los Santos in T2P8.

blue and white type of the 18th Century. Some of these materials likely were related to the foundation of a wall or fence (see Figures 10 & 11). In the lower layers, older materials included Shisanhang or Neolithic stone tools. The perimeter fence feature was fully documented, and eventually it was excavated to reveal the full sequence of stratigraphic layers beneath it.

2012 Field Season: Trenches 2 & 3

Excavation was resumed in trench 2, continuing where the previous year left us with questions about a long stair-like feature and also about the burial of an infant. We re-commenced our efforts here with T2P8, which became most important for discovering the corner of a foundation of a European building, most probably connected to the church of Todos los Santos (Figure 12). Based on this discovery, we can make a projection of the



Figure 13. Continuation of the 2 m wide foundation of the wall of the church of Todos los Santos towards the north.

direction of two of the walls (Figure 13). Unfortunately, the Spanish and Dutch sources seem not to indicate the length and width of the building, so we cannot yet estimate the full extent of where to continue excavations for recovery of the building's footprint.

We opened a new area of excavation between trenches 1 and 2, labelled trench 3: HPD-B-T3P1 (see Figure 14). Material findings in T3P1 included Chinese and Shisanhang ceramic sherds, as well as Neolithic materials like an ornamental jade bead (HPD-B-II-SM-14). The significance of this test pit will be discussed extensively later in an article written by the CSIC team who conducted the excavation. T3P1 attracted the research of the geologists and their colleagues (see Figure 15), although their main conclusions (presented later in this book) were driven from trench number 2.

Conclusion

Heping Island (HPD) proved to be a productive area for archeological research about the Neolithic through historical periods of northern Taiwan. The

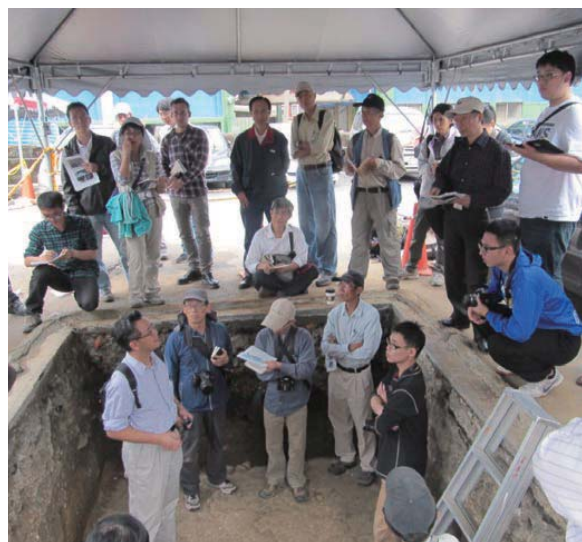


Figure 14. Group of geologists in T3P1 discussing about the possible traces in the strata of the Jilong Tsunami of 1867.

artifacts refer to past cultures or groups of people who made and used these items. Some are represented by only a few pieces in our excavations, but we can comprehend these findings in relation to the larger body of knowledge of Taiwan's archaeology.

Our findings of the Neolithic through Iron Age can be classified as belonging to the archaeological cultures known as Xuntangpu (middle Neolithic, ca. 4500–3500 years BP), Yuanshan (late Neolithic, ca. 3500–2300 years BP), Zhiwuyuan (terminal Neolithic, ca. 2300–1800 years BP), and Shisanhang (Iron Age). The Xuntangpu materials were sparse, but one red fine cord-marked potsherd was most convincingly representative. The Yuanshan materials included two kinds of pottery, including one type of coarse sandy texture and pink color (similar to the slightly previous Zhishanyen Culture, located in a very small area of Taibei Basin, near Shilin) and other type of dark gray color and harder texture. The Zhiwuyuan materials were signaled by a pottery rim most likely of this association or perhaps related to the

transition from Yuanshan to the Zhiwuyuan traditions, as has been found in Taibei, and Yilan. The Shisanhang materials were very well represented by assorted Iron Age articles.

HPD is a promising archeological area for the crucial 17th Century, the moment we start to accumulate written information about the local inhabitants. Historical and archeological sources complement each other for fuller appreciation of the interaction of Chinese or European colonists with local settlers (like the Basai tribe, related to the end of the Shisanhang material culture). The Han Chinese presence can be registered in HPD at least as early as the 14th Century, as witnessed by the celadon porcelain sherds and baked clay net sinkers. We are still far from making the final conclusions about these cultural interactions, hopefully addressed in the next years through the continuation of the archeological work made by the Spanish team of archeologists under the direction of Prof. Tsang Cheng-hwa.

Table 1. C14 dating results from charred materials and organic sediments in T2P5.
(Beta Analytic Laboratory, Miami)

Lab. No. (Beta-)	Sample No.	Provenience	C14 date	Conventional date	Calibrated date	C13/14	Sample material	Analysis method
361074	HPD-1	T1P4L18	NA	> 43500 BP	NA	-24.0 o/oo	charred material	AMS
361075	HPD-2	T2P5L3-1	840 +/- 30 BP	850 +/- 30 BP	Cal AD 1160 to 1260 (800 to 690 Cal BP)	24.4 o/oo	charred material	AMS
361076	HPD-3	T2P5L5	60 +/- 30 BP	70 +/- 30 BP	Cal AD 1690 to 1730 (260 Cal BP)	-24.6 o/oo	charred material	AMS
361077	HPD-4	T2P5L3-2	470 +/- 30 BP	640 +/- 30 BP	Cal AD 1280 to 1330 (670 to 620 Cal BP) Cal AD 1340 to 1400 (610 to 550 Cal BP)	-14.9 o/oo	organic sediment	AMS
361078	HPD-5	T2P5L5	100.6 +/- 0.4 pMC	101.1 +/- 0.4 pMC		-27.4 o/oo	charred material	AMS
361079	HPD-6	T2P5L4	930 +/- 30 BP	920 +/- 30 BP	Cal AD 1030 to 1190 (920 to 760 Cal BP) Cal AD 1200 to 1210 (750 to 740 Cal BP) Cal AD 1280 to 1330 (670 to 620 Cal BP) Cal AD 1340 to 1400 (610 to 550 Cal BP) Cal AD 1690 to 1730 (260 to 220 Cal BP) Cal AD 1810 to 1920 (140 to 30 Cal BP) Cal AD Post 1950			
361080	HPD-7	T2P5L3-1	330 +/- 30 BP	310 +/- 30 BP	Cal AD 1480 to 1650 (470 to 300 Cal BP)	-26.4 o/oo	charred material	AMS

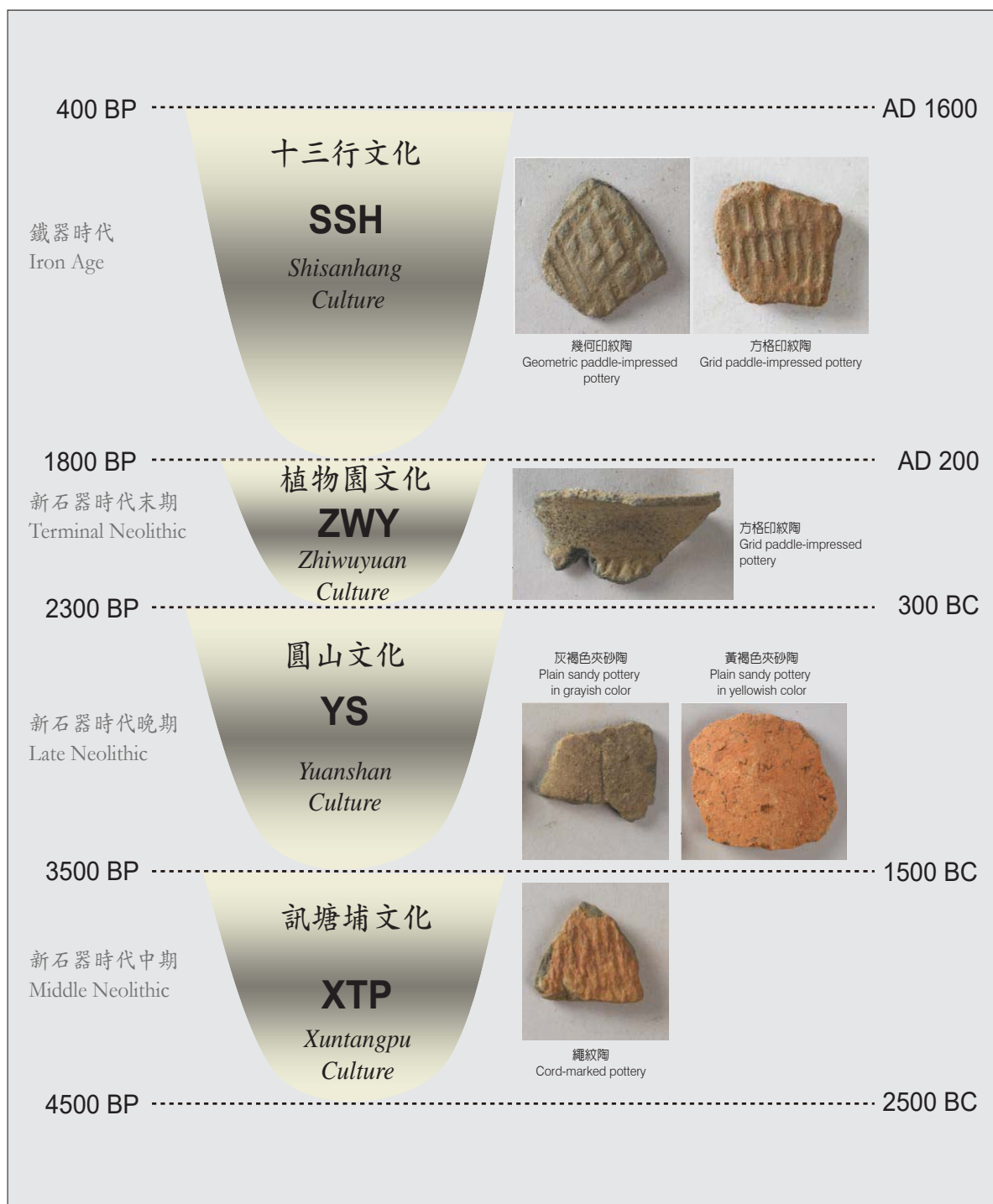


Figure 15. Summary of prehistoric pottery in Heping Island.

