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Summary of Excavations in Hoping Dao, Keelung, Taiwan*

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Introduction

Archaeological work in Hoping Dao is part of an interdisciplinary research that began in 2010 in order to inquire about the first Spanish presence in the Pacific, since this period has been systematically neglected by archaeological and anthropological studies in the region. For this purpose, we required a combination of three fields: archival research, material culture studies, and archaeological work. Therefore, the latter is fundamental for our research, and specifically in Hoping Dao, due to the foundation here of the Spanish colony of San Salvador de Kelang in the 17th century, which is no doubt a key point in the broader lines of investigation that we are carrying out regarding the interaction between Europeans (Spanish and Dutch in this case) and Pacific and Asia-Pacific populations. Taiwan and in particular our work in Hoping Dao and Keelung is key to implement this new trend of investigation.

We began a collaboration with Taiwanese scholars in 2010, through the funding granted to the project "From the Renaissance to the Neolithic: The Spanish fortress of Kelang and its earlier Austronesian and Prehistoric environment" (2010TW0023) in the framework of the agreement Programa Formosa 2010 between the National Science Council of Taiwan and the Consejo Superior de Investigaciones Científicas (CSIC), the largest Spanish research institution. The project was carried out with funding both from the CSIC and the National

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Science Council from 2011 to 2013. A Spanish team formed by Dr. María Cruz Berrocal, Dr. Juan Vicent García, Dr. Marc Gener, Dr. Sandra Montón, Susana Consuegra, Elena Serrano, and Mar Torra was in charge of developing most of the archaeological interventions carried out in Hoping Dao, in collaboration with a Taiwanese team formed by Dr. Jose Borao Mateos (National Taiwan University), an expert in Spanish written sources from the 17th century; Dr. Tsang Cheng-hwa (Academia Sinica), a leading archaeologist in Taiwan; and Dr. Chang Kun-chen (National University of Technology), an expert in architecture.

The agreement between the National Science Council and the CSIC was signed in order to promote scientific cooperation between Taiwan and Spain, creating institutional and personal links that enhance scientific research. In our case, collaboration with Dr. Tsang Cheng-hwa was key to the success of this joint experience, which can be measured through the fact that Dr. Tsang Cheng-hwa and Dr. María Cruz Berrocal have obtained a large research grant from the Chiang Ching Kuo Foundation to co-direct a three-year project intended to continue archaeological study of Hoping Dao.

This project was designed to answer specific research questions intertwined in an interplay of scales – local, regional, and global – representing a constellation of imbricated dynamics that converge in San Salvador de Isla Hermosa. The main goals were settled down to the following questions:

1. To understand the role of Taiwan in incipient globalization. Taiwan can be regarded as an extension of the Chinese-Spanish exchange of several trade commodities, such as silver, porcelain, tobacco, and beads, which really made a difference in global economy.

2. To achieve a better understanding of the first Chinese presence in North Taiwan. Early Chinese presence seems to be attested in the entire Asia-Pacific region. For the Philippines, the earliest known Chinese records referring to trade date to the tenth century AD (Stark & Allen, 1998) and in some cases to the 8th century AD; in the Batanes, Chinese pottery appears in contexts of the 12th century AD (Mijares & Jago-on, 2001). In Taiwan, different dates for this presence have been obtained for different parts of the island; for instance, Chinese porcelain in Shihsanhang belongs to the 13th-14th centuries AD (Tsang, 2010: 59). It is thus possible that Chinese temporary settlements would have existed in Hoping Dao, as well as in other areas of Taiwan, before the arrival of Europeans. Determination of existence of this kind of settlement is important because it may carry interesting implications explaining European colonization. In

this sense, the European colonies might be regarded as a secondary, formal development over fertile ground.

3. To analyse the material dimensions of colonialism in Hoping Dao and Taiwan and understand the active role that material culture plays in the process. The importance of material culture in the colonial engagement is still insufficiently understood.

4. To consider the role of daily households with particular attention to consumption patterns, specifically connecting this domain with the flow of prestige goods and "small luxuries" (McCants, 2007) in the San Salvador de Isla Hermosa colony and its heterogeneous population.

5. To understand the long-term environmental consequences of the colony. A large process of sedimentation was observed in the Dutch colony of Tayouan, to the point of obliteration of the former bay. Our preliminary inquiries in Hoping Dao could also indicate two large episodes of soil deposition from the hills surrounding the site. Deforestation, caused by an as of yet hypothetical need of wood for ship building, could be one reason. This problem needs further attention, but it nicely represents, as the research questions mentioned above, the clear crossing between intangible global dynamics and life-affecting local impacts.

By paying attention to all the previous aspects, the study of a colonial setting – their way of life; their uses; their attitude towards the environment; the effects on the colonist, native, and other sides; or the impact on gender roles – becomes a study of social change, a meaningful case study in a comparative perspective (Stein, 2005) aimed at understanding the making of the modern world. Probably never before was the link between the local and the global events so evident as in these first colonial steps, and we are particularly aware of the methodological tension produced by a double focus on the "natives" and the colonizers, which critically places research at the intersection between local and global (see Orser, 2010), a crossroads for which archaeology is particularly well equipped.

Progress of the Field Work

The exhaustive study of historical maps by J. Borao and Spanish team-member A. Uriarte (IH, CSIC), and the georreferentiation of the maps by the latter researcher in 2011 show various potential locations for the fortress and other main buildings in the colony. The results of this study were to be contrasted archaeologically with our subsequent archaeological work. The fortress appears to be located under the grounds of the current shipyard owned by CSBC (*China Shipbuilding Corporation*). It seems that the remaining standing walls of the fortress were demolished in 1936 by the Japanese in order to build the shipyard, in spite of the fact that they had granted protection to the building after its recognition as part of the cultural heritage of the island.

Permission by CSBC was not granted but under their auspices we decided to undertake excavations in one of the allotments of the company (Figure 1), which had been in previous years used as a parking lot. This area, after the analysis of the historical maps, is the likely location of the church or convent of Nuestra Señora de Todos los Santos. We have designated it Hoping Dao-B. It can be considered an archaeological “window” in an otherwise very densely populated neighbourhood.

We have developed now three field seasons (2011, 2012, 2014) in this plot with promising results (Cruz Berrocal, Consuegra, Gener & Montón, 2012). Field work in 2013 was dedicated to the thorough study of the archaeological materials recovered in the previous excavations, which allows us to understand the archaeological sequence. For this, the contribution from a team of experts in pottery from the historical period, led by Professor Lu Tai-kang and formed by Kuo Sheng-wei (郭聖偉); Liao Fang-chi (廖芳琪); Lin Ying-cheng (林穎晨); Jeng Yu-ting (鄭宇婷); Huang Hsing-chieh (黃興傑); and Wang Young-yu (王永俞), has been invaluable.

Due to the practical impossibility of excavating in open area, excavations are carried out following an alignment of test pits that we call “trenches”. We follow the stratigraphic approach to excavation and exhaustively collect archaeological materials, including recent strata. Soil is water-sieved in order to recover small-sized remains; we benefit from the collaboration of Dr. Chiang Chih-hua for analysis of botanical remains.

Figure 1. Members of the Archaeological Team during Excavations in Hoping Dao-B

The first tasks during each field season involve the placing of a temporary cover on the location of the prospective test pits and the removal of asphalt. After the excavation is complete, we have the test pits covered by high quality geotextile, and then filled back with clean sand. The asphalt is also placed again on top of the test pits to allow people to use the parking lot in normal ways.

A final methodological observation has to do with the gathering and organization of information in a database, which allows flexibility and its hierarchization.

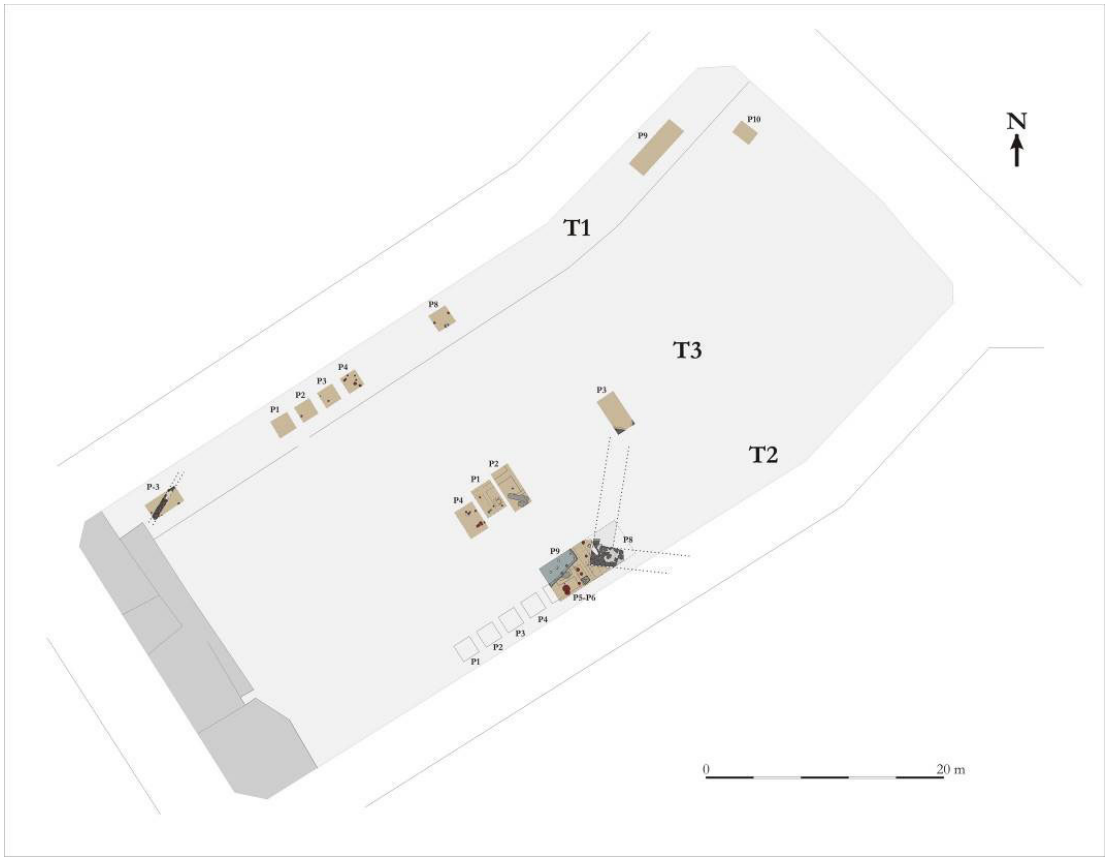

Figure 2. Planimetry of Test Pits Opened in Field Seasons 2011, 2012, and 2014

Results

Excavations have allowed us to uncover the entire sequence of occupation in Hoping Dao, from the Neolithic to contemporary times, which comprises almost the entire sequence of occupation in Taiwan, except for scarce Paleolithic remains in the island, and the early Neolithic that, as far as we can tell, has not been documented in Hoping Dao, since we lack the abundant cord-marked pottery that could signal its appearance (just one fragment has been identified to date).

Period I: Neolithic

The Neolithic is in fact well represented in Hoping Dao-B, through both pottery with red slip and those decorated with incised/impressed motifs. Parallels can be found in the Yuanshan culture (3500-2500 BP), while also Middle Neolithic assemblages seem to be represented in

the site (Cruz Berrocal, Consuegra, Gener & Montón, 2012). It is not possible for the moment to provide reliable absolute chronologies for Hoping Dao-B, but material culture parallels appear as a trusty line of evidence for the time being.

In this context, it is noteworthy to highlight the presence of 12 fragments of jade or variations of this rock in the site found during the first two campaigns, since Taiwanese jade from the east of the island was a common material here even as far back as the Neolithic both in Taiwan and the broader region (Hung et al., 2007). Hoping Dao populations could have obtained the jade through *down-the-line* exchange during the Neolithic, both as worked artefacts and as raw material, since potential work areas could be discerned in the site, perhaps in association with domestic spaces.

Domestic units in Hoping Dao-B dating to the Neolithic and possibly to later periods have been attested through the existence of post holes or holes excavated to support wooden posts for houses, large amounts of pottery, and the presence of at least 6 complete vessels in situ. The limits of these households have yet to be defined, due to the use of test pits; it is rather the *trajectory* of the houses that has been attested. People were probably occupying Hoping Dao in seasonal and recurrent fashion through many centuries. They would then build and re-build houses time and again, reusing the previous building elements in similar or slightly different positions. Thus, the post holes we have documented do not necessarily belong to the same house, but certainly they do represent a way of life and probably the same household or extended family through centuries.

The later stages of occupation during the Neolithic in these first field seasons were documented through a more sophisticated pottery both in terms of manufacture and decoration that tends to be found together with the precedent kinds of pottery. Although evidence would point to a slow and gradual transition that is reflected in the changes in the making of the pottery, it is yet difficult to assert the nature and speed of this transition.

Figure 3. Jade Point

Period II: Iron Age

In the previous 2011 and 2012 field seasons we could not detect either the disruption/abandonment of the settlement, nor the continuity in its use. This problem was further complicated by the fact that Iron Age materials were only documented in relation to Chinese and possibly European contact. But in 2014 more clear results were obtained (see below).

Period III: Historical Age

The presence of Chinese stoneware, more coins, porcelain, and tile was documented in combination with native hand-made pottery of late chronology. Local populations are represented at this point by this pottery, which finds its closest parallels in Kiwulan. Post holes seem to have been filled at this time by mixed materials (hand-made pottery, Chinese coin, porcelain, stoneware, European buckle), perhaps showing that they had been in place for a certain amount of time and were removed during the contact period – or the 17th century AD.

Remains of walls associated with purely Chinese material culture also point to the existence of a Chinese settlement in the site, possibly built during the 17th and more likely the 18th centuries AD.

In short, around the 17th century a big change in material culture and the use of space was documented in Hoping Dao-B, most likely due to the arrival of colonial agents. The native settlement, if still in use, was abandoned by its traditional inhabitants, and big European buildings were constructed, among which we documented the corner of a big foundation wall. The big impact of this presence on local peoples was attested in the appearance of new strata formed by soil brought from outside of Hoping Dao, maybe for the setting of a garden. This was consistent with historical sources, which describe a garden formed on the side of the Spanish convent/church.

From the 18th century on, Chinese material culture clearly dominates the archaeological assemblage. This is the moment when Taiwan was annexed to China by Zheng Cheng-gong. It is interesting to note the abundance of porcelain in this "quasi" colony in regard to China, since it continued to be one of the primary trade goods within the region. Also remains of potential buildings were uncovered, pointing to Hoping Dao-B as a settlement place for the Chinese after European abandonment.

Figure 4. Remains of foundations, possibly of a European Building, during the excavation process

Period IV: Japanese Colony

The Chinese settlement probably lasted until the Japanese colonial period in Hoping Dao-B, which is richly documented and highly interesting for an archaeological study of Japanese imperialism. We found that the Japanese members of the colony were predominantly using Japanese material culture, brought from Japan on some occasions, and produced in Taiwan. They were thus essentially disregarding the fundamental Chinese context of the colony.

But probably one of the most important features associated with the Japanese presence, or immediately afterwards, is the big disturbances that the site seems to have suffered around this period. It is observed in large pits found in many of the test pits that we identified at first sight as excavation activity on the part of the Japanese. Another possibility, however, is that these pits represent the bombing that Hoping Dao apparently suffered during World War II. This would account for otherwise hard to explain hollowing out of the ground, and the later episodes of refilling that are clearly seen in the stratigraphy.

Figure 5. Japanese Remains

Summary of Findings in 2014

Several lines of evidence support the argument that Hoping Dao-B was occupied during the Neolithic, although interpretation is not easy due to the characteristics of this occupation: the Neolithic architecture appears to have been short-lived, probably with stilt houses with walls and roofs made with perishable materials, and the occupation appears to have been seasonal and recurring, implying construction and destruction of the structures, their reparation and reinforcement, and excavation of new post holes that conform a sequence of houses along long periods of time, rather than structures easy to define archaeologically.

Domestic units in Hoping Dao-B dating to the Neolithic have been attested through large amounts of pottery in situ, in many cases of complete vessels and possibly the existence of post holes associated with them.

The transition between the Middle Neolithic and later stages of Neolithic occupation can be observed through the presence of a more sophisticated pottery, both in terms of manufacture and decoration. However, this more elaborated pottery is found also in association with more ancient types, implying a continuation in ways of life and a gradual change as observed in the record. This slow and gradual transition reflected in the changes in the making of the pottery can also be observed well into the Iron Age. On the one hand, no sterile deposits have been documented yet that could be related with abandonment of the site after the Yuanshan period. On the other hand, specific artefacts (Figure 6) in the upper part of the Neolithic sequence could be interpreted as “hybrids”, since they comprise features from the Yuanshan assemblage (the handle) and decoration much more likely to be found in later periods.

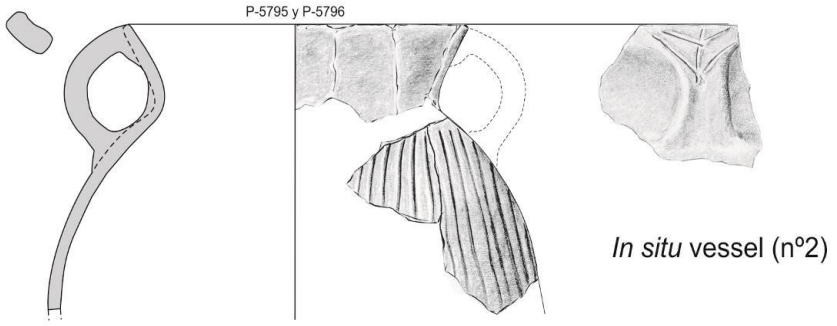

Figure 6. In Situ Vessel in T3P1L10 (Drawing by Elena Serrano)

Moreover, evidence found during the 2014 season point to the existence of a cultural complex related with Kiwulan style pottery as well as metallurgical activities, and stilt houses without any recognizable break in the archaeological record from the Late Neolithic on. Therefore, at this point of our research in Hoping Dao-B, a seamless occupation of the site appears to have taken place from the Neolithic into the Iron Age until the disruption caused by European presence. Moreover, Iron Age materials tend to be found in association with Chinese pottery, but no further chronological precision is possible yet (although some materials in the site would speak of a previous date for the Chinese contact – Celadon porcelain, a potential Song coin – this evidence is not stratigraphically well placed, and of course chronological determinations for these materials are independent of their chronological significance in the site).

This prehistoric (although with Chinese contact) occupation of the site is covered stratigraphically by strata apparently belonging to the 17th century. This chronology appears to be naturally associated with the European presence. At this point, the presumable settlement in Hoping Dao-B was dismantled, and the posts of the houses still standing in place were removed, probably in order to make conditioning works for the colonial needs.

In fact, at least one big European building was constructed, of which we have recorded three points of its outline. These constructive remains represent three corners of a big European building, whose functionality and absolute chronology is not yet possible to determine. However, two lines of evidence point to the possibility that we are dealing with a church or convent. First, the historic maps. As mentioned above, the study of the historic maps of Spanish and Dutch origin point to the possibility that Hoping Dao-B could have been the location of the Convento de Nuestra Señora de Todos los Santos in the Spanish colony. Second, the presence of burials. For the time being four burials have been recorded in close spatial association with the building, one of them a child burial following the indigenous ritual (excavated in 2011), and three more burials of adults (one of them preserved for excavation during the next field season). These adults were interred in supine position without offerings in a simple grave. There is no evidence of coffins, and the orientation of the burials in all cases is E-W. These characteristics are consistent with a Christian burial. The fact that anatomical evidence point to potential European individuals reinforces the idea that this area could have been the European cemetery associated with the church or convent.

The integration of Europeans and other populations in Hoping Dao-B seems attested in other ways, too. Interestingly enough, the European presence in the site is in fact attested only marginally in terms of material culture, since there is a dearth of European materials: the European bronze buckle, however, cannot be easily related to trade, but to individual use. The Europeans are indirectly attested through the presence of three traditional objects of European consumption in Asia-Pacific and in Taiwan: Anping, Kraak, and Batavia porcelain. We thus cannot discard the hypothesis that Europeans and their allies (mostly Filipino soldiers) were probably using much more Chinese material culture than it is attested in the texts, since it was more readily available.

This points to integration of the different communities, at least from the point of view of the material culture they were using, and it also creates an interesting methodological problem from the point of view of archaeology: how to distinguish populations when material culture is not a good archaeological marker in this regard. This problem needs further theoretical and methodological development that will benefit not only our research in Hoping Dao, but also archaeological research of colonial settings at large, since colonialism is normally associated with the massive appearance of European goods. Hoping Dao-B is, at present, a valuable "counter" case study.

Another important aspect of the excavation in Hoping Dao is the possible identification of a tsunami that has been dated provisionally by geologists to an event recorded in texts, occurring in 1867. This hypothesis must be yet confirmed, but we assume its plausibility due to the composition of the stratum and its stratigraphic position (Figure 7). The tsunami thus acts as a well determined chronological marker in the site, providing a clear *terminus post quem* for the Japanese colonial rule starting in 1895.

Figure 7. T3P4, Southeast Profile[1]

Finally, we have found even more evidence as to a probable change in the environment throughout the millennia, and of certain events that had an impact in the geomorphology of Hoping Dao-B. As stated in previous reports, we observe a change in the sea level clearly visible in Hoping Dao, involving the fall of sea level from Neolithic times on, which matches well with the analyses by Chen and Liu (1996) and Liew and Hsieh (2000). Furthermore, in order to understand these processes and later ones, we are currently putting together a group of geomorphologists and edaphologists to work with us on the site. Not only do we aim to understand environmental changes in Hoping Dao-B and how they affected its inhabitants, but also how the island's shape may have been altered, thus affecting our ability to interpret historic maps and the site itself.

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[1] The waving shape at the bottom of the likely tsunami layer is clearly visible.

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