# Japanese Colonial City Planning in the Modern Period

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#### Abstract

This paper aims to propose an outline of city planning of Taiwan and Korea in Japanese colonial era. The city planning of Taipei started as the measure to improve sanitary condition. In 1937, the new city planning order that designed the development and control of large region was promulgated. The city planning of Seoul called Keijo at the time, had a purpose to construct straight streets through a traditional city in the early stage. In the 1920s, government office hoped to do away with overcrowding of central area. For the purpose, they thought to have to start the development of suburb residential areas first. Keijo Street Planning of 1936 purposed to execute zoning and land readjustment toward the wide area around Keijo.

#### Keywords

Taiwan, Taipei, Korea, Chosun, Keijo, city improvement, street planning

# The Realization of a Modern City in the Historic City of Kyoto

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#### Abstract

In the modernization process of the historic city of Kyoto, two latent potentials of history became apparent. One is defined by the outside as an image of a modern nation. Another one is inherent in the traditional lifestyle of the Kyoto citizens. In Kyoto both potentials manifested as a great political power and influence in city management of its modernization. In this report, I take up several historical facts related to these two potentials of history and deliberate them. And I refer how these two potentials actually intend to preserve the city in the process of modernization.

#### Keywords

historic city, Kyoto, modernization, city planning

### The Old Town Jakarta : Perspectives on Revitalization, Conservation and Urban Development<sup>1</sup>

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#### Abstract

Globalization affects current urban development, in which discourse on transformation and continuity have been critical over time regarding urban heritage. This has a close relationship with the maintenance of the genius loci as historic urban quarter's aesthetic attribute. Based upon conflicts between development and conservation, this paper argues that conservation requires new critical interpretations, and must be part of the modernization constructs. Thus, planning policy must recognize the existing fabrics and address ambivalences. The Old Town Jakarta reveals how historic urban quarters should address future needs, and respectively cultural diversities and socio-economic dynamics are basis for creating sustainable urban forms.

#### Keywords

globalization, revitalization, conservation, development and Old Town of Jakarta

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### Architectural Identity Challenges of the 21<sup>st</sup> Century Asian Global City Aspirants

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#### Abstract

Global built environment's ability to represent and accommodate multiplicity of architectural identities is an important facet of developing a holistic and place specific built milieu in  $21^{st}$  century. Architecture intervenes, maps and signifies human behaviour, and in so doing, constructs user identities. Similarly, it shapes human perception of spaces through mediating power, social relations and cultural values. Events such as the settlement, inhabitation and establishment of multi-cultural communities involve the occupation of space. Architecture provides the armature of this space its form and its image. Building is a potent means by which identity can be formed. The most significant part of people's well-being and capacity is their participation in building communities. Global cities are characterized by a network of nodes, with concentrated flows of commerce, goods, services, ideas, and cultural images. Within the innumerable external linkages, this review paper assesses architectural identity of Asian Global cities'. It appraises their progress in socio-economic emancipation, aimed at meeting their aspiration for global city status. In their quest for this, these cities competed with each other to attract economic and human resources for building the necessary infrastructural systems, and spaces, by bringing new landscape of interchanges, shopping malls, and entertainment. These cities transformed their environment physically from moderate scaled buildings of minimum cultural assets to reputable iconic mega-structures based on people, product and place orientations, to enhance their reputation among equals on the global scene.

#### Keywords

Asia, Architectural sustainability, Economy, Global Cities, Mega-Structure, Iconic

### Hong Kong 1946-2046: A Hundred Years in the Trajectory of Modernization and Regional Growth

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#### Abstract

This paper examines the different cycles of new town development and reclamation studies from initial strategies for decentralization to current new development areas to facilitate connections with the Chinese mainland. Mapping new town development provides a lens for depicting the patterns of modernization at the urban scale. In 2046, the government will suspend its status as a Special Administrative Region erasing the border between Hong Kong and mainland China. The rapid growth and industrialization along the Chinese border has directly impacted environmental quality requiring cross-border collaborations to address the effects of pollution and strategies for future growth.

#### Keywords

urbanization, Hong Kong, Shenzhen, new towns

### Japanese Implementation of Art in the Public Context during Modernization

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#### Abstract

The concept of exhibiting artwork in a public context appears to have originated in the Western culture. However, the history of art in public context in Asian countries during modernization is rather different although the term "public art" became popular through prominent art in the United States.

This paper reviews the Japanese implementation of art in the public context in comparison with its western counterparts.

In conclusion, public art programs and public artworks in Japan are characterized by three major aspects. These aspects promote Japanese public art and public spaces with artworks to a unique state, unlike in the case of their American or European counterparts.

#### Keywords

Public Art, Japan, Urban Design, Outdoor Sculpture

## Japanese Cultural Heritage as Presented through Contemporary Roles and Uses

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#### Abstract

A variety of conservation implementations in Japan demonstrate attentive concern and active participation of the Japanese Government as much as its people to protect cultural properties as an essential foundation towards the future. This study reviews the Japanese preservation system and then discusses various dynamic roles and contemporary uses of the properties — two contributing qualities considered crucial to reinforce a continued existence of tangible and intangible cultural heritage in the modern context and the sustainable cultural transfer from one generation to another. As acquaintance with ubiquitous artifacts is developed, cultural awareness and pride is gradually cultivated in the general public.

#### Keywords

architectural conservation, cultural properties in Japan, contemporary use, cultural management

### Local Movement in Preservation Districts of Japan Case Studies: Kurashiki, Kumakawa, Obama, Izushi and Ine

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#### Abstract

The system of preservation district for groups of traditional buildings: Denken Seido is one of significant paradigm shift of preservation movement in Japan. The main purpose of this shift is to encourage local residences to manage cultural properties, especially traditional buildings, in their own communities. This study emphasizes backgrounds of local conservation movement during the process of preservation district in four items: cultural values, impulsions of movements, change agents and specific procedures. Five case studies with different characteristics were selected including: Kurashiki, Kumakawa, Obama, Izushi, and Ine. The main findings from this study represent how each stakeholder drove the preservation movements and what are their results. These findings demonstrate the informal procedure in preservation management that advantageous for others especially towns in the eastern world.

#### Keywords

local movement, preservation district, Japan (Kurashiki, Kumakawa, Obama, Izushi, Ine)

### Line of Differences : Boundary Designation for Preservation District : Case Study Japan

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#### Abstract

The trace of old heritage town and urban footprints are being overlay from time to time as the city grows. It is the fabric of woven parcels that represent different period of times and urban characteristics. To preserve some part of the towns or community as a heritage property raise interesting issue on how to specify the superimpose layers of town and urban footprints and preserve part of the town as historic district. How to define the boundary of the preserved area and how it will interact with the rest of the growing city. The scope of the preservation district may reflect back to the characteristic of urban footprint of town and city in presence time as well as future. The boundary of the preservation district and the process of how it could be establish therefore become a significant aspect that will define not only the physical characteristic of the district and town but also the social and community structure as well as the government policies and support for that particular town and district and vice versa.

The purpose of this paper aims to signify the importance of the boundary of preservation district. How the process of defining the boundary of the preservation district become a tool for conservation. The process and factors influence the establishment of the preservation area. What factors that are being used to consider the boundary of area that should be preserved. Why such value in scope or boundary of district preservation is significant to certain groups of benefiter or stakeholder. How would it be comprised and compromised with the forever changing urban morphology of the contemporary era. The paper would take the Japanese's case study as an example of various factors that defined the boundary of preservation district and how it effect the further development of the preservation areas. With the strength in preservation movement in Japan hopefully it would be a good case suggesting the possibilities in applying some useful method and process to different context like Thailand.

The Japanese's preservation system could be a good case study for Thailand in terms of the process of preservation district establishment which mainly derived and developed from local movement rather than international influence or other agenda. The local participant and experts are the keys players in defining the preservation boundary according to the localized significant factors and historical context.

The selected Japanese case studies in this paper aim to exemplify the interesting factors use as the key element to set out the boundary of the preservation district such as geological setting, historical boundary of town and city in certain period of time and physical context of buildings. There is also the case where the boundary of the preservation district expands due to the change of user's attitude over what is valuable to preserve. Hopefully the selected case studies could be applied to use for Thailand's preservation sites.

#### Keywords

Boundary, Boundary of preservation district, Process of defining district's boundary

### Architectural Design Requirement and Financial Support for Conservation in the Preserved District, Japan

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#### Abstract

The ideas for Preservation District for Groups of Traditional Buildings in Japan are to keep the identity and value of the area that shows historical important of an urban development from the past to the present, the governments gain supports to the district by giving financial support including tax deductions and funding as well as providing a guidelines. The beginning of preservation process, a few factors playing important roles are physical environment, social and economic, the roles of the city, people awareness and supports from public and private sectors. They will consider for the potential of the area and the needs of local people before making a decision on a preservation and development plan, which will provide a sustainable preservation and development to the preservation district.

#### Keywords

architectural design, financial support preservation district

### Flexibility and Adaptation : The Strategic Keys to Conserving the Historic "Roji" in Japan

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#### Abstract

Architectural conservation in Japan is interesting not only in terms of conserving tangible urban elements of historic districts, but it is also important in maintaining the ancient Japanese spirit. The scope of this conservation extends to one of Japan's most important historic urban elements - Roji.

The main spatial elements of historic districts and conservation areas in Japan are shaped by old shops, residences and small routes called "Roji" (a type of alley). The Roji is a narrow road which aids circulation through the old town and reflects the economy and society of the past. The spatial form of Roji is determined by the buildings along the sides, eaves, and paving material. These make for a unique and interesting atmosphere which creates an identity that differentiates the Roji from alleys in general.

Nowadays, the unique spatial qualities of Roji are decreasing. One aspect of the Building Standard Act that has an effect on them is the "set back" regulation. This current article will investigate the problems related to this regulation in two well known case studies: the Hozenji and Karahori districts in Osaka.

This article will illustrate a proper method of applying regulations to conservation planning of Roji in historical areas. The two selected cases represent two different conservation strategies, which are: the conservation method of the "directly affected" Hozenji, which relies on the flexibility of regulation; and conservation method of the "indirectly affected" Karahori, which utilizes the incentive scheme of adaptive reuse. In conclusion, the strategies were analyzed the appropriation to the cases.

#### Keywords

Roji, alley, conservation, strategy, Hozenji, Karahori

### Morphological study of the Orchard Settlement in Bangkok and its Vicinity : Emergence period and the Boundary

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#### Abstract

To prove the hypothesis that the orchard settlement in Bangkok and its vicinity had been developed in the lower basin of Chaophraya Delta, along with the development of waterway network since Ayudhya period, the research methodology under this paper is based on the mapping of information appears in various historical documents and maps of Bangkok and its vicinity, resulting in the identification of the followings (1) the typology of waterways, (2) the emerging period of orchard settlement, and (3) the boundary of orchard settlement. The waterways in Bangkok and its vicinity can be classified into the following five types, the former River, the newly emerged River, Expanding Khlong, Short-cut Khlong, and Sub-Khlong. The beginning of orchard settlement in Bangkok and vicinity area could be traced back until 1534. The boundary of orchard settlement could be define from (1) orchard area, (2) distribution pattern of temples, and (3) distribution pattern of waterways, especially expanding and sub-Khlong. It could be considered that the evolution or development of these waterways would lead to the completion of land reclamation for orchard settlement along the back marsh area of the Chaophraya River in Bangkok and its vicinity.

#### Keywords

Bangkok and its vicinity, Historical map, Boundary, Orchard settlement, Khlong, Waterway network

### Morphology of Waterways Network in Pathumwan and Bangrak Districts in 1907

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#### Abstract

In the past, there were a number of waterways in Bangkok such as maenam (river), klong (canal), lam kradong (irrigation channel), rongsuan (orchard ditch), etc. Waterways were used for agriculture, drainage, defense, transportation and land development. Nevertheless, waterways had continuously changed. Settlements along the Chao Phraya River initially occurred on Klong, Lam kradong and Kanad suan. As time went by, moats had been excavated during the early Rattanakosin period. During the modernization period in the reigns of kings Rama 4 and 5, many modern waterways had been excavated; yet, many old waterways were filled up as water transportation grew less popular.

The objective of present study is to clarify the morphology of waterway network, including the main structural features, and significant characteristics of waterways in the study areas by using data from historical map (Bangkok map 1907). In the macro scale, the study focused on two adjacent areas between Pathumwan and Bangrak districts. Originated from the orchard system, both districts were plentifully supplied with waterways and changed continuously. On the other hand, in the micro scale, the research focused on ten selected areas with different morphology of waterways in Pathumwan and Bangrak districts: including Trok Chalong Krung, Wat Hua Lampong, Lumpini, Praisani Klang, Wat Suan Plu, Chong Nonsi, Wat Baromniwas, Charoenphon, Wat Duang Khae, and Siam Square.

The results of the study, firstly, the study reveals that there are four waterway networks in the study area: (1) the waterway network of the Chao Phraya River, (2) the waterway network of Klong Chong Nonsi, (3) the waterway network of Klong Som Poi and (4) the waterway network of Klong Sansab. Secondly, there are five areas that originated from one waterway origin, i.e., Prisanee Klang Area, Chong Nonsi Station Area, Wat Baromniwas Area, Chareonphon Area, and Siam Square Area. The areas originate from two waterways origins are Trok Chalong Krung, Wat Hua Lum Phong, Lumpini, Wat Suan Plu and Wat Duang Kae.

#### Keywords

Waterways network, Klong, Lam kradong, Rong suan, Khanad suan

### Title Deeds, the Map of Bangkok in 1907, and The Cadastral Map in Bangkok UTM in 1992 : The Methodology of the Change Process of Land Parcels in Bangkok

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#### Abstract

In order to understand the current shape of Bangkok, the study of urban morphology is fundamental in reflecting changes of the city's physical elements. The shape of land parcels is a city's physical element which is related to the shape of the city. Thus, the study of the change process of the shape of land parcels can enhance the understanding of the shape of Bangkok.

The study of urban morphology of Bangkok is to analyze changes of the shape of land parcels based on title deeds from 1901 up until the present, the map of Bangkok in 1907, the cadastral map in Bangkok UTM in 1992 as study tools. The objectives of this study are 1) to clarify the source of title deeds in 1907, the map of Bangkok in 1907, and the cadastral map in Bangkok UTM in 1992, 2) to clarify the searching process of the shape of land parcels from title deeds, and 3) to codify difficulties arising from using title deeds as a study tool for urban morphology.

In conclusion, the urban morphology of Bangkok based on the title deeds from 1901 until the present, the map of Bangkok in 1907, and the cadastral map in Bangkok UTM in 1992 has revealed that they are significant tools which can exhibit the physical formats of land parcels and the city, and clarify the analysis of the change process of land parcels regarding to 3 aspects: 1) land holders, 2) land holding payment, and 3) land parcels. However, the limitation of the study is that title deeds of some land parcels are very old and incomplete. Thus, other relevant documents need to be used as a reference instead.

#### Keywords

*Title deeds, the map of Bangkok in 1907, the cadastral map in Bangkok UTM in 1992, land holders, land holding payment, and land parcels* 

### Spatial Formation Process of an Informal Market in an Old Area of Bangkok : A Case Study of Trok-Mo Market

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#### Abstract

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Markets are intensive gathering places for people of all classes. They are formed by the integration of cultural, social, and economic factors. Thus, each market in each country has its own characteristics and identity. A typical South East Asian informal market, Trok-Mo Market is a combination of a group of stalls and shop-houses along an alley. In spite of its recent origin in the 1960s, this market still retains its meaningful social system and spatial characteristics, the result of market people's compromise and adaptability.

This study aims to clarify the following subjects: (1) History of Trok-Mo Market (2) Spatial order and Spatial usage in Trok-Mo Market. An analysis was made based on field observations carried out from November 2008 to April 2009, along with data collected through participant observation, informal interview, mapping, field notes, photos and sketches.

It is clear that there is a consensus between stall owners and the owners of the shop houses for spatial division of stalls in front of each shop house. Therefore, the spatial features of stalls vary periodically, due to (1) negotiation between stall owners on the same plot for sub spatial division (2) daily time-sharing for each stall, and (3) type of merchandising goods. Thus, each stall owner would have to consider the whole logistical system and design their stalls to fit the provided-space. As a consequence, the spatial usage of stalls in Trok-Mo Market have five characteristics: shared space, flexible space, changeble space, small space and multi-dimensional space.

#### Keywords

Informal market, Spatial formation, Spatial usage, Trok-Mo, Bangkok

### **Transformation of Core Housing (1984~2009) at Tung Song Hong Settlement in Thailand**

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#### Abstract

This study clarifies the transition of Core Housing units at Tung Song Hong (TSH) Settlement. It was constructed in late 1970s. The study focuses on two points that is transition of the settlements and residents, and use of advantage of Core Housing. It is found that settlements have been developed both physically and socially through residents' continuous living. Despite the fact that there was lack of management system to support residents' self-build activities, each unit is well maintained until now. There is system to support continuous living and regenerating of the settlements.

#### Keywords

Core Housing, extension, transformation, housing planning, Thailand

### The Study of the Tha Chin Basin Boundaries and Overlapping Territories from the Government Sectors' Maps

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#### Abstract

This study aims for searching the boundaries and the overlapping territories of the Tha Chin basin from the different sources of maps. These maps belong to the different government sectors which individually take in charge in the specific contents. The study is to accumulate the maps from the different government sectors, overlaying and analyzing these maps to find the boundaries and overlapping territories. The boundaries from overlaying will not only be sorted by similar or different shape but also will create the area of overlapping territories.

#### Keywords

The Tha Chin basin, government sectors' maps, similar boundaries, ambiguous boundaries, overlapping territories

### **Traditional Extension of Form in Luang Prabang Traditional House and Contemporary Adaptation**

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#### Abstract

This paper discusses socio-cultural factors and their relation to construction and adaptation of traditional house on stilt so called Huen-Haan in Laung Prabang World Heritage site. It argues that, the construction and adaptation of the house was traditionally carried out with modular system. The complex forms of Huen-Haan conjoin annex units to the core unit in a specific pattern that conforms to socio-cultural context involving with spiritual belief, social hierarchy, community bonding and control of the royal palace. Understanding of these factors would shed light onto appropriate design of house form, and guideline for conservation and adaptation of house form.

Upon examining the historical development of architectural forms in three case studies, explicit relationship of socio-cultural, political issue and the house extensions is unveiled. Huen-Haan consists of main building so called Huen-Gnay, core unit that was usually combined with different annex units such as Sia, Huen-Fay-Kwang, Huen-Fay or Hong-Koi, Hong-Naa, Huen-Noi. Most of final forms of existing Heun-Haan share certain degree of similarity. The logical combination of those modular units derived from status of house owner in social hierarchy system, spiritual beliefs and cultural traditions. Architectural order of the house extensions are 1) male's space is located to the front and female's is to the rear part of the house, 2) parents were morally in a higher position than their children who must pay respects to the elders, 3) Huen-Gnay, main building under simple-roof is normally parents' space, 4) family members were socially considered in a higher position than servant and 'unfamiliar' guest for whom specific areas in the Huen were arranged, 5) Sia, a semi-opened space was for male servants and unfamiliar guests, Huen-Fay-Kwang for female servants, Hong-Naa and Huen-Noi were for son or marriage children.

#### Keywords

Luang Prabang, Traditional House, Lao House, Family and House, House Extension, Modular Unit, Cultural context, Spiritual belief, Social hierarchy, Community bonding, Royal palace

### An Overview of Fireproofing Coating Materials for General Steel Constructions in Japan and Remarks on Ceramic-based Endothermic Fireproofing Coating Material

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#### Abstract

Steel constructions are designed to maintain the strength of structure over a certain period in case of fire by coating their steel parts with a fireproofing material. Conventional materials, however, sometimes contain fibrous substances such as asbestos and rock wool having negative influence to human body, and several tens of millimeters in thickness impairs the spatial efficiency as well as the appearance with its grayish color. "Ceramic-based Endothermic Fireproofing Coating Material" covers such demerits of conventional one, and it has been used for almost 25 years with good reputations. This paper shows the standard of fireproofing, test methods, and types of the materials.

#### Keywords

Fireproofing Coating, Negative influence to human body, Endothermic Reaction, Dehydration, Evaporative latent heat effect

### Window Design of British Colonial Residential for Natural Ventilation & Daylighting

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#### Abstract

In the hot and humid climates of Malaysia, overheating is a paramount problem in residential buildings. Openings play a major role in determining the thermal comfort of the occupants as their location and size determine the heat gain of building. Traditional architecture is examples of a sensitive approach energy consciousness for indoor comfort conditions and it should be rediscovered, extracted and utilized in creating contemporary architecture. In this paper, 3 selected British Colonial residences in Kuala Lumpur, Malaysia were presented as example to explore and approach, which uses Window to wall ratio to evaluate the efficiency of existing window design.

#### Keywords

overheating, traditional architecture, passive cooling, thermal comfort, heat gain

### Formulation of Architectural Design Guidelines for Technological Universities in Myanmar

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#### Abstract

In Myanmar, building the technological university in each development zone is an important strategy according to the national education development plan. The technological universities are institutions, which confer both bachelors and advanced degrees in the technological fields, usually stressing on graduate study, research and professional training. The functional requirements, the space allocation and area requirements are formulated for designing new buildings or renovation existing buildings. The result is contributed by formulating architectural design guidelines in order to assist in the process of designing technological university academic buildings and preparation of accommodation schedule which is appropriate for Myanmar context.

#### Keywords

Academic Building Space, Design Guidelines, Educational Facilities, Functional Requirements, Spatial Composition