

First, unglazed coarse ceramics for daily use and tools for craft production, made with open air firing, show some evidence of inheritance from the earlier Sa Huỳnh culture, but with many changes in the processing technique and decoration. Second, unglazed fine ceramics with great variety of the types, including domestic wares, table wares, ritual wares, votive tablets, building materials, architectural decorative elements and sculpture. The fine ceramics were fired in kilns and production was organized for both household production and state production. Transfers in technique came from China, Red River Delta and India to meet the needs of new social orders and the needs arising from new thought and new religion.

Regarding the glazed ceramics which were fired in specific kilns, commonly known as Gò Sành or Binh Định pottery, the research led by the Institute of Archaeology in association with Japanese experts has clarified that Gò Sành ceramics were produced during the 14<sup>th</sup>-15<sup>th</sup> centuries as the trade items. It is worth noting that Gò Sành potsherds have appeared on the international ceramics market from the excavation of shipwrecks and other sites in Southeast Asia, Egypt and beyond. Some doctoral theses and monographs on these pottery series have already been published.

### **Criteria for classifying Champa wells and hydraulic systems**

The discovery in 1984 of ancient wells around the area of the temple-towers of Khương Mỹ (Tam Kỳ, Quảng Nam) and a series of related discoveries in other areas have enabled Vietnamese archaeologists to identify characteristic Champa well construction, building materials, shape variations and water detectors.

The research of M. Colani and other scholars has been used in new excavations and comparative water systems studies in Gio Linh, Quảng Trị province and Quảng Nam province. This has shown that the inhabitants of Champa developed appropriate ecological adaptation strategies for the terrain, climate and weather conditions of modern Central Vietnam. Later Vietnamese and Chinese residents continued to use and repair these wells and related hydraulic systems, as well as to build new ones for new water resources. This re-use and acquisition of earlier technology delayed attribution of these water systems and technologies to their original inventors.

### **The building of Champa citadels**

Early studies of the relationships between Champa and Đại Việt recorded the ancient citadels from annals, ethnographic comparisons and narrative stories. This has now been modified through studying building techniques, structures and dates of building and re-building. From the 1980s, excavations and surveys of Champa citadels from Quảng Bình to Khánh Hòa provinces has helped solving some of the questions about construction techniques and the historical role and dates of these citadels, as well as their use and reuse. In general, the Champa citadel complexes are usually built on river banks – mainly on south banks – and bear many similarities with Chinese citadel construction techniques. The earliest complexes were built around the 4<sup>th</sup> to 5<sup>th</sup> centuries, such as at Thành Lôi in Huế city, Trà Kiệu citadel in Quảng Nam province, Cổ Lũy citadel in Quảng Ngãi province, Chà citadel in Binh Định province and Hồ citadel in Phú Yên province. Some of the structures were repaired several times. Some Champa citadels were later re-used by Vietnamese people, such as at Thuận Châu in Quảng Trị province and Hóa Châu citadel in Huế City.

### **Economic structures and the role of the riverine and maritime trade.**

The people of Champa developed diverse and dynamic economic structures to exploit natural resources via trade links. Archaeological findings of rice traces, agricultural tools and sophisticated irrigation systems, combined with a catalogue of tribute items illuminate a three-fold economic structure that (i) exploited forest and marine resources, (ii) agricultural production and (iii) handicrafts production for trade over land, river and sea. The important position of Champa in the international trade network was initially determined from research of foreign products discovered from Han China, Central Asia and India. This was confirmed by the discovery of vestiges of coastal and island ports and river landings.

### **Architectural models of temple – tower complexes.**

Champa architectural concepts were strongly influenced by Indian cosmology. The temple-tower complex formation included a sanctuary *kalan*, encircled by small temple-towers, ancillary buildings and a surrounding wall. Influenced by