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COSMOPOLITAN WATERFRONTS AND MARITIME LEGACIES

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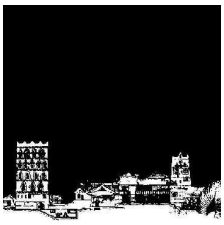

TRADITIONAL DWELLINGS AND SETTLEMENTS WORKING PAPER SERIES

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Shanmugapriya Balsubramaninan, Kavitha Vembupillai Subramanian

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The history of premodern Mappila Muslims of Malabar relates to wider issues of trade, merchant networks, and linkages in the Indian Oceean. This paper explores this unique cosmopolitan cultural and religious symbiosis in premodern Malabar, focusing on Mappila Mosques. The need for cooperation based on economic success led to creation for cross-cultural connections and cosmopolitan ideas. These Cosmopolitan spaces enable different faiths and ideologies to interact, collaborate and appreciate the sense of shared humanitiy, that best summarizes the Coastal Cosmopolitanism in the Indian Ocean port of Kozhikode in the Pre-modern centuries.

1. INTRODUCTION

Kerala, the land of lush vegetation, extensive backwaters, ubiquitous coconut, is isolated from the rest of the India for millennia by the dense forests and mountains of western ghats. The people along the coastline, a thin silver of land between the mountains and the sea, interacted easily with the traders from all around the Indian ocean. The sea at Kerala's doorstep brought wealth, new religion, new ideas, traders and settlers. These coastal areas located in Southwestern India were known to the Persian and Arabic geographers as Malabar, Malibar of Milibar from at least the early days of Muslim maritime trade and the name was later adopted by the Europeans. A large part of old Malabar is now part of Kerala.

> "We try to understand the past by reading its traces on the landscape, entering into a dialogue with it, like the fortune-teller studying the coffee grounds in the demitasse cup."
>
> Eleni Bastea[1]

The exotic spices (cardamom, turmeric, ginger, cinnamon, pepper corns) especially pepper, that grow along the Malabar coast had long been objects of desire around the globe. The maritime traffic on India's southwestern coast (Map 1) was connected to several international communities such as the Chinese, Arabs, Persians, Africans and others. Most of the traders depended on monsoon winds for travelling back. This necessitated the need amongst several Arab and Chinese traders to stay in Malabar ports. Every year, "about the time of the summer solstice," writes Edward Gibbon, a Roman commercial fleet, aided by the monsoon, sailed from Egypt to India's southwestern Malabar coast by way of Arabia, returning in winter, after the winds reversed, with a cargo rich in silks, precious stones, wood, ivory, exotic animals, and aromatics like frankincense[2].

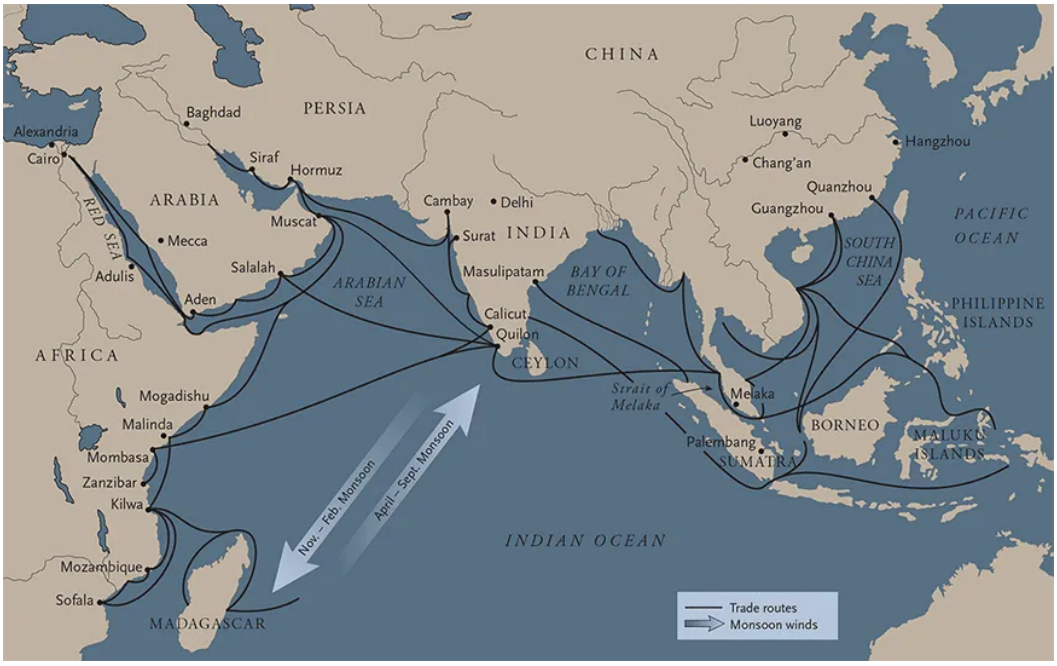

Fig. 1. Indian Ocean Trade Map around the fifteenth century (Image credit: Sebastian Prange, Monsoon Islam)

The coastal Malabar region had the Arab traders arriving in the early seventh century exclusively by sea routes. When Arabian merchants embraced Islam, they began spreading their new faith to the lands they traded with. Thus, Islam arrived on the Malabar Coast five centuries before its political domination in northern India. It spread there through migration and the gradual conversion of the native population. The early encounters between the new religion of Islam and the people of Southwestern India were peaceful[3].

2. COASTAL COSMOPOLITANISM

Indian Ocean trade did not begin with the Muslims, from the time of ancient Greeks, Persians, Romans, people of many have traded and settled down in Malabar. Because Indian Ocean port cities acted as hubs of exchange and collaboration, K. N. Chaudhuri examined the Indian Ocean as a "zone of economic consumption" that led to intimate social interactions among disparate peoples, giving rise to a cosmopolitan society[4]. Other scholars attempted to understand historical trajectories with a focus on maritime India, shaped by Indian Ocean circuits of trade, religion, commercial activities, merchants, and cross-cultural interactions in various coastal and littoral zones. However, Chaudhuri and others observed that this type of cosmopolitan interaction came to an end, or underwent a decisive change, with the entry of Europeans, particularly the British and the French in the late eighteenth century[5]. Scholarly works on the Indian Ocean, such as that of Sugata Bose, are focused on Muslim traders who opened up avenues of commercial exchange that dispersed Islam and Islamic culture throughout the Near and Far East.

Immanuel Kant, presented cosmopolitanism as a philosophy that urges all to be "citizens of the world," thereby creating a worldwide community of humanity committed to common values[6]. In view of Kwame Appiah, cosmopolitanism reminds us of the powerful ties that connect people across religions, cultures and nations, while also valuing differences. Its two strands are the 'we have obligations towards others . . . beyond those to whom we are related by the ties of kith and kind' and that 'we take seriously the value of particular human lives [and] learn from our differences'[7]. Simpson and Kresse have explained cosmopolitanism as an "idea of being part of a broad social project that exists outside the confines of kinship, ethnicity or nationality[8]." M. N. Pearson's pointed out that there were coastal populations in many port cities in the Indian Ocean who lived quite provincially, being inward-looking with limited lives. They were connected with the neighboring lands and hinterlands with which their port was linked through shipping and business[9]. Fernanda Rosa states, at the most basic level, cosmopolitanism brings with it a notion or condition of being connected to the world, instead of a specific place. He also observes that cosmopolitanism is not a colonial byproduct, but colonialism can generate or intensify cosmopolitanism. In the Indian ocean, people as they move around create in the process, routes and itineraries, transport with them ideas, notions, imaginaries and related cultural practices, as well as artifacts[10]. This paper approaches the Indian Ocean as a space of diverse geographical entities and connectedness where many people, in various settings at many points in time, lived lives that were provincial and transnational.

Kozhikode, hereafter referred Calicut is a prosperous city in Kerala state, was built on the ruins of a historic harbour town, which was the capital of the medieval kingdom of Kozhikode. Even at the beginning of the twelfth century, it was just a no man's land with saltpans and marches. In the fourteenth and fifteenth centuries at the end of which Vasco da Gama visited the Zamorin[11] Raja of Calicut in 1498 AD, it has been transformed into one of the most prominent centers of international trade, the meeting point of East and West[12].

The Indian Ocean trading system has already established a context of localized diversity found in trading ports. This diversity, a side effect of emporia trade came with variety of cultural and religious traditions, along with widespread ethnic differences. Zamorin, of Calicut actively pursued a more cosmopolitan society, for the main source of income is the tariffs levied on import and export of goods, even he abolished all taxes on trade by land and instead had only taxes on sea trade. If not for its policy matters, Calicut would not have secured its place as economic powerhouse as it does not have natural bay that would have been convenient for ships to dock. Calicut's economic success was in many ways directly related to its policies and laws regarding tolerance. Providing a secure port and prevention of piracy was the foundation of tolerant city, which the ruler achieved by utilizing the naval prowess of Mappila[13] Muslim through Muslim leaders like Kunjali Marakkar[14]. "The Hindu Rajas (Zamorins) of the coastal states left their Muslim subjects to worship

as they wished, indeed encouraged it, since the ruler's power and wealth depended entirely on the customs revenues and profits of their personal transactions in the maritime trade," accounts Battuta on the state of cultural acceptance and religious tolerance that existed during that time[15]. These policies implemented in Calicut and the port cities of Indian ocean present the possibility that the influence of government could slowly create a feeling of shared citizenship by minimizing social disruption due to religious or cultural differences.

Muslims were not the only group of expatrite merchants active in the medeival malabar coast. Literary sources acknowledge the prescence of Christians, Jews, Zoroastrians, Javanese, Chinese, Africans as well as various groups like Chettis, Gujaratis from othe parts if the Indian Subcontinent. The priveleges enjoyed by the Christian and Jewish communities are well known from the preserved copper plates grants, amidst other rights contains provisions for constructoin and maintainance of churches and synagogues. Whereas in muslim communities, there is absence of such direct epigraphic evidences, however material evidences such as the Mosques hold clue for the possesion of such grants. One of the most symbolic rights in Malabar was the prerequisite of tiling a roof, as opposed to common thatching[16]. The use of tiles or copper sheets to roof mosques therefore can be seen as a widely recognosed visual confrmation of the privileges bestowed on muslim communities by local rulers.

3. CULTURAL SYMBIOSIS

M.G.S. Narayanan accounts to the concept of symbiosis for the peacefule coexistance of diffreent creeds, over concept of sythesis proposed by other scholars. He reasons that in ancient Kerala symbiotic types of relationship is found to have existed in case of heterogenuous religious groups like Hinduism, Jainism, Buddhism, Judaism, Christianity, and Islam. Massive organism of Hindu society offered hospitality to other creeds from time to time leading to a situation where peaceful coexistence of different communities became necessary and possible. He terms this realtionship as symbiotic and not parasitic, where it was an agreement for mutual advantage.[17]

The Malabar coast was ruled by local kings and chieftains. From the late Middle Ages onward, this region witnessed several trade settlements by Islamic Arab traders and intensive trade between West Asia and India. The interactions and engagements between Islamic Arab traders and the communities on the western coast of India gave rise to a unique Muslim community, the Mappilas[18]. Before the arrival of Europeans in the fifteen century, Mappila Muslim merchants conducted a vibrant trade in pepper and spices in the markets of the Indian Ocean. Apart from the Mappila merchants, there were other merchant groups in the region, such as the Gujaratis, Chettis, Jews, and Christians, However, the Mappila Muslim merchants were the most

influential here, having stimulated a brisk trade with local Zamorins and also with a network of Middle Eastern and East African traders[19]. The success of the Mappila Muslim settlements was due to their intermarriage, immigration, and cultural assimilation in the coastal areas[20].

After the arrival of Vasco de Gama, the commercial interests of Muslim merchants clashed with European commercial enterprises. The fragmented character of a Malabar polity with a large number of principalities and potentates enabled the Portuguese to establish a shadowy suzerainty in the coastal regions and impose their own system of maritime control[21]. The imperial, commercial, and cultural ambitions of the Portuguese on the Malabar Coast constituted a threat to the Zamorin and the Mappila merchants of Calicut[22]. Pearson pointed out that the introduction of violent politics into Indian Ocean commerce by the Portuguese during the sixteenth century restructured the existing port hierarchy on the Malabar Coast, making it a commercially confrontationist region as well as a contact zone between the Europeans and local rulers[23].

A local legend claims that the foundation of the first mosque to be as early as the eighth year of Hijra. It is said that in this year an Arab saint converted Raja Cheraman Perumal to Islam and the Mosque was soon founded soon afterwards. The origin of the Legend goes back many centuries and the old Cheraman mosque seems to have been destroyed by the Portuguese in 1504 when Lopo Soarez de Algabaria attacked Cranganore and burnt the town and all the vessel he found there. The present mosque therefore was probably built sometime after this date and while no inscription to indicate the date of the reconstruction, the present building would then date from the mid-sixteenth century to the early seventeenth century.

Fig. 2. Cheraman Mosque, Kodungalor, showing original facade (left, now masked by new facade (right), Image Source: Mikki Desai, Regionalism in Religious Architecture of India

Cheraman Mosque at Cranganore (Kodungalor) is believed to be the site of the earliest mosque of the traders, going back to a legendary date of AH 8/629-30. Cranganore is now a small town north of Cochin but was once one of the important ports of Malabar and the seat of an independent coastal kingdom, before the capital was shifted to Calicut. Historians identify the town as the ancient port of Muziris, noted in Periplus, where Greek ships from Egypt used to go as early as the 1st Century AD.

Form of the first mosque, the Cheraman mosque (Fig. 2), consists of a small prayer hall with an antechamber in the front. The main features of the original prayer hall include, *mihrab* which is semicircular in plan and has a semicircular arch, with rectangular projection behind *qibla* wall. The ceiling is made of oiled timber supported by wooden cross beams resting on walls. A small wooden minbar crowned by a wooden canopy supported by wooden columns is found. The wooden canopy is miniature version of traditional hipped roofs of local buildings. Similar *minbar* can be found in the Mosques of Calicut. The masonry walls are plastered with no ornamentation and even *mihrab* is relatively plain. The original hipped roof does not seem to have originally had the grand front gable characteristics of other mosques in this region.

Muslim conquests never reached south-western india, its muslim communities were shaped much more by the arabic islamic culture of the Indian ocean trading world than by the Persian and Turkish traditions typical of North India. In North India and Deccan, Mosques were sponsored by Muslim dynasties, in Hindu ruled Malabar no such political patronage could be expected. The history of North Indian Muslim architecture is considered to commence with two mosques at Delhi and Ajmer, both of them built with temple spoil, following the conquest of Northern India by Ghurid Sultnas of Khurasan. Ghurids along with Delhi Sultans employed the traditional Indian trabeated building methods in their mosques and other structures[24]. The contribution of Islam to these buildings is, in their concept as places of Muslim worship, as well as in their architecture plans, which consist of a colonnaded prayer hall at the western end of a courtyard, oriented to face the direction of Mecca (the qibla). In larger mosques the courtyard itself is surrounded by a colonnade, following the plan of early Arab mosques. In North Indian mosques of late twelfth and early thirteenth centuries, the influence of traditions of Khurasan was limited, except for decorative details and corbelled arches imitating the facades of homeland mosque of the conquerors. But later the Khurasan influence gradually increased and masonry structures with vaults and true domes supported on arches were introduced. Along with these new methods, the old trabeated system also survived. The combination of these methods produced an Indo-Islamic style of architecture, which manifested during the Mughal period[25].

On the contrary the Muslim buildings of South India are associated with the entire Islamic culture of Indian ocean maritime trade, the boundaries of which go far beyond the Indian Sub-continent. They are mainly unrelated or unaffected by Sultanate and Mughal architecture of North India. Significant difference is

observed in appearance between the stone buildings and those with wooden superstructure. They share certain stylistic relationships due to their roots from local traditions but also from architectural traditions of the Persia gulf and the Red Sea which was the homeland of these settlers.

4. MAPPILAH MOSQUES OF MALABAR

The earliest mosque (The Prophetic Model) built by Prophet himself is said to have stone walls and wooden columns supporting light flat roof[26]. Even mosques of later dates with similar type of structure but on a different plan can be found in Yemen and Central Iran. The Ground level layout of Malabar Mosque also has a similar structure, but their elaborate roofs are far different from simple flat roofs of their homeland origins. The mosque of Abu'l Qasim al-idhaji helps us to understand the link between the architectural forms of Bhadresvar and those of south India. The mosque dating almost a century and half after the Islamic monuments of Bhadresvar, is from the time when the Muslim communities were spreading rapidly throughout the ports of South India, taking with themselves their architectural traditions which had developed in Gujarat and perhaps other regions of western India[27]. This mosque shows how much by this time the architecture of the settlers had developed its own vocabulary and how much the layout and decoration of the pre-conquest mosques had become established pattern along the coast and inland.

The components of Malabar Mappila Mosques vary significantly from their North Indian counterparts reflecting their differences in meanings and approaches to Mosque architecture. The architectural style of maritime settlers in Malabar has some features peculiar to the region, but as a whole seems to take its roots from the architecture of the earlier Muslim settlers on the coasts of Gujarat, which are in turn influenced by the architecture of Yemen and Persian Gulf. The mosques in Calicut and Cochin have a colonnades portico in front of the prayer hall, a feature absent in the North Indian Mosques. A close relationship between the architecture of the settlers and the Islamic architecture of the Gujaratis apparent in the plan of the mosques with front colonnades[28].

The semi-circular plan for *mihrab* appears to be influenced from Gujarat, also the Mosques of these settlers regardless of their size have only a single *mihrab* in the *qibla* wall, a tradition different from that of North Indian Mosques, usually with number of *mihrabs*. Circular projection of Qibla wall common to mosques of Persia is another feature associated with Mosques of maritime settlers but followed the tradition to arch the *mihrabs*. Though the construction of true arches were unknown until the post-Mughal period, these arches are simply arched forms, cut into two or more blocks of stone and set above jambs. Predominantly Indian Mosque have stone minbar, and wooden minbars are very rare, hence the wooden minbar of the mosques of Malabar are very significant. Minbars present in mosques of Calicut, Cochin, Cranganore represent a

particular local style which is distinctive for its carved decoration, characteristics like turned wooden columns with round capitals, lavishly carved massive wooden canopy. These minbars differ in style both from north Indian stone minbars and the wooden minbars of middle east and north Africa[29].

Two ancillary structures are necessary for Islamic worship : the minaret, from which the muezzin gives the call to prayer, and a fountain for ablution. In early north Indian Mosques, *minaret* usually signified conquest, but in Malabar there was no tradition of building mosque with minarets, for whatever reason the settlers may not have been particularly concerned about omitting this feature, as there is no liturgical requirement for the call to prayer to be made from tower[30]. According to tradition of the time of the prophet himself it could be made from roof of the mosque or indeed any place for the believers to hear it. The worshipper has to be in a state of ritual purity before he starts to pray. This may mean taking a bath, but normally washing certain prescribed parts of the body is sufficient[31]. A common addition to the mosques is an ablution pool *(haud)* in the center of a covered hall, usually set at the north side of ante-chamber of the front porch. The ablution chamber seems to have been introduced late in the sixteenth Century and by mid seventeenth century the feature was added to all earlier mosques. Such chambers were an integral part of the design in mosques constructed after this period.

> "Islamic architecture remained faithful to simple building materials and employed the elemental forces of nature as light and wind for its sources of energy. It brought nature into the city by creating the calmness, harmony and peace of virgin nature within the courtyards of mosques and of the home[32]"
>
> Seyyed Hossein Nasr

The idea of preference over well light, ventilated cool spaces for prayer over decorated broad architecture statements is evident in these Mosques, as the decorative works are limited to timber columns, coffered roofs of porch omitting images of living beings. Though the Muslim merchants who plied the seas between Gujarat, Sind, Iran and the Arab Lands have been familiar with the form of domes, didn't order them for these Mosques indicate their value of local traditions than imitating buildings of their native lands. Shokoohy describes a fusion of pan-Islamic styles and local vernacular styles of architecture, however, other scholars state that mosque architectural styles in Kerala largely resembled traditional temple architecture. This is largely because, the work of mosque construction was done by the local artisans under instructions of the Muslim religious heads whose immediate models for the places of worship were only the Hindu temples of the region. In a more detailed study on Islamic architecture in Kerala, Stephen Dale argued that the Muslims in Kerala had developed a special kind of architectural style—a "commercial-monsoon" style—more as a result of economic and ecological factors than of influences from either local or elite classical cultures[33].

Sebastian R. Prange states that the similarities in Islamic architecture of Southwestern India and coastal Southeast Asia is due to the role of traders in the introduction of islam to both regions. He has argued that, Malabar mosques also share certain traits with local hindu temples[34] (Fig. 3). The flourishing of temple construction in the region from early nineth century onwards was to a large degree made possible by the revenuesof maritime trade[35]. After the fragmentation of Chera dynasty into various coastal polities allowed hindu temple architecture to develop in a regional style independent of the political preferences. The Dravida-Kerala style of temple architecture varied from the main south indian forms in its response to specific local climatic conditions. The temple is a single important locus for the historical development of kerala society. These mosques not only share certain formal traits with temples but also a similar historical role in that they too, linked the region into broader networks.

Fig. 3. Laterite stone walls in Chendamangalam Temple, Vadakara. Image source: authors

Characterisitcs like the temples steeply sloping roofs, the extensive use of timber in the super structures, the construction of plinth and walls are attributed to the response to local climatic conditions and available raw materials. These constraints have just shaped the region's mosques which share similar features. Material evidence of the number of exisitng mosque belonging to thirteenth and fourteenth centuries along with descriptions of mosque structures along the malabar coastline from chronicle of Ibn Battuta and others, indicate the reliance on indigenous architectural models and building methods.

Other than the ecological circumstance that favored the continuities in exterior forms of Malabar's mosques and temples, there was a deliberate amalgamation of style that was driven by desire to find a place for islam in prevailing hindu ritual landscape. The process of Cultural negotiation not only accommodated the social, political context of Brahmin regulated hindu society, but also met the expectations of converts who would have been accustomed to accept prevailing Malayali temples as the "natural" forms of ritual centers or the

outwards symbols of sacred space[36]. Integrating mosques into the exisitng cultural religious framework went beyond attacting and accommodating local converts. By then the muslims were still a small, scatterd religious merchant communities, who depended on the goodwill of Hindu rules, desired to fit in the exisitng modes of sacred architecture.

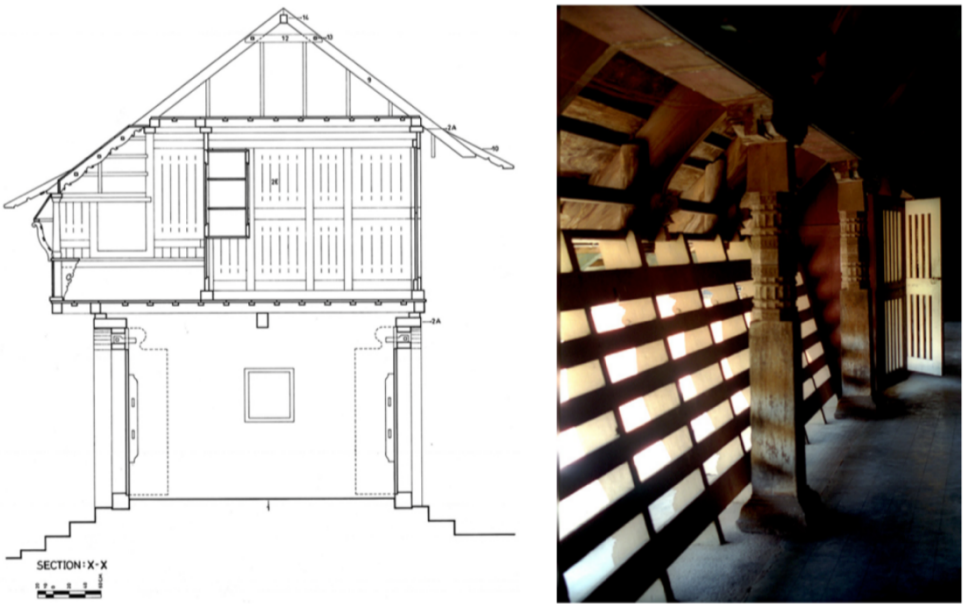

Fig. 4. Wall Section of a typical wooden house in Kerala and interior image of a slanted lattice (charupadi). Image source: Mikki Desai. Regionalism in Religious Architecture of India

The continuites in the exterior architectural features and structures of Malabar's temples and mosque is marked by clear differences in the interior. The differnce in the spatial form of temple and mosque is clear reflection of the difference in ritual functions associated with them. The square ground plan of temple usually with an antechamber is used as processional spaces, while the rectangular ground floor plan isused for congregation activities. The jumu'a / Jami (Friday) mosques intended for communal prayer of a town's entire muslim community. Sucessive extensions serve as indicators for the growth of congregational spaces over time. The provision of antechamber with water or tank for the purpose of ablution is distinguising feature of mosques.

The mosques of Malabar share similar structural principles, starting with a stone foundation, usually in the form of plinth. Stone walls are provided at the ground level, with wooden columns (Fig. 5) and a wooden upper storey with a sloping roof. The columns in most buildings are of similar type, each having five registers – three square in plan, with two octagonal registers in between. the wooden columns are plain, wooden brackets support the beam. As wood is more resistant to tensile forces than stone , the wooden columns are slender and beams have much side span than stone specimens, as a result the internal spaces of Malabar

mosques are airy and bright. The ground floor is used as a conventional mosque, but the upper floors may have different functions, such as housing a madrasa, an administration hall or even a storeroom.

Fig. 5 Wooden Columns in Mosque antechamber. Image Source: authors

Fig. 6. Tiered timber roof of Ponani Juma Mosque. Image Source: authors

The roof may be tiered, but on some occasions this form only appears in the front elevation, while the whole building has a single hipped roof (Fig.6). The underlying principle of the ground plan of the mosques is also similar, although they vary in size and details of layout. The plans are of the familiar south Indian type, consist of a prayer hall at the west, ante-chamber at the east and open porch in front of ante-chamber. Presence of extensive timber structure demand many cycles of repair and restoration, most of them now have additions and alterations. The Eastern end of the roof has richly decorated gable facing the east and a hipped end on the western side, carved in timber. This gable (Fig.8) brings light and ventilation into the interiors. On the western side is a hipped end formed by housing the rafters into a cylindrical wooden drum called *Koodam*. The inclined decorative brackets offered protection and ventilation to the building.

Fig.7. Wooden coffered ceiling in a Hindu temple. image source authors.

Fig. 8 Eastern gable in tired timber roofs of Mithqalpalli, Image source: authors.

There is a general consideration of Muslim architecture of Malabar as a tradition with its roots in the older forms of local temples and vernacular houses, but incorporating architectural concepts and some details from the western Islamic world. However another dimension in the architecture of Malabar is, its relationship with the traditions of the maritime nations of Southeast asia, alongside trade in goods there was also exchange in artistic and architectural traditions between the maritime nations. For example, the Gujarati marble tombstones carved in relief with fine motifs and Quranic and other religious texts in elegant Calligraphy were among the wares traded to South-East Asia.

Study of specific mosque examples is undertaken in order to better understand the context of their construction as well as the purposes they served. Historic port of Calicut was a pre-eminent port of trade during the heyday of muslim commercial activity on coast from the fourteenth century onwards. Prange references the account of chinese chronicler Ma Huan, who wrote at the beginning of the fifteenth century, that Calicut contained twenty to thirty mosques. In every town which has an old Islamic settlement, there are many more structures of considerable age. In Calicut, Ponnani, Kondotti, Vadakara, Nadapuram, Thalassery and so many along the coast, there are mosques built in traditional manner, which are of similar in form and character, but of different scales. The oldest mosques of Calicut are all located in the towns's old muslim quarter, today known as Kuttichira, immedietly adjacent to sea. Some of the best examples of Islamic architecture in Malabar are found in Calicut's main monuments, which are among the earliest in this region and on a grand scale with fine details.

Jami mosque of Calicut, one of the oldest mosques of Malabar, is located in Kuttichira area, is in its present form the largest mosque of Calicut. But was originally a fairly small building and has grown to its present size through several restorations and expansions. Today the building consists of an entrance porch, leading to an antechamber that opens to the prayer hall; the porch and antechamber bear inscriptions. Inside the prayer hall the old minbar also bears some inscriptions. These inscriptions provide historical information not just about the building and its development, but also about the benefactors and their community as whole. Two pools within Jami Mosque Calicut, with their open roofs seem to have been created to provide light and ventilation and in terms of architectural design their design seems to be successful, as the juxtaposition of water and hard architectural elements along with the display of light and shade, provides a pleasant environment inside the prayer hall.

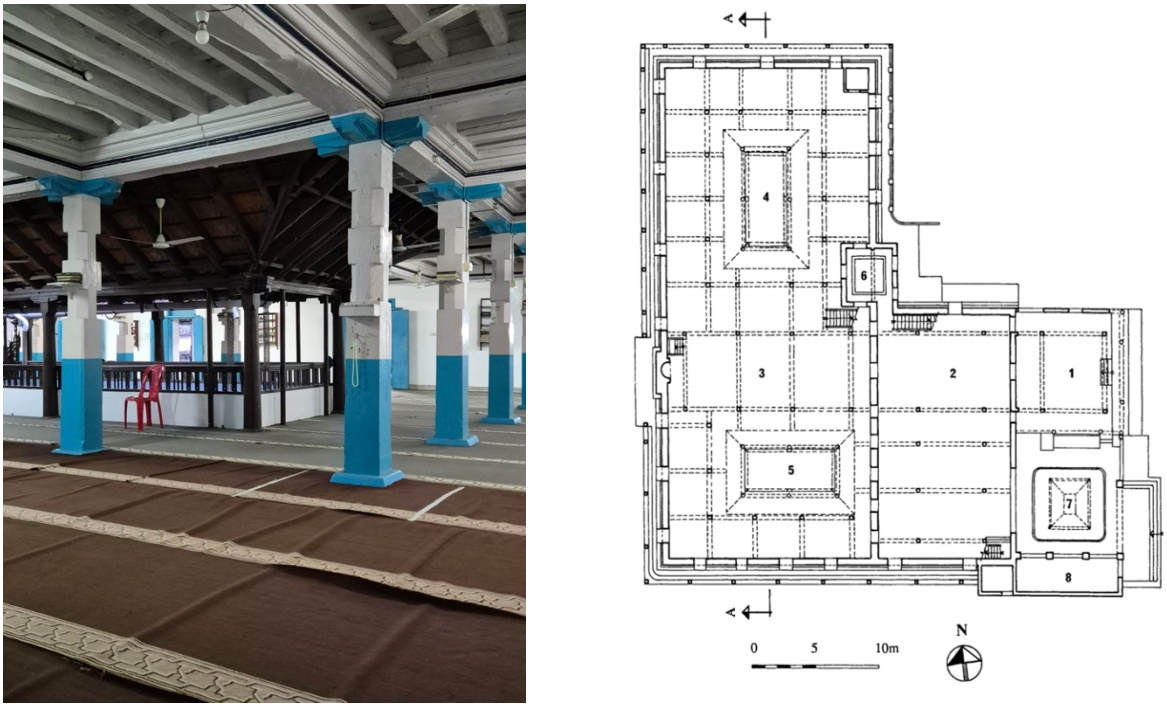

Fig. 9. View of prayer hall Image source: authors. and Plan of Jami mosque Calicut. Image source: Mehrdad Shokoohy, Muslim architecture in South India

Mithqalpalli Situated in Kuttichira area of Calicut, is the most imposing of Calicut's mosque and largely retains its original architectural features[37]. Its original construction could be dated to middle of fourteenth century, based on the the patron's encounter with Ibn Battuta when he visited calicut around 1344. It was destroyed by the Portuguese in 1510 and rebuilt in 1578/9. Construction materials and techniques, follow the same order followed by other mosques in this region. Plinth area is paved with stone, outer walls are of laterite masonry and three upper storeys are made with fine logs of timber. The columns were interconnected by beams for structural stability. A simple form of wooden truss is employed to support the ridge oriented in the east-west direction. The roof has an impressive form with three metallic pinnacles (*Thaẓhikakkudam*). This roof structure is typical of Kerala traditional architecture. The roof structure as a whole is three-tiered, elaborately constructed with layers of columns and beams. The sloping roof rests on the beams over the outer columns and stone walls.

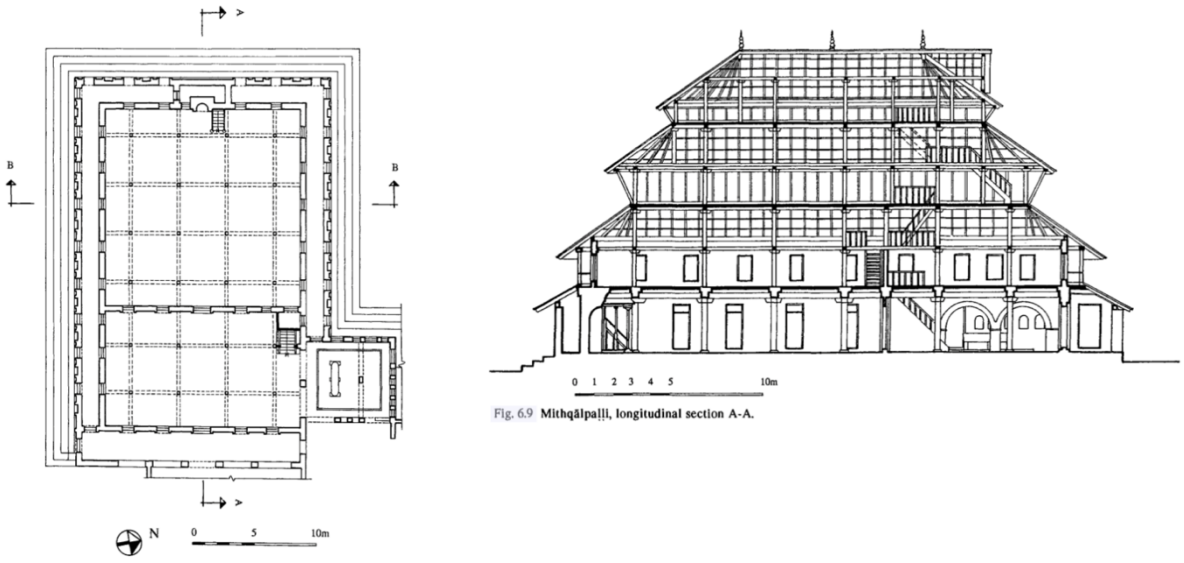

Fig. 10. Plan and Section of Mithqalpalli Calicut. Image source: Mehrdad Shokoohy, Muslim architecture in South India

The Muchchandipalli mosque is situated a little south of the Jami Mosque. It is very similar in design to the original structure of the fourteenth or fifteenth century Jami, consisting in its present form of a colonnaded porch opening to an antechamber leading to the prayer hall. The corpus of Calicut inscriptions, beginning with the foundation stone of a mosque kept in Muchchandipalli, right up to the last decades of the twentieth century, give us an insight into the Calicut Muslim community from the early days of its establishment to the present time.

The epigraphic evidence shows that in Calicut, the construction and renovation of mosques were financed by merchants. This is not surprising as the muslim community of Calicut was of a predominantly commercial character and because merchants engaged in highly profitable trans-oceanic pepper trade were most able to marshal the necessary resources. The muslim merchants underwrote the construction or renovation of splendid mosques in a cosmopolitan emporium such as Calicut may be seen as displays of individual piety as well as desire to have the community's religious monuments reflects its economic stature. It also manifested a figurative investment: Calicut's mosques made clear to the visitor and native alike that muslims were part of the fabric of the town, that islam had established solid foundations here. The defiant reconstruction of calicut's mosques in 1580's after their devastation by Portuguese was similarly rooted in an understanding of these mosques as symbols of the status of Islam on the malabar coast. Malabar's mosques served more than their primary function of providing a space for communal prayer. In a mindu majority society they served other symbolic purposes. Beyond being the religious symbolf of muslim faith, mosque's became primary focus of islamic practice. Prange reasons out that in a socio-political setting of a non-Muslim order, that the

mosques are filled with various extra-religious purpose, such as providing a first point-of-call for foreign travellers, lodgingfor itinerant traders, and safe storage oftheir merchandise.

Mosques were an important element in this infrastructure that facilitated the movement of traders is made clear by Ibn Battuta. The function of mosques as shelter is made vivid in Pyrard de Laval's account. As in other parts of islamic world, malabar Mosques also served as center of learning. Muslim preachers and judges served as gatekeepers to the arabic language for local converts. The extensive super structures of traditional malabari mosque provided clement conditions for learning; in number of mosques the upper level above the prayer hall continues to be used in this manner. As observed by Zayn al-Din, the arabi-malayalam system of writing developed and in use among Malabar's Mappila Community due to the learning of Quran and other religious knowledge by muslims. Mosques acted as bridges connecting Malabari Muslims to the Arabic language and therby to the wide Islamic world.

5. CONCLUSION

This paper has attempted to understand the presence of a unique and significant type of coastal cosmopolitanism in the Malabar coast particularly in pre-modern Indian Ocean space. It traces a distinct coastal cosmopolitan culture and architecture that is culminated in the design of mosque architecture of the Malabar coast. The Mappila Mosques of Malabar have successfully integrated the practices of a cosmopolitan religious space into regional vernacular space.

Historically, local climate, materials, craftsmanship, the community's economic resources and patronage have been the prime modifiers of the mosques' outwardly form. The design also adhered to most Islamic tenets of directionality, simplicity and cleanliness being followed in the physical and ritualistic aspects of the religion. Thus, a reference to the regional typology was a natural consequence when building mosques on alien lands[38].

This study concludes that mosques can serve as important and hitherto largely neglected primary sources for the study of the history of Muslim communities on the Malabar Coast. The study of mosque architecture forms an important extension of textual evidence, highlighting in particular the process of political accommodation and social acculturation that exceedingly difficult to trace in the temporal snapshots captured by written records. The architectural evidence of the oldest surviving mosques shows not only the islamicate culture in Malabar developed organically in its specific local context, but also points to the extent of commercial and religious interaction with the wider islamic world. Malabar's mosques thus stand as a tangible manifestation of the dynamic interaction between the developemnt of Islam in the 'land of temples' and in turn Kerala's progressive integration into trans-oceanic networks across the medieval period.

Trade systems in the Malabar coast adapted continually throughout the long decades of exchange on the Indian Ocean, allowing the addition of extensive peoples, including even many Europeans, to enter into an environment and become a part of society. While their roles and relationships with other groups changed often, the foundational aspect of interactions between increasingly diverse peoples with many goals remained constant and is a testament to the probability of cosmopolitan ideas within many of the Indian Ocean ports. The Mappila Muslims of Kerala played a crucial role in the cosmopolitan past of Calicut for many centuries. With the advent of the Portuguese in 1498, their influence in society declined steadily until the middle of the last century. The Mappila Muslims could no longer be described in general as cosmopolitan. Along with the decline of Trade, traditions brought about by centuries of mutual respect and peaceful coexistence came to an end. Since the independence of India in 1947, and especially since the Gulf Oil boom in the 1970s, there is a new kind of cosmopolitanism emerging among the Mappila Muslims[39].

Many mosques and shrines have been subject to renovation and extensions unsympathetic to the original structure. During the last three decades, along the Malabar coast, large number of traditional mosques with traditional plan and structure have been demolished to give way to larger, but fearless mosques of brick and concrete. In 1980's the old Jami of Quilon was demolished and was replaced with a new brick and concrete structure. In the case of Cheraman Jami at Cranganore, the extensions were extensive that the old buildings are hidden in the core of the new structures. The exterior of these buildings with plain modern walls topped by slim and spiky minarets with bulbous pinnacles, crudely made out of cement enclose the monuments of great value. Islamic architecture has in fact been eclipsed by a conglomeration of often hideous styles, or at best bland ones, which imitate foreign models in the pretence of universality and world-wide applicability. The crisis within Islamic architecture and the modern Islamic cities hardly needs to be underlined. Nor is it necessary to elaborate here the principles and values of traditional Islamic architecture and city planning, the forgetting of which has brought the present crisis into being[40].

The local character of the malabar Mosques has given way to more global language in architecture. Traditional religious architecture in Kerala displayed an unself-conscious self-similarity and homogeneity of local character.. Today each structure is designed to proclaim a unique religious identity clearly separating it from local counterparts and at the same time aspiring to become part of pan-indian or global islamic Ummah. Most of the new mosque designers choose to adopt an aesthetic that is largely derivative of monumental Mughal edifices. Such kind of a universal Global language in islamic architecture has no basis in history. The search for such unifying language is a recent trend and its creation relies on forms of imagined tradition. Regrettably this invented language is without grace, proportions, harmony, balance or beauty. The indigenous mosque architecture of Kerala and the story of its growth from trade across the Arabian sea provide valuable historical example of cultural adaptation. Globally there are few extant reminders of this decidedly non-

violent process. These Mosques of Indian Ocean is rapidly disappearing due to forces of nature, economics and religious fundamentalism.

The surviving vernacular mosques are outstanding examples of age old traditions, all the more remarkable because they are living heritage which is still functional, dynamic and in daily use. A few hundred years old prayer hall is a venerable site, that was witness to multitude of human concerns, and it's time to acknowledge the role of these places. Conservation could become even more relevant in the present climate of intolerance and rapid urban growth. Mosque cannot stand alone; it needs a community to support, since these mosques bear witness to peaceful coexistence.

> "The Past ….. is the evidence that a society has existed. Wipe it away and a culture begins to feel, like a man without a memory, shallow and superficial."
>
> Donald Appleyard

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been used for the rich new comers, Christian or Muslim who wanted to marry into local families. In several communities including the Muslims, the son in law is still called *Mappila.* (Narayanan.) The main origins of the communitylie in the conversion of Malayali hindu (especially low-caste) to Islam and in the liaisons of foreign Muslim with Malayali women.(Prange). The name "Mappila" is a transliteration of the Malayalam word "Mapila," which has also been transliterated as "Mappila," "Mappilla," and "Moplah," among other forms.

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WATER HERITAGE AND COLONIAL LEGACIES: A STUDY OF BRITISH WATER SUPPLY SYSTEMS IN HONG KONG ISLAND ITS COSMOPOLITAN NARRATIVES

Limiao Huang

WATER HERITAGE AND COLONIAL LEGACIES: A STUDY OF BRITISH WATER SUPPLY SYSTEMS IN HONG KONG ISLAND AND ITS COSMOPOLITAN NARRATIVES

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This paper examines the establishment and development of British water supply systems on Hong Kong Island, focusing on their technological and socio-political encounters. By analyzing reports and documents from the government and Institution of Civil Engineers, this research traces the transformation from traditional decentralized water sources to British municipal water supply on Hong Kong Island, highlighting the significant role of British engineers and knowledge sharing. It also discusses the socio-political encounters, including the motivations of establishing these systems and their role in shaping new social orders. The findings contribute to understanding Hong Kong's colonial legacies and cosmopolitan narratives through the scope of water heritage.

1. HONG KONG'S WATER HERITAGE AND COSMOPOLITANISM: INTRODUCTION AND REVIEW

From a 'barren rock' to the 'most cosmopolitan city in Asia'[1], colonial Hong Kong underwent a significant transition towards cosmopolitanism. This transition is evident in its urban planning, industrial progress, social structure and urban infrastructures[2], including its water supply infrastructures. Fundamental to this transition was the establishment of the British water supply systems. These systems, which took over a century to build, were crucial for supporting urban expansion and accommodating a rapidly growing population increasing from 7,450 before the colony (in 1841) to over 6,48,000 at the end of the colony (in 1997) [3]. Additionally, they also played a key role in supporting industrial development, urban greening, and raising living standards.

> "Perhaps nowhere else in the world have such highly developed and concentrated to catch surface water run-off."
>
> S.G. Davis, 1949[4]

> "Hong Kong has exhausted its major water resources."
>
> Governor MacLehose, 1978[5]

Hong Kong's geographical setting presented significant challenges to water supply. The region has a mountainous terrain, with no large rivers or lakes and limited underground water. This led to a heavy reliance on rainwater, which fluctuated greatly between rainy and dry seasons, making Hong Kong vulnerable to recurring droughts[6].

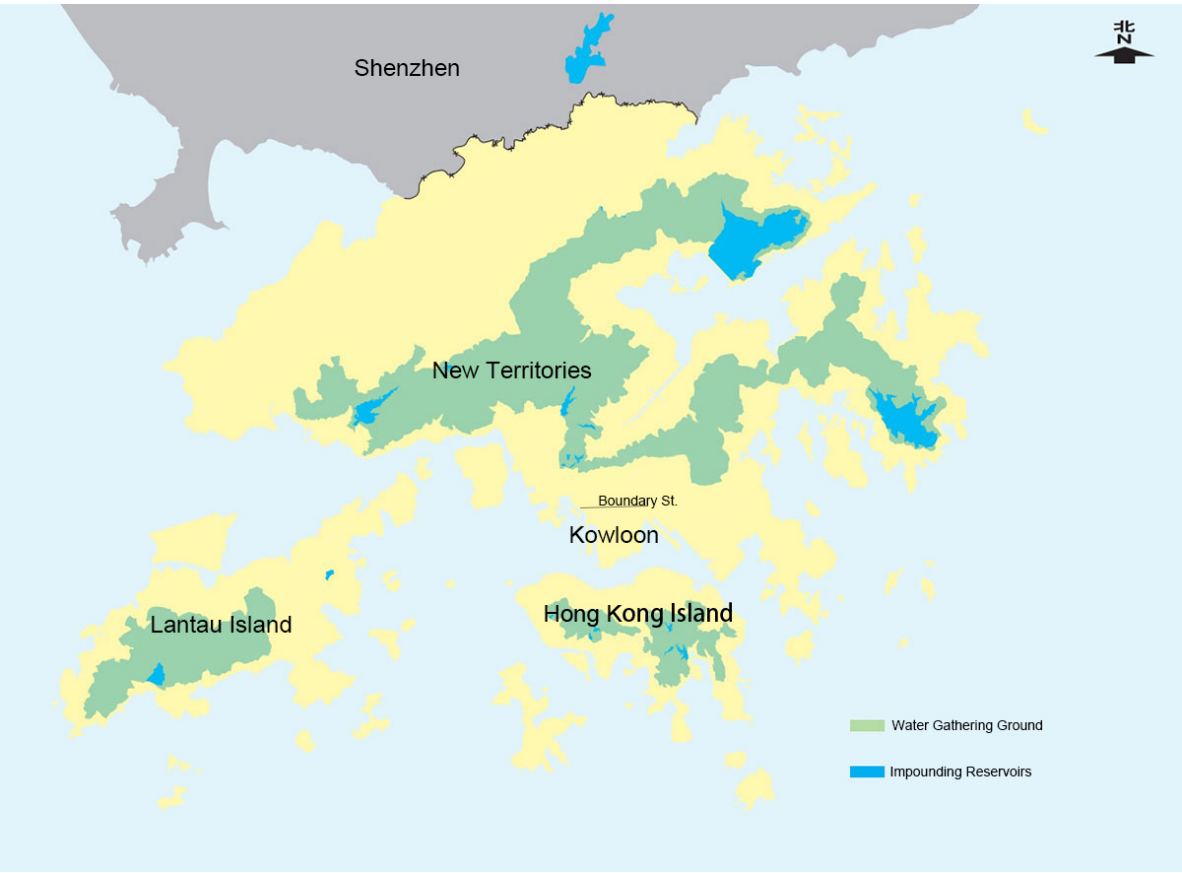


Fig. 1: Hong Kong's catchments and reservoirs; Water Supplies Department. (n.d.). *Local yield.* https://www.wsd.gov.hk/en/core-businesses/water-resources/local-yield/index.html (Annotated by the Author)

To address water needs, colonial Hong Kong underwent significant reforms in its water supply systems. Initially relying on decentralized supplies from streams and wells, the colony transitioned to the establishment and development of British water supply systems over a century, followed by a water importation scheme from mainland China. During the period, the construction of reservoirs, catchments, aqueducts and distribution networks took place. This have left behind legacies of water heritage in Hong Kong (Fig. 1).

Unfortunately, these legacies have at times been overlooked by governmental authorities. In late 2020, amidst social unrest and a global pandemic, Hong Kong was caught in a conservation campaign for the Mission Hill Service Reservoir (or 'Ex-Sham Shui Po Service Reservoir). This was built in 1904, one of the earliest waterworks in the Kowloon Waterworks Gravitation Scheme by the colonial government[7]. The Water Supplies Department (WSD) referred to it as a mere 'water tank', leading to its neglect and decision for demolition. Images of the partial bulldozed reservoir circulated on social media, sparking a conservation campaign to preserve the 'Romanesque' waterworks[8] (Fig. 2).

Fig. 2: Mission Hill Service Reservoir being bulldozed; 香港遺美 Hong Kong Reminiscence. (2021, July 22). *主教山配水庫*. Facebook. https://www.facebook.com/photo/?fbid=854082075348021&set=pcb.854082665347962

In response, the Antiquities and Monuments Office (AMO) and WSD initiated research on this service reservoir, acknowledging its significance within the Kowloon Waterworks Gravitation Scheme, part of the British water supply systems in the Kowloon Peninsula. However, the establishment of the British water supply systems occurred decades earlier on Hong Kong Island.

Hong Kong was integrated into the British colony through several stages (Fig. 1). Hong Kong Island was ceded to Britain under a treaty in 1842. Nearly two decades later, the leasing of the Kowloon Peninsula (south of Boundary Street) took place. However, Kowloon primarily served military functions post-leasing, with significant urban development only occurring following the leasing of the New Territories in 1898[9].

While the Significance of the Kowloon Waterworks Gravitation Scheme is now recognized by government authorities, the role of British water supply systems in shaping the city remains under examination. This paper examines the establishment and development of British water supply systems on Hong Kong Island, and their technological and socio-political encounters. Using critical cosmopolitan theory, this research not only recognizes the importance of the British water supply systems but also reveals the challenges and tensions. By analyzing reports and documents from Hong Kong Government Reports Online, Public Works Department,

Institution of Civil Engineering, and secondary sources, the findings contribute to understanding Hong Kong's water heritage and its implications for colonial legacies and cosmopolitan narratives.

Cosmopolitan, the term originated from the Greek word *kosmopolites*, combines *kosmo* (world) and *polites* (citizen), meaning 'citizen of the world' [10] . This idea has evolved beyond its ancient roots to encompass a modern understanding that transcends territorial boundaries. The modern concept of cosmopolitanism, derived from the ideas of Immanuel Kant in the 18th century. And modern cosmopolitanism has been linked with colonialism[11], as colonial powers expanded their influence globally, reshaping geographical landscapes and fostering diverse cultural encounters and interactions.

While numerous studies on colonialism and cosmopolitanism have explored economic, political, and cultural aspects, few have connected these themes to water, a fundamental element of cities. Gandy (2002) highlights the role of water supply in modern cities, bridging the visible and invisible realms of the urban environment, from urban networks to private residential spaces[12]. Kaika (2012) studies the historical geography of water in Western cities like Athens, London and New York, examining how water has transformed into commodities through technological networks. She further explores how the show of technology power relates to socio-economic aspects and cultural identities[13].

Douet (2023) claims that the modern water supply system originated in Britain. While this assertion may be debated, considering various water supply systems developed by different civilizations like Roman aqueducts, Persian qanats and Khmer reservoirs, it underscores the significance of the British water supply system, which has influenced practices around the world[14].

Broich (2007) investigates how the British superimposed their water supply systems, often unmodified to its territories. This British gravitation scheme, practiced many times in Britain, was imposed on its territories by engineers who executed similar waterworks in Britain. Once the municipal water supply became available, the British government prohibited traditional decentralized water sources, as can be seen in Colombo, Bombay and Hong Kong[15]. Chu (2022) further portrays Hong Kong's colonial history, revealing the uneven water distribution between European households and Chinese communities[16].

Different from many other colonial contexts like India, Africa or South America, colonial Hong Kong was characterized by a lack of natural resources, a relatively small pre-colonial population, and shifting demographics influenced by neighboring mainland China[17]. Additionally, its geopolitical positioning as a British enclave adjacent to a hostile neighbor and its unique geographic setting, heavily reliant on rainwater, made it an intriguing case study for exploring the interplay of colonialism, cosmopolitanism, and water heritage.

Water, a critical issue for colonial Hong Kong, was due to its extreme geopolitical setting and burgeoning population. Literature on Hong Kong's water heritage exists, such as Ho's (2001) [18] historical overview. And a growing body of work has emerged post-2020 conservation campaign for the Mission Hill Service Reservoir. Publication by WSD (2023)[19], the water authority, includes education of water heritage to general public. Lam et al. (2022) introduces different ways of searching water in Hong Kong[20]. Greatrex & Mok (2024) focus on water infrastructure between 1930s-1960s[21], and Mellor (2022, 2023, 2024b, 2024a) writes individual stories of different reservoirs online, including the early reservoirs[22].

However, much of the research focuses on the historical development of waterworks, neglecting the intersection of water heritage with colonial governance and cosmopolitan narratives, especially for the establishment of British water supply systems on Hong Kong Island. This article aims to bridge this gap by examining the technological and socio-political encounters, as well as challenges and tensions arose during the period.

2. BRITISH WATER SUPPLY SYSTEM ON HONG KONG ISLAND: COLONIAL DOMINANCE

The history of Hong Kong is deeply intertwined with narratives of water. In 1816, Lord Amherst led a British diplomatic mission to China. During their journey across the South China Sea, the crew's urgent need for fresh water led to the discovery of a beautiful waterfall near Pok Fu Lam* on Hong Kong Island (Fig. 3). This discovery prompted further exploration of the Island, twenty-five years before British colonization[23].

Water supply has always been crucial for habitation in Hong Kong, yet greatly challenging. Hong Kong's geographic setting, shaped by its prehistoric volcanic activities, features mountainous terrain and abundant igneous rocks that hardly retain water. Consequently, water runs quickly through these rocks into the South China Sea. Additionally, the lack of large lakes or rivers in the region led to a heavy reliance on rainwater, which is greatly influenced by monsoons[24]. The distinct precipitation patterns between rainy and dry seasons often resulted in recurring droughts, exacerbating the challenges of fresh water supply.

In the pre-colonial period, water was usually sourced from decentralized streams and wells. Local communities also ingeniously utilized bamboo aqueducts to transport water[25]. This method was depicted in a 1838 illustration showcasing the intelligence of the inhabitants in managing their limited water supply (Fig. 4) [26]. Interestingly, this method bears similarity of the use of hollow tree trunks for transporting water in 17th and 18th century Europe[27].

* Pok Fu Lam, also known as 'Pokfulam', 'Pokfoolam'.

Fig. 3: Waterfall near Pok Fu Lam; Havell, W. (1818). *Waterfall at Aberdeen, Hong Kong*. Museums for Digital Learning. https://museumsfordigitallearning.org/object/879

Fig. 4: Bamboo aqueduct, 1838; Borget, A., & Borget, A. (1990). 中國和中國人. In *China e os chineses.* 澳門文化學會.

In 18th century Europe, the Industrial Revolution, which started in Britain, transformed traditional economics through mechanization of production. This attracted a large influx of rural population to urban centers, making London one of the world's largest cities at that time. However, this growth brought huge challenges, including overcrowded living conditions, environmental degradation, and notably, inadequate access to clean water. In 1831, London was struck by a cholera epidemic, followed by outbreaks of influenza and typhoid in 1837 and 1838, respectively. Recognizing the connection between epidemics and contaminated water, Edwin Chadwick-a prominent social reformer-published *The Sanitary Condition of the Laboring Population of Great Britain* in 1842. This cast light on the importance of water infrastructure to public health, leading to the enactment of *Public Health Act* and the establishment of *Board of Health* in 1848, with Chadwick serving as the director and Sanitary Commissioner of London[28].

To ensure adequate clean water to urban centers, the British initiated a revolutionary water supply system known as 'gravitation scheme'. This was adopted as a practical solution to provide adequate clean water to urban centers, alleviating water scarcity due to polluted sources and population growth during rapid urban development. It involved damming rivers and valleys in the hinterlands, transporting water through aqueducts in gravity-based method, and distributing to the city after treatment[29] (Fig. 5). Over 100 reservoirs were constructed in Britain from the 1840s to late 19th century[30]. And the system was further extended to its territories.

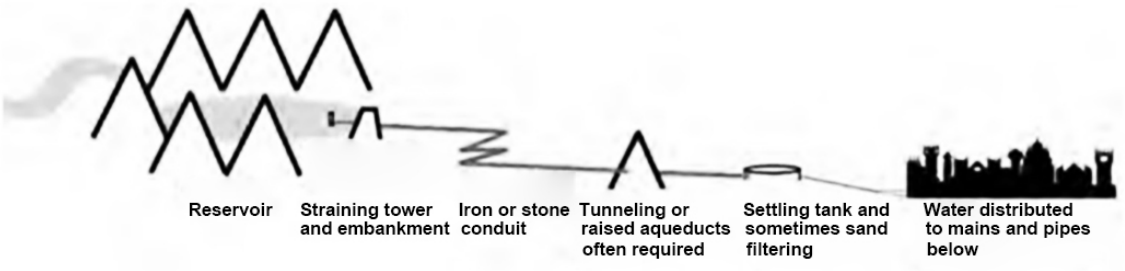


Fig. 5: Schematic diagram of gravitation scheme; Broich, J. (2007). Engineering the Empire: British Water Supply Systems and Colonial Societies, 1850–1900. The Journal of British Studies, 46(2), 346–365. https://doi.org/10.1086/510891

This British-based water supply system was introduced to its colonies, often by the very same engineers who had carried out them in Britain. For example, under the proposals from Bombay's chief engineer, Henry Conybeare, a gravitation scheme modelled after John Bateman's style (who constructed around 50 such projects) was completed in 1858. Bateman himself had constructed the water supply system in Colombo, Sri Lanka. One of Bateman's students, Alexander Binnie, completed a similar project in Nagpur, India, in 1872[31]. That same year, Robert Rawlinson, devised a water supply system in Singapore before proposing a typical gravitation scheme for Hong Kong[32].

After being ceded to Britain in the early 1840s, Hong Kong experienced significant population growth. Within the first year, its population doubled and expanded over tenfold by 1859[33] (Chart 1). Particularly following the Tai Ping Rebellion in the 1850s, many Chinese migrants fled to Hong Kong from southern part of China to escape the turmoil, resulting in an influx of both people and capital. Additionally, as mining industries thrived in America and Australia, many cheap Chinese labors entered and departed Hong Kong from the mid-19th century. This 'coolie trade' brought numerous temporary labors to the city. The population influx, along with capital growth, served as key drivers for Hong Kong's economic development during the period. So, the British government took a lenient view towards these. However, when conditions became challenging and potentially hindered economic growth, the government sought to encourage private investment in urban infrastructure, such as gas, telegraph, ferry and electricity. Despite efforts, little response was received on water supply infrastructure, which demanded much investment of both time and finance without significant and stable returns[34].

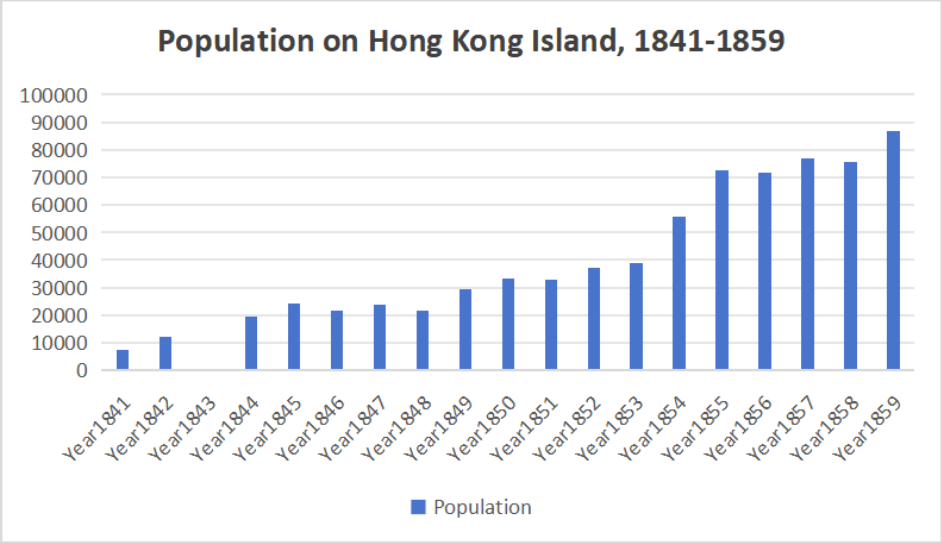


Chart 1: Population on Hong Kong Island, 1841-1859, drawn by the Author; Data source: *Hong Kong Blue Book; Hong Kong Annual Administration Reports 1841-1941*

Before 1860, the colonial government on Hong Kong Island dug wells and used small tanks to store stream water from the hills. However, as the population surged in the early years of the colony, the existing water sources became insufficient to meet the growing demands. Following a drought in 1859, the need for a new water supply system in the City of Victoria became evident. Projects 'securing a liberal supply of water' started to appear in official documents from 1860[35].

A proposal for a British gravitation scheme in Pok Fu Lam Valley was accepted and constructed in the early 1860s. The initial proposal by S. B. Rawling included a 30-million-gallon reservoir, the capacity of which was referred to European experience and calculated by its serving population at that time. However, the capacity

was largely reduced, due to concerns about costs of the unnecessary large amount of water beyond what the intake structures could supply. With only two million gallons, one fifteenth of its initial proposed capacity, the Pok Fu Lam Reservoir could only support four days' consumption of the community upon its completion in 1863[36].

Not long after its completion, several droughts posed great pressure on the government, resulting in extensions in the following decade, with an eventual capacity of sixty-eight million gallons[37]. It is evident that the initial constructions of the Pok Fu Lam Reservoir were expedient solutions and not taking into account of the potential demands such as growing population, industrial demands, irrigation, fire protection and sewage disposal[38]. The establishment of Hong Kong Island's water supply system was constrained by budgets and the Colonists' perceptions; many Colonists viewed the project 'not only unnecessarily large and ambitious but far too costly for so small a Colony' [39].

Even though several smaller projects were initiated during the extensions of the Pok Fu Lam Reservoir, the total daily water supply to Victoria City was 5.75 gallons per head, only one third of that of European counterparts[40]. This was insufficient for a modern cosmopolitan city with tropical weather that needed more water. Learning from the previous experience, the newly arrived Governor appointed Mr. Price, the Survey General, to search for new water supplies. Only three valleys were available during dry seasons: Pok Fu Lam, Aberdeen and Tai Tam* Valley. Despite the existing dams in Pok Fu Lam, additional ones there would be insufficient to meet the increasing needs. Aberdeen Valley had the potential to provide more water but required two sets of waterworks. Ultimately, Tai Tam Valley was chosen for its size and capacity to address the urban expansion, despite the challenges of transporting water to Victoria City in the north from the south-faced valley[41] (Fig. 6).

The proposal to transport water from Tai Tam Valley was eventually made after careful consideration of costs and efficiency. Considering its high cost, a reduced version was endorsed by the Secretary of State in 1876. However, the project was still shelved for years due to the high investment required[42]. During this period, the gravy sanitation conditions were complaint by the troops, concerning the threat to soldiers' health[43]. This pressing sanitary issues was highlighted by the appointment of Sanitary Commissioner Osbert Chadwich in 1882, who emphasizing the urgent need for additional water supply to improve living conditions, particularly in the Chinese residential areas[44].

* Tai Tam, also known as 'Taitam', 'Tytam' or 'Tai Tong'.

Fig. 6: Water supply system on Hong Kong Island in 1888; Public Records Office (1888). *Map of Hong Kong* [map]. (Annotation by the Author)

Construction of the Tai Tam (Upper) Reservoir* began the following year, providing more than three times the capacity of all the other existing reservoirs combined. However, this 'big reservoir at Taitam'[45] did not fully relieve the city from water scarcity. Following a severe drought in 1902, three other reservoirs were constructed in Tai Tam Valley from 1904 to 1917. The construction of the Tai Tam Group of Reservoirs, together with the Pok Fu Lam Reservoir, not only established the British water supply systems on Hong Kong Island but also set the backbone of the urban development and economic growth. Colonial dominance was evident during the process to 'securing a liberal supply of water' on Hong Kong Island, primarily through imposition of advanced Western technologies.

* It was previously named Tai Tam Reservoir. But after the construction of the other three reservoirs in the same valley, 'Tai Tam Upper Reservoir' has been used to distinguish it.

3. TECHNOLOGICAL ENCOUNTERS: THE ROLE OF ICE

The initial proposal for the Tai Tam Upper Reservoir dam was for an earthen structure, with the potential to exceed 100 feet in height to meet the needs of a growing population. However, a previous collapse of a similar structure in Sheffield, England, resulted in a devastating flood that damaged thousands of houses and led to hundreds of deaths[46]. In1872, Professor Rankine, an associate of the Institution of Civil Engineers (ICE), published papers on gravity dams and warmed against the reliability of earthen dam exceeding 100 or 120 feet. He recommended masonry dams for Bombay in British India, despite the high costs and the need for a large quantity of materials and skilled masons[47]. Consequently, the dam design for the Tai Tam Valley was revised to a masonry design. In Hong Kong, there was a shortage of experienced Chinese masons at that time, as well as a lack of sufficient Western supervision. Therefore, the masonry design evolved into a concrete structure[48] (Fig. 8).

This transition from an earthen dam to a masonry dam underscores the significance of knowledge sharing within the British Empire, from England to Bombay and Hong Kong. The tragic event in Sheffield provided valuable experiences and engineering insights that influenced dam construction developments across the Empire. Moreover, the masonry design was not simply imposed on Hong Kong without local adaptations. The shortage of skilled labor and supervision necessitated further modifications to concrete designs. This evolution ultimately led to the construction of the largest concrete dam* in the British colonies[49] (Fig. 7).

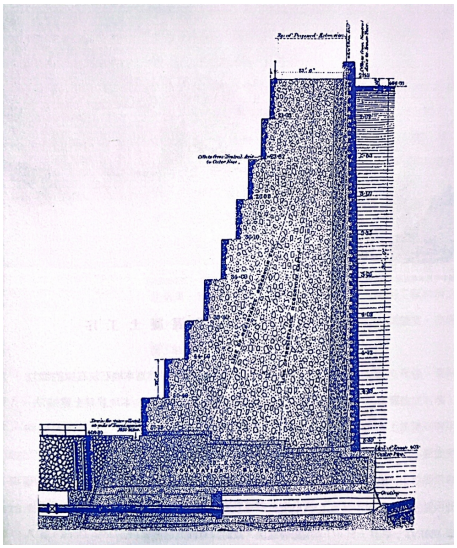
The shift to a concrete structure also stimulated local production of construction materials. To erect a concrete dam, a great amount of cement is needed. While the majority of Portland cement was imported from England through the Crown Agents, a small amount was produced locally[50]. Trials of local cement were conducted to ensure the required quality standards were met. Following successful trials, local cement production was stimulated, leading to the establishment of the Green Island Cement Company in Hong Kong (Fig. 9), just around the time of the completion of the first reservoir in Tai Tam†. This marked the first one of its kind in Hong Kong and one of the oldest in Asia[51].

Beyond materials, the project also relied heavily on imported machinery and techniques from the West. For instance, drilling machines used in the tunnelling work were imported from England. Additionally, explosives such as Nobel's dynamite and Brickford's fuse, from the West, were utilized, with the fuse ignited by traditional Chinese joss sticks, commonly used in Chinese temple. The engineers found the joss sticks extremely convenient due to their continuous smoldering[52]. As evident in this case, Western techniques were

* The dam of Tai Tam Tuk Reservoir, the fourth dam in Tai Tam Valley.
† Tai Tam Upper Reservoir was completed in 1888. But the time of establishment of the cement company is controversy, with 1889 in a 1955 advertisement, but 1887 in the company's current official website.

not simply imposed to the local but integrated with local practices as well.

Fig. 7: Tai Tam Tuk Reservoir; Ng, B.L. (1960s). *Tai Tam Tuk Reservoir*. University of Hong Kong Libraries. Special Collections. https://digitalrepository.lib.hku.hk/catalog/vq285w71t#?c=&m=&s=&cv=&xywh=-107%2C-194%2C1883%2C1639



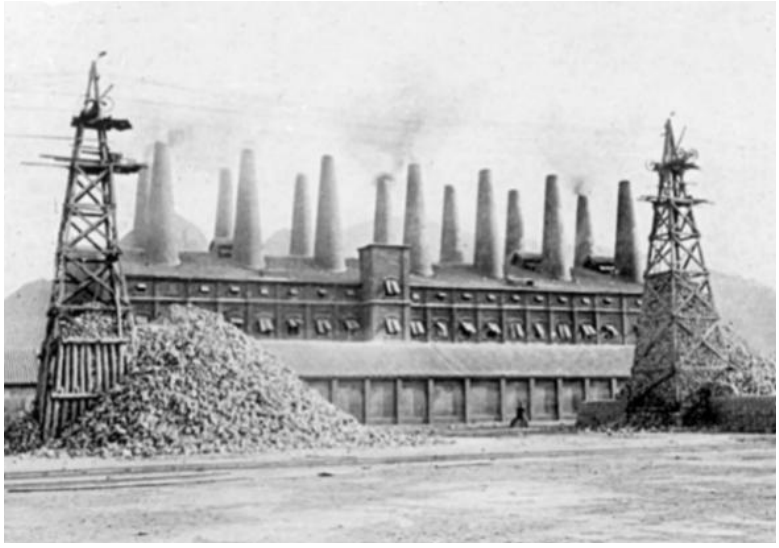


Fig. 8: (Left) Drawings of the concrete dam, by James Orange 馬冠堯. (2011). 香港工程考 : 十一個建築工程故事, 1841-1953. In *十一個建築工程故事, 1841-1953*. (香港第1版). 三聯書店 香港有限公司.
Fig. 9: (Right) Factory of the Green Island Cement Company, designed and supervised by James Orange
Farmer, H. (2023, April 24). *Green Island Cement Company – photographs c1900 – The Industrial History of Hong Kong Group*. https://industrialhistoryhk.org/green-island-cement-company-photographs-c1900/

In addition to imported materials, machinery and construction techniques, professional individuals and organizations played a significant role in the development of water supply systems. The Institution of Civil Engineers (ICE), founded in London in the early 19th century, is the oldest professional engineering institution in the world[53]. As Britain expanded its territories, many ICE members contributed to establishment of water systems within the empire. For instance, Robert Rawlinson, the chief engineering inspector of Parliament and past president of the ICE, had consulted and reported over 50 town's sanitation issues, including both in Britain and its colonies in the East[54]. He was engaged with the water supply system in Singapore before proposal to the Tai Tam Valley[55].

These professional individuals associated with the water supply systems made further contribution to the urban development of Hong Kong. Many engineers worked on various engineering projects, while some also contributed to the architectural works. For example, the position of Resident Engineer for the Tai Tam Upper Reservoir was initially recommended to Robert Leigh, another ICE member; however, Leigh left the government to the private sector. Following this, the role was assumed to another British engineer, James Orange. During the construction of the concrete dam, he was tasked with testing local cement, which he later published his findings on ICE publication. After accusations of obstructing purchasing cement from the Crown Agents, Orange left the government after the completion of the reservoir[56] and joined Leigh's firm, now known as Leigh & Orange. This has been a renowned architecture firm, operated over a century and still thrive in Hong Kong. Related to the local production of cement, Orange himself designed and supervised the factory of Green Island Cement (Fig. 9)[57]. Moreover, Wilberforce Wilson, the Survey General related to the Pok Fu Lam project, was a key feature of another renowned architectural firm, Wilson & Salway (now Palmer & Turner) [58]. These firms have contributed to numerous landmarks in and beyond Hong Kong, establishing strong reputations in the construction industry.

Another noteworthy figure was Daniel Jaffe, ICE member and an assistant engineer involved in the Tai Tam project in the early 1900s. His dedication and competence allowed him to quickly advance to the position of Acting Executive Engineer and later Executive Engineer. Unfortunately, he fell ill after the project and passed away in 1921. A decade later, Jaffe Road in Wan Chai was named in his honor, memorizing his contribution to the city. In addition to Jaffe Road, Price Road, and Cooper Road, Chatham Road were named after engineers, who were associated with these projects as well.

The interaction between local practices and imported materials, technology during the construction of the Tai Tam Group of Reservoirs highlighted the innovative materials and techniques of the time. European engineers, particularly those within the ICE network, played a significant role in these projects. Through their collaborations, discussions, and publications, the ICE facilitated the exchange of knowledge across different

regions, contributing to the global development of water supply systems. Furthermore, these engineers also contributed to various other engineering projects in the city, some of whom are commemorated through street names in Hong Kong (Table 1).

KEY ENGINEERS RELATED TO WATER SUPPLY SYSTEMS ON HONG KONG ISLAND

NAME	YEAR IN HK	RELATED PROJECT	ROLE	NOTES
Osbert Chadwick (1844-1913)	1881、1890、1902	Pok Fu Lam project、Tai Tam projects	Colonial Advisor of Hong Kong	Son of Edwin Chadwick
S.B. Rawling		Pok Fu Lam project	Clerk of British Royal Engineering Department	1860: Proposal for a reservoir in the Pok Fu Lam Valley
Wilberforce Wilson (1836-1916)	1868-?	Pok Fu Lam project	Survey General, 1865-68	He went to India and China. Est. 1871-75: One of the founders of Wilson & Salway (now Palmer & Turner)
John MacNeille Price (1841-？)	1873-1889 (16Y)	Tai Tam projects	Survey General, 1873-1882	1873: Official Report on Tytam Water-works 1971: Price Road was named after him
Francis Alfred Cooper (1860-?)	1888-1897 (9Y)		Public Works Department	1954: Cooper Road was named after him
Robert Rawlinson (1810-1898)		Tai Tam projects	Consulting Engineer	Parliament's chief engineering inspector and past president of ICE
James Orange	At least 25Y	Tai Tam projects	Resident Engineer	1883: Joined Hong Kong Civil Service 1890: Joined Danby & Leigh Co. (now Leigh & Orange)
Daniel Joseph Jaffe (1875-1921)	1902-1918 (16Y)	Tai Tam Tuk project	Assistant Engineer (1902-04) Acting Executive Engineer (1904-06) Executive Engineer (1906-?)	Died in 1921 1931: Jaffe Road was named after him
William Chatham (1859-?)	1890-1921 (31Y)	Tai Tam projects	Director of Public Works	1909: Chatham Road in Kowloon was named after him

Table 1: Key engineers related to reservoirs on Hong Kong Island[59]

4. SOCIO-POLITICAL ENCOUNTERS: WATER AS POWER

The establishment and development of the British water supply systems on Hong Kong Island reflected not merely technological progress, but also socio-political implications. Engineers, supported by the professional network of Institution of Civil Engineers (ICE), played an important role in knowledge exchange, as well as the manifestation of colonial power. This was demonstrated in the 1890 ICE discussions about waterworks in China and Japan:

> "They (Chinese) stood, as it were, on the fringe of countries which had been in the highest degree exclusive, and the inhabitants of which had repelled for hundreds of years, and successfully repelled, the efforts made by European nations to extend their intercourse over the interior. Diplomatists had tried to find the 'open sesame' which would unlock the door shut in their faces. They had only succeeded in opening some few ports to trade, and the country to opium. Merchants had tried their hand, but the literati and mandarins despised trade, and progress towards the interior had been arrested. Missionaries had been at work for centuries; but they had not yet induced the Chinese to warm to foreigners, and for political reasons they were disliked by the officials. To his mind it was the engineer who stood the best chance of breaking through the crust of prejudice, distrust, and dislikes, which still formed a barrier to intercourse with Europeans, and to the material progress of those countries. He stood before those people as the creator by his skill and knowledge of works which, by the benefits they conferred on communities ... Hong Kong, Shanghai, and Yokohama were enjoying the benefits of the European system of water distribution. ... He fully believed that before very long there would be set in a current of Chinese opinion in favor of the European engineer and his methods, and that members of the engineering profession, and of the Institution (ICE), would find in those countries' vast opportunities for the exercise of their abilities."
>
> General Scott[60]

As could be seen from the discussion, the introduction of European, specifically British water systems, served as a breakthrough of the cultural barriers between the West and these regions. The water systems not only served practical needs but also showcased power to the communities in these places, including Hong Kong.

Colonial Hong Kong, a British enclave with limited natural resources and a growing population, faced a daunting task of developing a self-sustaining water supply system. The territory's heavy reliance on rainwater coupled with distinct seasonal variations often led to repeated droughts. To manage the seasonally scarce water resources, an intermittent water supply system was implemented. This system at times restricted water availability to as little as one hour per day, as was the case during the drought in 1902[61].

Osbert Chadwick critiqued this intermittent system for its potential bacterial contamination, as the empty mains could fill with foul air and spread disease. He proposed an alternative system that involved metered water distribution to every household[62]. But this was opposed by the Legislative Council, citing potential

rejection by the local communities[63]. Chadwick then suggested the Rider-main system, with subsidiary mains parallel to the principal mains (Fig. 10). Turning off water from the rider-main would not stop the flow of principal main, thus reducing contamination risks[64]. While European households usually enjoyed continuous water access, the Chinese communities depended on the rider-main experienced restricted water supply[65]. A recorded of average 188 days per year of water supply for rider-mains was evident between 1905 to 1932. This led to frequent conflicts over water at public standpipes[66].

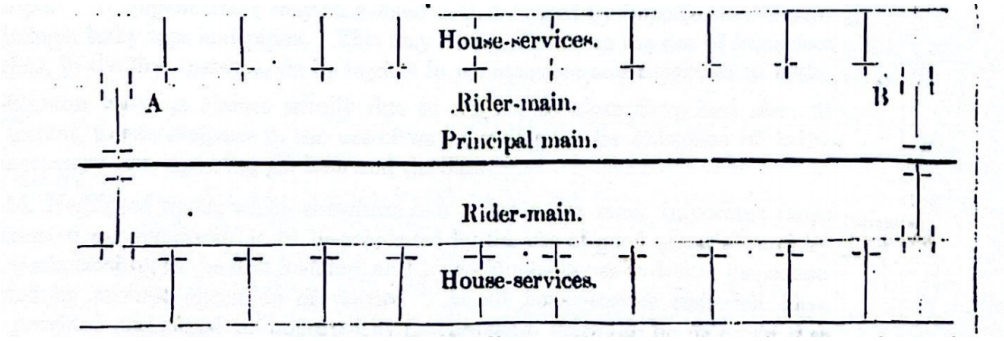


Fig. 10: Rider-main system, Chadwick, Osbert. (1902). *Report on the sanitation of Hong Kong.* Gov't Printer.

In addition to these systems, Chadwick also recommended closing traditional wells, citing the sanitation issues with well water[67]. The ban on well water was commenced from 1880s. However, contradictory practices could be evident, as the government continued to extract water from wells and rivers in Kowloon[68] and sought stream water during droughts. Interestingly, the government sought well and stream water on one hand but blamed the Chinese for the reopening the sealed wells on the other hand[69], suggesting underlying political motivations beyond the official narratives.

The imposition of British water supply systems and the disruption of traditional water practices allowed the British to establish a new social order among the predominantly Chinese population. Even though the ambition was to establish a new order through the adequate municipal water supply, the process faced numerous challenges. The unique geographic conditions and severe water scarcity in the region necessitated the use of intermittent and rider-main systems as temporary solutions. These systems did not fully alleviate water scarcity but worsen the uneven distribution of water resources between the European houses and Chinese communities. Under desperate need for water, the Chinese disobeyed the ban and reopened the sealed wells during droughts.

In conclusion, the British water supply systems were not merely results of colonialism. They were also tools for exerting colonial power and governance. By controlling water resources, the British were able to strategically navigate the social and political order of Hong Kong. Control of water-an essential element for

every household-became a powerful tool in colonial governance, however, consisted of challenges and tensions. As a result of inadequate water supply, particularly in Chinese residential areas, these communities resorted to traditional water practices. But this was occasionally blamed by the British government, exacerbating tensions.

5. WATER HERITAGE, COLONIALISM AND COSMOPOLITANISM: CONCLUSIONS

This paper examines the important yet often overlooked role of the British water supply systems in shaping colonial governance and cosmopolitan narratives of Hong Kong during the British colonial era. This period marked the transition of Hong Kong from a 'barren rock' to the 'most cosmopolitan city in Asia' [70], a change significantly supported by the establishment of municipal water supply systems that facilitate urban expansion, population growth and industrial development.

The geopolitical context of Hong Kong as a British enclave, coupled with its heavy reliance on rainwater and rapid socio-economic growth, posed huge challenges to its limited water resources. To address water scarcity, the British gravitation scheme was implemented for over a century. This marked a shift from decentralized water resources at the beginning of the colony to the municipal water supply systems, almost exhausting the city's natural water resources by the end of the colonial era[71]. This have left behind a legacy of water heritage that covers nearly one third of the city's total area[72], and making Hong Kong an intriguing case study for exploring the interplay among water heritage, colonialism and cosmopolitanism. Traces back to the establishment of the British water supply systems on Hong Kong Island, this paper examines the historic development of its major water supplies on the Island, including the Pok Fu Lam and Tai Tam Group of Reservoirs.

Technologically, the construction of these reservoirs involved significant transfers of technology and expertise, with engineers from the Institution of Civil Engineers (ICE) playing key roles in their design and execution. European materials, machinery, and techniques were introduced and adapted to local situations, providing valuable experience for future projects. This reciprocity between Western technology and local adaptations culminated in the creation of both tangible and intangible networks in and beyond Hong Kong.

The tangible network of pipelines and conduits connected different parts of the city together, linking nature and urban, public sphere and private homes, European settlements and Chinese communities through the relocation of water resources. Consequently, an intangible network emerged through regional and transregional knowledge sharing, facilitated by ICE engineers. This network of shared knowledge and expertise has extended beyond the geographical boundaries of city, further enhancing its cosmopolitan narrative.

Socio-politically, the establishment of the British water systems served as tools for colonial dominance, reinforcing British control over the colony. The disruption of traditional water practices and the imposition of British water systems, such as the intermittent and Rider-main systems, reflected this control on natural resources, establishing a new social order that favoured Europeans. However, this transition also sparked resistance and underlying tensions between the colonial administration and local communities, reflecting the interaction of colonial power within the territory.

In conclusion, the British water supply systems on Hong Kong Island were instrumental in establishing colonial authority and facilitating the spread of British power, thereby shaping a new social order. By examining the historic development, technological and socio-political encounters of the British water supply systems on Hong Kong Island, this paper contributes to a deeper understanding of colonial legacies and cosmopolitan narrative, through the scope of water heritage. This understanding is important for heritage management and future research in the field, offering insights in the interplay between colonialism, cosmopolitanism and water heritage.

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OPENING UP THE GABLE WALL: REINTERPRETING PLACE-IDENTITY AND PUBLICISING RUINED VILLAGE GROUNDS FOR THE RURAL COSMOPOLITAN IN A COASTAL HAKKA VILLAGE

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This paper documents the background of Yung Shue Au and the early settlement of the Wans in relation to Sha Tau Kok in the Starling Inlet area, followed by the geographical morphology as a result of agro-reclamation common to the serial coastal Hakka communities. Socio-spatial aspects related to the village infrastructure, military facilities, and village houses are discussed in parallel with the political incidents that are part of the village's history. The authors argue that a highly publicized identification towards the village is formed, which rationalizes for the publicization of ruined village grounds by architectural interventions at various extents. In particular, the gable wall can be reinvented to activate public spaces in modern times. To advocate, village regeneration initiatives should take a slow pace to allow for serendipitous changes.

1. INTRODUCTION

Since the implementation of the rural revitalization initiative after the 19th CPC National Congress in 2017, there has been a booming interest in regenerating the countryside in Southern China, including Hong Kong. In 2018, the government established the Countryside Conservation Office (CCO) to fund institutions and non-profit groups to implement a range of countryside projects at a total budget of HKD 500 million. By 2025, there have been fifty approved projects, and among these, twenty-three are research activities focused on countryside conservation and revitalization, seven involve developing proposals for the restoration of built heritage, and five are dedicated to cultural revitalization[1]. To maximize the synergy between different grantees, CCO prioritizes proposals in strategic areas, especially the Starling Inlet areas, where alliances of Hakka villages settled, including Yung Shue Au Village, in this article.

As a remarkable difference to the rurality in the post-urbanization era, the countryside regeneration in Hong Kong follows the post-productivist[2] and counter-urbanization[3] manner that embraces small-scale, experimental projects for (re)creating cultural values, facilitating urban-rural symbiosis[4] in some half-vacant villages. While village areas were highly private in the old days, most funded proposals involved public activities such as community engagement, eco-cultural tourism, place-making events and architectural restoration for "outsiders", ambitioning to achieve common prosperity in the urban and rural areas[5]. On January 18th, 19th, 25th, and 26th, 2025, CCO hosted the unprecedented large-scale Countryside Harvest Festival that involved all grantees in the Starling Inlet areas and featured "in-depth tour experiences" and urban-rural symbiosis with a combination of music performances, art exhibitions, and traditional culinary offerings. While the cross-institutional, cross-disciplinary and collective effort to activate village places is

highly appreciated, the publicization of village places is arguably top-down, one-off, extrinsically motivated, and dissociated with the place-identity.

Taking Yung Shue Au as an example, this article addresses how publicization happened in relation to the rural cosmopolitan and could further happen with its place-identity reinterpreted. Unlike adjacent village sites[6], the rural village has confronted multiple historical incidents since its establishment, which has reasonably shaped the perceived place-identity under rural cosmopolitanism. Funded by CCO, the authors proposed to conceive and (re)construct structures for communal purposes. While the initiatives are still being implemented, the authors wish to stimulate discussion on the nature and extent of publicization in response to the village's past. As practice-led action research, this article serves as a case study that documents the verbal history of villagers, records village activities, examines existing legal frameworks, and critically reflects on how the proposed architectural restoration could publicize ruined village grounds and reinterpret place-identity with the villagers as a co-creation. Particularly, we argue that opening up the gable wall appears to be a minimal yet effective architectural intervention to publicize land resources in the ruined setting.

2. BACKGROUND OF YUNG SHUE AU

Located near the northern Plover Cove Country Park, Yung Shue Au is one of the serial Hakka villages along the coastline of the Starling Inlet, connecting So Lo Pun in the east and Kuk Po – the government strategic area for countryside revitalization – in the west via an ancient trail. It is accessible by a 10-minute speedboat trip from the Sha Tau Kok Frontier Closed Area (沙頭角禁區) in the north – a border zone that separates the northern-east New Territories of Hong Kong and Yim Tin (鹽田) of Shenzhen since 1951. Nevertheless, the village population started diminishing after World War II in the 1950s due to the structural changes under industrialization. The last villager had out-migrated in 1985, leaving the village as a vacuum ruin site. In current terms, it is well perceived by visitors and hikers as the "ghost village"[7] with the cinematic sceneries of the Chinese Banyan tree-house hybrids.

Early Settlement

The early history of Yung Shue Au is negotiable, due to the discrepancies between limited textual records and verbal history. It is believed that Yung Shue Au was still not populated nor exploited until the early Qing Dynasty due to its absence on the official map[8] in 1595 and the census document, Xin An Xian Zhi (新安縣志), in 1688. According to previous anthropological studies[9], the verbal stories of villagers, and the Yung Shue Au Wans Genealogy, Yung Shue Au was established by the Wan clan, originated from the Guishan County of Guangdong Province (廣東省歸善縣). As the Tai Yuen Tang Wans Genealogy (太原堂溫氏族

譜) described, the Wans left Guishan due to the damaged Fengshui, probably due to the adverse impact on the living environment by the mining activities in the region. Upon the withdrawal of the Great Clearance in the 1680s, three brothers of the 7th generation of the Wans moved southward through Yin Ping Shan (銀瓶山) and Wu Tong Shan (梧桐山), and finally arrived at Tam Shui Hang (担水坑) of Sha Tau Kok. In the 1690s, the Wans may have discovered Yung Shue Au by chance in the ocean and one of the brothers, Min-Cheong (敏昌), conceived the plan to migrate across the Starling Inlet. The 8th generation (1696-1757) of the Wans, Tsz-Wun (子煥) finally settled at Yung Shue Au and prospered onwards. As shown in a legal document dated 1810[10], YSA was finally recognized as a Hakka village within the Xian municipality, illustrating a demographic blossoming since the arrival of the Wans.

Alliance and Market

Since the early Qing dynasty, common Hakka regions have been practicing the alliance (or *yerk*, 鄉約), a village governing system to record demographical information of adult males, maintain social order, and report to the municipality[11]; such system was further promoted in the Guangdong province in 1623, including Guishan County. For the villages near the Starling Inlet, there were ten alliances established. While most villages[12] along the coastline were part of the 9th alliance, Hing Chun Yerk (慶春約), Yung Shue Au was the only village that joined the alliance from the opposite coast – the 3rd alliance, Sam Heung Yerk (三鄉約) with five other villages including their establishing location Tam Shui Hang. This resulted in a particular strong bonding between Tam Shui Hang and Yung Shue Au regardless of its geographical segregation. In fact, the Wans moved their ancestral hall for Min-Cheong back to Tam Shui Hang due to bad fengshui in early years, and villagers still carry out the rituals there on the 2nd of the first lunar month.

The Hakkas often visited markets (or *hui*, 墟市) to trade necessities with others. Before the operation of Sha Tau Kok Hui (沙頭角墟) in 1935, there were two main markets nearby – Shek Wu Hui (石湖墟) and Shenzhen Hui (深圳墟), both accessible by walking from Sha Tau Kok on a day trip. Villagers of Yung Shue Au, therefore, first arrive at Tam Shui Hang by boat and walk to the markets to save time. Later, in about 1830, the Sha Tau Kok ten alliances established a new market, Tung Wo Hui (東和墟), on the newly reclaimed land of northern Sha Tau Kok. It was a prosperous market with robust construction – it had a boundary wall with two canon towers (or *tiu lau*, 碉樓) for defense, three internal streets, and a diversity of shops covering all essential materials for everyday life, including fabrics, food ingredients, herbs and medicines, dried seafood, cigarettes, and workshops such as bamboo hand-weaving, tailoring, winemaking and boat making – adding up to 72 units[13]. Due to its unique geographical location, it became the regional

trading hub that connected to a network of trading places in the whole Xian County (新安縣), reaching a monthly visit of 120,000 at peak. Later, after the British established Victoria City on Hong Kong Island and proclaimed the free port policy, Tung Wo Hui became the "cosmopolitan" gate for receiving Western products from Mainland China. In 1898, Tung Wo Hui started to become isolated by the new boundary between the British colony and the Chinese. Several subsequent infrastructural changes, political incidents and natural disasters, including the typhoon in 1937, led to its fall and the rise of the new Sha Tau Kok Hui in the late 1930s.

Interaction with the Local

Starting with its name, Yung Shue Au (榕樹凹) was originally named Yung Shue O (榕樹澳) or Lung Shue O (濃樹澳), which means a "cliff close to the water"[14] with abundant Chinese Banyan trees – a topographically challenging site for settlement. It was probably renamed Yung Shue Au later using similar phonetics to avoid clashing with the other existing Yung Shue O village in Tai Po, which has had a longer history since the Ming dynasty[15].

The Hakkas are highly adaptive to the context in which they settle temporarily or permanently, and sometimes conflicts may be triggered with Punti (the local) inhabitants. While the Hakka were depicted as aggressive barbarians in the old days[16], they were often suppressed by the local municipalities and forced to migrate to other places, including the coastal areas. After the issue of the Great Clearance (遷界令) in 1661, there was a lack of workforce for farming in the vast farmlands in Xian County among the Punti inhabitants and the migration of the Hakka largely compensated for the productivity. After arriving at Tam Shui Hang, the Wans lived a difficult life by farming, lime burning and fishing, but later, they were able to purchase lands from the Tsui (徐氏) landlord to develop their own business and migrate to Yung Shue Au. However, the earlier study described that the largest landlord in the New Territories, the Tangs, once claimed the ownership of Yung Shue Au due to a historical incident or myth[17] and attempted to put Wans development to a halt. In fact, before the settling of the Wans, the Tangs treated Yung Shue Au mainly as a cemetery site, as evidenced by their ancestral tomb outside the village.

From a political perspective, the Wans were also able to escalate their presence, resist the local authorities, and balance benefits through alliances. To manage Tung Wo Hui, the ten alliances formed the rival organization Tung Wo Kuk[18] (namely the "Council for Peace in the East", 東和局) in the 1800s. Its organizational structure was designed to follow Tung Ping Kuk (東平局) – the highest Punti authority to manage local groups – so as to resist the control by the Punti through communicating with the Xian

municipality directly. In the 1850s, Tung Wo Kuk also started the Tung Wo school to provide quality education for the Hakka and unified different villagers.

Besides the ten alliances, the Wans are also members of the Sam Wo Tong (三和堂) – the organization of managing the Tin Hau Temple of Sha Lan Ha village on the east of Tung Wo Hui. Although Hakka mainly worships Pak-Kung (i.e. the lord of the land, 伯公), they also adapted to the coastal religion of worshipping Tin Hau, seeking protection while at sea. The Tin Hau Temple organizes large-scale worshipping rituals, including the Tin Hau Festival (天后誕), Tin Hau Assumption (天后升天日), and the Taai Ping Ching Jiu Festival (太平清醮) once every ten years. In 1839, the Qing dynasty promoted the authority of Tin Hau by entitling it the Saint Mother (天上聖母). The management of Tin Hau temple through Sam Wo Tong, therefore, may reflect its political inclination towards the government authority.

3. YUNG SHUE AU AS A COASTAL HAKKA COMMUNITY

Adapted Hakka Morphology

As influenced by the She People (畲族), the Hakka developed the expertise of terraced farming at the mountainous topography using stream water for irrigation[19]. From inner lands to the coastline, typical Hakka landscape characters are roughly observed in the topographical order of mountains, woods, houses, ponds and farmlands (山林屋池田), as well as the Four Symbols (四象) – a stream as the Azure Dragon (青龍), a road as the White Tiger (白虎), a pond as the Vermillion Bird (朱雀) and a hill as the Black Tortoise (玄武) and this Hakka siting, with its orientation adapted towards the bund, is commonly found in the adjacent villages for practical reasons (Ho, 2024). The hill and the woods provide the material resources for firewood and a sense of psychological safety and act as the natural barrier against the southern solar heat. Flowing water could be directed from the stream for irrigation and laundry, while a volume of still water could be stored in the pond for fish farming and fire safety.

Unlike traditional Hakka settlements in China that adopt highly defensive settings of serial row houses securely enclosed by boundary walls, small clusters of houses were built along the natural contour lines in an arguably open configuration between the woods and the farmlands. The clusters were named by the villagers according to their geographical characteristics, including Ha Kok (the corner; 蝦角), Wang Tau Dong (the alley; 橫頭檔), Been Gong Ha (the lower lavatory; 便缸下), Wen Hop (the convergence; 宏合) and Wai Tsai (the row houses 圍仔; see figure 1). The typology of houses ranged from single-bay-single-story houses in a

single row to three-bay-two-story houses in multiple rows, implied by the footpaths, front yards and boundaries of farmlands. Inner rows were often built on a higher level, safeguarding them from flooding during typhoons. The resulting organic or 'loose' village fabric gave rise to the morphological porosity with a constellation of in-between spaces.

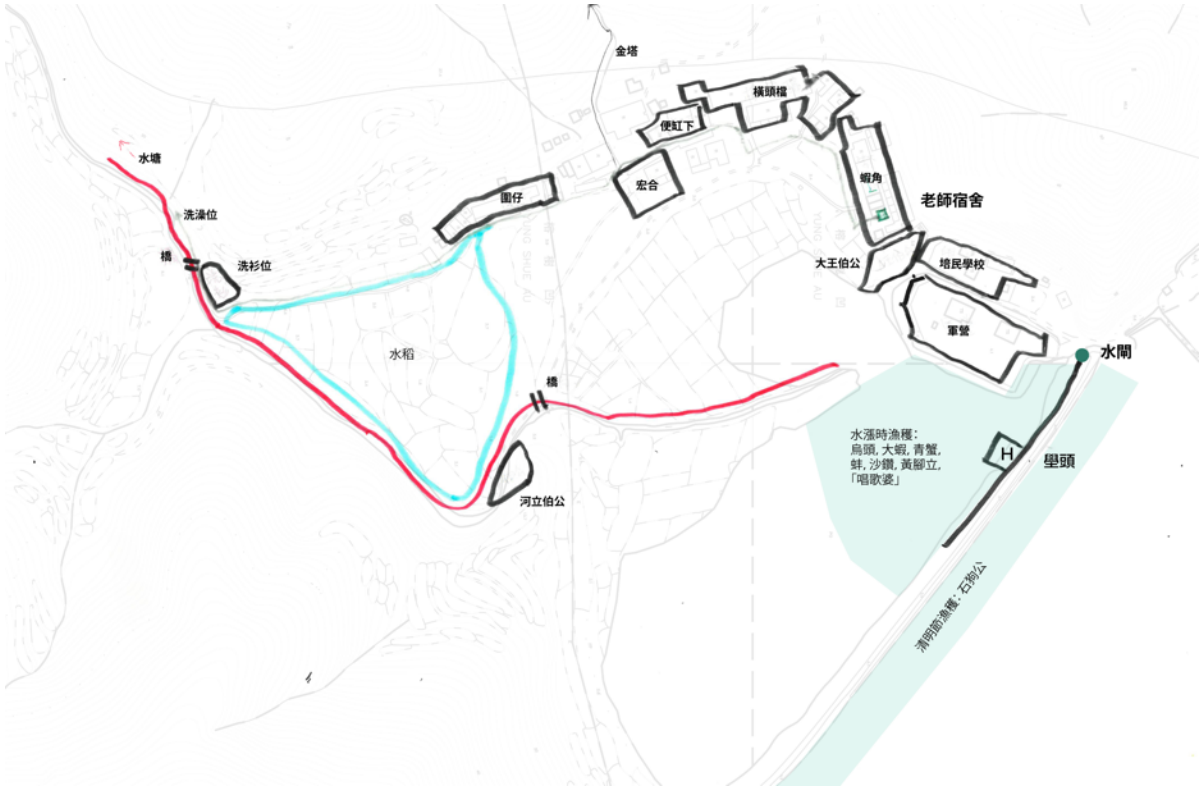

Figure 1. Clusters named by the villagers according to its geographical characters (a sketch map by the authors)

The villagers were good at utilizing both marine and land resources. For example, they collect seafood from the shore that clings to the rocks, such as sundews, snails and oysters, and collect starfish, which are burned to ashes and poured into the toilets to fill in the manure and eventually become fertilizer for farming. In the fields, villagers know how to store dried straw (禾稈草) and manzanita (芒萁) and stack them in bales more than ten feet high, which can be taken out from the bottom to feed the cattle or to make a fire on cold days. The haystacks are not placed next to the houses, but rather on the hills or farther away from the entrance of the village to avoid fires.

Fishponds and Agro-reclamation

A distinctive feature of Yung Shue Au as a coastal Hakka village is agro-reclamation, evidenced by the monumental or monolithic bund at the mouth of the water bay (Yung Shue Au Wan). It is a pre-industrialization engineering technique commonly found in the regions around Starling Inlet that encloses bay areas into fishponds and transforms into wet farmlands for growing crops using a one-way valve. For Yung Shue Au, it is particularly special that agro-reclamation was conducted in two phases. The first phase produced a small piece of farmland in a pie-shape, as shown in the Xin An Map in 1866. The second phase formed farmlands to a much greater extent, which implied the population growth in the early 1900s, and the bund construction was drawn in a dotted line on the survey map in 1904 (figure 2). Farmlands were transformed from fishponds that were formed by draining away the sea water and flushing with river water. With the close proximity to streams, the construction was technically more efficient compared to other villages.

Figure 2. Partial survey map of Yung Shue Au in 1904 (by government)

Figure 3. Photo of the old pier before 1960s (by villagers)

As villagers recalled, a fishpond remained and co-existed with the reclaimed farmlands and further expanded due to the malfunction of the one-way valve. In the 1960s, villagers shifted focus to fish farms as the farming industry diminished. In fact, the villagers own another fishpond enclosed by a bund at a bay in the west, which was probably built using similar techniques. Years later, farmlands have been abandoned for decades, transforming into mangroves and brackish fishponds. Common species harvested by the villagers included shrimps, mud crabs (青蟹), flathead mullets (烏頭), sand borers (沙鑽), yellowfin seabream (黃腳鱲), and trumpeters (四線雞魚)– known as the Singing Lady (唱歌婆) in Hakka dialect. Due to unauthorized harvesting, these species have declined in recent years.

Infrastructure and Foreignness

Several infrastructural resources and facilities supported the village life. At both ends of the village was a Pak-Kung, a local shrine, built to protect villagers from danger. The grand Tai Wong Pak-Kung (大王伯公) was erected at the entrance of the village, where the iconic Chinese Banyan tree was located and ruins of stone parapet walls were found. The Riverside Pak-Kung (河瀝伯公) was built next to the stream where villagers did laundry and obtained water for drinking. The stream was also connected to a small reservoir at the upper level. Villager Wan Yung-Tai described that in the past, she used to go to the stream to fetch water, then the village used a water pipe (available before 1962) to connect the water from the reservoir on the hill to each house, and it remained uninterrupted during the period of Water Rationing in 1963. There was also an underground water resource discovered by China Light & Power Company before installing the lamp posts in the 1970s and could be used for irrigation in dry weather.

Two piers were constructed for daily commute by boats – the old one was likely constructed in the early years (figure 3), while the newer one was built in concrete by the government in the 1960s. Villagers who owned a boat used to offer charged rides to Sha Tau Kok for the others. Later, as the number of boats declined with the population, villagers paid Tanka people (蜑家人) for daily round trips to Sha Tau Kok from 6 am to 10 am, with a loud horn signal for the boat's arrival. After the arrival of the British forces in the 1970s, they would also help pick up villagers wherever practicable. In case of emergency, villagers would wave flags at the pier and shout for help from passing boats.

As documented in the Wans genealogy, the 3rd generation of Yung Shue Au villagers already started schooling in the 1800s[20]. As villagers recalled, the first school in the village was located at the village office, where students paid to study the "Hakka book" (客家書), which was actually the primary school curriculum taught in the Hakka dialect. In 1958, a proper government-funded school was built right next to the Tai Wong Pak-Kung., namely Pui Man School (培文學校). Before 1961, classes were only offered up to the fourth grade, and students had to finish the remaining grades at another school, Kwan Nga School (群雅學校) in Tam Shui Hang. Pui Man School operated as a half-day school, with the 1st grade, 3rd grade, and 5th grade in the morning and the others in the afternoon. The sections were shifted every school term. The campus was well conceived with a main block, a lavatory, a swing, a seesaw, a slide, and a basketball court. The main block was designed with a classroom and an administrative office. The classroom was a chalk-to-talk configuration with a 4x7 row-seating plan. Since there was only one class per grade, students could stay in the classroom, even outside classes. The office provided storage for basic equipment, including a manually operated printer for test papers, a discussion table, and desks for three teachers from the city.

Classes were held from Monday to Friday, and the teachers usually came to the village by boat on Sundays and stayed overnight until Friday night, and so on. The villagers rented out the second house in the second row at the village entrance for the teachers to use as a dormitory. The house is a typical Hakka two-hall row house, with a kitchen and bathroom in the front hall, a living room on the lower floor of the back hall, and a bedroom on the upper floor. Villager Wan Chiu-Ming remembered being a cook for the teachers since he was in primary three and was exempted from tuition fees. Two meals a day were prepared in the teachers' dormitory, and there were two dishes and one soup for dinner, such as steamed Golden Thread (紅衫魚), pork braised with potatoes, and Winter Melon soup. One of the teachers who taught social studies was surnamed Li. The other teacher was Lo, who taught Chinese. His wife was also a teacher and lived in Tsing Yi, and she went to the teacher's college (師範) on Fridays for further studies. After dinner, the teachers would go to the river to take a bath, and on the way, they would "dine out" - enjoying the food provided by the villagers! The teacher and his students would go to the seaside at night to catch fish together, reflecting a good teacher-villager relationship.

A special note is made here that the political power in China had highly influenced the local Chinese-speaking schools. Pui Man School not only followed the official curriculum[21] established by the Nationalist Government (國民政府) in 1928 that split primary classes into two batches (grades one to four as one batch, and grades five to six as another batch), but also adopted the official style of graduation certificate set by the Ministry of Education of Nationalist Government (figure 4).

Figure 4. Photo of the Pui Man School Graduation Certificate in 1962 (by villagers)

Figure 5. Photo of the British forces excavating rocks for the barrack construction (by villagers)

4. YUNG SHUE AU AS THE POLITICAL INTERFACE

Chaos, Japanese Occupation, and the Frontier Closed Area

Indeed, the politicization was not limited to schooling. Following the fall of Tung Wo Hui, the areas around Starling Inlet started to decline and exhibit chaos. In the 1900s, residents of Sha Tau Kok initiated a strike due to high tariffs for products passing through the market. After the Xinhai Revolution in 1911, the central government began to lose control of local regions. For example, portal areas such as Yim Tin had been robbed 9 times by bandits, and all customs posts east of Yim Tin completely stopped operations. In 1925, another strike happened - the outrageous Canton-Hong Kong strike against the British colony, and Sha Tau Kok was used as the base of the strike on the Hong Kong side by Communists and Nationalists. Even people trading in the market were regarded as the common enemy. In the 1930s, tariffs were further increased by the Nationalist Government and severely affected the local economy.

In 1941, Japan attacked Pearl Harbor, leading to an undeclared war on the United States. As an important port city in East Asia, the 38th Division of the Japanese army invaded Hong Kong in the early hours of the same day. At about 7:00 a.m. on that day, the 3rd Battalion of the 229th Regiments crossed the border from the Chinese Boundary into the British Boundary at Sha Tau Kok, encountered no resistance from the British forces along the way, and rapidly pushed forward in the direction of Tai Po[22]. According to a villager of So Lo Pun, during the occupation, the Japanese army set up a local "maintenance committee" ("維持會" in Chinese) to handle local affairs[23], which was later restructured into the district office (區會) in 1942[24]. The first council chair of the district office was Wan Yi (溫二) from Tam Shui Hang, who was forced to work for the Japanese and died in an unpleasant way after six months.

Geographically speaking, Yung Shue Au was located right between different anti-Japanese guerrilla areas in the northern Mirs Bay area including Dongjiang Column (東江縱隊). Some villagers also joined the guerrilla, according to the villager Wan Wah-Yung. The Japanese army, therefore, had set up two outposts at the corners of Sam Kok Tsui (三角咀) and Kei Shan Tsui (企山咀) of Yung Shue Au, facing the directions of Ku Po and Suo Lo Pun respectively, to monitor the anti-Japanese movements and restrict communication and material supplies. Since villagers were forbidden from entering the hillside areas for the same military reason, they stayed at Tam Shui Hang for three years and eight months until the British Reoccupation of Hong Kong in 1945.

Shortly after the Hakka communities had regained their peace and quiet, the colonial government began to fortify Sha Tau Kok areas in 1949 when the People's Liberation Army of China approached the border, and

on February 15, 1951, border control was formally implemented, putting an end to the free movement of people. The Frontier Closed Area's establishment formally announced the Ten Alliance's dissolution.

British Forces and Gurkha

Starting from the 1950s, many illegal immigrants chose to sneak into Hong Kong due to the successive political movements in China, and some set off from Yim Tin and arrived at Yung Shue Au across Starling Inlet. In 1970, a group of twenty armed immigrants broke into Lau Fau Shan, another coastal area near the border in the west, with seven oyster farmers robbed and three killed. After that, the colonial British forces started patrolling Yung Shue Au. In 1975, they started to station at Pui Man School, whose operation had stopped already, as the first barrack. As shown in the photo (figure 5), the British forces excavated rocks and sand from the cliff of Kei Shan Tsui, and more flat lands were reclaimed outside Pui Man School for the barrack expansion. In 1977, they moved into the newly built barrack with a helipad, kitchen, toilets, shower rooms, and camp areas.

The British forces could be divided into two groups – the Gurkha troop and the Scottish troop, known as the Queen's Own Highlanders, whose army emblem was painted on a cliff next to the pier (figure 6). One may note that the Queen's Own Highlanders was one of the British forces' most significant military resources, having been strategically put into various frontier areas after World War II[25]. The two troops would not station at the same time, and the Gurkha troops mainly took shifts during the Easter and Christmas holidays for the Highlanders. After completing their daily duties, the British forces occasionally visited the villager-operated Tolo Drink House (figure 7). When villagers hosted wedding banquets in the 1980s, they invited the British forces to attend and played the Scottish bagpipes to celebrate. This showed a harmonious relationship between the troops and the villagers.

Figure 6. Army emblem of the Queen's Own Highlanders (by the authors)

Figure 7. Photo of the British forces inside Tolo Drink House (by villagers)

As the situation on the mainland became more stable in the 1980s, the Hong Kong government abolished the Touch Base Policy[26], putting an end to the influx of illegal immigrants. In 1982, the Highlanders were sent to the Falkland Islands for the Falkland Wars. Upon the signing of the Sino-British Joint Declaration in 1984, the British forces had completed their historical mission and withdrew from the area completely in 1985.

Outmigration

As influenced by the She people, family members of the Hakka people, including females and children, used to work collectively so that adult males could spend time on side business beyond farming, including work outside home villages[27] and overseas.

The first wave of outmigration happened upon signing the Treaty of Nanking in 1842, when contracted and uncontracted Chinese laborers emigrated and worked in different parts of the world. The Treaty of Peking in 1860 further legitimized such work and requested those who volunteered to work overseas to sign contracts with foreign merchants. Between 1851 and 1872, the number of migrant laborers who departed from Hong Kong to America, Australia, and Southern East Asia once reached 320,000[28]. As the Wans described, foreign companies engaged and recruited villagers to work in Australia due to the specialty in submerged swimming. As a parallel fact, an Australian pearl harvesting company did commission the local store, Yan Kee (香港仁記洋行), to recruit divers to work in Darwin City and Thursday Island in the 1880s[29]. As documented in the Inscription for the Reconstruction of Hip Tin Temple in San Tsui of Sha Tau Kok (沙頭角山咀協天宮重建協天宮碑記) in 1896, there had been donations received from a range of foreign countries including Canada, America, Hawaii, Panama, Jamaica, Suriname, Peru, Brazil, and Australia – the most popular destination with 839 out of 1158 donators and of which also included the "pearl port" (珍珠埠)[30].

While there is not much documentation on migrant laborers or outmigration, the Yung Shue Au Wans Genealogy recorded four villagers who passed away in foreign places. One of them, Wan Nga-Ng (溫亞五), who was born in the 1860s and emigrated in the 1880s, recorded donations from Australia, probably from Dubbo in New South Wales[31]. Overseas donations of the Wans from Jamaica, Honolulu, and other Australian cities were also recorded. Villagers also recalled that around the 1960s, there was a dark-skinned boy, nicknamed "Ah-Fan" (阿蕃; a foreigner), whose father had worked in Jamaica and was probably a mixed-race child, although there is no mention of this in the documents.

The emergence of Chinese migrant laborers changed the economic and production structure of Yung Shue Au Village. Since then, some villagers have given up fishing and farming and have relied on foreign exchanges sent back by overseas family members to make a living.

The second wave of outmigration happened after WWII in 1948 when the colonial government updated the British nationality law that recognized Hong Kong people as Citizens of the United Kingdom and Colonies, which permitted them to stay and work in the United Kingdom legally. Since there was an obvious pay gap between the United Kingdom and Hong Kong at that time, for example, a mud picker in Hong Kong earned a weekly salary of only HK$21, while working at a British restaurant earned about HK$80, many villagers chose to go to the United Kingdom, or even other Commonwealth or European countries to work. After these immigrants had gained a firm foothold, they brought their families and relatives here to settle.

Summing up, Yung Shue Au has changed from a village with a population of 300 to an uninhabited village with no permanent residents after WWII, with the exception of occasional villagers returning to the village to visit their graves or old residences.

OBJECTIVES	VILLAGE ASSETS	PROPOSED WORKS
To revitalize Yung Shue Au as a living village	Rustic environment	**Construction of a temporary visitor support station*^**
To re-energies Yung Shue Au as a focal point for the Wan clan	Hakka village houses	**Conversion of village houses into guest houses*^**
To showcase the unique heritage of Yung Shue Au	Hakka artifacts	Conversion of terraced farmlands into camping sites^
To create a sustainable village	Farmland	Renovation of barrack and military facilities into a museum^
	Natural stream	Renovation of the school into a story house^
	Village well	Enhancement of footpaths and hiking trails^
	School	Preservation of tree houses as tourist attractions^
	Tree houses	**Restoration of the village office***
	Bund	Restoration of village houses
	Pond	Construction of water supply system using stream water
	Pier	Construction of solar panels and wind turbines for electricity supply
	Beaches	Recultivation
	Military facilities	(^ works proposed for public benefits) (* works further developed with authors)
	Trails	

Table 1. Vision plan to revitalize Yung Shue Au village by the villagers

5. YUNG SHUE AU AS A RURAL COSMOPOLITAN HUB

Rural cosmopolitanism can be understood as "the convergence of cosmopolitan ideals with the rural social milieu that identifies rural spaces as sites of rich, diverse cultural exchanges"[32] in layman's terms. After experiencing various political incidents and transnational diaspora, a small group of retired Wans villagers gathered in the village in 2022 and organized regular meetings onwards to discuss possibilities of revitalizing Yung Shue Au village. The group consisted of a range of experts, including a former government architect, a chef, a construction contractor and a mechanical engineer. Former and current village representatives often participate in the meetings, showing high collective motivation. Under the influence of the countryside revitalization movement initiated by the government, the villagers proactively proposed a vision plan for revitalizing Yung Shue Au, taking various elements into consideration, including village assets, objectives and proposed works (refer to Table 1). From the highly publicized nature of the proposed works, it is argued that the Wan has identified Yung Shue Au village as a rural cosmopolitan hub for diversity and inclusion. To reinforce this place-identity, the authors further co-developed three initiatives to transform and publicize ruined village grounds with reference to the village characters.

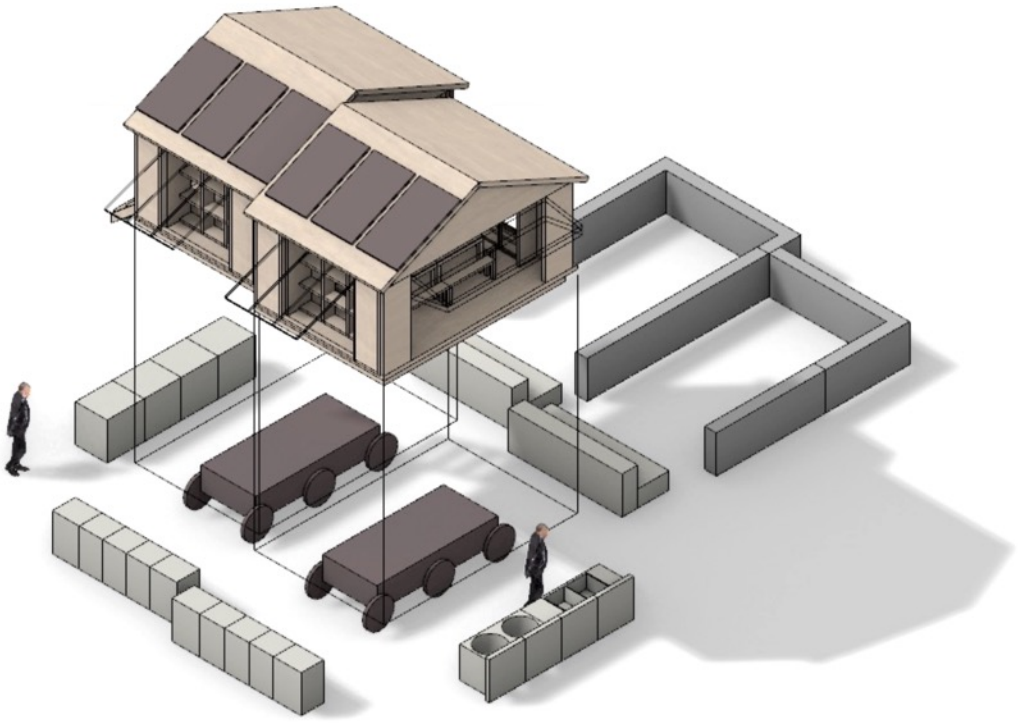

Figure 8. Image of the proposed community kitchen (by the authors)

From a Lavatory to a Community Kitchen

Between the pier and Pui Man School, a two-bay, single-story, pitched-roofed lavatory structure once existed for the villagers' use. While the structure has collapsed for years, part of the rammed earth wall structure remained on site, and the authors proposed transforming such ruined ground into a community kitchen. Since their first return to the village, the Wans have been organizing casual meal gatherings at the village entrance. To prepare meals, villagers always carry food from Sha Tau Kok market to Yung Shue Au via boat rides, station their fridge trolley under the village signage, set up portable tables and stoves in the planter area, and cook food using the firewood collected from the inner village area. Traditional dishes are often prepared and served on the barrack area's open concrete platform. To villagers, sharing meals becomes a significant socializing act which reinforces their identity towards the ruined, vacant village.

To facilitate the villager-initiated gatherings, we propose, instead of a visitor support station, constructing a community kitchen on the lavatory site. A subtle pitched-roofed structure hovering above the ruined parapet walls is conceived to respond to the old architectural form yet create new gestures. It is designed to store portable cooking equipment, house temporary bed spaces, support small-scale banquet settings, provide first-aid kits and emergency support, and display visitor information (figure 8).

From a Village House to a Workstation

Several buildings were constructed after WWII in modernist aesthetics, including the Tolo Drink House, built in 1966 by the family of Wan Yuk-Heung (溫玉香; figure 9). It has a typical three-bay, two-story configuration with a pitched roof in Hakka tiles and curvy parapet walls in the front façade, and a highly modernized balcony design in the northern corner of the upper floor and a verandah space underneath. Unlike traditional Hakka row houses, the north wing is stretched to house a large kitchen with a storeroom and a narrow corridor connecting to a separate washroom, which appeared to be an extension (figure 10). Seven bedrooms are partitioned using timber-glass panels, with four central living throughout the building. Yuk-Heung recalled that the family once operated a bar here and served the British forces with beers and whiskeys. Nonetheless, we believe that the Tolo Drink House can serve more meaningful functions beyond a guesthouse in the modern era.

Due to its well-preserved building structure, we propose restoring the Tolo Drink House as a workstation for volunteers. In collaboration with Wu Zhi Qiao, a non-profit group specializing in low-cost and low-tech rural construction in China, the restored house serves as an educational base for student volunteers to participate in rural revitalization that involves a variety of hands-on tasks. Volunteers can stay overnight and spend longer interacting with villagers, improving the village environment and documenting the process. To achieve

a low-carbon operation, a few modifications are made to the building with minimal impact on the authenticity of form – provision of solar panels and low-speed fans, laying a double-layer roof, construction of air gaps on the floor decking and addition of curtains (figure 11).

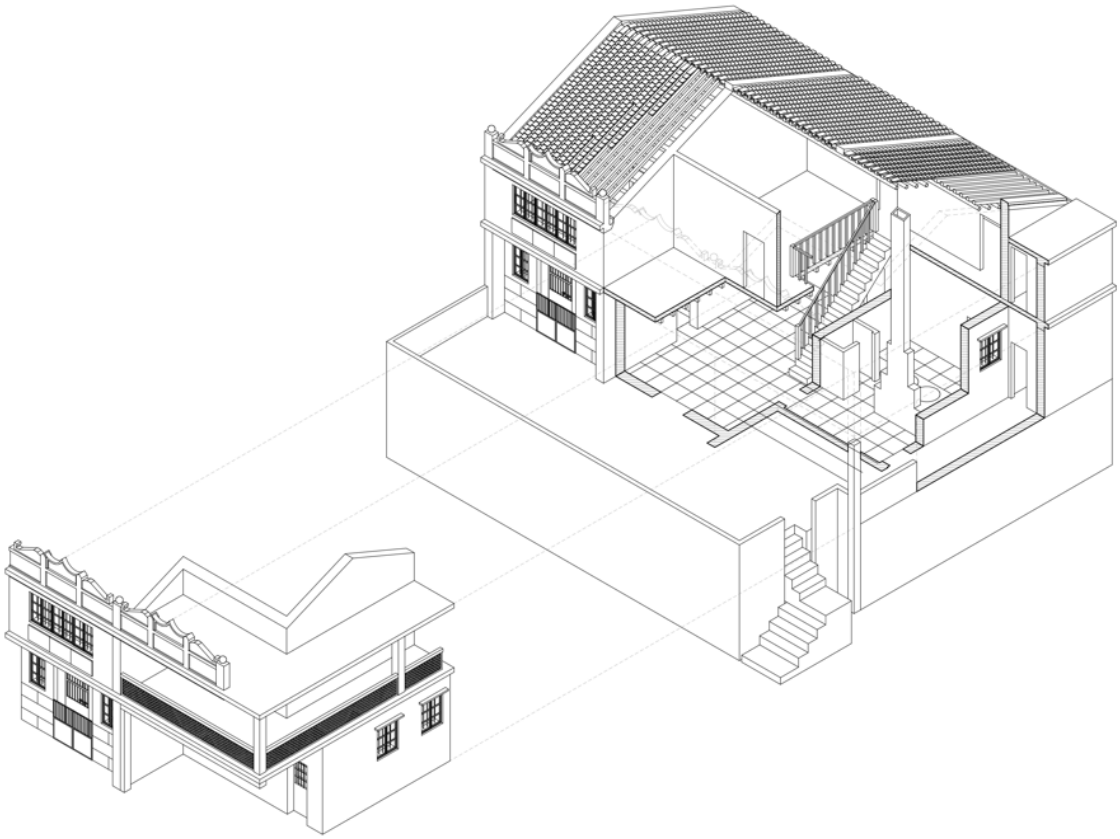

Figure 10. Axonometric drawing of the Tolo Drink House (by the authors)

Figure 9. Photo of the Tolo Drink House (by villagers)

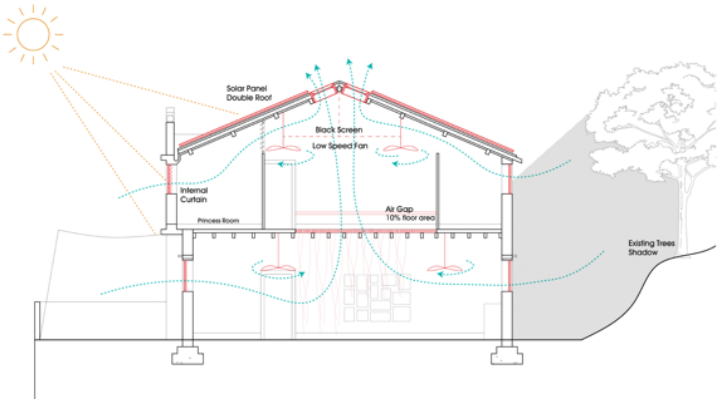

Figure 11. Diagram of low-carbon modifications to the Tolo Drink House (by the authors)

From a Village Office to a Community Centre

The village office was one of the four row-house units in the central area of Yung Shue Au village, with an ancillary storeroom on its side elevation. It has a typical two-hall layout where the main hall has a mezzanine floor in the rear for storage. Before the construction of Pui Man School, it once housed the first Hakka-speaking school on a small scale. While most mud-brick structures have collapsed, the entrance gate's remaining metal poles still stand on site (figure 12).

Figure 12. Photo of the ruined site of the village office and metal poles (by the authors)

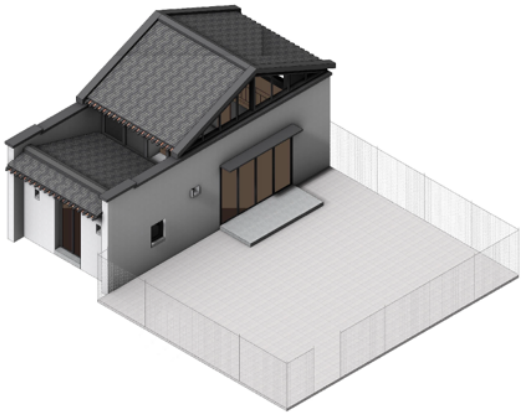

Figure 13. Image of the proposed community center and the reinvented gable wall (by the authors)

Since the return of the Wans, there have been requests to restore the village office to a proper and safe physical environment for meetings. A village office is a communal space by nature, and it should be able to accommodate a larger group of participants at the current time. To achieve that, we propose to restore the row-house structure with one modification – to connect the interior and exterior spatially through a new operable threshold on the gable wall (figure 13). This move will activate the architecture and the landscape area into a public, visible, open area for everyone visiting the rural village.

6. DISCUSSION AND CONCLUSION

This article extensively discusses the historical, political and socio-spatial aspects of Yung Shue Au village, emphasizing the unique characteristics and dynamics between villagers, outsiders and the village environment. As aforementioned, we argue that the publicization of rural villages should respond to the local place-identity with bottom-up, autonomous and intrinsically motivated initiatives. In this case, the three proposed works will address the need for reinforcing the identity of villagers through gatherings and facilitate cultural

exchange with external stakeholders to use existing infrastructure that has served similar functions in the past and activate adjacent empty lands without a severe visual impact on the physical environment. The background of villagers returning from different parts of the world enables them to embrace novel ideas beyond simply restoring the village to its original appearance, and the proactive attitude and resilient mindset have granted everyone the capacity of sustained momentum to carry out the prolonged process of revitalization. At the higher level, publicizing the village is also highly tactical in educating the public about its geographical relationship with the Starling Inlet and, therefore, its political and military significance in the globe.

From the architect's perspective, the form and gesture of the proposed structures will echo the original appearance using novel tectonics. Particularly, as a traditional Hakka architectural component, the gable wall will be reinvented with operable thresholds. In the past, gable walls, often constructed in rammed earth or mud bricks, provided essential structural integrity and fire compartmentation for the safety of the row houses. Using modern construction technology and materials, architects are able to reinvent the design of gable walls so that the units at both ends of row houses can respond spatially to the open land areas. This architectural design strategy generates new spatial configurations with the front façade highly maintained and is applicable to thousands of village houses that share a common row-house typology.

Nonetheless, there are several limitations to implementing the proposed works. Firstly, there is a lack of rural-specific building codes that allow for design modifications. Secondly, land uses are often restricted to private dwellings, without the flexibility for multi-functionality. Thirdly, transportation should be upgraded to provide essential infrastructural support for conducting public programs at the publicized village spaces. Lastly, the funding mechanism should be reviewed to allow serendipities (Ho, 2024) – to allow changes during implementation, as new ideas often emerge in the revitalization process. In fact, the three proposed works are all experimental options under the same initiative funded by CCO.

To conclude, this paper documents the historical, political and socio-spatial significance of Yung Shue Au village and exemplifies how architectural proposals are conceived to publicize ruined village grounds in response to the needs of villagers and the characteristics of the village environment. As design-researchers, we recognize that every small design decision matters, and we advocate that countryside regeneration should take place at a slow pace to observe, absorb and reflect on the temporal and tangible changes. (7221 words)

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"SEASCAPE" THROUGH URBANIZATION — A CASE STUDY OF THE FLOATING COMMUNITY IN CAUSEWAY BAY, HONG KONG

Miriam Lee

"SEASCAPE" THROUGH URBANIZATION — A CASE STUDY OF THE FLOATING COMMUNITY IN CAUSEWAY BAY, HONG KONG

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This paper examines the Tanka community's transformation in Causeway Bay, Hong Kong, within the historical context of the city as a colonial port situated in the maritime trade network of the British Empire. As Hong Kong evolved from a fishing village to an international economic center, this study highlights the rich tapestry of cultural exchanges along its coastline, where floating settlements occupied by Tanka people thrived. Engaging in various maritime industries, these communities represented the frontline of Hong Kong's maritime history, yet their unique spatial practices remain underexplored. This research investigates the changing use of sea-based space in relation to urbanization in the early decades of British Hong Kong, considering how the Tanka navigated the evolving geographical landscape and interacted with land-based counterparts amid infrastructural development. By addressing the dynamic boundaries — physical, visual, and social — between land and sea, the paper challenges traditional notions of urban planning and emphasizes the need to incorporate maritime perspectives. This study seeks to provide an alternative lens through which to evaluate the "seascape" of coastal communities and their cultural significance in spatial planning discourses, advocating for a recognition of maritime practices in shaping urban futures.

1. INTRODUCTION

The interplay between urbanization and cultural identity is a profound and evolving narrative, particularly evident in the case of the Tanka community in Causeway Bay, Hong Kong. Historically rooted in a maritime lifestyle, the Tanka have long maintained a distinctive relationship with the sea that shapes their cultural practices, social structures, and community identity. However, the rapid urban transformation of Causeway Bay, driven by extensive land reclamation and colonial ambitions, poses significant challenges to the Tanka's existence and cultural continuity. This paper seeks to unpack the complexities surrounding the Tanka's experiences in the context of urban development, emphasizing how their historical ties to the sea offer critical insights into broader urban dynamics and the resilience of marginalized communities.

By examining the Tanka's adaptive strategies in response to socio-economic changes in the early decades of British Hong Kong, this study highlights the need for a nuanced understanding of landscapes that transcend traditional definitions of architecture and urbanism. It interrogates the neglect of maritime environments in urban planning, advocating for an inclusive approach that integrates aquatic contexts into discussions of urban identity and sustainability. This emphasis on "seascapes" underscores the Tanka's unique worldview, wherein the ocean is not merely a resource but a vital source of identity and spiritual significance.

Through a comprehensive exploration of the socio-cultural shifts experienced by the Tanka community amid the encroachment of urban infrastructure, this paper contributes to a growing body of scholarship that seeks to reconcile cultural heritage with modern urban demands. Ultimately, it aims to illuminate the importance of

preserving diverse cultural narratives, particularly those tied to maritime environments, in shaping equitable and sustainable urban futures, thus fostering a deeper appreciation for the complexities of urbanism in a globalized context.

Fig. 1: City of Victoria, Hong Kong circa 1860-1865, unknown Chinese artist (Source: Peabody Essex Museum).

2. TANKA PEOPLE OF HONG KONG

There were mainly four ethnic groups that settled in Hong Kong prior to the arrival of the British: Punti the "original residents" who are primarily of Cantonese ancestry and occupied the plains, Hakka the "guest people" who came from various parts of southern China in later eras and settled in hilly terrains, Tanka the "boat dwellers", "boat people" or "egg people" who had resided in the bays and inlets for centuries, and Hoklo from coastal areas of Chiu Chow and Hokkien. The Tanka people represent an indigenous community intricately linked to the coastal regions of southern China, particularly in Hong Kong and the Guangdong province. Historically, the Tanka are characterized by a distinctive lifestyle centered on fishing, boat dwelling, and a profound relationship with the marine environment. They traditionally inhabited boats, relying on fishing as their primary means of subsistence, and populated various settlements within the Pearl River Delta, including Hong Kong's coastal areas.

As an ethnic group, the Tanka are recognized among the indigenous communities of southern China, with unique historical lifestyles, cultural practices, and social organizations that set them apart from other groups. Traditionally leading a semi-nomadic existence on water, the Tanka developed specific cultural expressions, including their music, marriage customs, and spiritual beliefs, which contribute significantly to their identity as a distinct ethnic community. In contemporary discussions regarding ethnicity in China, the Tanka may not necessarily be classified as a separate ethnic minority in the same way as groups such as the Han, Miao, or

Dong. Instead, they are often subsumed within the broader Han Chinese population. For centuries, however, the Tanka have maintained a robust sense of identity and cultural heritage that underpins their distinctiveness.

In ancient China, the literature surrounding the Tanka people's socio-cultural history, albeit only a handful, presented a multifaceted examination of their status and livelihoods across different historical periods, notably through the lens of local gazetteers and scholarly works. One of the earliest significant texts, the "Chronicle of Canton," authored by Guo Fei (1536–1605), a distinguished Ming Dynasty scholar from Guangdong, delineated the status of the Tanka as “water-bound registered households.” Guo's account emphasized their unique lifestyle centered around aquatic living and fishing, while categorizing them as "low-status subjects" or outcasts who were burdened with fishing taxes and corvée labor obligations. The Chronicle further contextualized their habitation primarily around the Pearl River Delta and Macau, linking their existence to coastal defense priorities. However, it was important to note that Guo’s descriptions were often imbued with the biases inherent in land-centric scholarship, characterizing the Tanka people with terms such as “illiterate” and depicting their customs surrounding marriage and funerals as peculiar.

Fig. 2: Hong Kong places displayed in the Coastal Area Map of Canton, “Chronicle of Canton”, 1577-1595

Contrastingly, the work “New Tales from Canton” by Qu Cajun (1630–1696), a scholar and poet who straddled the late Ming and early Qing Dynasties, offered a more comprehensive and empathetic perspective on the Tanka people's livelihoods, which included fishing and hunting. Qu's narrative delved into their unique cultural practices, including "wedding songs" and the worship of water deities, and highlighted other cultural

expressions such as "saltwater songs." Despite displaying sympathy for the socioeconomic challenges faced by the Tanka, Qu perpetuated the prevailing "low status" classification, acknowledging instances where Tanka individuals resorted to piracy as a consequence of restrictive maritime policies.

The “Compilation of Historical Materials on the Tanka People” from the Republican Era provided a more nuanced and objective view of the Tanka's social evolution, drawing upon historical sources that spanned from the Ming Dynasty to the early twentieth century. This compilation noted significant historical developments, such as the Qing Dynasty's “Occupation Re-registration Fee” policy, which enabled some Tanka to buy themselves out from low-status designations, thereby facilitating occupational diversification into roles such as ferry operators and salt workers. Following the 1911 Revolution, the emergence of modern egalitarian ideals sparked a movement among intellectuals advocating for the abolition of discriminatory practices against the Tanka, showcasing a shift toward recognition and inclusion.

Following the British occupation of Hong Kong, a number of colonial officers took notice of the particulars of Tanka people and provided insightful descriptions of them, either for government records or personal interest. Walter Schofield, who served in Hong Kong from 1911 to 1938 as District Officer and then Police Magistrate, wrote:

> “At present, there are four races living in the Islands: they live very much mixed together. Tanka (literally "egg people"); these are boatpeople who speak a dialect of Cantonese, they live a great part of their lives on the water but sometimes settle on land.
>
> They are an outcast race, and in the old times they were not admitted to the civil service exams. They are usually quite illiterate. They sometimes live in boats hauled ashore, or in more or less boat-shaped huts, as at Shaukiwan and Tai O. All their chief centres are harbours: Cheung Chau, Aberdeen, Tai O, Potoi, Kau Sai, Yaumatei. They were formerly pirates.
>
> They are the only modern people who might claim, perhaps, to be descended from the most ancient inhabitants.” [1]

James Hayes, a historian who worked in Hong Kong for 32 years and retired in 1987 as Regional Secretary of the New Territories, had detailed observations of the Tanka,

> “The Tanka or boat people of South China have long been characterised as being a group part. They were conceived, born, lived, married and died upon their craft, often no more than the cockleshell sampans which used to be so common a feature of our coastal waters. They were not allowed to live on shore, did not attend the village schools and were excluded from the official examinations and hardly ever intermarried with the landsmen, though some of their girls became the secondary wives of wealthier villagers. Generally, they lived a life apart, under separate official regulation, and were despised and often oppressed by the land population as the popular and long received legend has it.
>
> The Tanka people manned the larger fishing craft that were usually based on the fishing ports of the Hong Kong region in places like Cheung Chau and Tai O. They also

> congregated in small groups that frequented sheltered bays and inlets for generations at a time.
>
> The island was certainly well-established in settled communities long before 1841. The temples alone give proof of that. To this day, two existing temples at Stanley, and two at Aberdeen (one at the former village and one on an islet now joined by reclamation to Ap Lei Chau) and the Tin Hau Temple at Tin Hau Temple Road, Causeway Bay (formerly called Hung Heung Lo or "Crimson Incense Burner") contain items that go back to the eighteenth or very early nineteenth century. There were others now demolished or resited that probably predated 1841.
>
> Being, settled, in many cases, for so long, the inhabitants had intermarried over generations, sending their daughters to other villages and taking wives from neighbouring settlements… These links made it natural for the villages to join together in periodic communal protectives rites…; whilst the temples attracted large gatherings at major festivals, especially on the birthdays of their patron deities."[2]

Collectively, ancient and contemporary Chinese texts charted the Tanka people's trajectory from marginalization to gradual liberation. Simultaneously, they revealed the evolving limitations and progress in scholarly perspectives, underscoring the complex interplay between historical narratives and cultural identity. Records by British administrators tended to highlight the Tanka's longstanding relationship with the coastal environment of Hong Kong, and remarked the Tanka's insular lifestyle, marked by a life lived entirely on their crafts, often isolated from shore communities, and constrained by social and cultural barriers.

Fig. 3: "View of Victoria Town, Island of Hong Kong, 1850" by B. Clayton (Source: Hong Kong Museum of Art)

Notably, visual records, such as paintings and art objects created by Western travelers, play a pivotal role in depicting the seascape of Hong Kong and its Indigenous boat-dwelling people, particularly the Tanka community. The juxtaposition of landscape and seascape in works like B. Clayton's "View of Victoria Town, Island of Hong Kong, 1850" captures the allure of the coastal environment, revealing the intricate relationships between the geography and its inhabitants. Similarly, George Chinnery's portraits, notably the "Portrait of a Tanka Boatwoman," provide invaluable insights into Tanka attire and demeanor, offering an emotional interpretation of cross-cultural encounters. These artworks not only document the visual aspects of the Tanka's lifestyle but also enrich the understanding of their identity within the broader maritime context of Hong Kong.

Fig. 4: Paintings by George Chinnery on Tanka people; top left "Portrait of a Tanka Boatwoman" (Source: George Chinnery: Selected Paintings & Drawings[3])

Despite long-term systematic discrimination and oppression towards the Tanka people, the presence of Tanka junks on Hong Kong's coat of arms and banknotes for over a century and a half till the city's handover to China underscores the city's deep-rooted maritime identity and its evolution into a globalized urban hub.

These visual representations serve as symbolic affirmations of Hong Kong's history as a cosmopolitan port city where commerce, migration, and maritime culture converged. The junk, traditionally associated with the Tanka people, reflects both the economic significance of sea trade and the historical presence of floating communities that contributed to Hong Kong's development.

Fig. 5 & 6: Two versions of Hong Kong coat of arms in 1959; Portrait of Victoria Harbor circa 1850 on Standard Chater Hong Kong 20 Dollar Note

Studying the Tanka people and their relationship with the urban and cosmopolitan evolution of Hong Kong is essential for understanding the intricate tapestry of the city's history and cultural identity. As an indigenous community with deep roots in coastal life, the Tanka have navigated a complex landscape defined by both resilience and marginalization. The transformation of their environment, as illustrated in the 1842 map and subsequent urban developments, highlights the impact of colonialism and modernization on traditional lifestyles. Despite historical discrimination, the Tanka's enduring cultural practices and maritime heritage remind us of their significant contributions to Hong Kong's identity as a vibrant cosmopolitan port city. The visual representations of Tanka junks and waterfront life serve as poignant symbols of a maritime legacy that enriches the city's narrative, underscoring the necessity of recognizing and preserving the diverse cultural histories that have shaped contemporary Hong Kong. This study not only enhances our appreciation of the

Tanka community but also invites a reevaluation of urban histories that include voices and perspectives often overlooked.

3. METAMORPHOSIS OF CAUSEWAY BAY

The metamorphosis of Causeway Bay epitomizes the profound impact of urbanization and modernization on the Tanka people during the early years of British rule in Hong Kong. As the colonial administration embarked on extensive land reclamation projects to bolster commercial and infrastructural capacities, the natural shorelines that had originally provided refuge for the Tanka's houseboats and junks were irrevocably altered. Once a shallow inlet serving as a sheltered anchorage, Causeway Bay experienced significant land expansion, which not only displaced the Tanka community but also necessitated their adaptation within an increasingly urbanized landscape. This transformation elucidates the complex dynamics between traditional environments and contemporary urbanism, particularly given Causeway Bay's proximity to Victoria City, the administrative, military, and trade hub of early colonial Hong Kong. The Tanka people's experiences reflect the intersection of landscape architecture and cosmopolitanism, highlighting the challenges that marginalized floating communities faced amid the burgeoning demands of urban development and modernization.

With the encroachment of urban development, the Tanka people faced increasing spatial restrictions. Their floating settlements, which relied on the fluidity of marine space, were pushed further out to sea or absorbed into regulated land-based settlements. The introduction of modern harbors, industrial docks, and cross-harbor transportation infrastructures reduced the availability of traditional mooring spaces, forcing many Tanka to either assimilate into land-based urban life or adapt their maritime practices within a shrinking waterborne environment.

Despite the growing body of literature examining the cultural and historical dynamics of Hong Kong, there remains a notable research gap concerning the Tanka people of Causeway Bay and their intricate interplay with landscape architecture, traditional environments, urbanism, and cosmopolitanism. While much attention has been devoted to the broader narratives of urban transformation within Hong Kong, or anthropological investigation of the Tanka people, the specific experiences and adaptations of the Tanka community often remain inadequately explored. This oversight hinders a comprehensive understanding of how their maritime heritage intersects with the principles of landscape architecture in a rapidly urbanizing context, the impact of urban development on their traditional livelihoods and social structures, as well as the implications of their contributions to the cosmopolitan identity of Hong Kong. By addressing these gaps, future research could illuminate the Tanka people's resilience and adaptability, offering valuable insights into the complexities of cultural identity formation within urban environments and the ongoing negotiations between modernity and tradition in a globalized world.

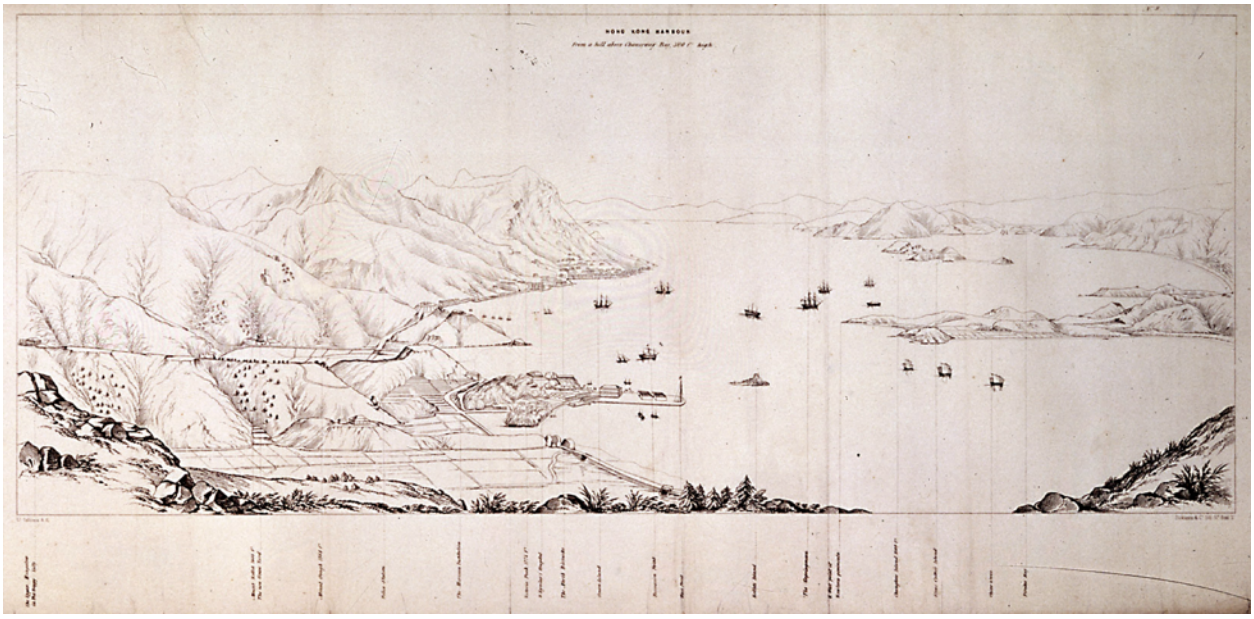

Fig. 7: Hong Kong Harbor from a hill above Causeway Bay, 500 ft high. Plate No.9 in Ten Outline Sketches of the Island of Hong Kong by R. Collison (Source: National Maritime Museum, Greenwich, London)

Due to time constraints, this research paper relies on historical maps spanning several decades following the establishment of British Hong Kong to illustrate the transformation of Causeway Bay's coastline. The selected maps serve as critical references for understanding the broader context of urbanization in this region. By contrasting carefully chosen details from the selected maps at different phases of urban development against a contemporary map, the accompanying diagrams offer an eloquent visual representation of the profound transformation wrought by sixty years of urban development and modernization. This approach enables a topical examination of the changes in coastal morphology and the implications for the Tanka people's spatial dynamics, despite the limitations inherent in a constrained temporal framework. Importantly, it is crucial to acknowledge that conventional maps or plans in urban planning often depict the sea as a void or emptiness, marginalizing its significance in the built environment. This bias not only overlooks the intricate interplay between land and water but also diminishes the visibility of communities like the Tanka, whose cultural and economic activities are inextricably linked to these maritime spaces. By recognizing these limitations, this paper seeks to provide a more nuanced understanding of how the evolving urban landscape has impacted the Tanka community, challenging the conventional narratives imposed by traditional cartographic representations.

The seascape of the Tanka people in Causeway Bay narrates a profound reliance on the maritime environment that characterized their way of life prior to extensive urbanization. Fig. 8 reveals that over half of the current land area from Wanchai to Causeway Bay was originally sea, creating a unique and sheltered habitat that facilitated the establishment of floating settlements. The bay, aptly named "Tung Lo Wan" in

Chinese for its remarkably round shape resembling a bronze cymbal, served as a crucial anchorage for Tanka boats, which frequented the bay and Kellett Island. The area now recognized as Causeway Bay Sports Ground was characterized by intertidal swamps, forming a rich ecosystem that was vital for fishing and other marine resources. Altogether these coastal environments served as integral components of their habitat. The presence of three prominent freshwater sources—Wong Nai Chung, flowing from a Hakka village, another from the hillside of Blue Pool Road, and Tai Hang, meaning "big stream"—enhanced the site's appeal for the Tanka community, emphasizing their reliance on both marine and terrestrial resources.

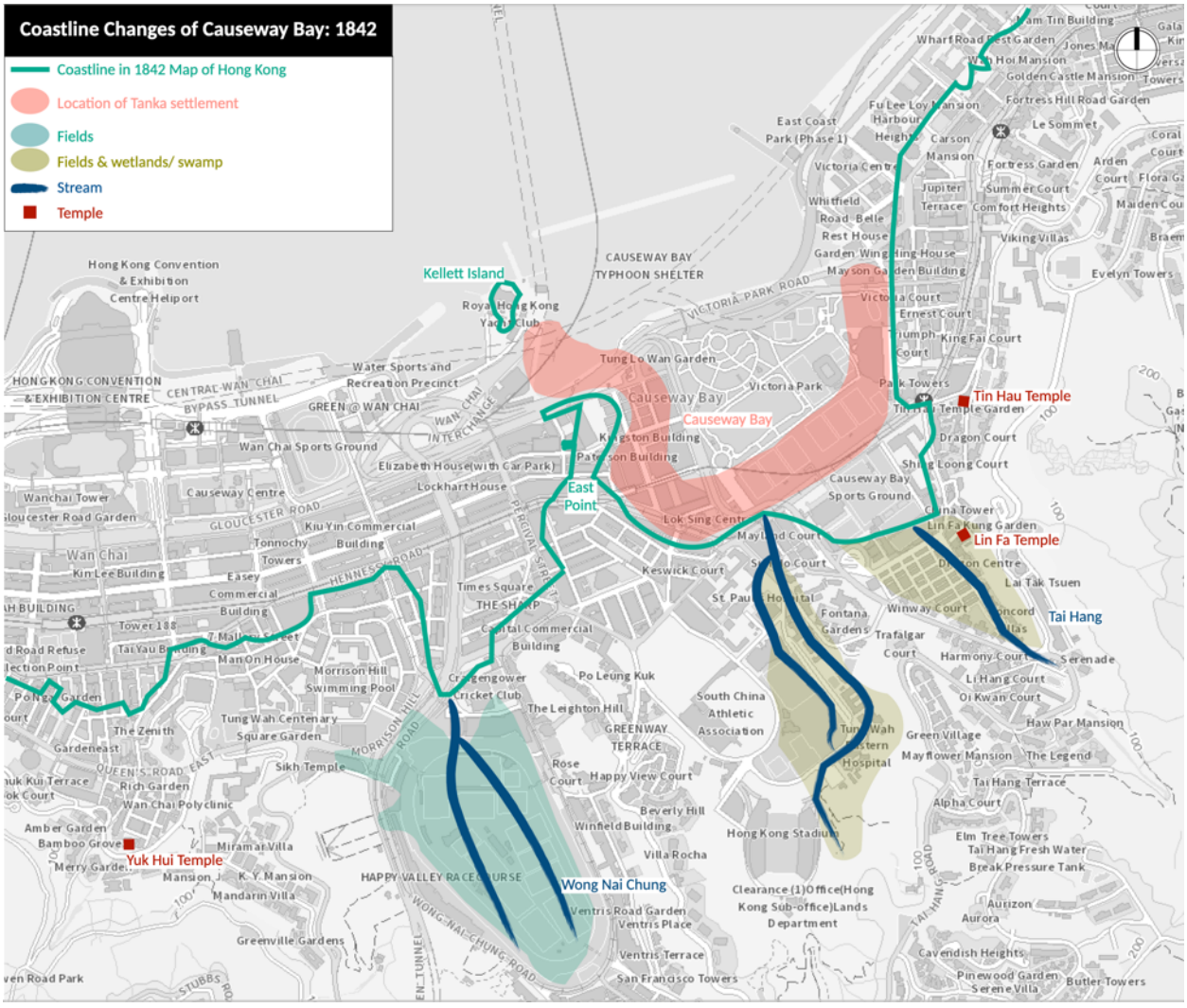

Fig. 8: Coastal Changes of Causeway Bay in 1842 (Source: Miriam Lee)

Notably, the Tin Hau Temple and Lin Fa Temple, dedicated to sea deities, stand as testaments to the Tanka's deep spiritual connection with their aquatic surroundings. The infrastructural development indicated by the jetty at East Point, which catered to foreign trade ships, highlights the early foundations of international

maritime logistics in the region. These early signs of colonial urbanization marked a significant departure from the Tanka's traditional way of life. The burgeoning cosmopolitanism of Hong Kong during this era fostered a rich tapestry of cultural interactions, positioning the Tanka community at the crossroads of local and international maritime trade. While this exposure facilitated cultural exchanges, it also presented challenges for the Tanka in maintaining their unique identity amid a rapidly evolving metropolis like Hong Kong and the encroaching influences of globalization in the decades that followed.

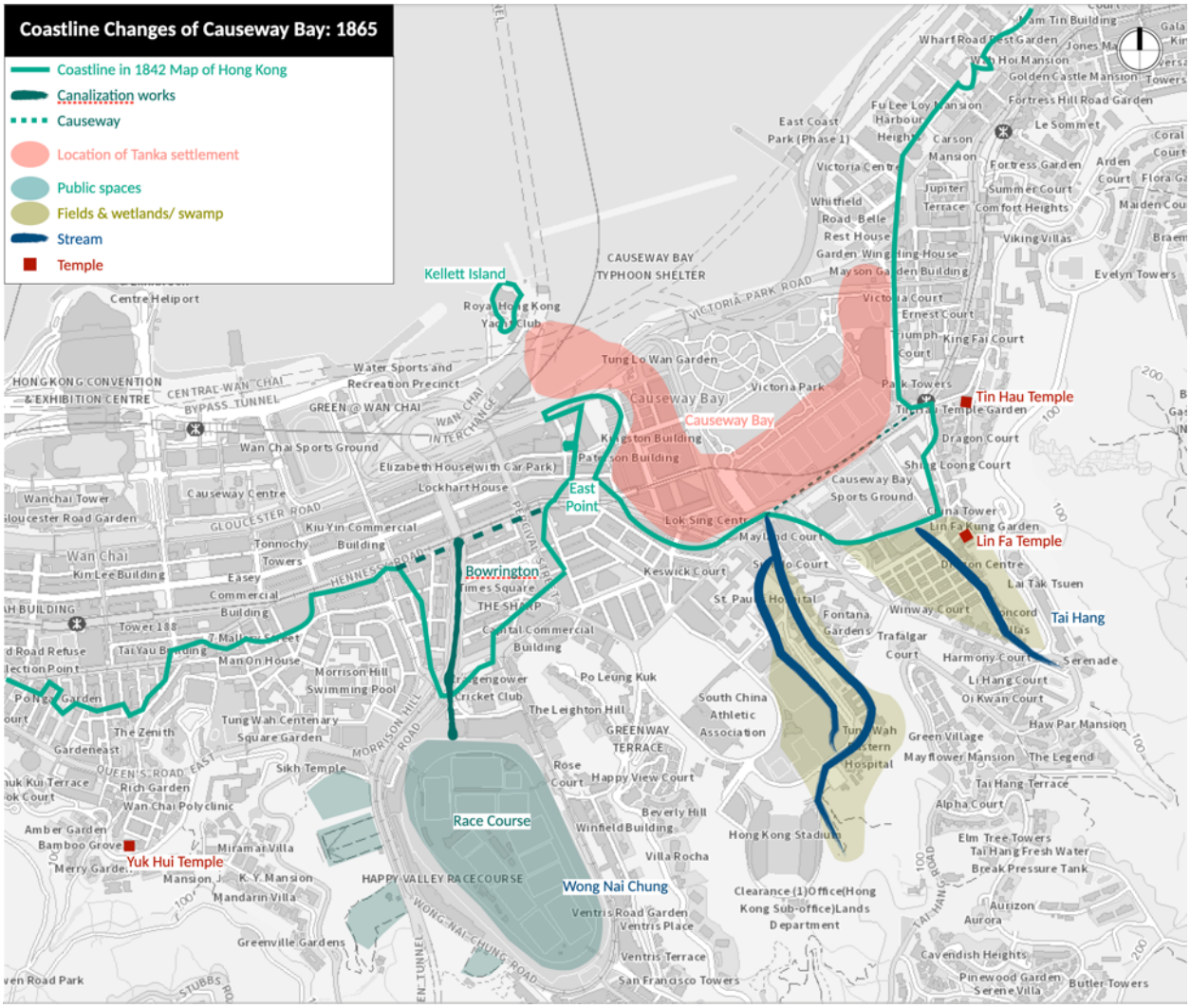

Fig. 9: Coastal changes of Causeway Bay in 1865 (Source: Miriam Lee)

The 1865 Plan of Victoria City exemplifies a shift in landscape architecture that prioritizes functionality and accessibility of city living over the natural coastal environment that supported the Tanka's way of life. The seascape of the Tanka people in Causeway Bay marks a pivotal moment in the ongoing transformation of this maritime community's environment amid the encroaching modernity of colonial Hong Kong. While the

expanse inhabited by the Tanka people remained relatively unchanged, the plan reveals several significant infrastructural developments that began to reshape the geography of the area.

The construction of a causeway served to shorten and enhance the safety of land travel across the bay, gradually reclaiming the intertidal swamps that had once been vital to the Tanka's lifestyle. This reclamation project not only altered the natural shoreline but also reflected a broader trend of urban expansion that prioritized land use over traditional marine habitats. The construction of the causeway and promenade symbolizes a deliberate re-engineering of the landscape, which transforms the natural habitats once thrived with biodiversity into more structured urban frameworks. The reclamation of these wetlands for urban development signifies a substantial loss of the traditional coastal environment that sustained their lifestyle. The Tanka community's relationship with the sea and the rhythms of marine life, which informed their cultural practices and social structures, became increasingly tenuous as the urban landscape encroached. This transformation highlights the challenges indigenous communities face when their environments are redefined by external demands and urbanization.

The creation of a promenade and the canalization of Wong Tai Chung facilitate increased access and commerce, demonstrating a keen interest in engineering solutions that emphasize the utility of the landscape for urban-dwelling populations. The laying of the ground for the Racecourse and the planning of cemeteries on the hillside west of the Race Course signify an extension of urban development and functions of recreation and public provisions. The elements of urban growth and cosmopolitanism are evident in the infrastructural projects that catered not only to the local population but also to an influx of immigrants and foreign interests in Hong Kong.

The infrastructural modifications reflect the broader ambitions of urban growth and cosmopolitanism in Hong Kong, ultimately leading to the gradual reconfiguration of the Tanka community's relationship with their seascape. They exemplify the broader trends of urbanism during the colonial period in Hong Kong, emphasizing the transition from a traditional, water-oriented lifestyle to a land-centric urban model. This shift not only reflects the colonial administration's aim to facilitate trade and commerce but also indicates a broader socio-economic transformation that prioritizes urban modernity over indigenous ways of living.

Transformations outlined in the 1888 Map of Praya Extension illuminate the dynamic interplay between modernization and the historical maritime practices of the Tanka people. These developments encapsulate a critical phase in their adaptation to the pressures of urbanization while fostering new opportunities for social and economic engagement. The seascape of Causeway Bay, shaped by reclamation and infrastructural innovation, reflects not only shifting geographic contours but also the resilience and adaptability of the Tanka community within the complexities of colonial Hong Kong.

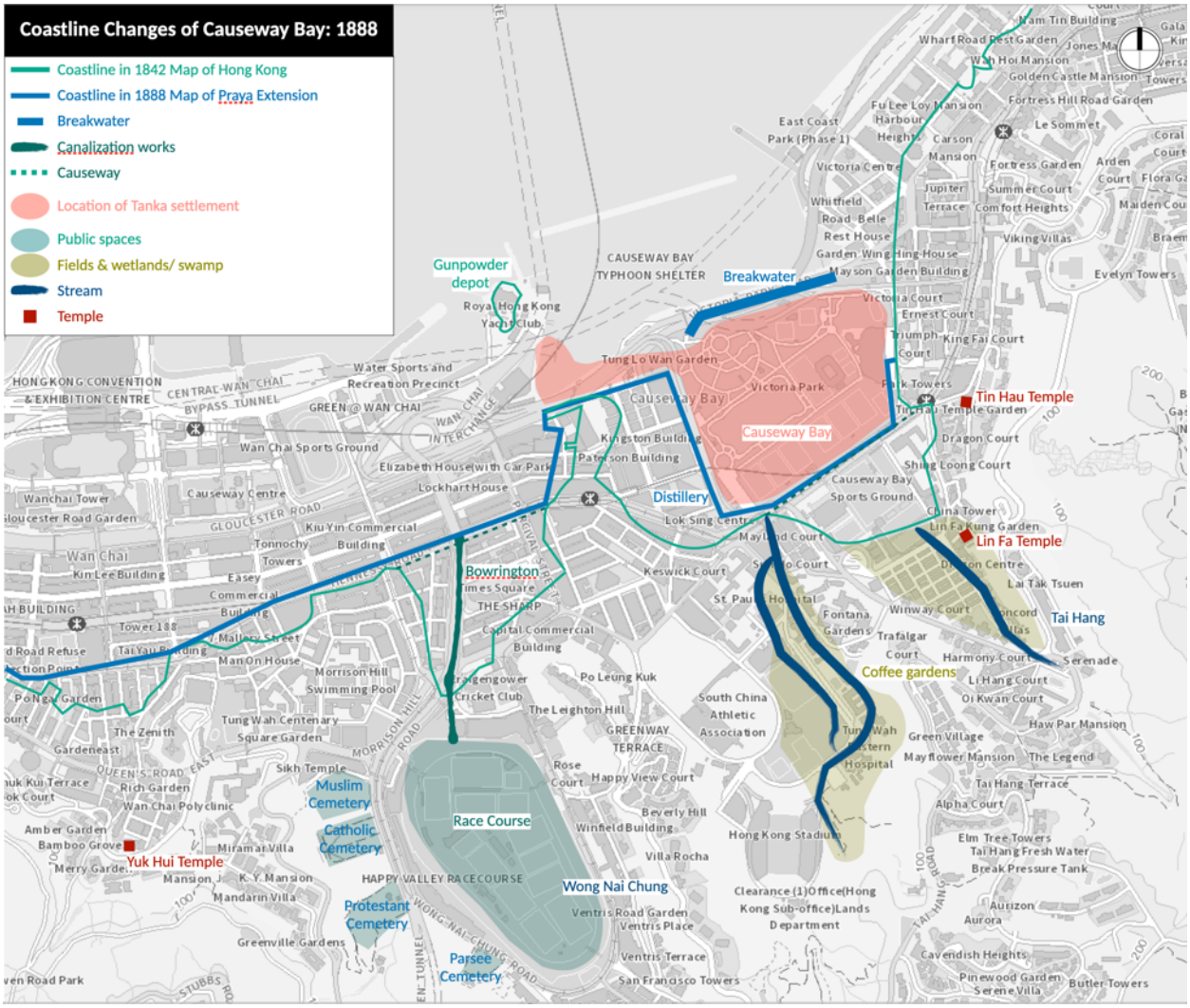

Fig. 10: Coastal changes of Causeway Bay in 1865 (Source: Miriam Lee)

The changing seascape of Causeway Bay represents a crucial juncture in the ongoing evolution of this community's maritime environment within the context of colonial Hong Kong. The construction of Hong Kong's first breakwater further exemplifies the transformative impact of this period. By creating a more sheltered sea surface area, the breakwater facilitated the spread of Tanka boats across the bay and provided crucial refuge for vessels during typhoons and adverse weather conditions. This infrastructural enhancement not only underscores the increasing recognition of maritime activities within the urban framework but also reinforces the Tanka community's longstanding connection to the sea, offering a sanctuary during the unpredictable nature of marine life. Notably, the map illustrates a drastic straightening of the coastline through extensive land reclamation from Wanchai to Causeway Bay, fundamentally altering the geographic contours that had long sustained the Tanka's way of life. This transformation not only redefined the shoreline but also opened new avenues for urban development and industrialization.

The extension of East Point testifies to this industrial thrust, evidenced by the introduction of facilities such as distilleries, godowns, cotton mill, a short-lived mint among others. These developments presented the Tanka community with unprecedented job opportunities that were previously unattainable, leveraging their maritime skills in a burgeoning urban landscape. This shift from a predominantly aquatic lifestyle to integrated roles in the local economy marks a significant reconfiguration of the Tanka's relationship with the environment, bridging their traditional practices with the demands of a modernizing society.

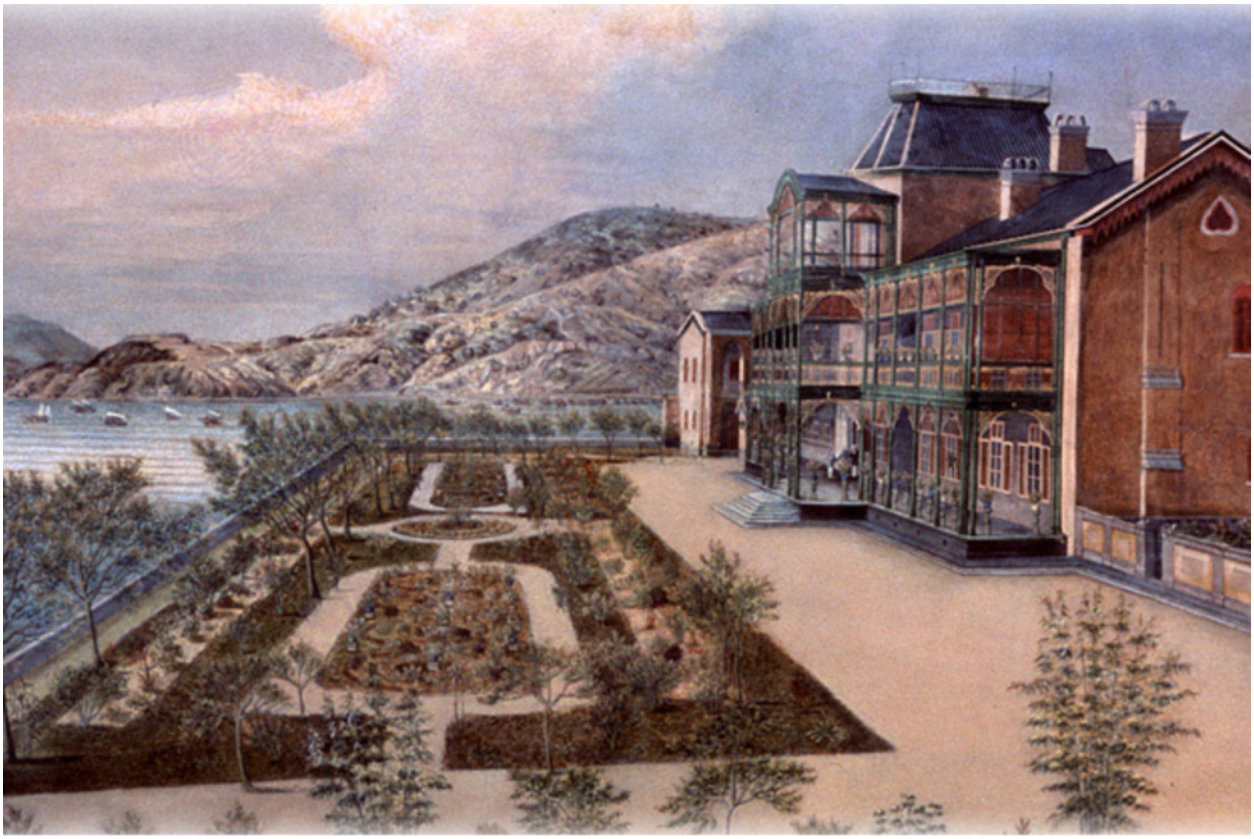

Fig. 11: Causeway Bay became the commercial and industrial node of Victoria City, with British financial institutions like the Mint while Tanka boats can be seen adjacent to the site. "The Mint and its Garden, Hong Kong", 1860s, unknown artist. (Source: Hong Kong Museum of Art)

Education opportunities also became available during this period at missionary societies and churches in Wanchai, Causeway Bay and Happy Valley which opened doors to orphans and underprivileged populations. For centuries, these pathways to knowledge had been systematically denied to the Tanka. Enhanced access to education allowed members of the Tanka community to acquire skills and knowledge that would equip them to navigate the complexities of an increasingly urbanized world. This signifies an important step toward social inclusion, empowerment and greater participation in colonial society, reframing the Tanka's role, at least for those from Causeway Bay, in the socio-economic landscape of Hong Kong.

The religious diversity reflected in the cemeteries lining the area — from Muslim and Catholic to Protestant and Parsee — illustrates the cosmopolitan character of an evolving Hong Kong. This rich tapestry of beliefs signifies a growing awareness of cultural plurality, facilitating the Tanka's integration into a broader urban narrative while simultaneously honoring their distinct traditions. The emergence of a multifaceted community space indicates a potentially conciliatory environment where various traditions could coexist, fostering cross-cultural dialogues even amid the challenges faced by the Tanka.

The 1903 Plan of the City of Victoria illustrates the Tanka community's adaptive responses to the pressures of industrialization and urbanization in Hong Kong. This evolving seascape reflects both the challenges and opportunities presented by the transformation of Causeway Bay into a major industrial hub. As the Tanka navigated these changes, they inserted themselves into new economic roles while retaining a profound connection to their maritime heritage, thereby contributing to the rich tapestry of Hong Kong's identity as a cosmopolitan port city.

The development of a major industrial area outside Victoria City, marked by the addition of facilities such as a sugar refinery, a cotton mill — now known as “Sugar Street” and “Cotton Path,” which continue to resonate in contemporary nomenclature — signifies a dramatic shift toward an industrial economy reliant on international maritime trade. As the Tanka of Causeway Bay adapted to these new architectural realities, their historical connections to the waterfront began to shift, necessitating an integration of their maritime expertise within an emerging industrial framework.

This industrial activity necessitated skilled labor, particularly among boatmen capable of effectively managing the logistics required for industries involving substantial quantities of materials imported from abroad. The Tanka community, with their deep-rooted knowledge of maritime navigation and local waters, found themselves well-positioned to facilitate the movement of goods between the towering ships in the harbor and the emerging warehouses and factories along the shoreline. Their expertise not only underscored the economic value of traditional knowledge but also highlighted a transitional moment for the Tanka, who were increasingly engaging in roles that stretched beyond the confines of traditional Chinese trades towards participation in the international market. The integration of boatmen and laborers into the colonial maritime economy not only underscores their resilience but also serves as a testament to the shifting dynamics of social and economic life in early twentieth-century Hong Kong. As industrial infrastructure encroached upon their traditional habitat, the Tanka's connection to the sea remained vital, yet increasingly challenged. The necessity of skilled labor for industries reliant on international trade highlighted their continued relevance, but the shift towards industrial economies also meant a gradual departure from traditional fishing practices. This evolving

relationship with their coastal environment reflects the challenges faced by indigenous communities as they negotiate between preserving their cultural heritage and adapting to new economic realities.

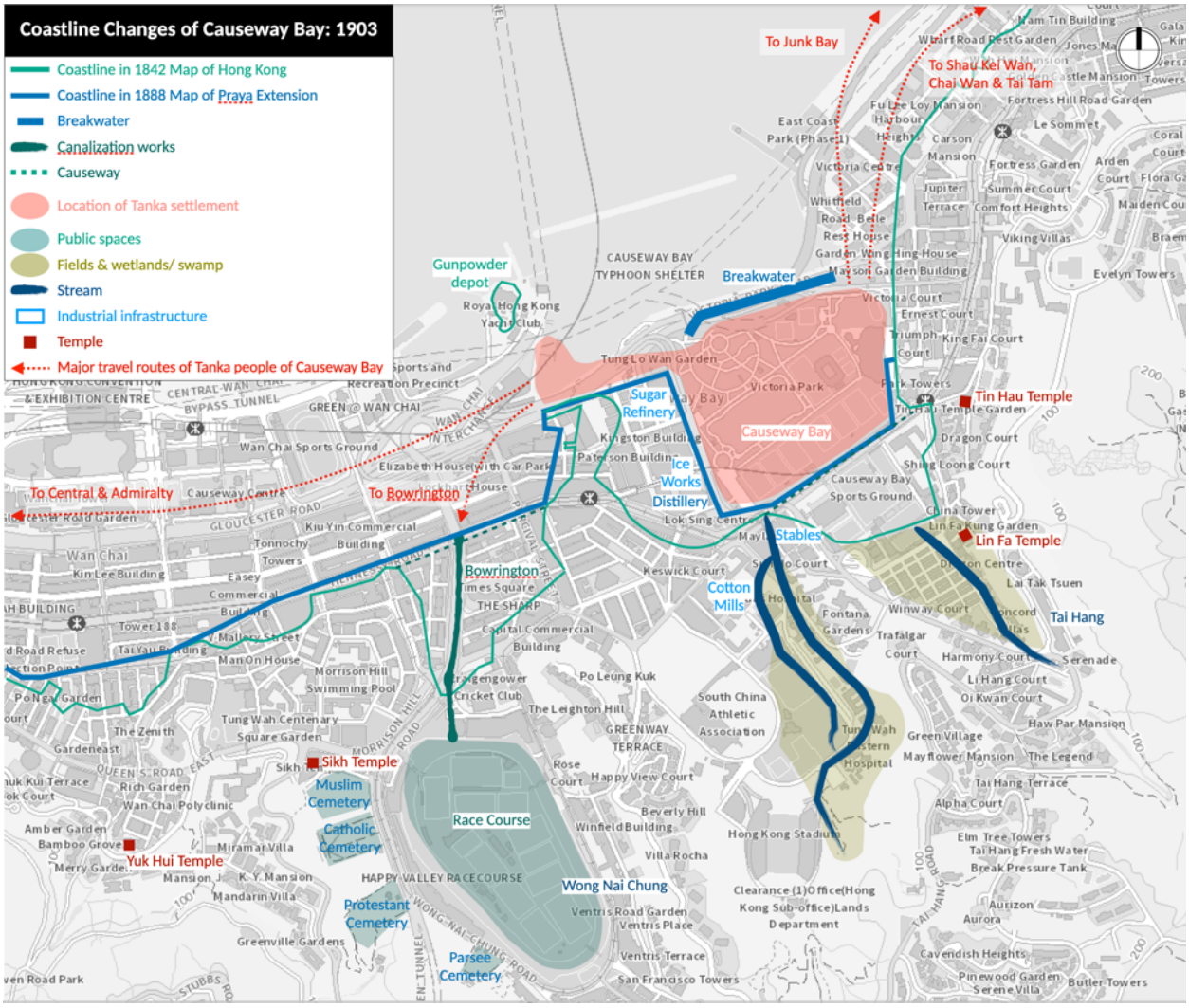

Fig. 12: Coastal changes of Causeway Bay in 1903 (Source: Miriam Lee)

The evolution of Bowrington Canal into a bustling open-air market further exemplifies the growing integration of the Tanka community within the urban fabric of Victoria. This canal emerged as a vital node for grocery shopping, providing the Tanka with a more accessible marketplace, while shaping new community interactions and economic exchanges. Anecdotal reflections from elderly members of the community reveal a poignant narrative: by rowing their boats into the canal to procure goods, they could navigate their purchasing needs while circumventing the discrimination often suffered when engaging with shore-based market activities. This method of shopping not only emphasized their adaptive strategies in a changing

environment but also reinforced their enduring connection to their aquatic roots. The Bowrington Canal's transformation into an open-air market further illustrates how landscape architecture can shape.

Moreover, although not explicitly included in this section of the plan, the establishment of the naval base at Admiralty created a significant demand for skilled seaside labor, encompassing both men and women. In this context, the Tanka community of Causeway Bay emerged as a crucial supplier of labor for auxiliary naval services. Notably, the formation of all-female working bands, known as "side-parties," showcased the Tanka's evolving role within the broader maritime labor market. These all-female groups played a vital part in supporting naval operations, often taking on tasks that required both dexterity and knowledge of local waters. This development not only reinforced the cultural heritage of the Tanka but also illustrated the intersection of their traditional skills with the demands of a colonial industrial economy. The emergence of these all-female working bands reflects broader societal shifts in gender roles associated with modernization and urbanization; as women increasingly participated in the labor force, they began to challenge traditional gender norms, asserting their agency in a rapidly changing economic landscape, and challenging conventions within both the Tanka community and the larger society. The integration of the Tanka into the burgeoning urban environment of Victoria redefined their role within the social and economic fabric of colonial Hong Kong as they navigated new economic roles yet retained a connection to their maritime heritage.

The Tanka's experiences during this period highlight their contribution to the cosmopolitan identity of Hong Kong as a bustling port city. Their adeptness in maritime logistics and international trade demonstrates their essential role in shaping the city's economic landscape, reflecting the fluidity of cultural exchanges and economic interactions in a diverse urban milieu. The incorporation of traditional skills into modern industries illustrates a nuanced understanding of cosmopolitanism, where diverse cultural heritages coexist and interact within an increasingly globalized economy.

4. NAVIGATING CHANGES IN URBAN TRANSFORMATION

The Tanka community's experience in Causeway Bay presents a unique perspective on seascape, urbanism, and cosmopolitanism, challenging conventional notions of landscape architecture. Typically focused on land-based environments, landscape architecture often overlooks the rich complexities of maritime contexts and the socio-cultural practices entwined with aquatic spaces. The Tanka's profound connection to the sea is central to their identity, bolstered by deep-rooted traditions and spiritual ties, such as temples dedicated to marine deities. As extensive land reclamation altered Causeway Bay into an urban hub, the Tanka adapted by harnessing their maritime skills, navigating economic challenges while striving to preserve their cultural

heritage. Examining the Tanka's experience reveals broader implications for marginalized coastal communities in the face of urban transformation.

The evolving landscape of Causeway Bay and the Tanka's adaptations pose significant challenges to conventional definitions of landscape architecture. Traditionally focused on land, this field often overlooks the complexities of maritime environments. As Tuan's discussions on space and place suggest, personal experiences and emotional connections play a vital role in shaping individuals' understanding of their surroundings. [4] [5]. The Tanka community's strong ties to their maritime environment demonstrate that landscapes encompass more than just physical spaces; they are also imbued with meaning and identity. Their floating settlements are not merely clusters of boats but are living ecosystems embodying rich cultural narratives and ecological interactions. The ongoing land reclamation illustrates the necessity to include marine environments as fundamental components of urban design, emphasizing that landscapes extend beyond terrestrial boundaries to include the interplay of land and water.

The cultural identity of the Tanka, as seen through their relationship with the sea, highlights the importance of recognizing and managing landscapes as sites of cultural significance[6]. The transformations they have experienced reflect the adaptability of their cultural practices amid urban change. Their displacement and adaptation highlight that seascapes function not solely as geographical locations but as repositories of memory, identity, and tradition. However, the encroachment of urban infrastructure has diminished the Tanka's spiritual and practical connections to their waters, leading to an erosion of cultural ties to these landscapes. Such changes necessitate a redefined approach to landscape architecture that includes cultural resilience as a key consideration in how marginalized communities navigate their identities in rapidly changing settings.

Land's discussion in *Doing Urban History in the Coastal Zone* emphasizes the historical interplay between urbanization and coastal communities[7]. The reclamation projects that reshaped Causeway Bay exemplify the tensions inherent in prioritizing urban growth over ecological sustainability. While modern infrastructure improves trade accessibility, it also contributes to the degradation of crucial marine habitats fundamental to the Tanka's way of life. This raises critical ethical questions about landscape architecture's responsibility to uphold ecological integrity and prompts a reevaluation of urbanism that balances human and environmental needs. The intersection of landscape architecture and urban ecology in this context advocates for an approach that recognizes landscapes as dynamic systems where both anthropogenic and ecological factors are considered[8].

The Tanka's narrative is enriched by how their relationship to maritime spaces informs their experiences, with Mathieson underscoring the vital role of storytelling in understanding these connections.[9]. From spiritual

beliefs to daily practices, the Tanka's historical ties to their aquatic environment reveal how narratives shape urban experiences. Nadel-Klein's exploration of modernity and loss in coastal communities resonates with the Tanka's struggle to reconcile economic change and cultural preservation. The adaptive strategies employed by the Tanka in response to the shifting landscapes of Causeway Bay illustrate the need for an inclusive understanding of landscapes that recognizes the intricate relationships between land and water and integrates cultural narratives, ecological integrity, and community resilience.

Urbanization in Causeway Bay serves as a microcosm of broader trends in colonial urbanism in Hong Kong, highlighting the complex interplay of land reclamation, socio-economic change, and the dynamics of marginalized communities like the Tanka. The area's transformation from a vital maritime space to a bustling urban environment captures the impacts of colonial policies on local populations, necessitating adaptations that altered both the physical landscape and the social fabric of the Tanka community.

The colonial administration's extensive land reclamation initiatives in Causeway Bay epitomize a trend in urbanism focused on enhancing commercial and infrastructural capabilities, thereby positioning Hong Kong as a pivotal trade hub. This transformation of natural shorelines, which once supported Tanka houseboats, into artificial land prioritized urban development, often sidelining indigenous practices and lifestyles. The 1865 Plan of Victoria City exemplifies this shift, showcasing infrastructure designed to optimize land use while disregarding the cultural and ecological significance of the Tanka's maritime environment. Such re-engineering reflects a colonial mindset that prioritized economic development over social equity, resulting in substantial cultural and physical dislocation for the Tanka community[10].

The rapid urbanization of Causeway Bay illuminates the tensions between maintaining cultural identity and adapting to a modernizing environment. The Tanka's spiritual connections to the sea, underscored by their temples dedicated to marine deities, faced significant challenges as urban landscapes replaced their traditional practices. The reclamation of natural habitats led to a considerable loss of biodiversity crucial for their livelihoods. However, the Tanka demonstrated remarkable resilience by adapting to new economic roles within the emerging industrial framework of colonial Hong Kong. This shift from a predominantly aquatic lifestyle to participation in the industrial economy highlights both their adaptability and the complexities of cultural negotiation in response to development pressures. Echoing the themes explored by Nadel-Klein[11], the Tanka's struggle to maintain their identity amidst diminishing access to traditional spaces reflects broader patterns seen in communities tied to maritime environments[12]. This underscores the need for sensitivity to cultural ties in urban planning.

The transformation of spaces like the Bowrington Canal into bustling markets illustrates the Tanka community's adaptability within Victoria's urban fabric while retaining elements of their maritime heritage.

This evolution allowed the Tanka to navigate economic exchanges, fostering community interactions and providing critical access to resources while circumventing discrimination faced in traditional market settings. The canal became a significant site of resilience and cultural continuity, reflecting how urbanization reshaped social dynamics and encouraged new economic engagement. This adaptability is essential to understanding how marginalized communities leverage their unique knowledge and cultural practices to create functional spaces that meet their social and economic needs in the face of environmental changes[13].

The Tanka community's experiences in Causeway Bay reveal the intricate layers of Hong Kong's cosmopolitan identity. As they adapted to urban life, the Tanka enriched the city's cultural diversity. Their extensive maritime skills, including navigation, were essential for the logistics of emerging industrial activities, emphasizing the dynamic interactions between traditional lifestyles and modern economic requirements. The Tanka's ability to adapt to urban changes highlights how marginalized groups can retain cultural significance in the face of external pressures. Their role in the urban landscape illustrates the reciprocal influence of such communities on urban development.

Ultimately, the urbanization of Causeway Bay exemplifies broader trends of colonial urbanism in Hong Kong, characterized by land reclamation and infrastructure development that prioritized economic growth at the expense of indigenous communities like the Tanka. This transformation profoundly impacted the Tanka community, imposing spatial constraints that compelled adaptations and challenged their traditional lifestyles. Despite facing significant challenges, the Tanka exhibited remarkable resilience, managing to preserve their cultural identity within a transforming urban environment. Their experience highlights the capacity for community identity and heritage to endure even amid marginalization. The interaction between urban development and cultural resilience in Causeway Bay illustrates the dynamics of colonial urbanism, underscoring its long-lasting effects on communities striving to balance tradition with modernization.

The Tanka community's navigation of cosmopolitanism amidst the urbanization of Causeway Bay tells a compelling story of resilience, adaptation, and cultural preservation. As urban development dramatically altered their coastal environment, the Tanka successfully leveraged their rich maritime heritage and cultural practices, thereby integrating into the wider socio-economic landscape of colonial Hong Kong.

The Tanka’s connection to the sea was a cornerstone of their identity, providing both livelihoods and spiritual significance. Temples dedicated to marine deities highlight their holistic relationship with water, anchoring communal practices and gatherings. Despite the disruptions caused by urbanization, the Tanka utilized their superior navigational skills and deep knowledge of fishing to adapt to the shifting economic landscape. By assimilating these skills into emerging industrial roles, they managed to preserve their cultural identity while meeting the challenges posed by modernity. Coastal communities like the Tanka can cultivate mutually

beneficial relationships within urban frameworks, enhancing cultural sustainability and facilitating economic interactions[14]. The interaction of land and water, coined by Brand as the "bluespace", can foster vibrant urban spaces accommodating both traditional practices and modern demands[15]. For the Tanka, these changes challenged their aquatic lifestyle as they were pushed towards urban assimilation. Yet, they displayed remarkable adaptability, integrating their maritime expertise into the growing industrial demands of Hong Kong. Their experience highlights how communities facing radical changes can simultaneously strive to preserve their cultural heritage while adapting to new economic realities.

The Tanka's interaction with Hong Kong's cosmopolitan environment illustrates a significant narrative of cultural exchange and identity formation. Their roles in maritime logistics allowed them to participate actively in the emergent urban economy, linking traditional practices with modern industry. The Tanka's involvement in economic opportunities, such as those created by the naval base at Admiralty, not only sustained their livelihoods but also enriched Hong Kong's cultural plurality. The adaptation of the Tanka community also brought notable shifts in social dynamics, particularly with gender roles. The emergence of all-female labor groups, known as "side-parties," illustrated how Tanka women carved out significant roles in the workforce, challenging entrenched gender norms. This evolution reflects the convergence of modernization and cultural practices, wherein women not only retained ties to their maritime heritage but also claimed agency within the evolving economic landscape. Their participation in the labor force underscores the potential for marginalized groups to negotiate their identities amid changing socio-economic structures and promotes new forms of social interaction and community engagement.

The Tanka community's navigation of cosmopolitanism in and out of Causeway Bay exemplifies a complex interplay of adaptation, resilience, and cultural preservation in the face of sweeping urban transformation. By leveraging their maritime heritage and integrating into broader socio-economic systems, the Tanka has maintained a distinct identity amid modernization. Their experiences reflect broader themes of cultural negotiation and transformation within urban environments, emphasizing that cosmopolitan identities can emerge from rich, diverse heritages interacting within increasingly globalized contexts. The Tanka's story is one of resilience, demonstrating their ability to thrive amid change while honoring their historical ties to the sea and preserving cultural heritage in a rapidly evolving urban landscape. This experience enhances our understanding of the complexities accompanying cosmopolitanism and cultural resilience, revealing how such dynamics continue to shape urban identities worldwide.

5. CONCLUSION

The experiences of the Tanka community in Causeway Bay illuminate the intricate interplay between urbanization, cultural identity, and ecological sustainability within the context of colonial Hong Kong. The transformation of Causeway Bay from a vibrant maritime space into a bustling urban center exemplifies the broader trends of colonial urbanism that adversely impacted indigenous communities. This study underscores the importance of incorporating perspectives of the sea, which have often been overlooked in discussions centered on urban development. The Tanka's deep connection to marine environments reveals that seascapes are not merely peripheral to urban discourse but serve as vital components that shape cultural identity, social relations, and community resilience.

The Tanka's enduring relationship with the sea is a cornerstone of their identity, reinforcing the necessity of recognizing cultural narratives as foundational elements in urban planning and management. Their ability to adapt to shifting socio-economic conditions, while striving to maintain their heritage, offers valuable insights into the processes of cultural negotiation within rapidly changing urban contexts. This resilience challenges conventional narratives of urban marginalization, affirming the capacity of communities to influence and enrich the urban landscape, even amid profound transformation.

Moving forward, future research must prioritize the perspectives of the sea, particularly in coastal communities like the Tanka. Investigating the intricate connections between cultural heritage, maritime practices, and urban resilience will deepen our understanding of adaptability and transformation in the face of environmental and social pressures. Moreover, integrating inclusive frameworks in urban planning that acknowledge the significance of both land and water as interconnected elements will enhance the ecological and cultural integrity of urban environments. By fostering interdisciplinary dialogues that foreground diverse cultural perspectives, urban scholars and practitioners can contribute to creating more equitable and sustainable urban landscapes, honoring the histories and identities of all communities. Ultimately, the narratives of the Tanka and similar communities will help promote a richer, more nuanced understanding of urbanism in a globalized world, reinforcing the enduring interplay between culture, environment, and identity in the quest for sustainable urban renewal.

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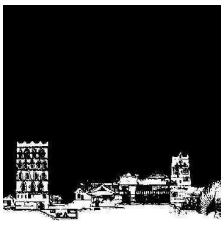

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