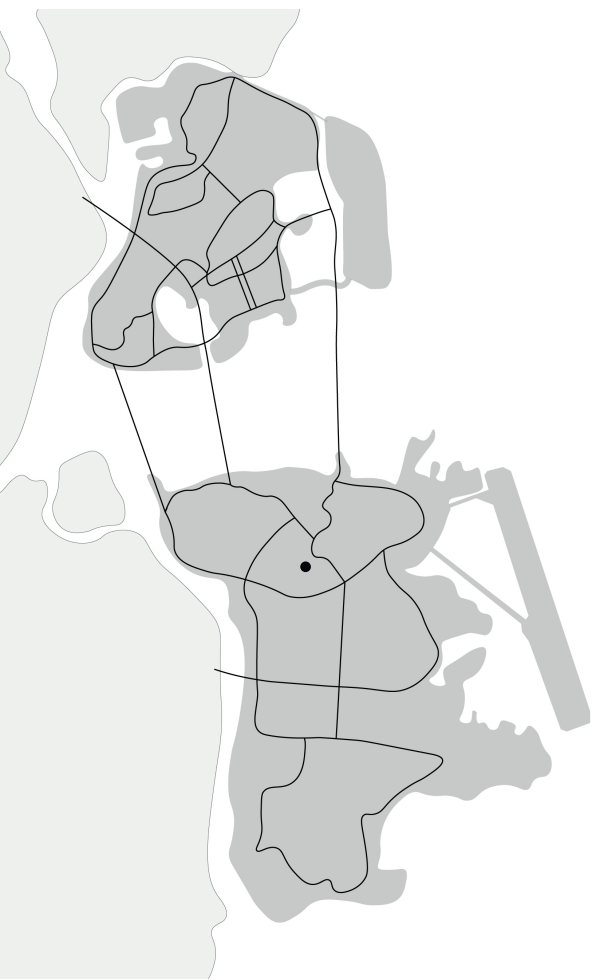


How construction technologies, materials and labour made macanese architecture?

CASAS-MUSEU DA TAIPA [TAIPA HOUSES]



BUILDING

Author: Carlos Rebelo de Andrade
Date: 1921
Location: Avenida da Praia, Taipa

Promoter / Owner: Cultural Affairs Bureau
Contractor: N/A
Funding / Cost: N/A

Function: Museum
Area: Taipa
Current state: Open to all

HISTORICAL CONTEXT

The five iconic and cultural houses located in Avenida da Praia in the Taipa Village have undergone many changes throughout the years.

Built in 1921, the Taipa houses were originally constructed for the residences of Portuguese senior civil servants and Macanese families. This was when Macau was colonised by Portugal from 1557 to 1999 as the first Portugal establishment. During that period, Macau became a significant trading post between the Portuguese and China, and marked its own growth due to the many trades. Later on, the houses were classified to have architectural value in 1992 as stated in the Cultural Affairs Bureau. Subsequently, the five houses were then renovated by the Macau government into a museum site 'Taipa Houses Museum' and were opened to the public in 1999 in the same year that the Portuguese handed Macau back to China which was the end of the colonial era in Asia. In addition, it was acclaimed as one of Macau's top eight heritage sites. In the following years, the Taipa Houses have been managed by the Cultural Affairs Bureau. As a matter of fact, the Taipa Houses underwent another renovation and revamp project in 2016, giving them each a name and turning the area into a showcase of Portuguese culture as well as the past of Macau.

CONSTRUCTION

MATERIALS & SYSTEMS

There is only limited information about the materials and systems of the Taipa Houses, but there are some insights and data from construction practices in Macau that can be used to hypothesize. Clay roof tiles: It may have been terracotta roof tiles which are typically used in Portuguese architecture, not only are they aesthetically pleasing but they also have a rather long durability which are resistant to strong winds or rain. Furthermore, Portuguese terracotta roof tiles are made out of natural clay that are fireproof. It is evident that the historical buildings in Macau are often built by masonry. The technique behind masonry is the arrangement and workmanship of laying block elements(for instance, brick blocks, stone bricks or concrete blocks), then the arranged block elements are bound together by using mortar. Moreover, the pillars and arches on the Taipa houses could've been built by using slabs and woods or concrete due to the width, then it could be closed of by using masonry. At the time the Taipa Houses were being revamped and renovated, there are some restoration methods that come to mind as Macau often uses traditional practices when preserving the architecture of historical buildings: such as using materials that are compatible with the existing structures to avoid further damage. This means that a careful and detailed analysis of the five Taipa Houses must be done as it is important to find out the common causes of damage to the historical structures, analysing the historical development, construction context and architectural characteristics. This way, the repair methods for the structure of the Taipa Houses will be proper.

WORKERS & SKILLS

Considering that Macau was still under Portuguese administration while the Taipa Houses were established in 1921, it is most likely that some Portuguese authorities had overseen the construction project. This could mean that Portuguese engineers, architects, and laborers were involved in the construction of the Taipa Houses. Although the actual or most of the construction could be carried out by Chinese laborers. This is due to the fact that Macau was colonised and there was a Chinese labor dominance in construction during that period in other countries. Other than that, there should be masons involved: workers who are skilled and responsible for masonry construction.



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