

Impact of the Commercial Activities on Historical Character of the Street Front Facade of Havelock Road, China Garden, Galle

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Abstract

Facades of the buildings in a street and their usage are important, as collectively these factors create street elevation and the character. Havelock road, which faces China Garden and located on the periphery of the historic city of Galle, is a commercial street shaped by colonial architectural influences. However, intensification of commercial activities has made significant transformations to this street facade, often disregarding their heritage value. This research aims to examine the impact of the commercial activities on historical character of the street front facade of Havelock Road in China Garden, Galle. Through the literature review, proportions of the buildings, proportions, openings, materials, color and texture, roof character and decorative elements were selected as the physical factors which determine the building facades. The type of commercial activities and number of people accessing the building were selected as the parameters to identify the nature of the building usage. Current building facades data were collected via onsite measuring, observations and photographic recordings. Historical building facade data were collected via historical recordings, building owners' old photographic recordings and semi-structured interviews. Current and historical activity data were collected via observations, semi-structured interviews and photographic recordings. A building facade analysis and a building usage analysis were adopted to identify the impact of commercial activities on the historical character. Findings show that the change of building usage to modern commercial activities has directly impacted changes in the facade character, prioritizing modern commercial demands, leading to the negligence or removal of key architectural characteristics. The research concludes that a more regulated approach in changing the building facades in Havelock Road, is needed as preserving facade character can enhance the social appeal and reinforce place identity.

Keywords: Architectural Heritage, Facade Transformation, Commercial Adaptation, Cultural Preservation.

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Introduction

Facades of the buildings in a street are important, as collectively these building facades create the street elevation and the character. The front facade of the building creates initial impression for customers and functions as visual identity of commercial activities. Architectural elements such as materials, color schemes, signage, and display windows explicitly communicate the nature of the activities. Furthermore, facades contribute to the collective character of the streetscape, enhancing walkability and encouraging public engagement. Consequently, the building facade functions as both a representation of internal commercial activity and an effective marketing tool that mediates the relationship between the interior environment and the public realm. In heritage contexts, this dual function creates inherent tension, while facades must respond to contemporary commercial demands, they simultaneously carry the responsibility of preserving cultural memory and architectural authenticity. Changes in building facades change the character of the whole street (Orbasli, 2007). Commercial activities in a street have a heavy impact on the character of building commercial streets while promoting commercial activities.

Havelock road, which faces China Garden and located on the periphery of the UNESCO world heritage city and significant historic city of Galle, represent a unique architectural transformation shaped by layers of colonial and local influence. Havelock road evolved as a transitional commercial street shaped by Dutch, British architecture with influence of Chinese merchant architectural traditions and local vernacular practices. Front facades of the buildings in front of Havelock Road had mixed colonial character, integrating vernacular traditions with colonial design elements, which collectively contributed to a culturally diverse urban fabric. However, post-Tsunami reconstruction and the growth of commercial activities have made significant transformations to these street facades, often disregarding their heritage value. In the present lots of changes happen to the front facades and it reflects the dominance of short-term commercial interests over long-term conservation goals, raising critical concerns about heritage city. While the Galle Fort practices under UNESCO guidelines, peripheral areas like Havelock Road and China Garden receive comparatively less regulatory attention, leaving them vulnerable to insensitive development. This research addresses this critical question of how peripheral heritage zones can develop conservation frameworks that acknowledge commercial realities while preserving the layered architectural narratives that define place identity through systematic documentation of facade transformations and analysis of commercial activity patterns, ultimately proposing context-specific guidelines for heritage-sensitive commercial adaptation.

Research gap

Galle heritage area developments are under strict regulatory frameworks on the conservation of UNESCO heritage framework, which ensures facade preservation. However, peripheral heritage areas like Havelock Road in China Garden remain understudied and nebulous. Existing literature has broadly examined colonial facade typologies and their cultural hybridity, but limited research addresses how intensifying commercial activities alter facade characters in these transitional zones. While scholars such as Cucuzzella et al. (2022) and Mao et al. (2020) have established the theoretical importance of facades as cultural carriers and behavioral frameworks, empirical studies documenting the specific mechanisms through which commercial pressures translate into architectural modifications remain scarce, particularly in South Asian heritage zones. Scholars

often emphasize visual or stylistic loss without systematically linking facade transformation to changing patterns of commercial activity and consumer use. As a result, there is insufficient understanding of how modern functions replace the identity of heritage cores. Furthermore, existing conservation guidelines often adopt binary approaches either strict preservation or unregulated development without providing nuanced, context-responsive frameworks that can accommodate the legitimate commercial needs of peripheral communities while protecting heritage authenticity. Furthermore, existing conservation guidelines often adopt binary approaches either strict preservation or unregulated development without providing elegant, context-responsive frameworks that can accommodate the legitimate commercial needs of peripheral communities while protecting heritage authenticity (Roders & Oers, 2011). This creates a critical gap in developing context specific frameworks that balance commercial functionality with cultural preservation. Specifically, two knowledge gaps persist:

1. Empirical Documentation Gap: Lack of systematic, parameter-based documentation of facade transformations in peripheral heritage zones, particularly linking original colonial characteristics to contemporary commercial adaptations.
2. Analytical Gap: Absence of integrated analytical models that correlate commercial activity patterns (type, intensity, temporal distribution) with specific architectural modifications across multiple facade parameters.

Therefore, focused investigation into the impact of commercial activities on the historic facades of Havelock Road offers new insight into how heritage value can be safeguarded in buffer zones of historic cities that face rapid urban and economic pressures.

Aim

To systematically analyze and document the impact of contemporary commercial activities on the historical architectural character of street-front facades along Havelock Road, China Garden, Galle, and to develop evidence-based conservation guidelines that balance commercial functionality with heritage preservation in peripheral heritage zones.

Objectives

- To Document and Compare Historical and Contemporary Architectural Character of Street-Front Facades
- To examine the nature and extent of commercial activities that have developed along Havelock Road.
- To analyze the architectural modifications and adaptations made on traditional facade elements in response to contemporary commercial requirements, and their spatial and visual influence on the facades.

To evaluate the overall impact of modernization on the heritage value and visual integrity of the historical street character.

Scope

This research focuses on the transformation of historical façades along Havelock Road, China Garden, Galle, under the influence of contemporary commercial activities and user character. The study concentrates on ten adjoining street-front buildings that collectively form a continuous visual frontage, representing diverse commercial uses such as retail, food, financial, and service outlets. The research examines physical façade parameters proportions, openings, materials,

colors and textures, roof character, and decorative elements. The research examines commercial activities, users and functions with reference to commercial activities and number of people accessing the buildings.

Limitations

The study is confined to a single case study area Havelock Road, China Garden and therefore may not fully represent the diversity of façade transformations in other heritage streets of Galle or similar colonial cities. The analysis is limited to exterior facade transformations visible from the street, emphasizing how modern commercial adaptations affect the architectural and cultural identity of the area. Additionally, the study focuses on observable facade changes up to 2025, without accounting for ongoing or future urban development projects that may alter the area's dynamics. Historical data relied partly on owners' photographic archives and oral recollections, which may introduce subjective bias and incomplete visual documentation. The analysis emphasizes physical and visual aspects of facades rather than structural integrity or detailed material performance. Socioeconomic impacts and quantitative economic correlations between commercial success and facade transformation were not included due to limited data access.

Literature review

Historical Significance and Character of Colonial Street Facades

The facade is widely known as the most critical architectural feature of a building, as it conveys both the purpose and symbolic meaning of the structure. Colonial facades show the mixing of European and local design elements, creating unique architectural identities in port cities across Asia (Evers, 2011). The facade is a visual feature inside a corridor comprised of components such as doors/entrances, windows, building types, and roofs (Rob Krier, 1983).

In the colonial context, facades became vital tools for expressing authority, identity, and adaptation, blending European design principles with local traditions and environmental needs. Architectural characteristics found on the facade of colonial buildings include dormer, variety of decorations and balustrade (Ardiyanto et al., 2015). This architectural hybridity reflects what Bandarin and van Oers (2012) describe as "layered urbanism," where colonial facades became palimpsests of cultural negotiation, simultaneously asserting dominance while accommodating climatic and material realities. Historical facades act as cultural carriers that communicate past craftsmanship, social identity and the urban memory of places. They shape public perception of streetscapes and contribute to a sense of continuity in the built environment (Cucuzzella et al., 2022). Facades also frame human behavior in public space contributing to wayfinding, attraction and pedestrian vitality so their conservation supports both heritage value and social use of the historic districts (Cucuzzella et al., 2022; Mao et al., 2020).

From a stylistic perspective, facades embody the intersection of form and function. Traditional Chinese architecture, for instance, contributed to distinct roof styles such as Wu Tien, Hsuan Shan, Hsieh Shan, and Ngan Shan, which were integrated into colonial design vocabulary in multicultural trading centers. As Utaberta et al. (2012) emphasize, the architectural style, shape, and dimensions of facades significantly influence their visual perception, making them central to the preservation of historic urban identity. Facades narrate the coexistence of power, adaptation, and

exchange, providing insight into how societies negotiated architectural language during periods of colonization.

2.1 Impact of Commercial Activities on Facade Authenticity

Commercial facades are essential as they create the visual and spatial interface between businesses and the public, influencing customer attraction and street vitality. They also reflect the economic and cultural identity of an area, linking architectural character with commercial functionality and urban experience (Liao et al., 2025). Appropriately managed commercial activity is often essential to keep heritage districts economically viable and socially active. Shops, cafes and markets attract visitors, generate income for maintenance, and promote cultural exchange, (Njoh, 2002; Zhang et al., 2024). Research by Shamsuddin and Ujang (2008) shows that commercial activities in heritage streets increase pedestrian movement and social interaction, which helps maintain the lively character of historic areas. However, Eran and Kecik (2023) found that excessive commercialization leads to loss of original facade elements, with shopkeepers making unauthorized changes like removing traditional doors, adding modern signage, and painting over original colors to attract customers.

Commercial transformation has had a profound impact on colonial facades, altering their architectural integrity and cultural meaning. Commercialization can both energize and erode facade authenticity. Additions such as signage, lighting, saturated colors and standardized shopfront treatments can disrupt historic materials, visual harmony and cultural legibility (Yao et al., 2025). Studies on material compatibility emphasize that using incompatible modern materials on historic facades can cause physical deterioration - cement renders trap moisture in original lime-based walls, and modern paints prevent breathing of traditional materials, leading to faster decay of the architectural fabric (Freire et al., 2011; OKTAY, 2002). As urban demands evolve, many colonial buildings are adapted for retail, hospitality, or office use, leading to modifications in entrances, window displays, and signage that disrupt the original rhythm and proportion of facades (Andrian et al., 2021). These changes often compromise visual quality, diminishing the authenticity of historic streetscapes. Mahmoudi et al. (2015) highlight that such alterations influence public perception, as facades shape emotional responses to urban environments. Njoh (2012) documented that street-level commercial modifications in colonial towns often remove original verandahs, columns, and ornamental features that define the historic street character. Worthing and Bond (2008) identify key architectural elements that define colonial facade character: proportional window-to-wall ratios, traditional joinery details, original building materials, decorative moldings, and rhythmic pattern of openings along the street.

Thus, commercial pressures pose challenges to preserve the historical and aesthetic significance of colonial facades. Research shows design-controlled interventions (color-control, signage guidelines, sensitive shopfront design and adaptive-reuse frameworks) reduce visual conflict and allow commercial vitality without losing historic character.

Historical Context of Colonial Facades

The arrival of Europeans from early sixteenth century onwards coincided with earlier influences of Chinese traders, Arab and Muslim merchants, and South Asian vernacular traditions created iconic architectural style of cultural exchange and adaptation to tropical climate (Bracken, 2023). colonial facades across Asia were systematically adapted to local climates exemplified by wide eaves, elevated roofs, and indigenous materials and that pronounced inconsistencies between colonial and Chinese-style facades, reflecting layered architectural influences within the British and Dutch imperial contexts (Jorgenson et al., 2024). Dutch facades emphasized masonry solidity, symmetrical proportions, and clay-tiled pitched roofs designed to withstand tropical rains (Aldossary et al., 2025). British introduced larger shopfronts, display windows, and decorative plasterwork, to enhance the commercial activities in the cities such as Penang and Calcutta (Dai & Zhou, 2019).



Fig 01 - The use of encaustic tiles – Malacca and Penang

Source: <https://loca4motion.com/2013/10/20/penang->



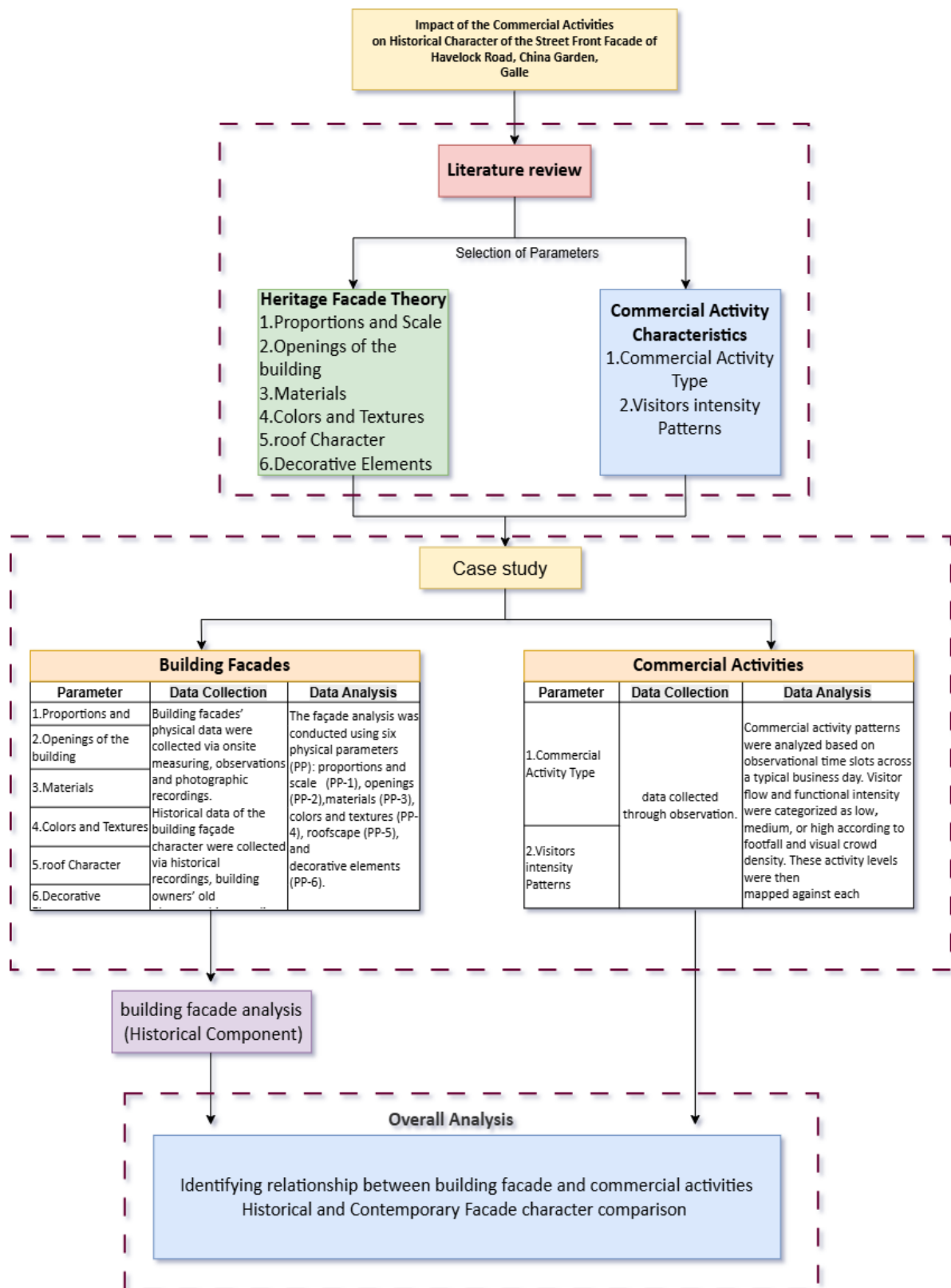
Fig 02 – The house typology

Source: <https://gtwhi.com.my/our-work/shophouses/>

Methodology

Research was developed with an extensive literature review on street building facade changes in historic cities and the effects of activities in the streets. Through the literature review, proportions of the buildings, door, window placement, materials, color, texture, roof character and decorative elements were selected as the physical factors which determine the building facades in a street. The type of commercial activity and number of people accessing the building were selected as the parameters to identify the nature of the commercial activity, which lead to change of the facades.

Methodological framework



Data collection methods

Current building facades' physical data were collected via onsite measuring, observations and photographic recordings. Commercial activity data were collected through observation. Historical data of the building façade character were collected via historical recordings, building owners' old photographic recordings and semi-structured interviews. Current and historical activity data were collected via observations, semi-structured interviews and photographic and video recordings. A building façade analysis and a spatial usage analysis were adopted to identify the impact of the commercial activities on the historical character of the street.

Data analysis method

1. *Data Preparation and Coordination*

All data collected through photographic documentation, observations, and onsite measurements, were systematically organized. Each building was coded (A–J) to maintain consistency between facade and activity analyses. Commercial activity data were time-coded (07:00–19:00) to identify daily patterns. All photographic and interview data were cross- referenced with building IDs to ensure analytical consistency and traceability.

2. *Analysis of Facade Characters of Ten Buildings*

The façade analysis was conducted using six physical parameters (PP): proportions and scale (PP-1), openings (PP-2), materials (PP-3), colors and textures (PP-4), roofscape (PP-5), and decorative elements (PP-6). Each parameter was evaluated through visual inspection and photographic comparison between original and current states.

3. *Analysis of Commercial Activities*

Commercial activity patterns were analyzed based on observational time slots across a typical business day. Visitor flow and functional intensity were categorized as low, medium, or high according to footfall and visual crowd density. These activity levels were then mapped against each building's function to determine which uses generate the most spatial and visual engagement.

4. *Comparison of Original Facades and Modern Developments*

Historic facade features were reconstructed through archival photographs and interviews with building owners, enabling a comparison with current physical conditions. The comparison revealed a distinct shift from colonial features toward modern commercial characteristics emphasizing the changes of the facades. The visual and material contrasts were analyzed to identify the extent of facade transformation and its effect on the overall streetscape identity.

Research sample design

The study examines the transformation of historical facades under contemporary commercial influence along Havelock Road, Galle, a historic corridor of colonial and modern architecture. Ten

adjoining buildings (A–J) were purposively selected for in- depth analysis, representing diverse commercial uses, varying facade alterations, and continuous street frontage.

- Proportions and scale
- openings of the building,
- materials,
- colors and textures
- roof character

are selected as the physical factors which determine the building facades in a street. This sample enables comparative analysis of how commercial intensity affects architectural change, revealing contrasts and continuity in the evolving visual identity of Havelock Road proportions of the buildings. Sample collection was taken for three months on weekdays.

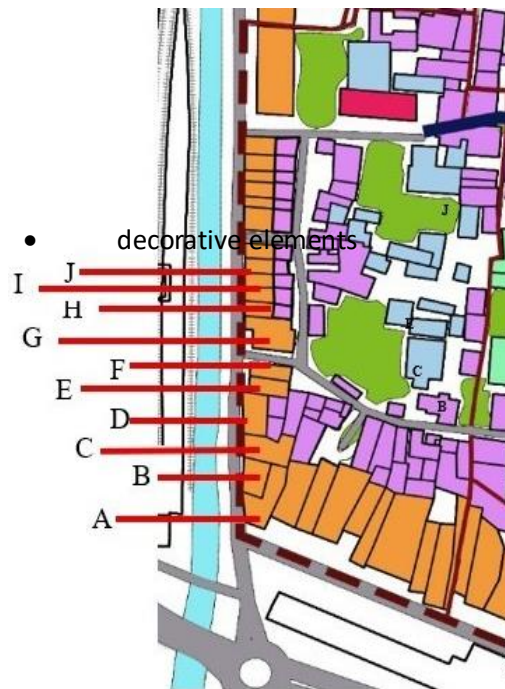


Fig 03- selected buildings along havlock road
Source: author

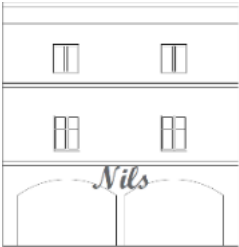


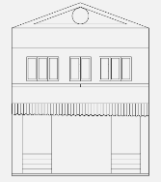
Fig 04 - Selected building facade photographic elevation for case study

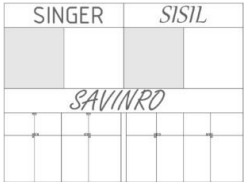
Research Results

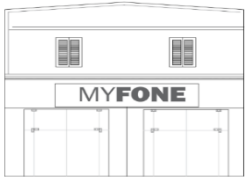
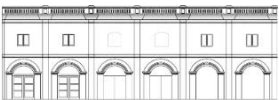
Building Facade Character in Havelock Road, Galle

Table 01 – facade analysis

Building		Proportions and Scale (PP-1)	Openings (PP-2)	Materials (PP-3)	Colors & Textures (PP-4)	Roofscape (PP-5)	Decorative Elements (PP-6)
A-Mobile Phone Store 		Two story building proportion with symmetrical balance.	Arched timber windows with rhythm.	Lime plaster, timber, clay tile.	Muted lime-washed tones	Colonial balustraded parapet with cornice.	Upper-level ornamental balustrade & arches.
		Two story building Commercialized ground floor disrupting harmony.	original openings removed and Full glass facade added.	Aluminum, glass, steel cladding.	Black glossy cladding, bold signage.	Signboards obscure the roofline.	ground floor character changed by modernity.
B-Fashion Retail Store 		Three- story building colonial vertical facade rhythm preserved.	Arched ground floor openings preserved.	Masonry with plaster.	Textured, weathered colonial tone.	Original characters are not preserved.	Minimal colonial-inspired features
		Three- story building over scaled heights beyond colonial facades.	Roller shutters and rectangular upper windows.	Concrete structure with plaster finishes modern reinterpretation.	Plain white, smooth finish. lacks colonial patina.	Flat parapet wall.	lack of decorative details.

C-Pub and Restaurant 		• Two story building • Symmetrical balanced facade.	• Multi-pane sash windows and segmental arched doors/windows	• Brick/stone with plaster, timber frames.	• Earthy lime tones	• Gabled ends with pediments.	• Triangular pediments, cornices, pilasters colonial depth.
		• Two story building • Maintain symmetry but less depth.	• Modern glazing, but colonial rhythm preserved.	• Smooth plaster with glass facades.	• Dark monochrome (black/charcoal) plastered walls.	• parapet conceals roof.	• Simplified or painted over decoration.
D -Restaurant 		• Two story building • Tall, narrow colonial proportions.	• Vertical colonial alignment maintained.	• Plastered masonry.	• White monochrome, smooth plaster. • Clean colonial aesthetic.	• Triangular pediment with clay tile awning	• Pilasters, cornices, wrought iron brackets colonial detail.
		• Two story building • retains alignment but less defined depth.	• Modern steel/aluminum frames.	• Modern steel and aluminum windows.	• Original Character is preserved.	• Retains pediment but uses modern finishes.	• Reduced, simplified colonial detailing
E-Financial Institution 		• Three story building • Original Character is not preserved.	• Original Character is not preserved.	• Smaller, rectangular timber windows.	• Earthy painted plaster tones.	• Original Character is not preserved.	• Original Character is not preserved.
		• Three story building • asymmetrical proportions.	• Large, curved glass windows. • rolling shutters modern functional	• Large, curved glass openings, roller shutters.	• Reflective glass contrasts colonial richness.	• Flat concrete roof. Water damage on parapet edges.	• Modern functional glass decoration.

F-Pharmacy 		• Four story building moderate colonial proportions.	• Arched or shuttered openings	• Lime plaster, timber, tile.	• Bright, contrasting tones.	• Original Character is not preserved.	• Simple colonial detail
		• Four story building commercial, vertical, curved corner facade.	• Full glass curtain wall, glass entrance doors.	• Glass, aluminum framing, cladding panels, concrete core.	• Bold red/cream panels, reflective glass	• Flat concealed roof, commercial urban type.	• Aesthetic choices based on branding and visibility, not heritage.
G-Dialog Outlet, Spa & Fitness Center 		• Four story building ground floor comparatively over scaled.	• No colonial arched/shuttered windows preserved.	• Lime plaster, timber, tile.	• Muted pastels	• No colonial roof features.	• Branding replaces ornamentation.
		• Four story building Exceeds colonial height level between floors.	• Wide glass entrance and open facades.	• Glass, aluminum, metal, concrete modern commercial.	• Bright colors used for branding (red/blue).	• Flat roof with parapet	• advertisements and signage, contrasting with the restrained elegance of colonial facades.
H-Furniture Outlet 		• Two story building proportionate colonial scale	• Small, arched openings.	• Lime plaster and timer.	• lacks earthy colonial palette.	• lacks tiled overhang roof of colonial design. • Minimal articulation.	• Original Character is not preserved.

		• Two story building With large retail frontage.	• Large glass display windows/doors	• Glass, metal framing, cladding panels synthetic finish.	• Glossy reflective surfaces.	• Flat parapet roof.	• Branding and advertisements dominate.
I-Mobile Phone Retail & Repair Center. 		• Two story building with narrow vertical orientation.	• Arched of shuttered windows	• Lime plaster and timber.	• Muted earthy colors.	• Original Character is not preserved	• Original Character is not preserved
		• Two story building influenced but lacks elegance.	• Large glass entrance.	• Metallic cladding, glass panels, signboards industrial finish.	• Gray metallic tones with bright branding	• Flat parapet roof hidden by signage.	• Functional signage-driven facade.
J-Restaurant 		• Two story building with overall massing is balanced and proportionate.	• Placement and rhythm of windows are symmetrical and well-aligned.	• brick or stone with lime plaster coating.	• Pastel or whitewashed tones, rough texture	• Pitched clay tile roof with decorated parapet.	• arched niches and recessed panels on the facade reflect neoclassical influence.
		• Two story building retained form, but partially deteriorated.	• Original Character is preserved	• Solid masonry structure	• Originally pastel or whitewashed, now faded to muted yellows, , and exposed plaster tones.	• Damaged parapet roof is partly visible.	• retains traces of original ornament.



Historical facades



Contemporary facades

Contemporary character of the building facades of Havelock Road, Galle

1. Proportions and Scale (PP-1)

Most of the buildings are two story buildings composing of 60% (A, C, D, H, I, J) of buildings, three story (B, E) and four story (F, G) buildings each holds 20%. Most buildings still retain a sense of proportional balance inspired by colonial forms, especially in their symmetrical facades. However, a few commercial and financial buildings stand out with oversized, vertical masses that disrupt this balance.

2. Openings (PP-2)

The original character is disrupted in 70% (A, C, E, F, G, H, I) of buildings. Entrances and wide modern windows dominate. It makes colonial arched or sash openings rare. Only a few structures have preserved traditional arches and tall doorways, though often with modern alterations.

3. Materials (PP-3)

Traditional materials hold 40% (A, C, D, J) of material pallet on the facades including lime plaster, timber, clay, and brick. Most common materials are glass, aluminum, and steel, which composing 60% of modern material pallet, now define the identity of many buildings.

4. Colors and textures(P-4)

Bright, glossy commercial colors dominate the streetscape composing 60% of color pallet including building A, B, C, E, F, G with branding tones overriding earlier subtle finishes. Weathered pastel and muted colonial tones are now rare, visible mostly in older or partially preserved structures.

5. Roofscape (PP-5)

Flat roofs COMPOSING 50% (B, E, F, G, H) of the buildings. Traditional sloped clay tile roofs remain in other buildings (A, C, D, I, J) which maintained the existing character.

6. Decorative Elements (PP-6)

Most modernized buildings have lost their decorative character, replacing details with signage and branding instead. A minority still retains colonial plasters, moldings, and niches, though these are often weathered or overshadowed by new additions. Some stand out as special cases, such as Building J with its rich neoclassical details, while others like G, H, and I have entirely abandoned ornament.

Overall, most buildings have shifted toward modern commercial character, emphasizing glass, steel, flat roofs, and bold branding colors. Authentic colonial elements such as arches, lime plaster, pitched clay tile roofs, and decorative moldings now survive only in a few minority cases. Many structures exist in a hybrid state, where colonial foundations are partially masked by modern interventions. Finally, the streetscape reflects a tension between heritage identity and contemporary commercial transformation.

Historical and Contemporary Facade character comparison

Table 02 – analysis between original facades and modern developments

Architectural Aspect	Original Colonial / Historic Character	Current Commercial Character	Critical Impact
Proportions & Scale	Human-scale, narrow frontages with vertical rhythm; balanced massing	Enlarged ground-floor openings, vertical extensions, wider frontages	Loss of proportional harmony; upper and lower levels visually disconnected
Openings	Arched windows, timber shutters, fanlights, symmetrical door placements	Glass curtain walls, metallic shutters, oversized display entrances	Rhythmic balance broken. Climatic adaptability and heritage detailing lost
Materials	Lime plaster, timber joinery, clay tile roofs	Aluminum, steel, reflective glass, synthetic cladding	Shift from tactile, breathable, durable materials to sleek, brand- oriented finishes
Colors & Textures	Muted limewash tones, weathered patina, earthy palette	Bold corporate colors, glossy finishes, reflective surfaces	Visual conflict between subtle heritage aesthetics and aggressive branding
Roofscape	Pitched clay-tiled roofs, cornices, articulated parapets	Flat parapets concealed by signage, billboards, advertisements	Rhythmic skyline disrupted; historic rooflines concealed or erased
Decorative Elements	Pilasters, cornices, balustrades, plaster moldings, wrought iron brackets	Minimal to no ornamentation; branding and signage dominate	Erasure of ornamental language; heritage identity diminished

The results of the analysis conclusively prove that the adaptation of structures for modern commercial use has critically influenced the appearance of facades on Havelock Road, China Garden. The comparison of past and present conditions highlights that the colonial and mixed front facade features including vertical rhythms, arched openings, timber windows, lime plaster coatings, and pitched tiled roofscapes have been significantly disturbed or entirely removed. The ground floors have been mostly altered, with conventional openings and materialization having been replaced by large glass shopfronts, metallic roller shutters, artificial cladding, and large advertising signage. The changes prioritize visibility, accessibility, and brand promotion at the cost of proportional harmony and stylistic integrity of the facades.

Materials and colors once defined by muted limewash tones and rough textures have shifted to shiny, reflective coatings and bright corporate color codes, causing visual conflict with the subtle appearances of colonial architecture. Similarly, classic rooflines delineated by sloping tiles and cornices are increasingly hidden by flat parapets, billboards, and signs, and hence fragment the coherent identity of the roofscape. Decorative elements like pilasters, balustrades, and plaster moldings have mostly disappeared from lower floors, surviving on upper floors where commercial modifications are restricted, and hence producing a fragmented appearance of heritage.

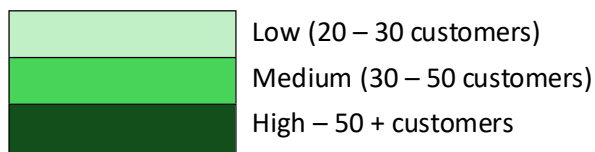


Fig 05 - Havelock Road Facade elevation in early 2000
Source: community

Analysis of commercial activities in selected buildings

Table 03– Analysis of commercial activities in selected buildings.

No	Commercial activity type / Function (SP-1)	Number of people visiting the shop with reference to time (SP-2)					
		07:00 – 09:00	09:00 - 11:00	11:00 - 13:00	13:00 - 15:00	15:00 - 17:00	17:00 - 19:00
A	Mobile phone retail store						
B	Fashion retail store						
C	Pub and restaurant						
D	Restaurant						
E	Financial institution						
F	Pharmacy						
G	Dialog outlet, spa fitness center.						
H	Furniture outlet						
I	Mobile phone retail and repair center						
J	Restaurant						



Indicators show how many people come to the selected shops according to the time.

Commercial activity type / Function (SP-1)

Data shows majority of commercial activities include mobile phone related activities (A, G, I) and restaurant related activities (C, D, J). Each of these activities encompasses 30% of selected case study shops. Other functions such as fashion retail (B), financial institution (E), medical facilities (pharmacy) (F), spa and fitness (G) and furniture have the least number of commercial activities, with 10% of selected case study shops for each function.

Number of people visiting the shop with reference to time (SP-2)

The analysis of commercial activities (SP-2) along Havelock Road shows clear temporal variations in visitor density throughout the day. Early morning hours (07:00–09:00) record the lowest overall activity averaging 18 % of the daily total with only the pharmacy (F) and the financial institution (E) reaching a medium level of patronage as early commuters seek medical and banking services. Activity gradually rises between 09:00 and 13:00, when fashion retail (B) and mobile phone outlets (A and I) experience high visitor rates, accounting for nearly 26 % of total daily footfall. The midday and early-afternoon periods (13:00–15:00) mark a moderate lull, averaging 20 %, as retail slows while restaurants (C, D, J) begin to attract lunch-time customers. The most active phase occurs from 15:00 to 19:00, where cumulative visitor percentages climb to 36 %, dominated by restaurants and leisure venues, particularly the pub and restaurant (C) which maintains high patronage throughout the evening.

Relationship between commercial activity type / function (SP-1) and number of people visiting the shop with reference to time (SP-2)

The data reveals a clear social rhythm along Havelock Road, where commercial activities follow human behavioral patterns of consumption and leisure. Approximately 60% of total visitor activity occurs between 11:00–15:00 and 17:00–19:00, indicating the dominance of food and social leisure functions such as restaurants (D, J) and the pub (C). These activities reflect the social habit of dining and socializing during lunch and evening hours.

Moderate activity about 30% is observed in fashion retail, pharmacies, and financial institutions (B, E, F), which maintain a steady flow between 09.00–17.00. These functions cater to essential daily and occupational needs, marking a socially utilitarian layer of the streetscape. Only 10% of the total activity occurs in furniture outlets and mobile repair centers (H, I), primarily during late morning (09.00–13.00). These show sporadic, purpose-driven visits rather than continuous social engagement. The early morning period (07.00–09.00) accounts for less than 5% of daily flow, showing minimal interaction and low social use of the area.

Relationship between building facade character and commercial activities

Table 04 – analysis between typological characteristics and activity level

Category	Building front facade typological Characteristic	Activity Level
Retail Stores A, B, H, I, G	- Derived from colonial shop-house typology with narrow plots and arched openings. - Modern interventions included	High activity
Restaurants & Pubs C, D, J	- Maintain colonial symmetry and proportions. - Retain some decorative features.	Medium to high activity
Financial Buildings E	- Transition from colonial symmetry to modernist asymmetry. - Typology prioritizes function, visibility, and security.	Moderate activity
Drug Stores F	corporate identity driven. Prioritizes visibility and branding over typological continuity.	High activity

The comparative analysis between building façade typological characteristics and activity levels among retail stores, restaurants and pubs, financial buildings, and drug stores reveals a clear relationship between architectural transformation and user engagement. Retail stores, originally colonial shop-houses, have undergone significant modernization through the introduction of glass facades, aluminum cladding, and prominent signage. In contrast, restaurants and pubs generally represent adaptive reuse of colonial structures, retaining key features such as symmetry, arched openings, and decorative plasterwork while incorporating selective modern elements for functionality. However, Financial buildings and drug store exhibit a modernist, functional typology character with minimal ornamentation, which results in moderate activity levels limited to business hours. From a social perspective, the facades most actively engaged with the public restaurants, pubs, and fashion outlets display dynamic physical transformations, open interfaces, and higher visual permeability. Conversely, low-activity buildings retain more static facades, reflecting less social exchange and minimal adaptation to contemporary commercial rhythms. Overall, the results confirm that the prioritization of commercial functionality has led to the neglect and removal of key architectural characteristics, replacing cultural identity with short-term economic interests. This unregulated transformation has weakened the authenticity and continuity of the streetscape, threatening the heritage value of peripheral areas like China Garden that remain outside strict conservation frameworks.

Conclusion

Research concludes that change in use of buildings to modern commercial purposes has greatly impacted the building facade character of Havelock Road, China Garden, such that the key architectural elements previously defining its historical identity have been overlooked or erased. The findings state that commercial imperatives visibility, branding, and access have overridden the aspects of proportion, material integrity, and decorative detailing. Compared to the other heritage cities, the current study aligns with the common commentary that commercial transformations often compromise historical integrity. Scholars such as Andrian et al. (2021) and Mahmoudi et al. (2015) argue that the lack of regulation on commercial influence deteriorates visual beauty and cultural cohesion and thereby ends up weakening urban identity. However, the current study enhances the discussion by highlighting the specific vulnerability of marginal heritage zones like Havelock Road, which, in contrast to the UNESCO- regulated core of Galle Fort, have a protective framework and thereby face accelerated loss of authenticity. The documented facade transformations on Havelock Road necessitate targeted policy interventions for peripheral heritage zones. Urban management strategies should implement activity-based zoning to limit high-intensity retail and modern restaurants that drive extensive modifications, while mandating protection of key colonial elements including verandahs, rhythmic window patterns, and original color palettes. Building regulations must prohibit incompatible materials from plastering cement over lime walls, synthetic paints, and aluminum frames, that cause the deterioration documented in this study. These context-specific measures balance commercial functionality with preservation of Havelock Road's colonial streetscape character, providing a replicable model for managing similar peripheral heritage zones facing commercial pressures.

The research thus emphasizes the urgent need for a sensitive approach to modifications of facades on Havelock Road. Preservation of facade integrity not only protects cultural heritage but also enhances the social value of commercial space, reinforces place identity, and makes the area more desirable for residents and visitors. To achieve balance, there is a necessity to conceptualize an overall facade preservation parameter set that reacts to altered commercial imperatives but at the same time sustains the cultural and architectural integrity of the built environment. Such a set would facilitate an interchange of economic expansion and heritage preservation and provide for the dynamic vibrancy and identity of the streetscape within China Garden for generations to come.

Recommendations

- Develop Local Facade Conservation Guidelines for Peripheral Heritage Zones.
- Encourage Adaptive Reuse with Heritage-Sensitive Design.
- Introduce a Heritage-Focused Urban Design Review Process.
- Integrate Visual and Economic Incentives for Preservation
- Develop functional zone guidelines for the city to prevent historical streets becoming overly or haphazardly commercialized or modernized.

With the findings of this research, following are identified as future studies. Quantitative correlation between facade changes and economic performance, user perception and social experience of transformed front facades, relationship between urban regeneration and street front façade changes in historical cities such as Galle, Colombo, Kandy etc.

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