A STUDY OF HISTORIC QUARTER STREETSCAPES BASED ON TYPOLOGY OF TOURIST-ORIENTED ACTIVITY—A CASE STUDY OF GEORGE TOWN AND HANOI—

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This paper studies the streetscapes of George Town (Malaysia) and Hanoi (Vietnam) through typology classification of tourist-oriented activity in these historic cities. The typology classification is based on a combination of the following criteria to define the type of tourist-oriented activity, which is considered a factor in the transformation of historic quarters’ streetscapes: business activity elements, primary target market, secondary target market, and additional services provided. The study then examines the sustainable planning strategies and streetscape guidelines of rapidly changing historic quarters in Asian countries caused primarily by tourism activities. Thus, it is necessary to determine the current condition of historic quarters’ streetscapes through the view of tourism-oriented activities. This study has two objectives: (1) propose a unique typology composed of various business elements and current activities, and (2) identify the current condition of two streetscapes in historic quarters (George Town and Hanoi) according to this typology. Results revealed that there were both similarities and differences between George Town and Hanoi, as evidenced by the use of the proposed typology based on streetscape elements. Differences were found to be due to the application of the conservation methods, as well as implementation of policies related to each quarter’s tourism economy. Both areas have been similarly impacted by tourism activities, which are considered the main factors for streetscape formation, directly reflected by current activity and façade elements.

Key Words : streetscape, typology, tourist-oriented activity, historic quarter

1. INTRODUCTION

(1) Research background

Rapid population growth is increasing the pressure on Asian countries to rehabilitate and revitalize older inner-city areas in an effort to preserve cultural assets. While many Asian countries have aggressively developed unique strategies for heritage conservation activities, others have struggled with determining which sustainability approach to use when developing these older inner-city areas as urban heritage sites. Rehabilitation and regeneration of historic city centers have been increasingly recognized as efficient tools for urban development because they enable a synthesis of cultural values with economic opportunities and benefits. Notably, tourism has become a primary generator of local economy, promoting these quarters and creating job opportunities, earning much-needed foreign exchange, and contributing to the conservation of cultural resources1). While this has resulted in miscellaneous business activities being developed in these areas, the inflows of external capital and gentrification have negatively impacted some areas. Gentrification impacts include a loss of social diversity, community resentment and conflict, and displacement due to rent or other price increases2). Over-exploitation of local cultural resources to meet the needs of tourism activities can lead to a loss of authenticity within historical quarters. Hence, it is necessary to examine the relationship between socio-economic mecha-
nisms and the transformation of streetscapes when considering conservation methods for historic environments suffering from the impacts of tourism.

(2) Literature review

a) Studies on utilizing cultural heritage resources to revitalize historic areas and determine their characteristics

Treating cultural heritage assets as products for tourists’ consumption has been discussed theoretically in previous studies, as has the creation of heritage and cultural tourism networks for socio-economic development, and challenges in developing these cultural tourism assets as products. Additional studies define cultural heritage resources and characteristics of an area on a regional scale by using case studies from Japan that take a geographical viewpoint.

b) Studies on cultural heritage tourism and its impact on historic areas

Rapid development of cultural heritage tourism has impacted historic areas in various ways. For example, some studies have identified how the impact of tourism has affected residents and traditional values, both of which have changed in historic quarters, and determined the socio-economic impact of tourism on World Heritage Sites. In addition, the spatial and social impact on cities after being registered as World Heritage Sites (i.e., essentially being transformed into tourist destinations) have been clarified. The formulation process and structural features of historic conservation systems have also been reviewed in comparison with the enactment and implementation of policies in Hoi An Ancient Town.

c) Studies on methods used to analyze streetscapes and townscapes

Some previous studies have defined the importance and effectiveness of using elements of semiotic language in tourism marketing, while others determined characteristics of streetscapes and townscapes through facade elements analysis. The semiotic methodology applied in analysis of streetscapes and townscapes has been considered one of the more significant methodologies for streetscape analysis. To analyze the physical streetscape in detail, a set of textual streetscape reading methods categorizes all of the buildings’ detailed physical elements. Analyzing a streetscape in terms of retail sections of the street such as message delivery from façade elements, reveals characteristics of the retail streetscape from the communication point of view. Previous studies have identified 12 types of business activities that were categorized according to products by using the semiotic method. This shows the different significant characteristics used in delivering information to potential consumers. Meanwhile, recognition of humans within the streetscape and their interpretation of the messages conveyed by the retail sections of the street are also being studied.

Many previous studies on popular Asian tourism regions have been based on limited resources, and analyses have been inadequate in relating the impact of tourism activity on historical quarters’ streetscapes, especially in developing Asian countries. Therefore, this study focuses on detailed façade elements and business activities to examine and understand the formulation of current streetscapes undergoing rapid growth due to increased tourism activity and its resulting impact.

2. RESEARCH OBJECTIVES AND METHODOLOGY

(1) Research objectives

This study reviews the sustainable planning strategies and streetscape guidelines of historic quarters in Asian countries undergoing rapid change as a result of tourism activity. Thus, it is first necessary to determine the current condition of streetscapes in these historic quarters. The two primary objectives of this study are as follows:

1) Present a unique typology that is composed of various building elements and current activities.
2) Identify the current condition of streetscapes in historic quarters according to this typology.

(2) Study areas

The study areas were selected based on their unique historic background and the alteration of their economic forms to support both domestic social needs as well as current tourism needs, the latter of which is considered a primary factor in transformation of the local streetscape. George Town and Hanoi were selected for this study because of their similarities as colonized regions, building types (shophouses), and building scale. Their differences include how they approach and implement cultural heritage preservation activities.

As the third economic center of Malaysia, George Town, the capital of Penang, was established by the British as a main entry port in Southeast Asia. George Town has since transformed from a small fishing village to a city that subsists on tertiary-based industry (e.g., medical tourism). Its population is estimated at 500,000 (2010) within an area of 1,048km². In addition, the secondary-based industry of manufacturing is also prominent within the city and is a hub for electrical and electronics manufacturing. Meanwhile, Hanoi has an estimated population of 7,000,000 (2014) in an area of 3,345km².
making it the second-largest economic center of Vietnam. Services make up the largest percentage of the city’s gross domestic product, followed by industry-construction and agriculture-forest-fishery industries.

While both cities differ in size and resident population, they share common aspects within their economies. For example, the services industry is the major economic contributor for both, especially tourism activity, which plays an important role in generating the local economy and revitalizing the inner city area. The number of international tourists who arrived in Penang in 2012 was ~3,000,000; meanwhile Hanoi recorded about 8,000,000 arrivals of international tourists in 2015. Fig. 1 shows the locations of George Town and Hanoi.

Table 1 shows various perspectives of the streetscapes of both George Town and Hanoi.

(3) Research Framework
Although regulations have long existed regarding buildings’ physical elements and heritage conservation in almost all Asian regions, little attention has been paid to surface or movable elements such as signage, display information (e.g., banner, menu), display samples, and decoration, all of which are considered main features when formulating the streetscape. Determining the effects from these movable façade elements on tourist-oriented activities could indicate the intention of businesses as well as the characteristics of entire streetscape in historic quarters. Fig. 2 shows the typology of tourist-oriented activities and their various composition elements concerning façades or ongoing physical elements and activities. The research framework is based on the target market and potential market by investigating the product or service provided by each business operator, targeting either visitors/tourists or residents of the local community. For example, tourist-oriented products will be marketed to be attractive to out-of-towners but at the same time may also meet the social needs or leisure aspirations of locals. Classification of each category began with defining the style of business activities as one of two main groups: domestic or universal. The primary market targeted by each business was defined by its primary business mode. Groups of consumers, either residents of the local community or visitors, were the primary factor in forming the pattern of business activity. Nevertheless, as a business investor, casting a wide target market is ideal to generating maximum revenue. Intention to expand the target market or the potential of the business in general was determined from the additional services targeting a secondary target market, which are indicated by additional products or services, information displayed, or alterations in shop design.

Table 1 Streetscapes of study areas in George Town and Hanoi.
This study proposed 16 types of business activities, categorized by determining the primary business mode and any additional secondary target markets, which can be used as the typology of streetscape elements. Table 2 and Table 3 show the definitions and examples of each streetscape element for I) Primary business mode and II) Additional services for secondary target markets. Tourism prec- cinct characteristics are unique in different areas and regions; as such, through the analysis of streetscapes by using the typology in Fig. 2, characteristics of each tourist-oriented activity and non-tourist-oriented activity in the area could be identified. This typology is aimed at detecting the detailed changes of a place by referring to the elements mentioned above (e.g., the conversion of residential to commercial districts and the change from business activity to other activities) and collecting data consistently within a defined survey period.

(4) Research method

a) Site survey

A site survey (Table 4) was conducted by collecting data on movable elements on façades as well as current use of buildings in both George Town and Hanoi. Table 5 shows the details contained in the prepared survey sheet. In addition, a front-view photo of each building was taken as data evidence. Tourist-oriented activities were also identified during the site survey by engaging local people or business owners in short interviews about the business target market and business activities to avoid subjective judgment by the surveyor.
### Table 2 Definitions of streetscape elements (I. Primary business mode).

| a. Business elements: Style and image of business activity | Traditional | Non-traditional (locality) |
|------------------------------------------------------------|-------------|---------------------------|
| i. Domestic element business activity                       |             |                           |
| Business activities in traditional or non-traditional (locality) elements. | ![Traditional Retailing](image1.jpg) | ![Non-traditional (locality) Retailing](image2.jpg) |
| ![Handmade Lacquer Craft, Hanoi](image3.jpg) | ![Aquarium Shop, George Town](image4.jpg) |
| ii. Universal element business activity                      |             |                           |
| Business activity that would be presented in a similar style or element throughout the world (i.e., not only available in the local area) and/or activity that has strongly penetrated the foreign element following the pace of globalization. | ![Traditional Retailing](image5.jpg) | ![Non-traditional Retailing](image6.jpg) |
| ![Outdoor Equipment, Hanoi](image7.jpg) | ![Model Shop, George Town](image8.jpg) |
| b. Primary target market: Priority consideration of business operator to fulfill demand as business revenue factor. |             |                           |
| i. Local community                                           |             |                           |
| People who are residing or working locally depending on activities surrounding daily life are the primary target market for these business activities. | ![Retailing](image9.jpg) | ![Service](image10.jpg) |
| ![Home Deco, Hanoi](image11.jpg) | ![Dental Clinic, George Town](image12.jpg) |
| ii. Visitors                                                 |             |                           |
| People who are visiting the place during a trip, have travel experience at the place, or are visiting for the purpose of getting certain items or services are targeted as the primary target market for these business activities. Visitors can be domestic tourists or international tourists. | ![Retailing](image13.jpg) | ![Service](image14.jpg) |
| ![Souvenir Shop, George Town](image15.jpg) | ![Foot Massage, Hanoi](image16.jpg) |
**Table 3 Definitions of streetscape elements (II. Additional service for secondary target market).**

| c. Secondary target market intention: The target market that is not the priority in fulfilling market demand but yet still considered by business operators to expand the business market by providing additional services. |
|---|
| i. Local community |
| People who are residing or working locally depending on activities surrounding daily life are targeted as secondary target market for these business activities. |
| ii. Visitors |
| People who are visiting the place during a trip, have travel experience at the place, or are visiting for the purpose of getting certain items or services are targeted as secondary target market for these business activities. |
| d. Additional services: Additional product or service provided or sold to secondary target market other than primary target market. |
| i. Product or/and service |
| Additional product or service other than the products or services that are part of the primary business mode. |
| (e.g., Traditional medicine store places craft products in front of shop for selling; stationery shop provides money exchange service) |
| (Bicycle shop provides post card and T-shirt selling service, George Town) |
| (Local element restaurant provides some Western food choices, Hanoi) |
| ii. Information or/and shop design |
| Ordinary business activities without additional product or service, but the shop design serves as the attraction to secondary target market, other than focusing only on attracting their primary target market. |
| There are four types of elements examined in the study: |
| - Signage |
| - Information |
| - Sample |
| - Decoration |
| Language type, which is used on signage (shop name) and display information (menu, banner) can identify the target market intention: |
| a. Local language only ⇒ Mainly local community |
| b. Foreign language only ⇒ Mainly visitors |
| c. Mix of local and foreign languages ⇒ Local community and visitors |
| (Gallery café, George Town) |
| (Restaurant and café, George Town) |
| (Foot massage, Hanoi) |
| (Shoe shop, Hanoi) |
| (Foot massage, Hanoi) |
| (Snack shop, George Town) |
| iii. Both product or/and service and information or/and shop design |
| Providing additional product or service with the intention of attracting the secondary target market by displaying additional information and showing this effort in shop decoration or design. |
| (e.g., local cuisine restaurant provides Western fast food choices, menu and related information in foreign language) |

From the data collected via the checklist, classification is categorized according to the hierarchical structure in Fig. 2.

b) Secondary data collection

Secondary data were collected from related municipal departments such as the urban planning department, heritage conservation bodies, community organizations, as well as local universities, libraries, or archive departments. The following documents were reviewed for both study areas during both preliminary and after-survey analysis: (1) Cultural heritage conservation history, streetscape guidelines
and planning regulations, (2) Streetscape and building use related to survey and studies.

(5) Characteristics of study areas

a) George Town, Penang

George Town was placed on UNESCO's World Cultural Heritage List on July 7, 2008, together with nearby Melaka City. Designated core zones and buffer zones have been identified to preserve heritage buildings within the core heritage zone comprising an area of approximately 109.38 ha. The study area for this research was selected based on the location and historic background of 220 lot shophouses in George Town. Well-preserved, pre-war shophouses are utilized during festivals and other cultural events. Adaptive reuse of historical buildings is a primary method to preserve heritage while also promoting new leisure and entertainment elements that support the needs of visitors. The fusion of local culture and colonial style, contemporary design, and invented themes and images has become a popular tactic to attract visitors, especially those of the younger generation. Notably, buildings have been converted to cafés, restaurants, hotels, and budget guesthouses. Themed cafés and restaurants either retain the traditional heritage style of the physical structure or integrate contemporary design into their operations.

b) Ancient District, Hanoi

The Hanoi Ancient District is a 1,000-year-old quarter of the city. It comprises 36 streets that were originally a group of workshop villages surrounding the royal palace. This district has been an important marketplace since the French colonial period. In 1995, in order to preserve and restore valuable cultural heritage in Ancient Quarter, a project management board was established. After being designated a National Historic Heritage Site in 2004, the area has become primarily based around tourism. Since 2011, when the 2020 General Plan was amended to include heritage protection as a principal objective, this area has been substantially revitalized, both spatially and economically. The selected study area consists of 294 buildings and tube-houses. Its strategic location, between Hoan Kiem Lake and St. Joseph Cathedral, has attracted a large volume of daily visitors, making it Hanoi’s busiest tourist spot. Its unique streetscape has since become an attraction for visitors, bringing prospective customers to local retailers. In short, the transformation of some historical buildings into long “shopping strips” has boosted tourism and indirectly encouraged small- and medium-sized businesses to take root in the quarter (Table 6 and Table 7).

3. DATA ANALYSIS AND RESULTS

(1) Categories of tourist-oriented activity in study areas

Results show that George Town has only four types of activities categorized by the typology proposed in this study, while Hanoi has 14 types (Table 8). There are both similarities and dissimilarities in the activity trends in each area.

a. Similarities:

1) Number of domestic elements business activity in both areas is relatively higher than universal elements business activity.
2) Both areas focus on their primary target market rather than secondary target markets.
3) Tendency to provide additional services for secondary target market is geared toward visitors rather than those in the local community.

b. Dissimilarities:

1) Local neighborhood as primary target market is more prominent in George Town, but Hanoi seems to primarily target visitors.

George Town has 52 activities identified as domestic element businesses (i.e., Malaysian element) for the local community for category A1. This category is ranked second-highest in Hanoi (59) while the highest is category B1 (134).

Table 4 Site survey location and observation period.

| Site                  | Survey Quantity | Date               | Time       |
|-----------------------|-----------------|--------------------|------------|
| George Town, Penang   | 220 Buildings   | 14-18 September 2014 | 3pm-6pm   |
| Ancient District, Hanoi| 294 Buildings  | 9-12 November 2014  | 10am-1pm   |

Table 5 Data collection checklist.

| I) Primary Business Mode |
|--------------------------|
| a) Business Element     |
|   - Domestic Element Business Activity |
|   - Universal Element Business Activity |
| b) Primary Target Market |
| c) Additional Service for Secondary Target Market |
| d) Additional Service (Multiple Choice) |

| II) Additional Service |
|------------------------|
| a) Product or/and Service |
| b) Information or/and Shop Design |

Language of Signage: Language of Information:
- Local language Only
- Foreign language Only
- Mixed of local language and foreign language

Detail: Detail:
Table 6 Study areas and locations.

| Location Map | Study Area |
|--------------|------------|
|              |            |

Table 7 Rehabilitation and conservation initiatives and intentions in George Town and Hanoi.

| Cities                 | Rehabilitation and Conservation Initiatives and Intentions | Entities Involved | Method                                                                 | Preservation Type                                                                 | Achievements and Current Status |
|------------------------|----------------------------------------------------------|-------------------|----------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------|
| George Town, Penang    | Implementation of KOMTAR, an ambitious urban renewal scheme. Demolition of 11 acres largely comprised of traditional shophouses to make way for new development. | Heritage conservation organizations, etc. Local government Stakeholders | Restrictions by rules and enactments. No building structure shall be altered or demolished if there is any conceivable way of preserving it in its original or current condition. Emphasis on the living environment at heritage sites through the preservation of physical structures and living activities in designated zones. | Interim conservation zones to facilitate multicultural living environments. | 2008 World Heritage City        |
| Ancient Quarter, Hanoi | Heavy immigration from rural provinces during and after the wars of independence has increased the population density and has threatened heritage buildings. | Local government Local community | Regulations were established; a preservation plan was included in the development plan Reduction of population density. Improvement of infrastructure. Relocation of squatter housing and protection of the environment. Restriction of the average construction height to 2–3 stories and limitations on the number of approved high-rise buildings. | Encouragement of the economic, rather than merely residential, utilization of buildings. | 2004 National Historic Heritage Site Tourism-based heritage area |

Source: Teh, Y.S. Sasaki, Y., 2014
Generally, intention of expanding the business activity mode by offering additional products or services for a secondary target market in George Town was relatively lower than in Hanoi. Hanoi is not only providing additional services by adding new products or services geared toward a secondary target market but is also aggressively attracting the secondary target market with additional information and shop design (i.e., façade movable elements). In Hanoi, featuring the famous and historically significant handmade silk products and tailoring services, most traditional Vietnamese shops are concentrated in the northern part of Hang Bong Street. Universal element business activities are evenly mixed along Ly Quoc Su Street, Hang Trong Street, and Nha Tho Street. Meanwhile in George Town, domestic element business activities are mainly distributed along Armenian Street, Acheh Street, and Cannon Street, and most of these are small-scale business activities. Larger-scale activities such as wholesale and import/export trading is concentrated along Beach Street, which is the main road connecting the northeast and southeast parts of George Town (Fig. 3).

(2) Typology of streetscape elements based on tourist-oriented activity categories

Table 9 shows examples of building and frontage condition by activities in each category. Typology of streetscape elements based on tourist-oriented activity categories is highlighted by the emprise of the street. Examples that correspond with the typology of streetscape elements present the characteristic in each category.

a) Categories A and C: local neighborhood as primary target market

A family-run barbershop in George Town is a typical example of A1. Differences between modern hair salons and barbershops are that the latter incorporate traditional and inherited practices in their services, reminiscent of an old-fashioned lifestyle. Activity in category A1 might be facing the risk of surviving under the impact of tourism and era change; however, it also represents the priceless cultural identity of the area. Unlike A1, activities in the A2 category tend to make changes to survive and serve secondary target markets rather than only their primary one. A local tailoring shop in Hanoi has added the sale of handicrafts to its business, rather than only offering tailoring service for those in the local community. This is a survival strategy, by matching the changes of the local economy and taking advantage of the tourism boom. Additional information (A3) on the façade, such as the inclusion of foreign languages, while retaining the former elements of activity also reveals the potential to target a secondary target market, although it might eventually face limitations in expanding the activity content, etc.

| Category | George Town | No. |
|----------|-------------|-----|
| A1       | Domestic element business (Malaysian element) for local community | 52  |
| A2       | Domestic element business (Malaysian element) mainly for local community, but add on element (by Product or/and Service) to attract visitors | 4   |
| B1       | Domestic element business (Malaysian element) for visitors | 38  |
| D1       | Universal element business (non-Malaysian element) for visitors | 13  |
|          | Residential and Others (Community, Religious, Closing, Vacant, Unknown) | 113 |
| Total    | 220         |

| Category | Hanoi | No. |
|----------|-------|-----|
| A1       | Domestic element business (Vietnamese element) for local community | 59  |
| A2       | Domestic element business (Vietnamese element) mainly for local community, but add on element (by Product or/and Service) to attract visitors | 3   |
| A3       | Domestic element business (Vietnamese element) mainly for local community, but add on element (by Information or/and Shop Design) to attract visitors | 10  |
| A4       | Domestic element business (Vietnamese element) mainly for local community, but add on element (by Both Product or/and Service & Information or/and Shop Design) to attract visitors | 114 |
| B1       | Domestic element business (Vietnamese element) for visitors | 2   |
| B2       | Domestic element business (Vietnamese element) mainly for visitors, but add on element (by Product or/and Service) to attract local community | 3   |
| B3       | Domestic element business (Vietnamese element) mainly for visitors, but add on element (by Information or/and Shop Design) to attract local community | 2   |
| B4       | Domestic element business (Vietnamese element) mainly for visitors, but add on element (by Both Product or/and Service & Information or/and Shop Design) to attract local community | 2   |
| C1       | Universal element business (non- Vietnamese element) for local community | 1   |
| C2       | Universal element business (non- Vietnamese element) mainly for local community, but add on element (by Information or/and Shop Design) to attract visitors | 3   |
| C3       | Universal element business (non- Vietnamese element) mainly for local community, but add on element (by Both Product or/and Service & Information or/and Shop Design) to attract visitors | 1   |
| D1       | Universal element business (non-Vietnamese element) for visitors | 29  |
| D2       | Universal element business (non-Vietnamese element) mainly for visitors, but add on element (by Information or/and Shop Design) to attract local community | 1   |
| D3       | Universal element business (non-Vietnamese element) mainly for visitors, but add on element (by Both Product or/and Service & Information or/and Shop Design) to attract local community | 4   |
|          | Residential and Others (Community, Religious, Closing, Vacant, Unknown) | 32  |
| Total    | 284         |
It is notable that, in Hanoi, there is a traditional, family-run Vietnamese restaurant that shows its intention to meet the needs of visitors by adding product/service and additional information to aggressively attract visitors (A4). Various types of customers—both local and visitors (especially Westerners)—highlight the dynamic range of business activity. Examples of traditional Vietnamese restaurants for A1 and A4 in Hanoi have shown a completely different intention from just their target market, although activities in A1 and A4 show similarity in their business elements. Activities in categories C1, C3, and C4 that are available in the Hanoi study area reveal the influence of globalization on the local community. An overseas-branded mobile device shop is a typical example of C1, which is a universal element of business activity by targeting only those in the local community. An example of C3 is a Korean restaurant operated by local people that mainly targets customers from the local community while providing Korean language on display menus for Korean visitors and also in marketing images. Meanwhile, a wine shop in category C4 provides additional products, as well as display information targeted to visitors.

4. DISCUSSION

Typology based on streetscape elements has indicated both similarities and differences in streetscape characteristic patterns in George Town and Hanoi. For example, building façades in Hanoi are composed of small portions, and each shows a different face or character facing street; however, George Town generally presents a less detailed consistency in façade expression. Both areas have been similarly impacted by tourism activities, which is directly reflected in current activities and façade elements. However, differences between the areas are due to the varieties of methods applied in conservation and implementation of policies related to each quarter’s tourism economy. Integration of building architecture management and guidelines for façade element control are two of the methods used to preserve the historic streetscape in George Town. Hanoi authorities initiated an architecture management plan for heritage buildings in 2005, but there is
Tourism activity is putting pressure on Hanoi to stimulate the local economy; meanwhile, the Conservation Guideline for heritage shophouses in George Town has already been implemented to control the exploitation of heritage architecture as well as façade elements. Similarities can be found in the agglomeration of business activities in both areas. Concentration of a certain type of activity, such as retailing and services geared toward visitor use, has shown the intention of transforming the activity style within a particular streetscape area. Business activities are competing to attract the target market, and this is reflected through the streetscape as well.

Table 9 Typology classifications and example of the cases in both study areas.

| Domestic Element Business Activity | I) Primary Business Mode | II) Additional Service for Secondary Target Market |
|-----------------------------------|--------------------------|-----------------------------------------------|
|                                   | Product or/and Service   | Information or/and Shop Design                |
|                                   | Both Product or/and Service & Information or/and Shop Design |
| a) George Town                   |                          |                                               |
| I) Secondary target market: Visitors |
| A1                                | Barbershop              | Bicycle repair shop                           |
|                                   | Add on: T-shirt and postcards; bicycles for rent. |
| II) Additional service for secondary target market |
| A2                                | Not available in case study of George Town |
| A3                                | Not available in case study of George Town |
| A4                                | Not available in case study of George Town |
| B1                                | Souvenir and traditional snack |
| B2                                | Not available in case study of George Town |
| B3                                | Not available in case study of George Town |
| B4                                | Not available in case study of George Town |

Universal Element Business Activity

| Universal Element Business Activity | I) Primary Business Mode | II) Additional Service for Secondary Target Market |
|-------------------------------------|--------------------------|-----------------------------------------------|
|                                     | Product or/and Service   | Information or/and Shop Design                |
|                                     | Both Product or/and Service & Information or/and Shop Design |
| a) George Town                     |                          |                                               |
| I) Secondary target market: Visitors |
| C1                                 | Bar                      |                                              |
| C2                                 | Not available in case study of George Town |
| C3                                 | Not available in case study of George Town |
| C4                                 | Not available in case study of George Town |
| II) Additional service for secondary target market |
| D1                                 | Not available in case study of George Town |
| D2                                 | Not available in case study of George Town |
| D3                                 | Not available in case study of George Town |
| D4                                 | Not available in case study of George Town |

Table 9 continued...
### Hanoi

#### Domestic Element Business Activity

| I) Primary Business Mode | II) Additional Service for Secondary Target Market | Product or/and Service | Information or/and Shop Design | Both Product or/and Service & Information or/and Shop Design |
|--------------------------|---------------------------------------------------|------------------------|-------------------------------|-------------------------------------------------------------|
| A1                       | i) Secondary target market: Visitors              | Traditional Vietnamese food | Local tailoring Add on: Handicrafts | Traditional Vietnamese restaurant Add on: Fast food choices and sign in foreign language |
| B1                       | ii) Secondary target market: Local Community     | Traditional handicraft shop | Handicraft shop Add on: Additional of local Sim cards | Sophisticated Vietnamese restaurant Add on: Vietnamese language on menu |
| C1                       | i) Secondary target market: Visitors              | Overseas branded mobile device shop | Korean restaurant Add on: Korean language on menu | Liquor store Add On: Information in foreign language and postcards for sale |
| D1                       | ii) Secondary target market: Local Neighborhood   | Western food restaurant | Locally made French-branded perfume Add on: Banner in Vietnamese language | Western food restaurant Add on: Menu in Vietnamese language and local dishes |

**Dashed-line frames indicate the focus element on the building façade.**
- Red-dashed frames indicate product or/and service.
- Yellow-dashed frames indicate information or/and shop design.

Not available in case study of Hanoi
This typology, then, can be considered to have determined the streetscape’s current condition from the viewpoint of socio-economic factors, focusing on the impact of tourism activities.

5. CONCLUSION

(1) Findings
This study on historical quarters’ streetscapes by proposing a unique typology based on the target market and additional services provided from the viewpoint of tourism impact has resulted in the following:

a. Evidence that movable elements on building façades and additional services provided have contributed to the dynamic formation of the streetscape. The impact of tourism activity can be determined by using this methodology to examine changes to the streetscape (i.e., considering a business’ target market, business activity, and building façade movable elements).

b. Classification of streetscape patterns in both areas (based on the proposed typology by considering both the primary target market and secondary target market) has presented the current condition of streetscapes in the historic quarter of George Town and Hanoi and reveals how this typology has determined its current condition.

(2) Research Prospects
Streetscapes depend significantly on seasonal factors such as weather and peak tourist-travel periods; therefore, a different survey period may produce different results. As such, the consistency of the study results should be considered only against surveys with similar seasonal factors; however, by referring to this method, the dynamic changes in streetscapes as a result of tourist activity, as well as their characteristics can be derived during various periods of time. Thus, surveys performed during a certain period can indicate changes in an area’s streetscape and be compared with other areas. It can be used as a reference for discussions regarding guideline proposals and restriction implementation in controlling the entire streetscape in historic quarters based on business activity, especially to determine the impact of tourism activity in an area.

For example, in Hanoi, heritage building preservation is generally implemented within the designated heritage areas (e.g., central sector of the Imperial Citadel of Thang Long), as well as for certain significant French-colonized style heritage buildings. This same preservation, however, is not applied to the old shophouses in Ancient Quarter, which are viewed with historical and vernacular ambience. This methodology could be incorporated into architecture management plans not only for certain heritage buildings, but also applied to old shophouses in Ancient Quarter Hanoi, where the rich history and unique streetscape have become attractions themselves. In George Town, the current façade element guidelines could be infused with this methodology, which could include the consideration of buildings’ movable façade and tourism business activity.

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