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Changes in the cultural landscape and their impacts on heritage management : a study of Dutch Fort at Galle, Sri Lanka

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5. Changes to the Physical Urban Landscape

This chapter focuses on changes in the "material heritage" of the fort in order to identify the extent to which the preservation of the "[Dutch] colonial built landscape" has so far been successful, this being the interest of the heritage institutions. While it focuses largely on colonial townhouses and their changes in the context of the current tourism economy, changes in the overall building stock are also analysed in this chapter.

5.1 THE TOWNHOUSE AS A MICROCOSM/ SIGNIFIER OF THE URBAN LANDSCAPE

According to Meinig (1979, 228), "the elementary unit in the landscape is the individual dwelling … thus in the study of landscape 'first comes the house'" (Meinig 1979, 228). Studying the functional and architectural changes in townhouses, which comprised four-thirds of the total recorded buildings in Galle Fort at the initiation of the World Heritage project, is essential for identifying the changes in the urban landscape as a whole. While the city's living heritage status depends wholly on these houses and their inhabitants, their unique architecture, with an "own garden and an open verandah," is prioritized by the Advisory Body Evaluation of ICOMOS (1986) as "European only its basic design" (as outlined in sub-chapter 1.3.3).

5.1.1 TERMINOLOGY

The houses of Galle Fort have been labelled with different terms by scholars and institutional policy documents, despite generally being referred to as "houses." While Brohier (1978) identifies Dutch-period dwellings as "Dutch houses," the first policy document of 1987 (formally published in 1992) categorizes them as "residential buildings" (Brohier 1978; Wijesuriya and Vos 1987; Kuruppu and Wijesuriya 1992). The term "Dutch houses" was reused by Bandaranayake's short article on the first systematic documentation of the buildings of the fort, carried out by the Department of Archaeology (Bandaranayake 1992). Prof. Samitha Manawadu, the principal investigator of the Dutch government-funded Preservation of Private Houses Project at Galle Fort (2006–2009), was the first to introduce the term "townhouse," which was adopted by Rajapakse (Manawadu 2009; Rajapakse 2013). The term "townhouse," in the traditional sense, has two dictionary meanings: a terrace or linked house in an urban area with two or three floors, or the city residence of a noble whose principal residence was a country house.[355] The use of the term with reference to Galle Fort was mainly due to the city's European urban pattern, with houses sharing common walls, despite the fact they are mostly single-storeyed. Aside from the general term "houses," the "Integrated Management System of 2015" recognized these houses as "street houses." However, "townhouse" or "street house" can only be used for a unit with a residential character, while a substantial number of houses in Galle Fort are currently in use as "shophouses," houses containing a shop on the first floor and residences above.

5.1.2 DATING TOWNHOUSES/BUILDINGS IN GALLE FORT

Although the townhouses of Galle Fort have not been dated specifically, the buildings including the townhouses were roughly dated in the documentations of the buildings compiled by the Department of Archaeology (the majority of buildings recorded in 1992), University of Moratuwa (63 buildings, 2009) and University of Sri Jayewardenepura

355 Available at https://en.oxforddictionaries.com/definition/us/townhouse (accessed 20 March 2019).

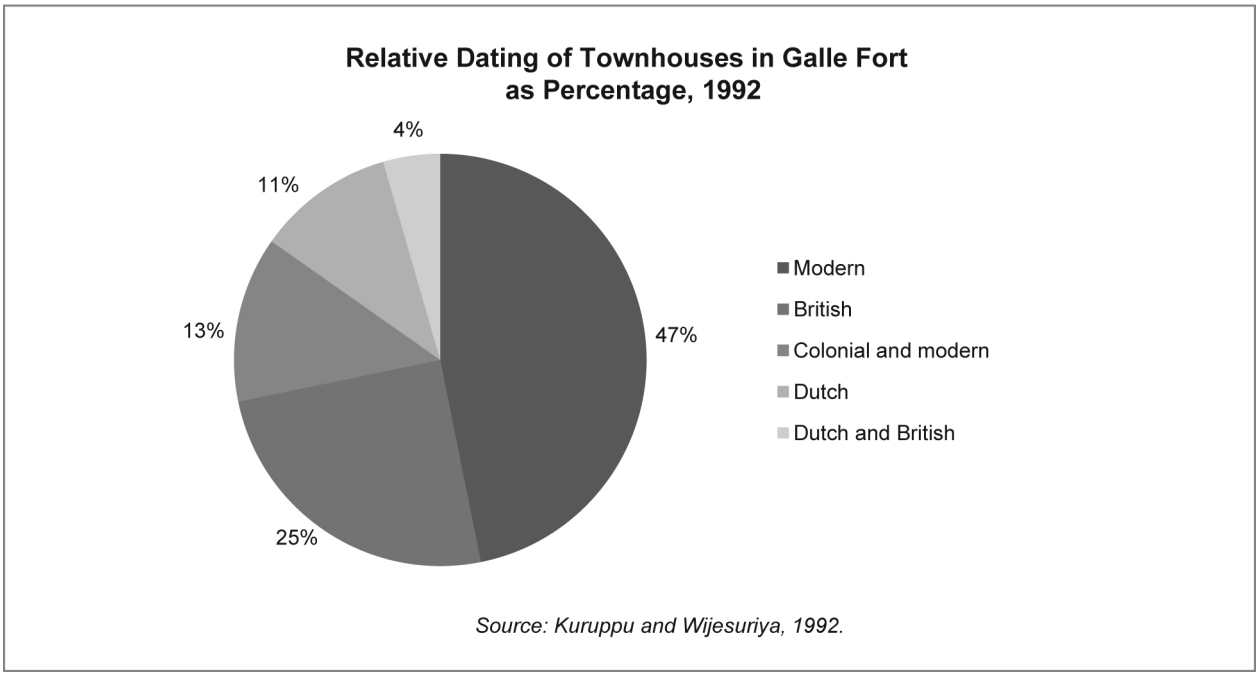


Fig. 42 Relative dating of the townhouses of Galle Fort (as percentage), 1992.

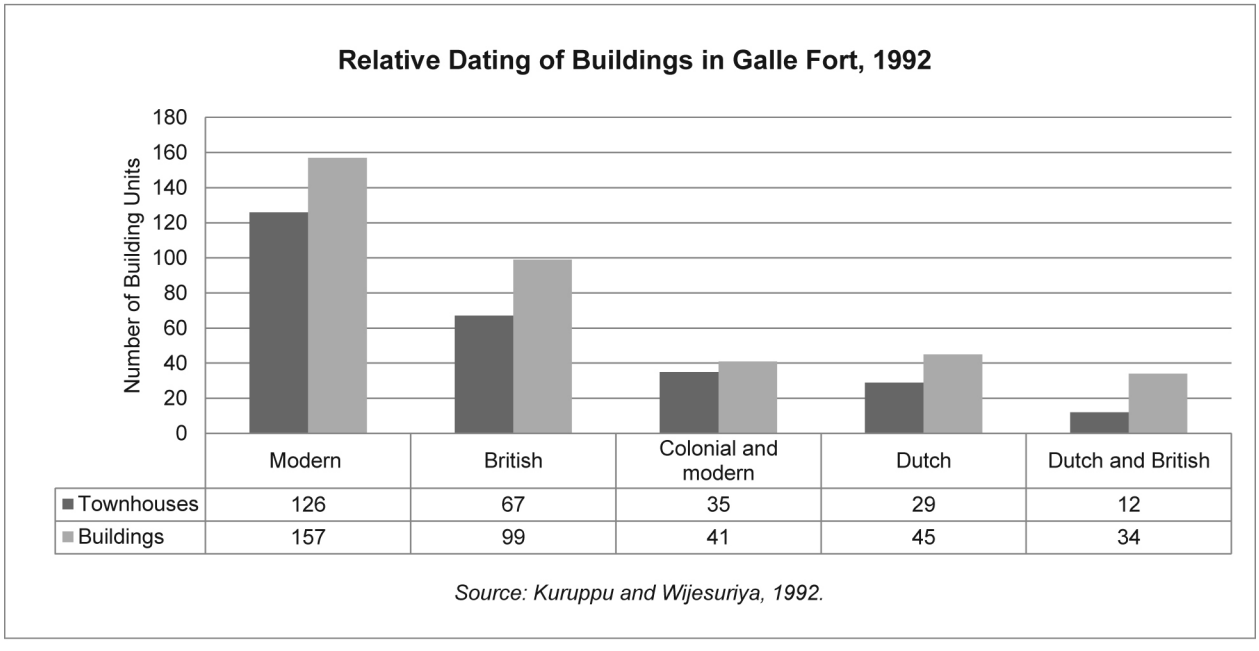


Fig. 43 Relative dating of the townhouses and buildings of Galle Fort, 1992.

(buildings on Church and Pedlar Streets, 2015).[356] In addition, the Social, Economic and Cultural Survey (2009) of Galle Fort, conducted by Galle Heritage Foundation (hereafter also referred to as "GHF"), also includes a basic periodization of the buildings. Both the documentations of 1992 and 2015 roughly identify the colonial or local origin of each building (either Dutch, British or modern) through their architectural styles. An analysis of the 1992 documentation of the buildings by the Department of Archaeology (hereafter also referred to as "DOA") reveals that 72% of the total recorded buildings are houses, contrary to the statement of the first policy document (1987), which states that 50% are residential buildings. The analysis of the DOA's systematic documentation (1992) reveals that nearly half of the buildings bore contemporary architectural features in 1992 (in the fourth year of World Heritage recognition) in their façades despite their colonial origins (Figs. 42–43). However, the buildings bearing Dutch colonial architectural features are the fewest in number compared to those with modern and British elements in their façades (Fig. 43). Conversely, the survey of Galle Heritage Foundation provides contrasting statistics.[357]

According to Manawadu, the architectural features of the fort's townhouses do not correspond to the specific period of their construction, as most of the houses were renovated or rebuilt the course of time, developments that were influenced by the popular architecture of each period (Manawadu 2009) (Figs. 44–45). In evidence of this fact, by analysing the façades recorded in 1992 (in the DOA's systematic documentation), it can be observed that 47% of the houses exhibit contemporary architectural styles of the '80s and '90s in their façades. Thus, features like the central courtyards and verandahs of the late Dutch period were adopted in British as well as modern times. Furthermore, the buildings of the fort belong to diverse architectural styles, with multifaceted appearances characteristic of different political periods (Manawadu 2009). It is a common practice in the country to modify the houses as the owners wish, although this has been difficult in urban areas since the late '70s, with the implementation of urban development laws.

Figs. 44–45 Buildings exhibiting popular architectural styles of different periods, Light House Street.

5.1.3 COLONIAL CHARACTERISTICS OF TOWNHOUSES

The specific characteristics of houses of Dutch colonial origin were discussed by Brohier (1978), Bandaranayake (1992), Raban (1996), Temmick Groll (2002), Manawadu (2009) and Boxem and

356 The Dutch government-funded Preservation of Private Houses Project at Galle Fort (2006–2009) was implemented by GHF in collaboration with the Faculty of Architecture at the University of Moratuwa. A detailed documentations of houses on two main streets of Galle Fort was undertaken by the University of Sri Jayewardenepura in 2015, in a project funded by the US Ambassador's Fund for Cultural Preservation (2011).

357 One Portuguese-period building, 225 Dutch, 114 British and 159 modern buildings (Liyana Arachchi 2009, 43). However, this work does not define the criteria used to date the buildings, and the statistics are thus questionable, as nearly half of the buildings bear modern façades, according to the survey carried out in 2016 for the purpose of this study.

Fig. 46 Townhouses in Naarden Fort (16th century), Netherlands.

Fuhren (2010), while Rajapakse (2013) provides a special definition for houses in Galle Fort. A brief but clear statement by Raben on Lankan-Dutch houses, which were the in vogue in the 18th century, states that they are "characterized by a single story house with a gallery in front (verandah), bordering on the road, with a row of wooden or plastered brick pillars in simple Doric style" (Raben 1996, 140). Temmick Groll, who conducted a brief analysis of existing Dutch houses in Galle Fort based on the systematic building documentation of the Department of Archaeology (1992), has a similar idea (Temminck Groll 2002, 265). Heydt's accounts confirm that the houses had one floor during Dutch occupation, including the commander's house (Heydt 1744 [1952], 43).[358] Manawadu identifies the style of these houses as "Dutch hybrid domestic architecture," since it was the product of local workers and craftsmen but based on the requirements of the Dutch colonizers (Manawadu 2009, 3). In contrast, Oers states that the design of Galle Fort houses with a central light has a Portuguese origin as well, as descendants of the Portuguese, besides locals, might also have been employed in building them (Oers

358 "The reader must not be astonished that these buildings, which ought well to be the most splendid, and which are inhabited by the foremost people of the Place, are of one story high only, since it happens here just as in other places on the island, as I already mentioned when describing the city of Colombo, that the buildings may not be made much higher without great danger, owing to the fierce weather" (Heydt 1744 [1952], 43).

Fig. 47 Aerial view of the streetscape of Middle Street, showing the narrow street frontages and deep interiors of houses.

2002, 8).[359] These townhouses, which were built by using the available local materials, were totally different from the contemporary townhouses of the Netherlands or similar ones in the western Dutch colonies, like Curaçao, except for their position facing the street and their common walls (Fig. 46).

Based on the above-cited authors, observations and discussions with heritage officers, the following major characteristics can be identified in Galle Fort houses of colonial origin.

Prominent features of the façade:

- Sharing of common walls
- Narrow street frontage with lofty front verandah
- Central light system (main door and subsequent doors lined up with it, leading to a central courtyard, such as at nos. 85 and 87, Leyn Baan Street)
- Large timber doors and windows
- Ornamental fanlights on the main doorway
- Side passage door to remove night soil from large houses (introduced during the British period for the houses that were difficult to access from back alleyways, such as nos. 23 and 43, Church Street)[360]
- Stable (occasionally)
- Half-round tiled roof

Prominent features behind the façade:

- Central courtyard bordered by verandah (had a well in former times; however, this is very rare nowadays)
- Deep interior and long corridors spanning from the road to the interior (Fig. 47)
- Wide coral walls
- Carved wooden ceilings (occasionally)

Figs. 48–49 Central light penetrates to the courtyard at no. 104, Pedlar Street (2016).

359 According to Oers, the urban pattern of Galle shows a Portuguese origin and adoption of Portuguese building techniques. The Dutch period (1640–1796) saw the adoption of Portuguese building techniques. Both descendants of the Portuguese and locals were employed by the Dutch as workers and craftsmen. The layout of the streets and the pattern of plot division remained unchanged. The courtyard, however, was recast as the focal point of the house, with the rooms arranged around it (2002, 8).

360 The municipality introduced new sanitary measures after 1892. Thus, alleyways were introduced for entering the middle blocks of houses to remove night soil, while a narrow passage leading to the streetfront was introduced to the larger houses that were not accessible through these alleyways (personal conversation with the Project Planning Officer of GHF, 16 April 2018).

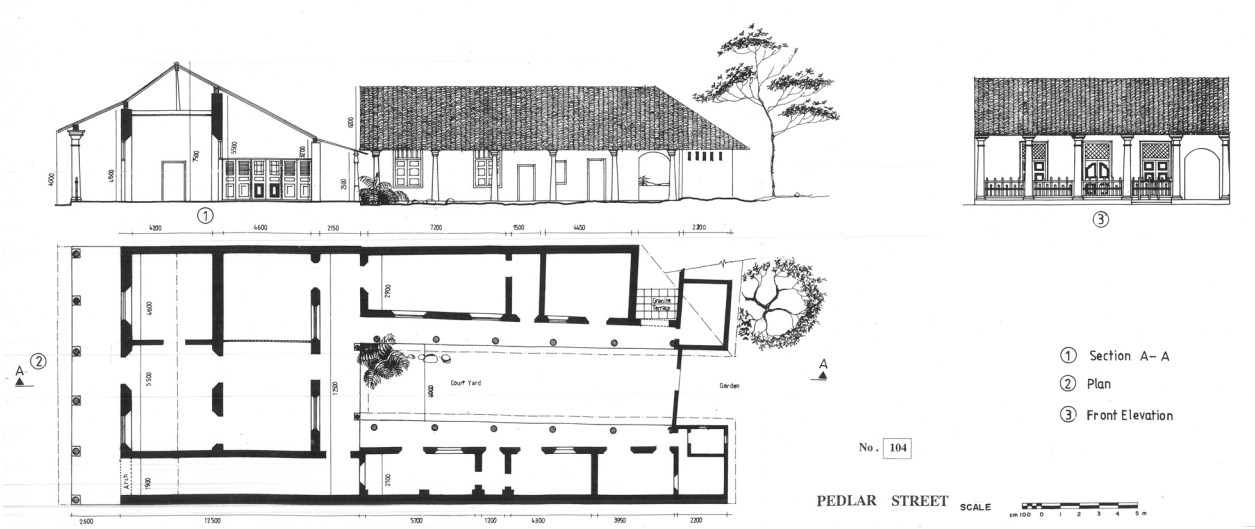


Fig. 50 Ground plan of no. 104, Pedlar Street (Kuruppu and Wijesuriya 1992, 335).

- Opening at the back to collect night soil
- In addition, back alleyway to remove garbage and night soil

Although more houses had had these features previously, a few examples of the remaining townhouses with one or more of these colonial features are as follows:

- No. 104, Pedlar Street: Single-storey building with front verandah with Doric pillars, central courtyard bordered by three colonnaded verandahs and a stable converted to a restaurant in 2017 (Figs. 48–50)
- No. 28, Middle Street: Single-storey house with front verandah (half-covered by British windows), Dutch-period main doorway with ornamental fanlights and a stable (Fig. 51)
- No. 35, Leyn Baan Street: Single-storey building (renovated after it collapsed and currently used as a private museum) with a central courtyard surrounded by colonnaded verandahs, a well in the central courtyard and a Dutch-period main doorway with ornamental fanlights (Fig. 52)
- No. 3, Church Cross Street: Double-storey house (single-storey façade) with a front verandah half-covered by British windows,

Figs. 51–52 The Dutch-period ornamental fanlights above the doorway at no. 28, Middle Street (above) and no. 35, Leyn Baan Street (below, with a renovated façade).

a stable and a side courtyard
• No. 22, Hospital Street: Double-storey house (single-storey façade) with a timber-pillared front verandah and central courtyard.

Verandah

The verandah, which is the chief visible architectural feature of the colonial houses in Galle Fort, may consist of wooden pillars, masonry pillars or arches (Figs. 53–56). While the original type of support was square wooden pillars, Doric masonry pillars appear in the late Dutch and early British periods, followed by arches, which evolved in the late British period (Boxem and Fuhren 2010, 44). According to Boxem and Furhen (2010), the verandah was a later addition to the houses of the Dutch era, probably from around the late 18th century, and replaced the earlier, higher *stoep* in front of the buildings.

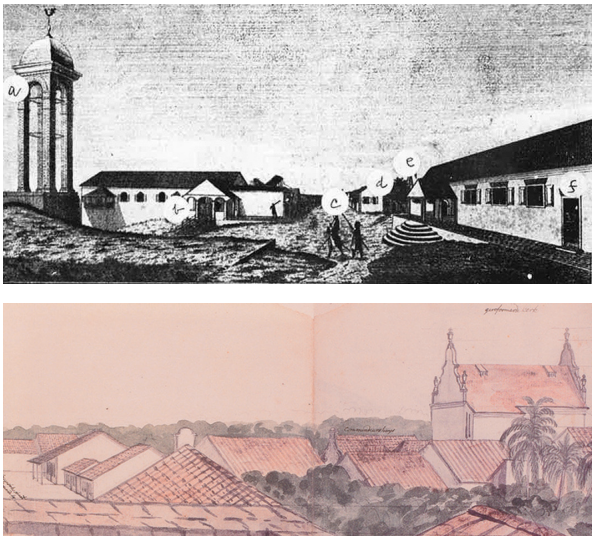
Figs. 53–54 A timber-pillared verandah (above) and a renovated Doric-pillared verandah (below).

Figs. 55–56 Renovated arched verandahs (above) and a verandah half-covered by glass windows (below).

Boxem and Furhen's (2010) above-mentioned statement is supported by Heydt's engravings of the view of Church Street, featuring two prominent buildings without verandahs, the commander's residence and the house of the assistant writer (the current post office building), in the mid-18th century (Heydt 1744 [1952]).[361] Jan Brandes's 1786 painting, "Town of Galle as Seen by Flagstaff," provides evidence of the presence of verandahs in the late Dutch period (Figs. 57–58).[362] According to Oers, the verandah acts as a filter between the house and the street as well as a social space (Oers 2002, 8).

361 Plate 67 (Heydt 1744 [1952]).

362 *De stad Gale op Ceylon van de vlaggestok af te zien* (The Town of Galle as seen from the Flagstaff) (Diessen 2008, 214).



Figs. 57–58 Heydt's (1744)[363] engraving of the view of Church Street, without verandahs on the buildings (above), next to Brandes's painting (1786), showing the houses with verandahs (below).[364]

Central and Side Courtyards

The central courtyard or "own garden," according to criterion iv of the ICOMOS evaluation (outlined in sub-chapter 1.3.3), could also be identified as an element of local vernacular architecture. Wijetunga's work supports the idea that the interior courtyard was a typical element of elite and sub-elite houses (*walauwe*)[365] during the Kandyan Period[366] (16th century–1815), the country's last kingdom (Wijetunge 2012).[367] Bandaranayake's work shows that the open courtyard was also an element of Buddhist monastic architecture, specifically in refectories, during the Anuradhapura period (4th century BCE–1017 CE), the country's first kingdom (Bandaranayake 1974). However, the courtyards in Galle Fort also have architectural similarities with the medieval *hofjes* (almshouses, literally "small courts") of the Netherlands. These charitable old-age homes had an open, quadrangular, common central courtyard, usually consisting of a bleaching field with a common well, surrounded by small apartments on all sides (Looijesteijn 2010). Although the courtyards in Galle Fort had wells (as discussed later), typical local courtyards had no well, showing the colonial influence on Galle Fort's houses.

Fig. 59 View of the central courtyard, no. 104, Pedlar Street (2015).

Fig. 60 A well in the central courtyard at no. 35, Leyn Baan Street.

363 Plate 67, "view of the Castle of Pinto-Gale, as it appears from within" (Heydt 1744 [1952]).

364 *De stad Gale op Ceylon van de vlaggestok af te zien* (The Town of Galle as seen from the Flagstaff) (Diessen 2008, 214).

365 "The term *walauwe* in Sinhalese carries the connotation for 'aristocratic dwelling' or 'manor house,' was jealously-guarded during the Kandyan period. This not only connoted the dwellings of aristocrats, it was also used to identify the houses of high government officials who were classified under elite ranks earlier (who may or not be aristocrats). However, in certain parts of Kandyan regions, even the houses of sub-elites, later appropriated the term liberally" (Wijetunge 2012, 32).

366 On the Kingdom of Kandy, refer to footnote in 50.

367 According to Wijetunge (2012), Kandyan elite domestic architecture reflected the Kandyan culture, a hybrid of Theravada Buddhist and Hindu cultural influences.

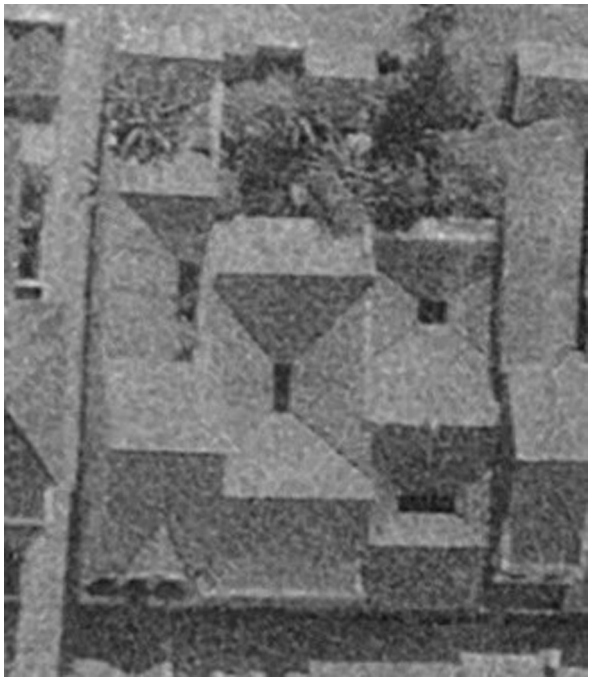


Fig. 61 House with a side courtyard (left), central courtyard (middle) and two central courtyards (right) on Leyn Baan Street in 1965.[368]

The (open-air) courtyards of Galle Fort's houses are generally situated at the centre of each house and surrounded by three or four colonnaded verandahs (Fig. 59). The courtyard was the focal point of the house, with some bedrooms, storage, a kitchen and toilet arranged around it (Boxem and Fuhren 2010; Oers 2002).[369] This feature is also an alternative to the front yard for houses facing the street, and therefore features a garden of flowers and herbs. It had a utilitarian function, serving as a space for drying clothes and spices, while providing light and good ventilation. One doesn't feel the warm tropical sun or the rush of the street from the courtyard, as I experienced at Galle Fort.

Courtyards had wells during Dutch occupation, which continued under British occupation, although the feature is hardly seen today. These wells and the gardens of the fort are mentioned by Dutch chroniclers, namely Baldaeus and Valentijn (Baldaeus 1672 [1960], 127; Valentijn 1726 [1978], 114). A detailed map of the fort compiled by the Survey Department, Galle in 1897[370] shows that many households had wells in their inner courtyards during the British period. One of the few remaining examples of a courtyard with a well is no. 35, Leyn Baan Street (Fig. 60). There are also side courtyards, while some houses contain both central and side courtyards. An aerial photograph taken by the Survey Department in 1965 shows that two central courtyards, a rare feature, also existed in the 1960s (Fig. 61). In the context of Galle, the courtyard was an ordinary element rather than part of the elite domestic architecture, unlike in Kandyan times.

5.1.4 CHANGES IN THE BUILDINGS (INCLUDING TOWNHOUSES) SINCE WORLD HERITAGE RECOGNITION

In sub-chapter 1.3.3, it was elaborated that preserving the (Dutch) colonial architecture of the buildings was the main priority of the World Heritage project. The Special Regulations, 2009, implemented to this end, were discussed in sub-chapter 4.3.2; the legal provisions of the Antiquities Ordinance (9, 1940), Urban Development Authority Act (41, 1978) and Ceylon Government Gazette No. 14959 (1971) for protecting the colonial fort (including its buildings) were also discussed in chapter 4.

The rest of this chapter analyses the changes in these buildings, both functionally and architecturally, since the World Heritage recognition of Galle Fort in 1988, within this legal framework (specifically with respect to the Special Regulations, 2009, the main building regulation). The comparison of the buildings was based mainly on the first systematic documentation of the buildings carried out by the Department of Archaeology between 1988 and 1990 (Kuruppu and Wijesuriya 1992), as further elaborated in sub-chapter 3.3.

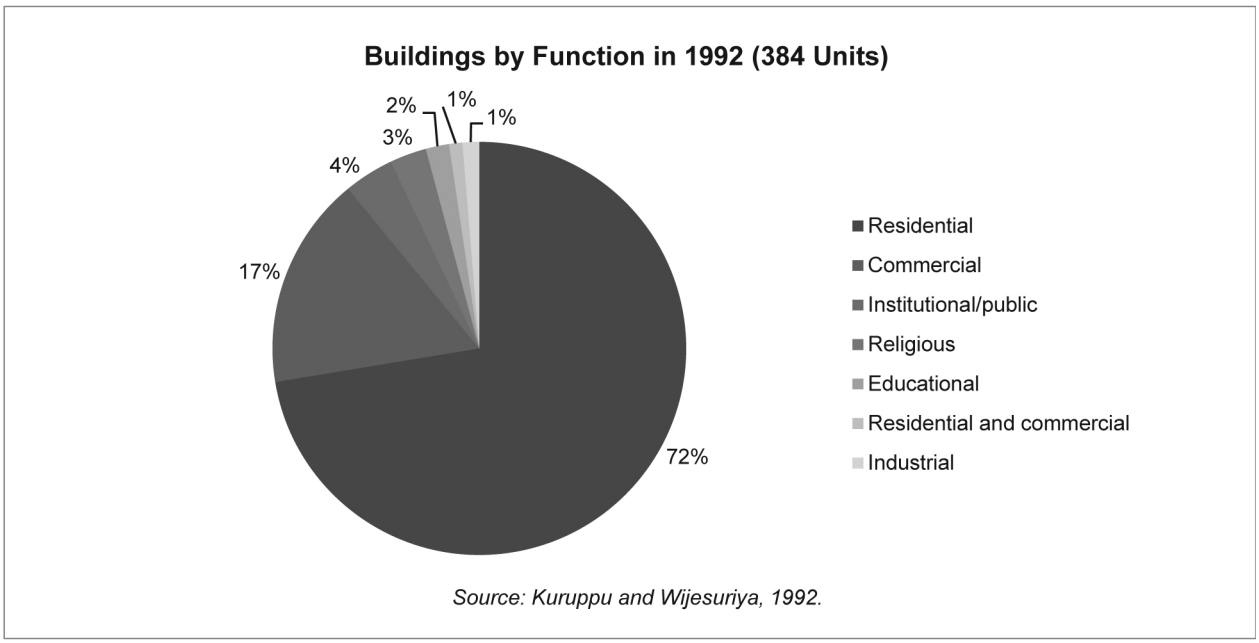
5.2 TURNING THE TOWNHOUSE INTO AN OBJECT OF INCOME GENERATION

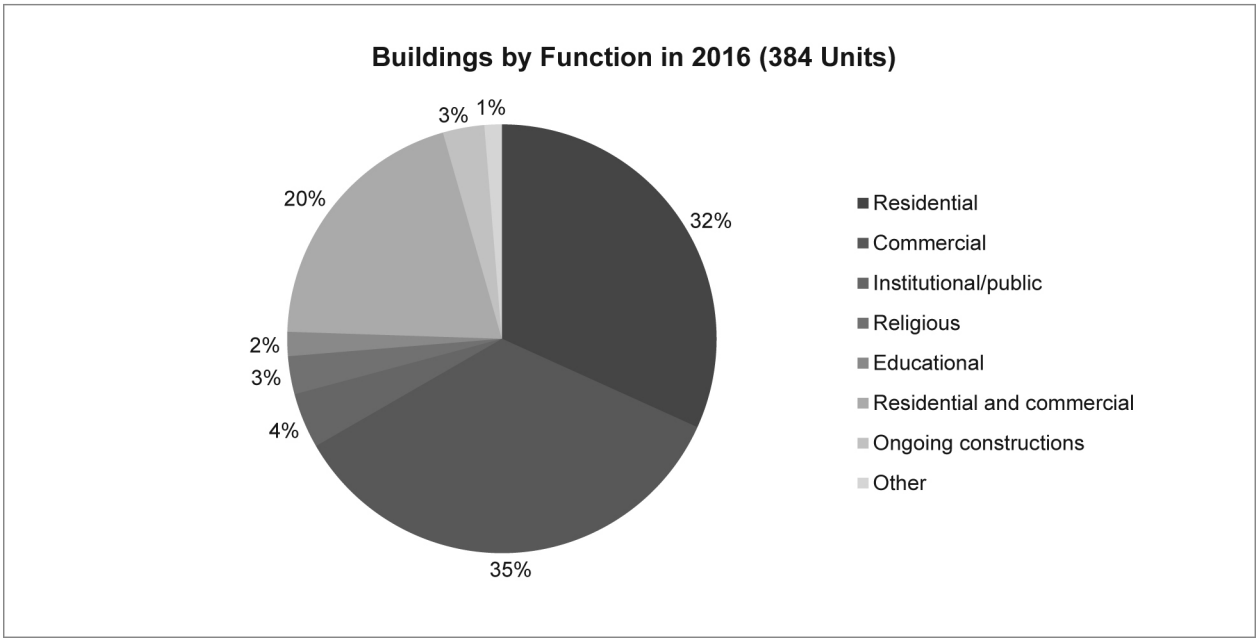
Galle Fort had a primarily residential function in 1992, in the third year of World Heritage recognition, with

368 Aerial photograph 65.05.036 (1965), Survey Department, Sri Lanka.

369 Sansoni, quoted by Boxem and Fuhren 2010, 46.

370 Map reference numbers 1094,1095, 1096,1097 (1897), Galle District Survey Office of the Survey Department, Sri Lanka.





Figs. 62–63 Functional changes in the same buildings from 1992 to 2016.

72% of the recorded buildings being residential (72%, 278 out of 384), followed by commercial (17%, 64), institutional/public (6%, 22), religious (3%, 11) and other uses (Figs. 62–64). The considerable number of public institutions located in the fort during this period indicate the fort's continuity as a residential-administrative centre, which has prevailed since British occupation (discussed in sub-chapter 1.1.4).

Nearly half (45%, 172) of the buildings recorded in 1992 had been subject to functional changes by 2016, and the most heavily affected category was residential buildings, which comprised the majority

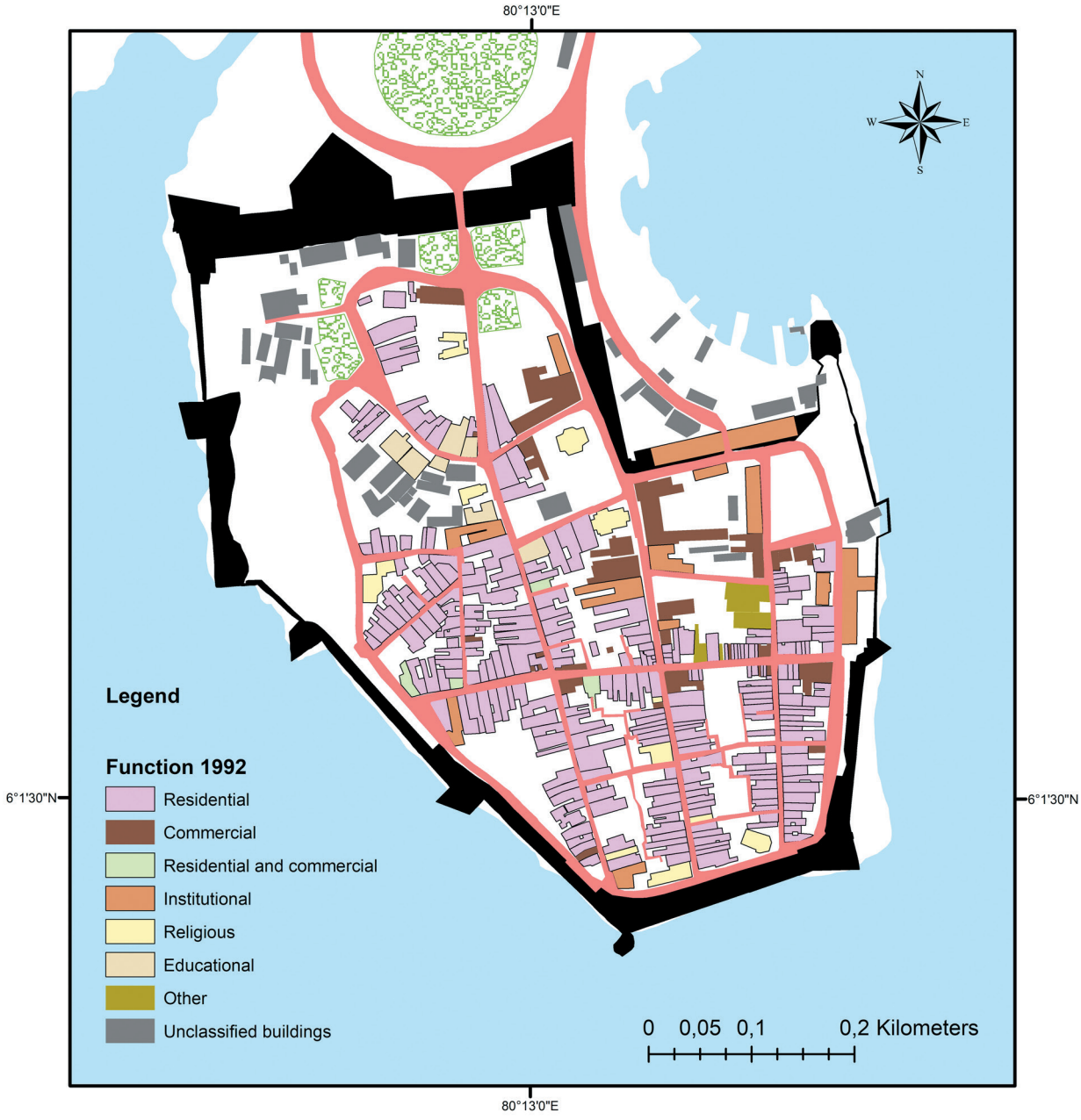


Fig. 64 Functions of buildings, 1992 (source: Kuruppu and Wijesuriya, 1992).

of such changes. A comparison of the same building stock in 2016 shows that the number of residential buildings had dropped by half (32%, 122), with a sharp increase in commercial buildings as the new majority (34%, 134), as shown by Fig. 63 and 65. In addition, the statistics also show how the 2002 heritage policies replaced the industrial function (as briefly outlined in sub-chapter 4.5.2) of the fort with the increasing tourism function, as the few industrial buildings from 1992 no longer exist in 2016.

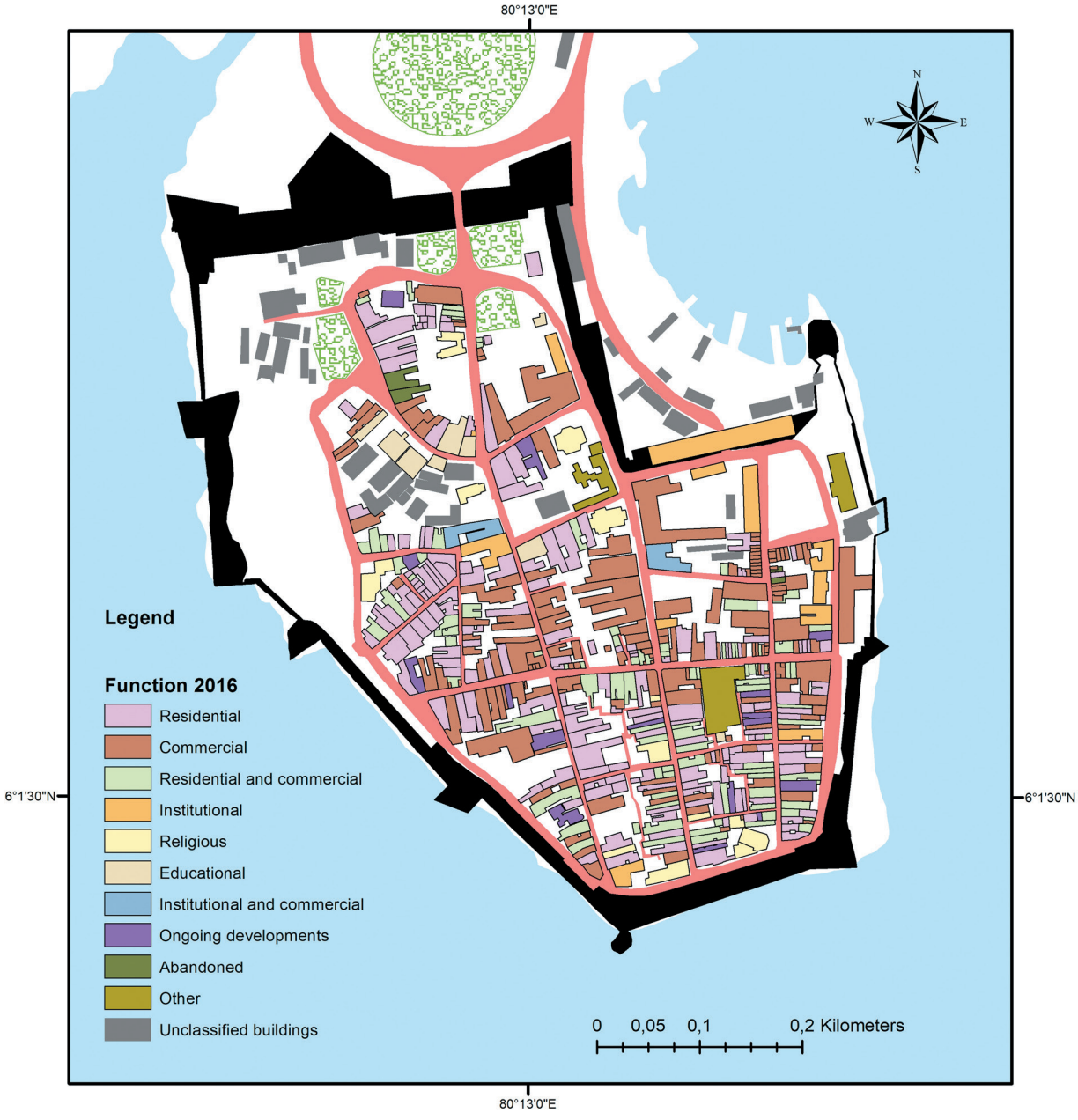
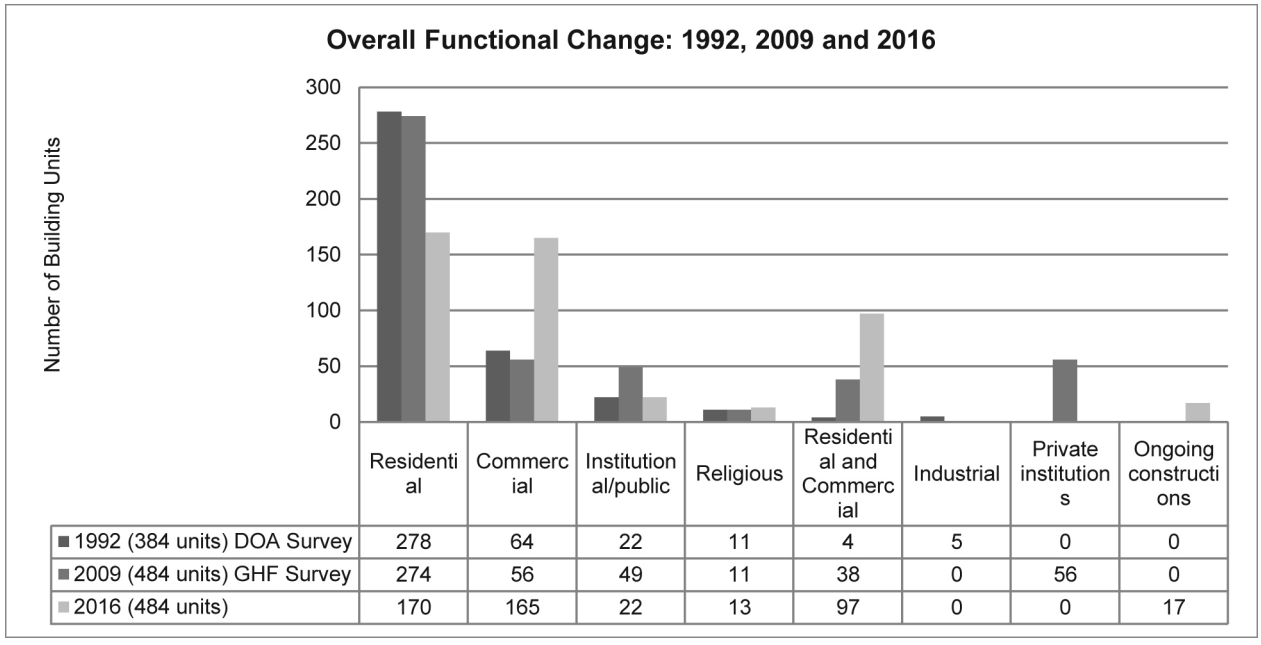
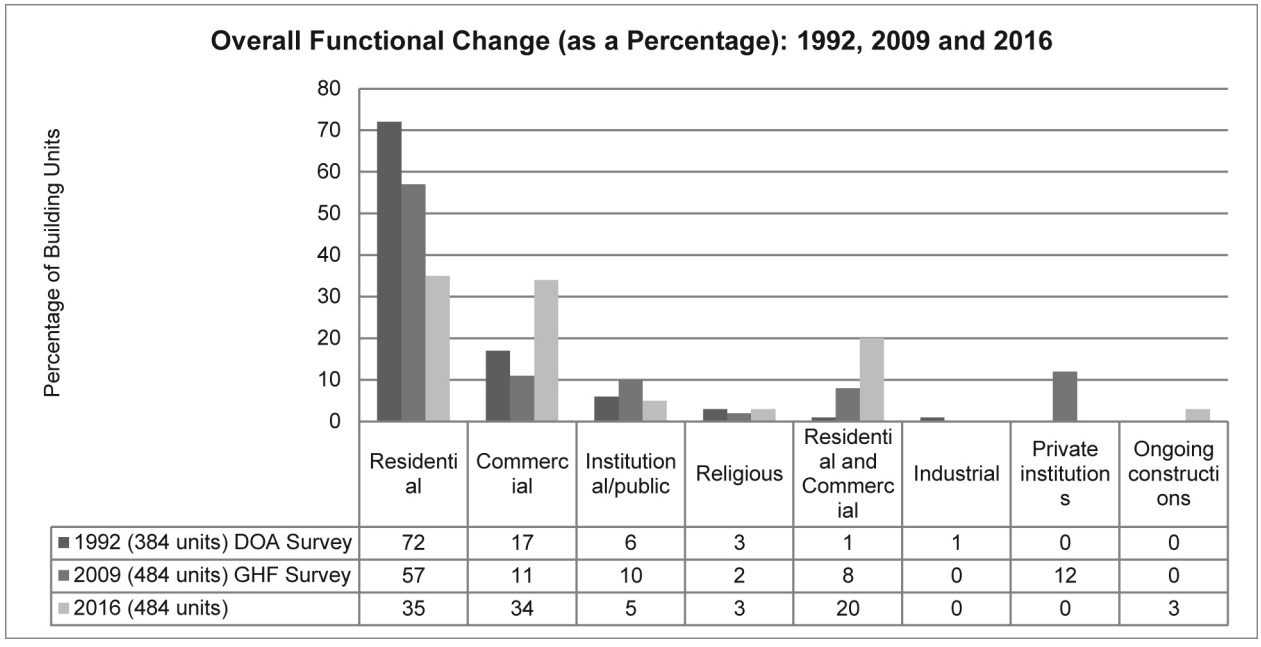


Fig. 65 Functions of buildings, 2016.

5.2.1 TOWNHOUSES CONVERTED INTO VILLAS, SHOPHOUSES AND B&BS

In considering the overall changes between 1992, 2009 and 2016, the gradual decline of residential buildings, and the rise of commercial as well as mixed-purpose residential-commercial buildings can be identified (Figs. 66–67). By 2016, residential and commercial buildings were almost equal in number, at 35% (170) and 34% (165), respectively. Thus, the current situation might pose a threat to the provisions of the Special Regulations, 2009, which require maintaining at least 35% of the total building area for residential purposes (Article 70.10).





Figs. 66–67 Overall functional changes, 1992, 2009, 2016 (as a percentage and number of buildings).

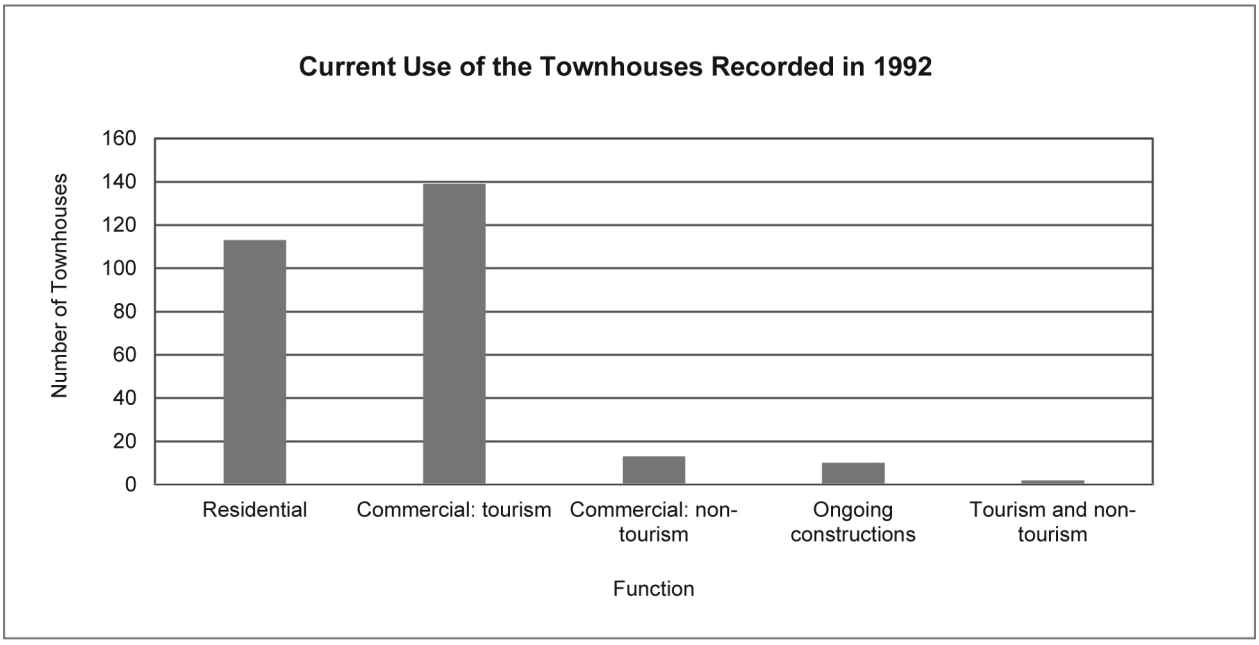


Fig. 68 Current use of the townhouses recorded in 1992.

It can be observed that this drastic functional change in the buildings, including townhouses, is a result of the flourishing tourism industry (Fig. 68), as more than half of the total buildings surveyed in 1992 are currently associated with tourism-related businesses. This includes half of the townhouses recorded in 1992. While 76 households became fully commercial establishments, 64 are associated with home-based businesses, such as bed and breakfast providers (hereafter also referred to as "B&Bs"), gem and jewellery shops, souvenir shops, etc., with the properties either owned or rented (leasing space is currently equally profitable, as discussed in sub-chapter 6.3.3). Thus, shophouses have become a significant category today, indicating the community's interest in obtaining economic benefits from tourism.

In general, this conversion from residential to commercial purposes includes the introduction of 63 tourist accommodations of various types (24 villas, hotels, guesthouses, B&Bs, etc.), 38 jewellery shops, 19 restaurants/cafes, 13 handicraft/souvenir shops, two spas, two branded clothing stores and three galleries. In addition, there is a considerable number of small-scale B&B providers. The current scenario shows that the conversion of townhouses into income- generating objects correlates with a significant increase in local and foreign investment in townhouses, which is discussed separately in sub-chapter 6.3 (Fig. 69–73). The impacts of these conversions of use (sometimes "unauthorized") and higher levels of commercialization on the historic city's heritage management, especially the living heritage status of the city, as well as the associated social changes will be elaborated in chapters 6 and 7.[371]

371 The conversion of residential unit to a commercial unit did not require the permission of the authorities at the beginning of the World Heritage project. Since commercialization has become a threat to the living heritage status of the city—and because the subsequent architectural changes that occur amid such conversion are sometimes negative—the permission of the authorities is essential for conversion of use today. However, the conversion of use is carried out both legally and "illegally." Conversion of use is not only common in residential buildings; even institutions like the YWCA and YMBA rent space for commercial purposes today, and thereby contribute to the overall conversion of use.

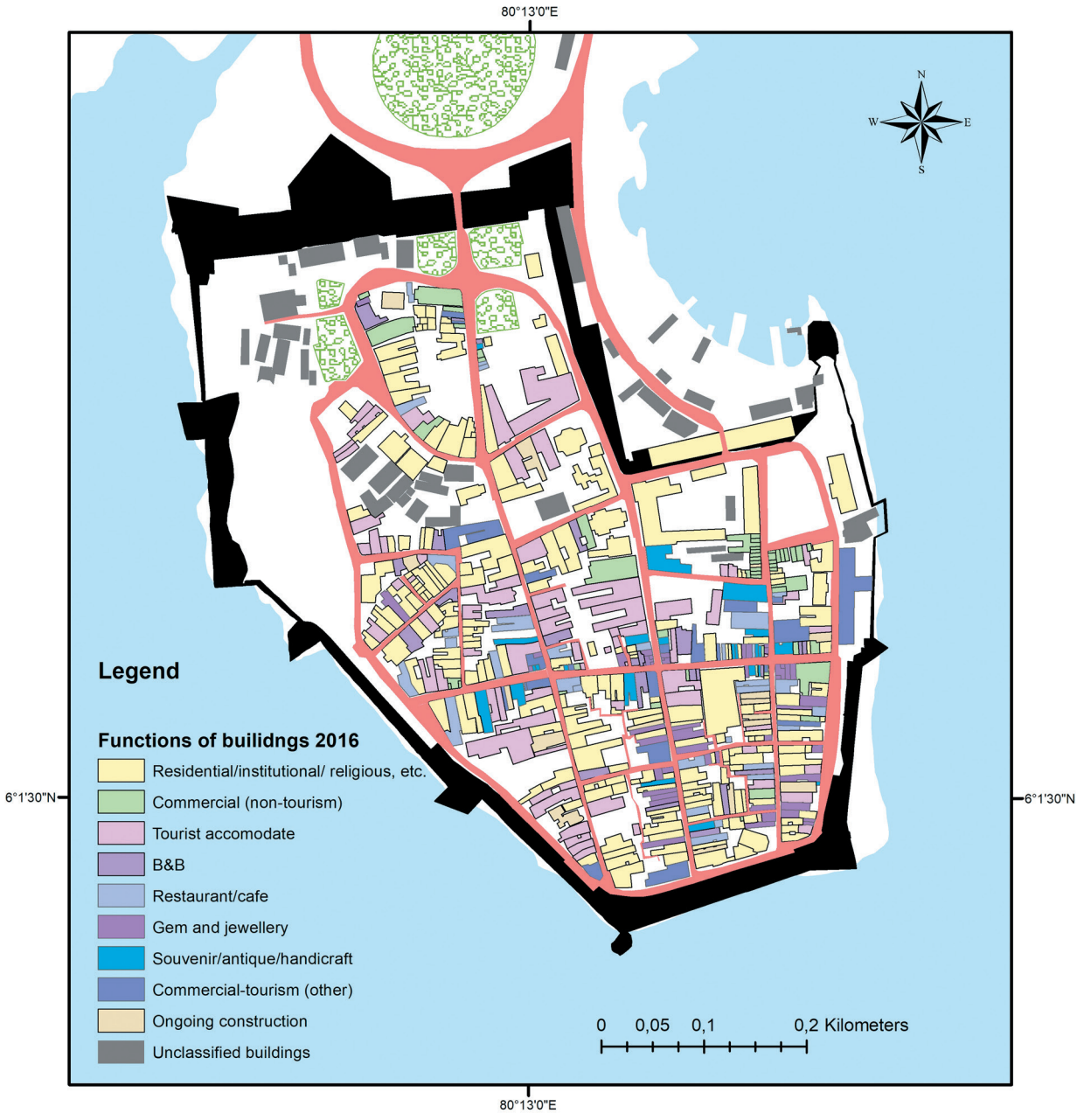


Fig. 69 Townhouse as an income generating object, 2016.

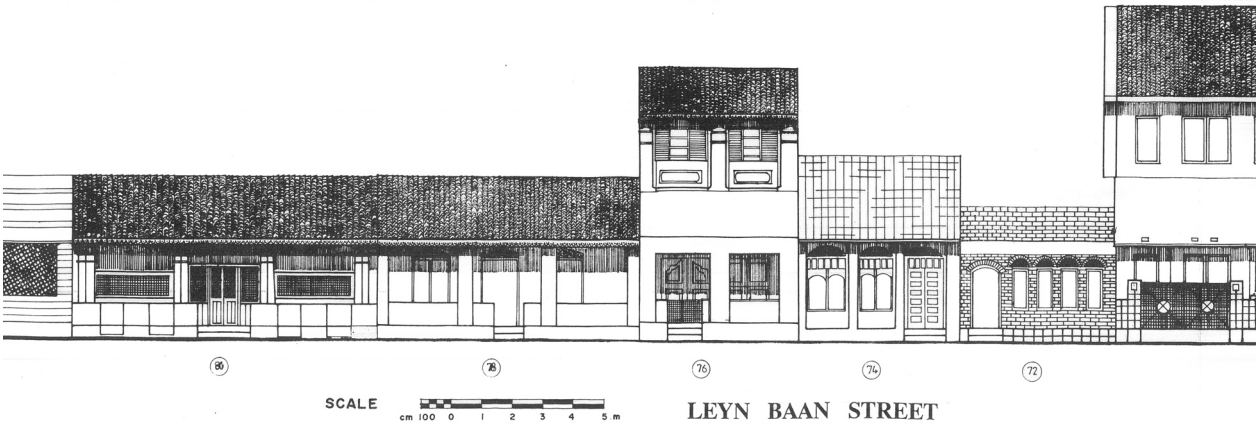
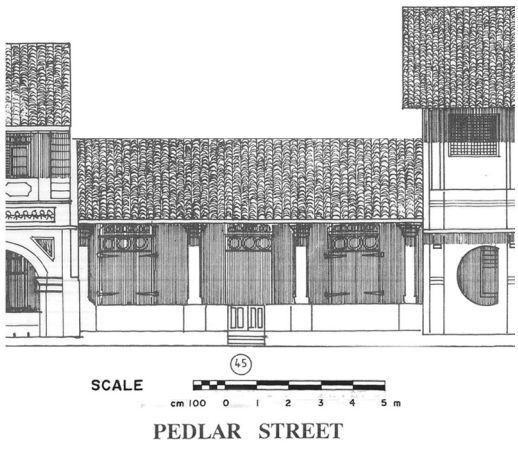


Fig. 70 Four houses (nos. 72–80) on Leyn Baan Street in 1992 (Kuruppu and Wijesuriya 1992, 255).

Fig. 71 The same houses as shophouses and tourist accommodations in 2018: (right to left) no. 72 (a house with a café), no. 74 (a house with a jewellery shop and B&B), no. 76 (a restaurant and accommodation), no. 78 (boutique villa) and no. 80 (a house with a packed tea shop).



Figs. 72–73 A house in 1992 (at left; Kuruppu and Wijesuriya 1992, 157) and in 2018 as a gallery (right).

5.2.2 FUNCTIONAL CHANGES AND ARCHITECTURAL CHANGES

The functional change of the buildings are also associated with architectural changes—which can be both positive as well as negative—compatible with the new function, under the provisions of the Special Regulations (Planning and Building), 2009.

A Positive Aspect of Investment: Development and Amalgamation

In general, approved developments funded by either local or foreign investors, as well as those carried out by residents, yield positive architectural outcomes, as will be elaborated in sub-chapter 5.3. In addition, merging subdivided properties into one large property in accordance with the "colonial architecture" can be also viewed as a positive effect associated with gentrification and foreign investments (Figs. 74–75). Between 1992 and 2016, 19 properties were merged; 12 had a tourism function, and half of them had foreign ownership.

Negative Aspects: "Illegal" Developments and Subdivision

However, functional changes also result in negative architectural outcomes, namely when they are carried out "illegally," as discussed in sub-chapter 7.3, in conflicts with the "colonial architecture." Furthermore, the subdivision of properties is also a threat to inherent colonial features, like verandahs and internal courtyards. Although subdivision

Figs. 74–75 Three subdivided properties in 1992 (at left; Kuruppu and Wijesuriya 1992, 133) and the same buildings merged into one unit as a foreign invested boutique villa in 2016.

Fig. 76 Subdivision of buildings due to commercialization: gem and jewellery shops on Pedlar Street.

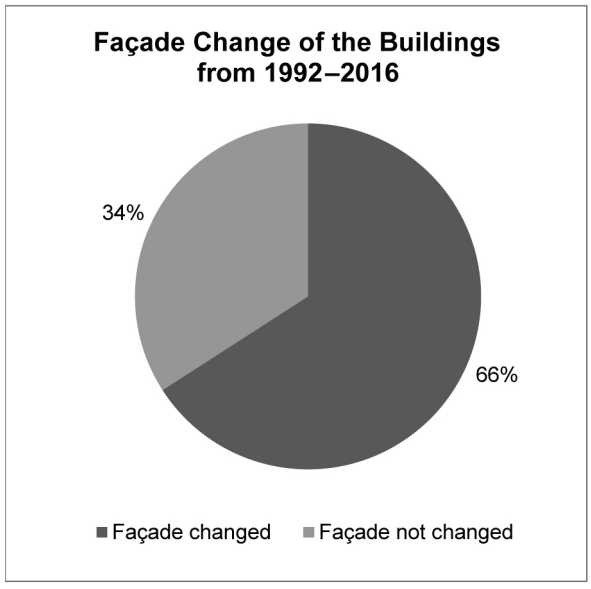
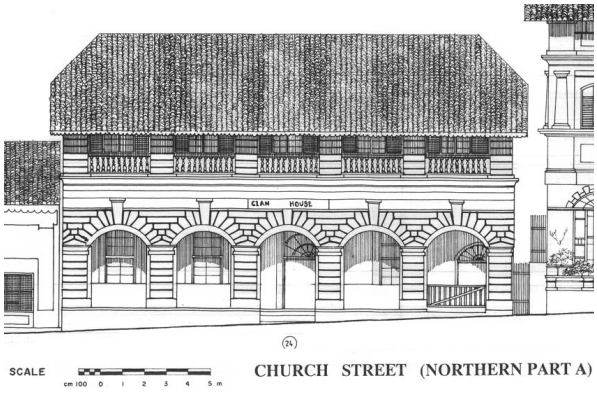
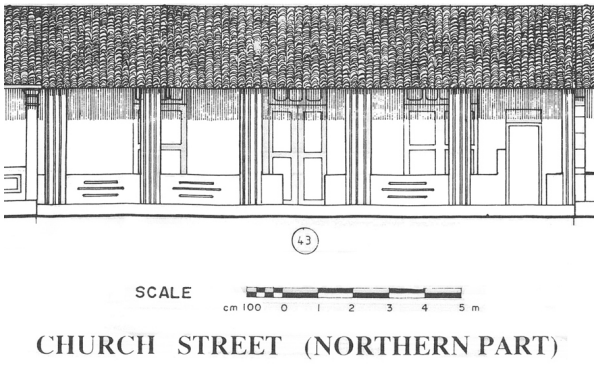


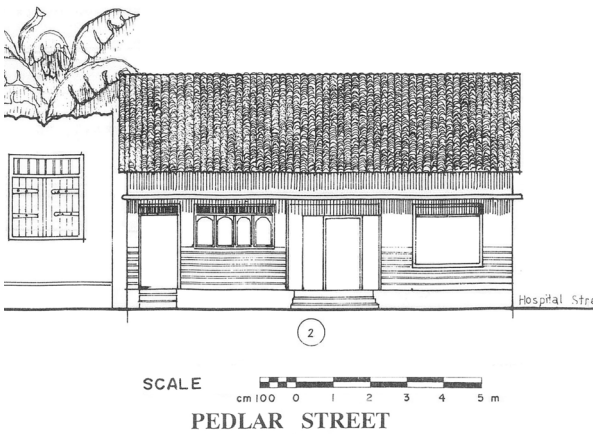
Fig. 77 Changes in building façades from 1992 to 2016.



Figs. 78–79 A "contributing" façade in 1992, left (Kuruppu and Wijesuriya 1992, 225), the same in 2016, right.



Figs. 80–81 A façade classified as "moderate" in 1992 (left; Kuruppu and Wijesuriya 1992, 243) that, by 2016, had changed into a "disturbing" one due to subdivision of the property (right).



was traditionally the result of dividing a property between children, commercialization has become one of the major factors driving this phenomenon today. Of the 50 subdivisions identified, nearly 70% of these (36 out of 50) were created for commercial purposes, especially for gem and jewellery shops, a permitted "change of use" under the Special Regulations, 2009 (Article 70.11; Fig. 76).

5.3 THE COLONIAL FAÇADE: POSITIVE PRESERVATION OF INTERIOR ELEMENTS

A façade with a verandah is the chief element representing the colonial features of a building, and therefore the Special Regulations, 2009 give priority to preserving such façades.[372] A drastic change in the streetscape of the fort could be observed by 2016, with the alteration of 66% (239) of the façades recorded in 1992, leaving only 34% (131) without changes or with few changes, as shown in Fig. 77. The façades were divided into three categories, as contributing, moderate and disturbing (according to their existing colonial features, discussed in sub-chapter 5.1.3) in order to identify the changes in a meaningful way (Figs. 77–83).

372 "Finishes of the Building: All internal and external appearance of the buildings shall be in harmony with the existing historical building within the Galle Fort area. (a) No reflecting or mirrored glass shall be used in the front elevation of the buildings. (b) No approval is granted to cover the front arcade with ceramic tiles, mosaic tiles, and any tiles with colour patches or tiles of any type and inappropriate plaster textures. (c) Façade finishes of the buildings shall be compatible with the environmental characteristics" (Article 70.19, Special Regulations, 2009).

Figs. 82–83 A "disturbing" façade (at left; Kuruppu and Wijesuriya 1992, 145) that changed into a "contributing" façade after an approved development (at right, 2016).[373]

The change in the façades between 1992–2016 is shown as a comparison in Figs. 84–87. Interestingly, the majority of the buildings recorded in 1992 (44%) had "disturbing" façades, which mainly represented the contemporary architectural styles. This confirms a fact mentioned in the first policy document: the "whole of this building stock is exposed to human mutilation, mainly forced upon by lack of maintenance, unauthorized rebuilding of the architectural fabric, and changing of the façade" (Wijesuriya and Vos 1987, 9; Fig. 88).

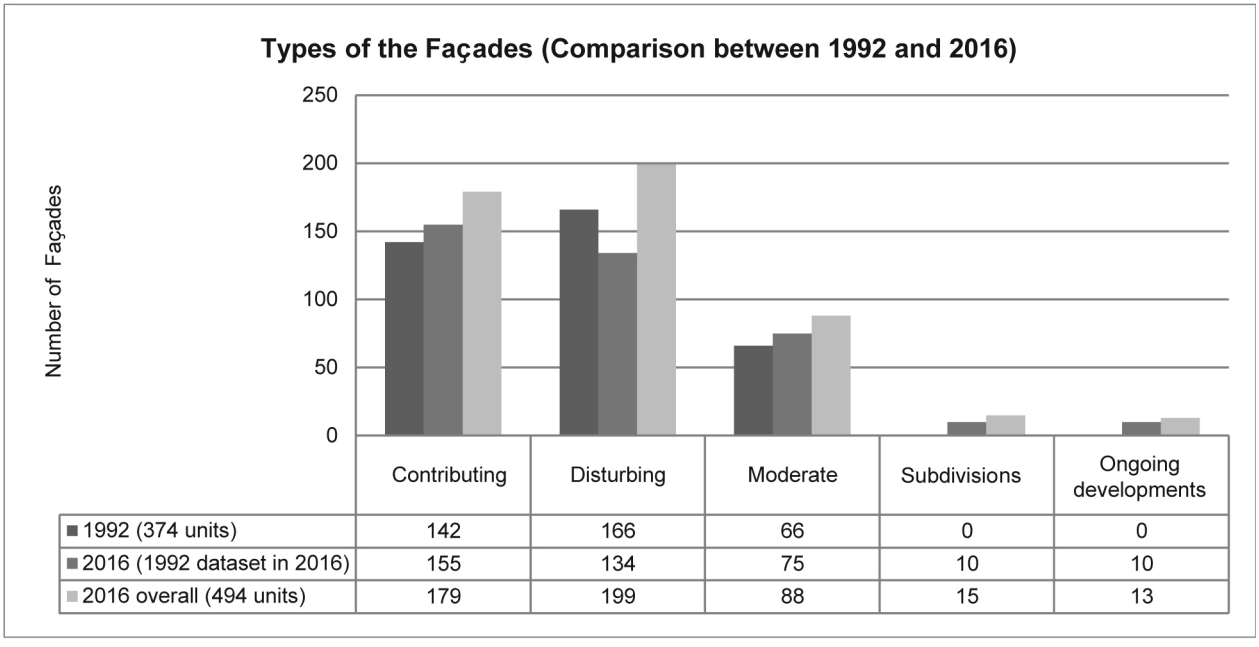
While 40% of buildings bore "contributing" façades in 1992, in between were 17% with "moderate" façades. Interestingly, the change in the same building stock was positive in 2016, with "contributing" and "moderate" façades rising by 5% and 3%, respectively, with an 8% decline in "disturbing" façades. This was mainly due to the Dutch government-funded Preservation of the Private Houses Project (2006–2009; discussed in sub-chapter 1.4.2) and the increasing number of approved developments.

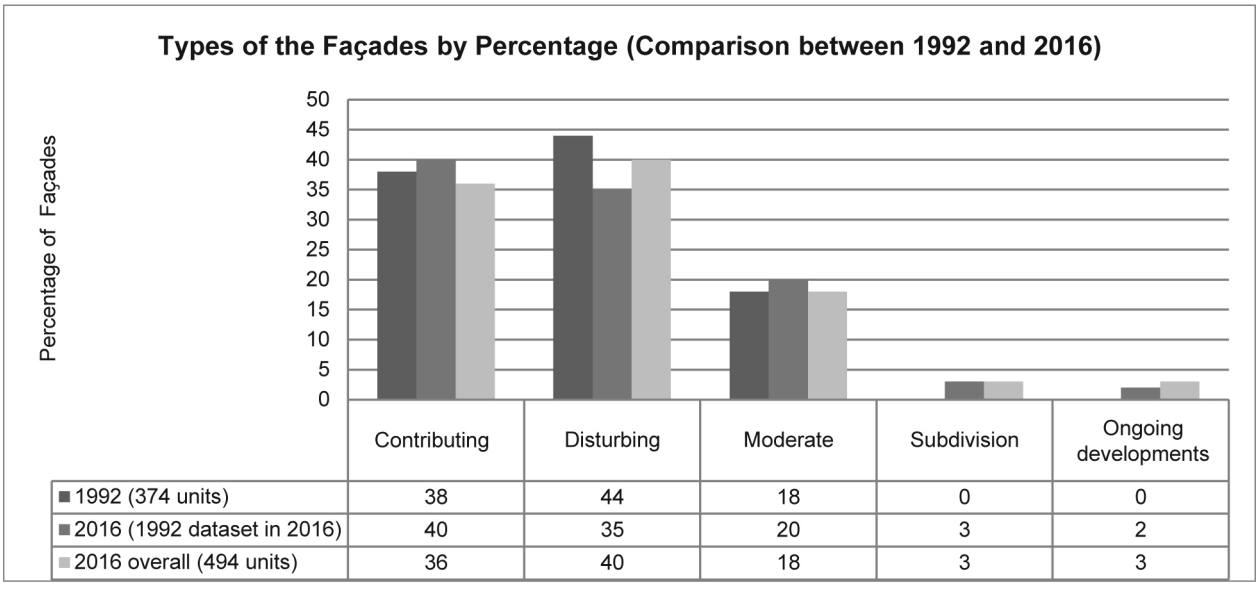
Concerning the total number of buildings with new infill (as well as the unrecorded buildings in 1992) by 2016, the percentage of "disturbing" façades remained at 40% (Fig. 85), although their number is slightly higher than that of the "contributing" façades.

373 This house was also conserved by the Preservation of Private Houses Project (2006–2009) prior to its current development.

Overall, the number of buildings with a "colonial appearance" has increased today when compared to the time of World Heritage recognition, although the buildings bearing incompatible architectural features in their façades have also increased amid the new infill of buildings.

Façade change is also associated with growing tourism, as nearly 60% (140 out of 239) of buildings subject to façade change were associated with tourism-related businesses by 2016, whereas in 1992, 77% (184 out of 239) of these buildings were residential. In general, investments, especially in boutique hotels and villas, bring "contributing" façades. It can be observed that 23 out of 28 villas have "contributing" façades, while the rest are "moderate;" 23 of these represent foreign investments (Figs. 89–92). On the





Figs. 84–85 Changes in building façades between 1992 and 2016.

other hand, tourism-related commercialization has also resulted in "disturbing" façades, including the subdivision of façades (as mentioned earlier) and closing of verandahs for commercial purposes, which is discussed under sub-chapter 5.3.1.

However, it can also be observed that the number of original colonial façades has dropped considerably, while the "contributing" façades newly built in accord with colonial architecture have increased as a result of approved developments. Nearly 80 buildings with "disturbing"/"moderate" façades have adopted "contributing" façades by 2016, while 104 "contributing"/"moderate" façades were turned into "disturbing" façades, which all together comprises half of the buildings in 1992. Therefore, today we see a regenerated "colonial-looking streetscape," compared to the time of World Heritage recognition.

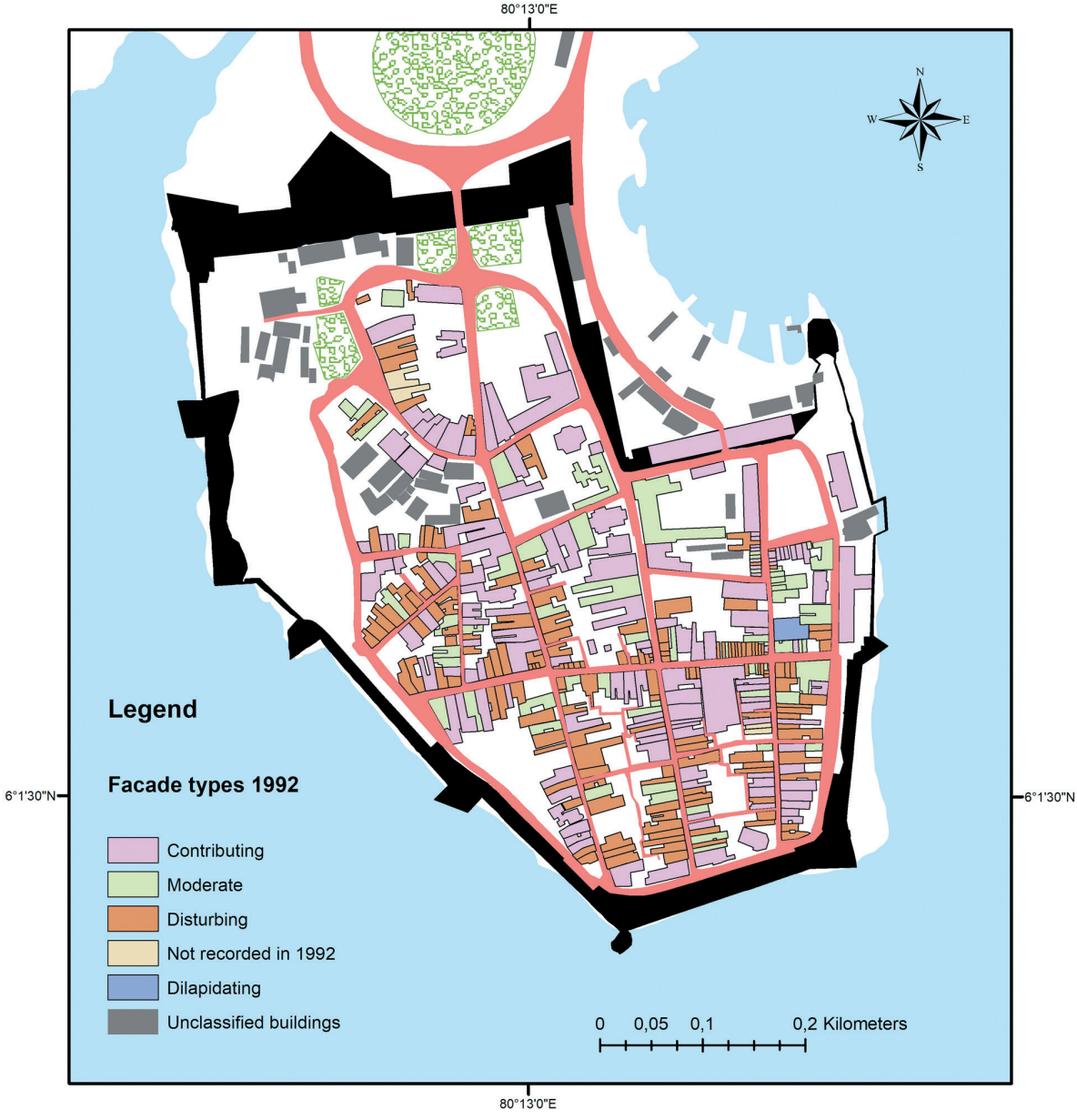


Fig. 86 Façade types, 1992 (source: Kuruppu and Wijesuriya, 2016).

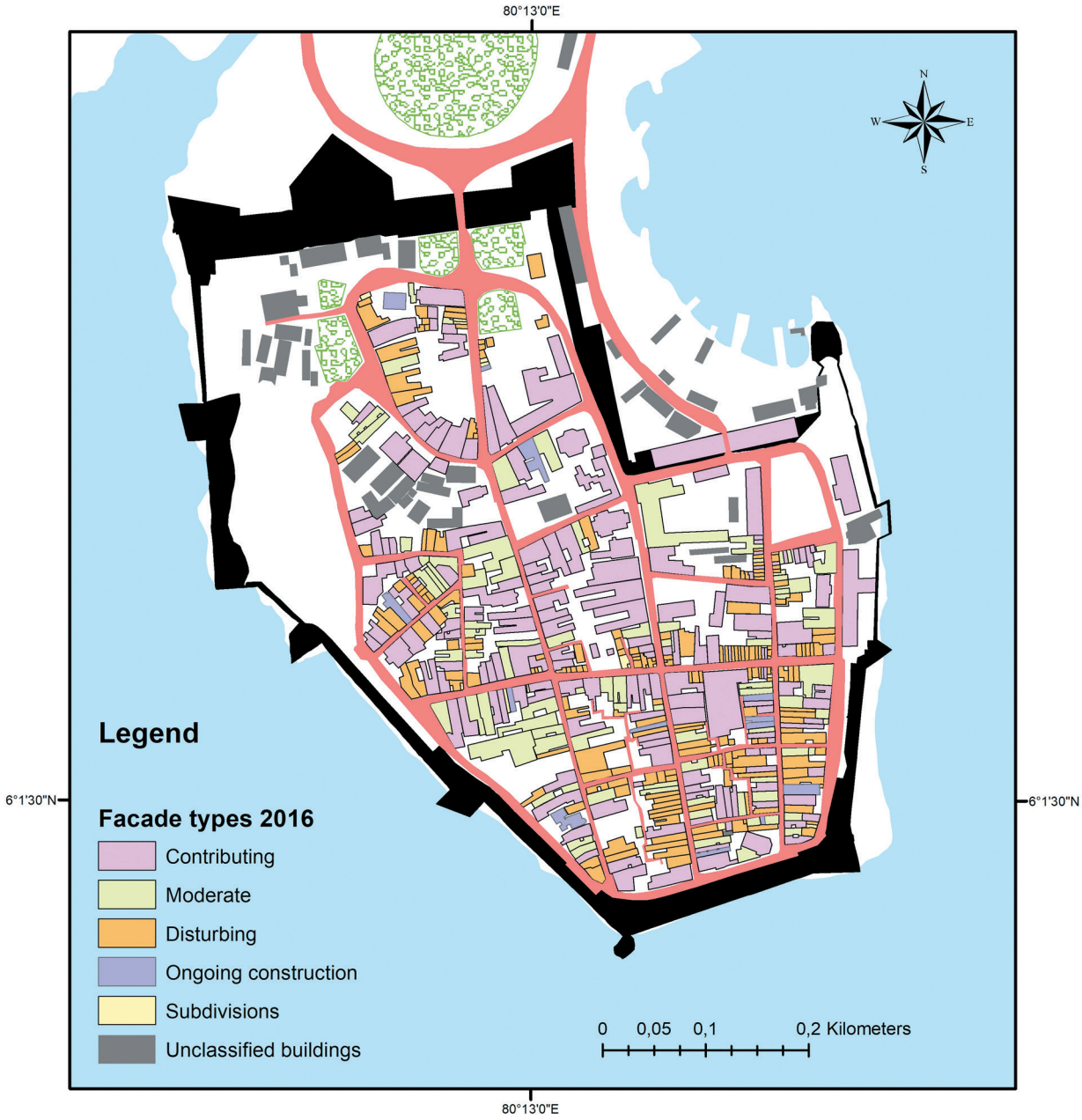
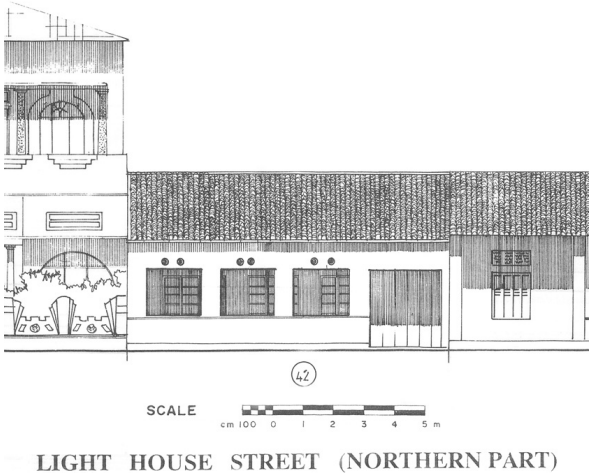


Fig. 87 Façade types, 2016.

Fig. 88 Street view of Church Street in 1992 (Kuruppu and Wijesuriya 1992, 223). The image shows two buildings with pillared verandahs representing colonial features, with the rest exhibiting contemporary architectural styles in their façades.

Figs. 89–90 An architecturally positive conversion from residential to commercial use in the form of a luxury villa with foreign ownership. The façade is shown in 1992 (left; Kuruppu and Wijesuriya 1992, 85) and in 2016 (right).



Figs. 91–92 A façade after an architecturally positive conversion from residential to commercial use in the form of a boutique villa owned by a local investor. The façade is shown in 1992 (left; Kuruppu and Wijesuriya 1992, 187) and in 2016 (right).

5.3.1 VERANDAHS: "INTRODUCING COLONIAL ARCHITECTURE"

As the most prominent colonial feature, verandahs are protected by Article 70.14 (a) of the Special Regulations, 2009, which state that the existing front verandahs of the buildings cannot be changed or covered (discussed in sub-chapter 4.3.2).[374] Introducing verandahs to new buildings was proposed by the draft Building Regulations formulated in the second policy document (2002, discussed in sub-chapter 4.5.2), while compartmentation was prohibited (Wijeratne 2002, 58). In fact, this was initiated with World Heritage recognition to give the buildings a "Dutch colonial appearance." Thus, a few public buildings added verandahs in the early '90s, including the current post office,[375] which originally had no verandah during Dutch occupation (Figs. 93–95), and the National Museum, which had only a half-verandah as of 1990 (Figs. 96–97). An anecdote in sub-chapter 7.4.2 illustrates that Planning Sub-Committee requires residents to have a verandah in their developments, as a compulsory element.

The Preservation of Private Houses Project (2006–2009), administered by GHF and funded by the Dutch government, introduced or developed the existing verandahs as one of the most important elements of the townhouse architecture of Galle Fort, contingent on sufficient evidence and the approval of the owners (Manawadu 2009). According to Boxem and Fuhren, 81% of the participating buildings had a verandah after the programme (Boxem and Fuhren 2010, 90).[376] By 2016, 27 out of 57 participating buildings had verandahs, while three buildings had partly or fully closed verandahs (Figs. 98–101). The project played a vital role in enhancing the importance of the verandah in domestic colonial architecture within the community. It also increased the commercial value of the properties substantially, according to Prof. Samitha Manawadu, the principal investigator of the project.[378]

Figs. 93–94 The post office or House of the Assistant or Writer in the mid-18th century, by Heydt (above),[377] and the same building in 1992 (below; Kuruppu and Wijesuriya 1992, 229). Neither image shows a verandah.

Fig. 95 The same building in 2018 with a verandah added in the early '90s.

374 "(a) No existing front verandahs of the buildings be covered or changed, to affect its appearance. Any streets with specific features given for the front of the building as verandahs or row of columns shall be maintained and continued accordingly (b) Any new accessories fixed instead of old handrails, carved wooden columns, doors, windows, windows slats, fan lights, or any other special features, such features shall be in conformity with the original plan and it shall be carried out subject to the UDA approval" (Article 70.14, Special Regulations, 2009).

375 House of the Assistant or Writer during Dutch occupation, according to Heydt (Heydt 1744 [1952]).

376 Sixty-two buildings participated in the project. This included three religious monuments, while the rest were private houses. According to a survey carried out for this study, 26 out of the 57 private houses had renovated verandahs even before the project. These verandahs were given a proper colonial appearance by the project, while the feature was newly added to some houses. By 2016, 27 of the private houses restored by the project still had verandahs, three had closed verandahs, one building was undergoing construction and 11 had no verandahs. However, five of the houses improved by the project were later redeveloped by their owners or new owners. Some of these houses have been bought by investors, including foreign ones.

377 Plate 67 (Heydt 1744 [1952]).

378 Interview with Prof. Samitha Manawadu, 22 December 2015.

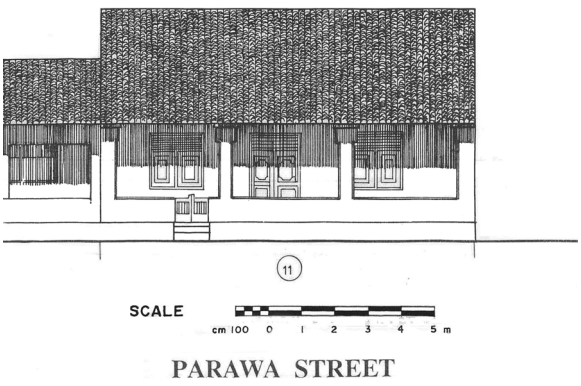
Fig. 96 Galle National Museum, housed in a Dutch colonial building with a half-verandah, in 1992 (Kuruppu and Wijesuriya 1992, 235).

Fig. 97 The same building in 2016, with a full verandah added in the early '90s.

In 1992, 40% (152 out of 384) of buildings had verandahs, including both colonial verandahs as well as those subject to later modifications (as shown by Figs. 102, 103, 104,106 and 107). While 8.8% (34) of the buildings had lost these verandahs by 2016, mainly due to "unauthorized" construction (Figs. 108–109), verandahs were added to 17% (66) of the buildings, mainly due to the Preservation of Private Houses Project (2006–2009) and approved developments (Fig. 103 and Fig. 105). However, a substantial number of these approved developments represented foreign and local investments, including those of local residents (Figs. 110–113). As a result, the percentage of verandahs rose to 47% in 2016. When considering the overall numbers with the new infill (and the data unrecorded in 1992), the percentages of buildings with and without verandahs remain at 42% and 50%, respectively, a slight improvement over 1992 (Fig. 103). However, the closing of verandahs still continues despite the law, which had a primarily residential purpose in the '90s, but currently has a commercial purpose (Figs. 114–117).[379]

379 The closing in of verandahs was practiced especially by the Muslim community of Galle Fort, who preferred more privacy at the initiation of the World Heritage project. In addition, this was also used to increase the floor area of the house. The demand for space was increased by commercialization, as verandahs or parts of verandahs were turned into shops. Gems and jewellery and tea are the most popular products currently sold in verandah shops, as they do not require more space.

Figs. 98–99 A house with a verandah added by the Preservation of Private Houses Project (2006–2009): the same house in 1992 (left; Kuruppu and Wijesuriya 1992, 255) and in 2016 (right).



Figs. 100–101 A verandah improved by the Preservation of Private Houses Project (2006–2009): the same house in 1992 (left; Kuruppu and Wijesuriya 1992, 165) and in 2016 (right).

Although strict laws and conservation projects have stabilized the number of verandahs, authentic colonial verandahs are fewer in number today. What we see today are mostly verandahs restored, modified or newly introduced by conservation projects or new developments; the latter has brought both positive outcomes as well as sometimes totally alien verandahs (Figs. 118–119). Overall, this has resulted in a reconstructed colonial streetscape (Figs. 120–121). Although the statistics show the willingness of a considerable number of property owners to have a verandah, there are exceptions for the occupants of comparatively small houses, as will be elaborated in sub-chapter 7.2.3.

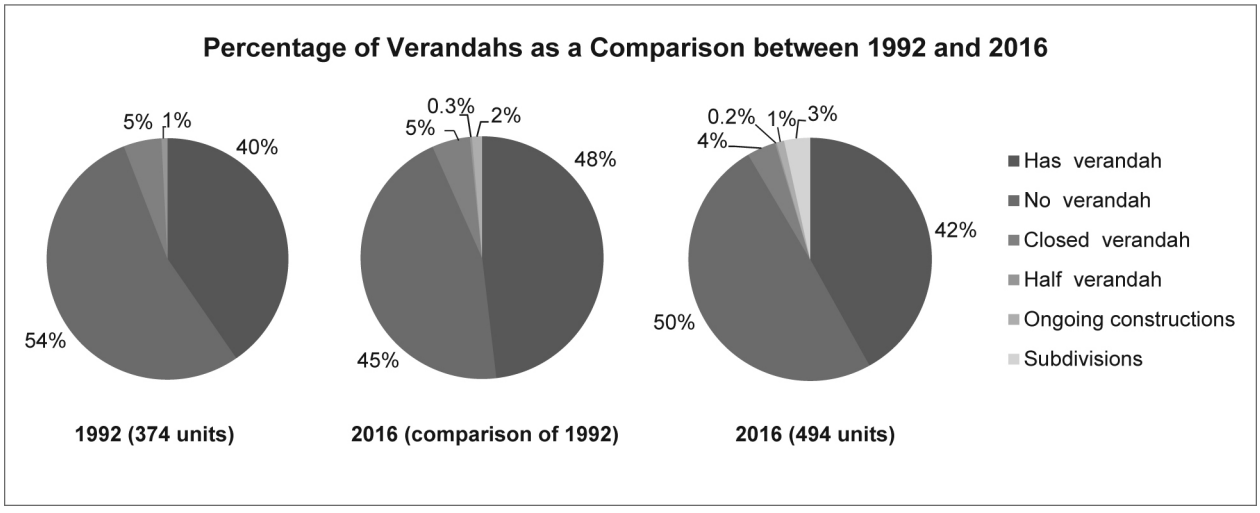
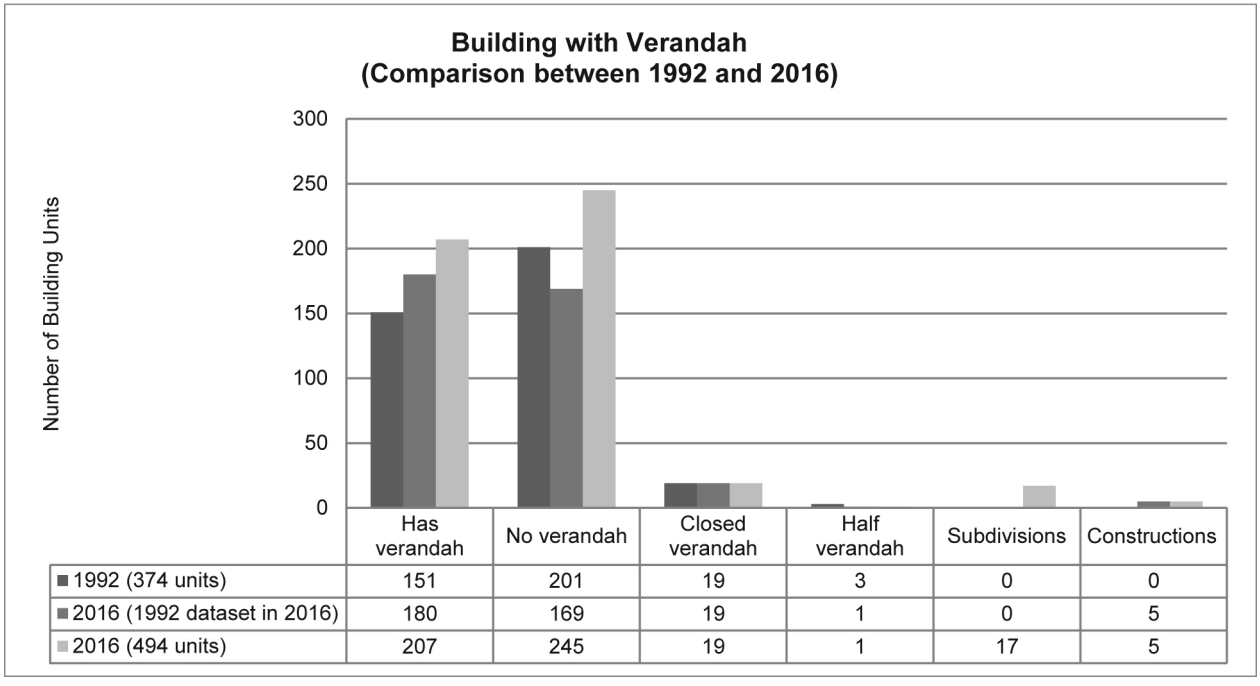


Fig. 102 Percentage of verandahs as a comparison between 1992–2016.



	Has verandah	No verandah	Closed verandah	Half verandah	Subdivisions	Constructions
1992 (374 units)	151	201	19	3	0	0
2016 (1992 dataset in 2016)	180	169	19	1	0	5
2016 (494 units)	207	245	19	1	17	5

Fig. 103 Buildings with verandahs as a comparison between 1992 and 2016.

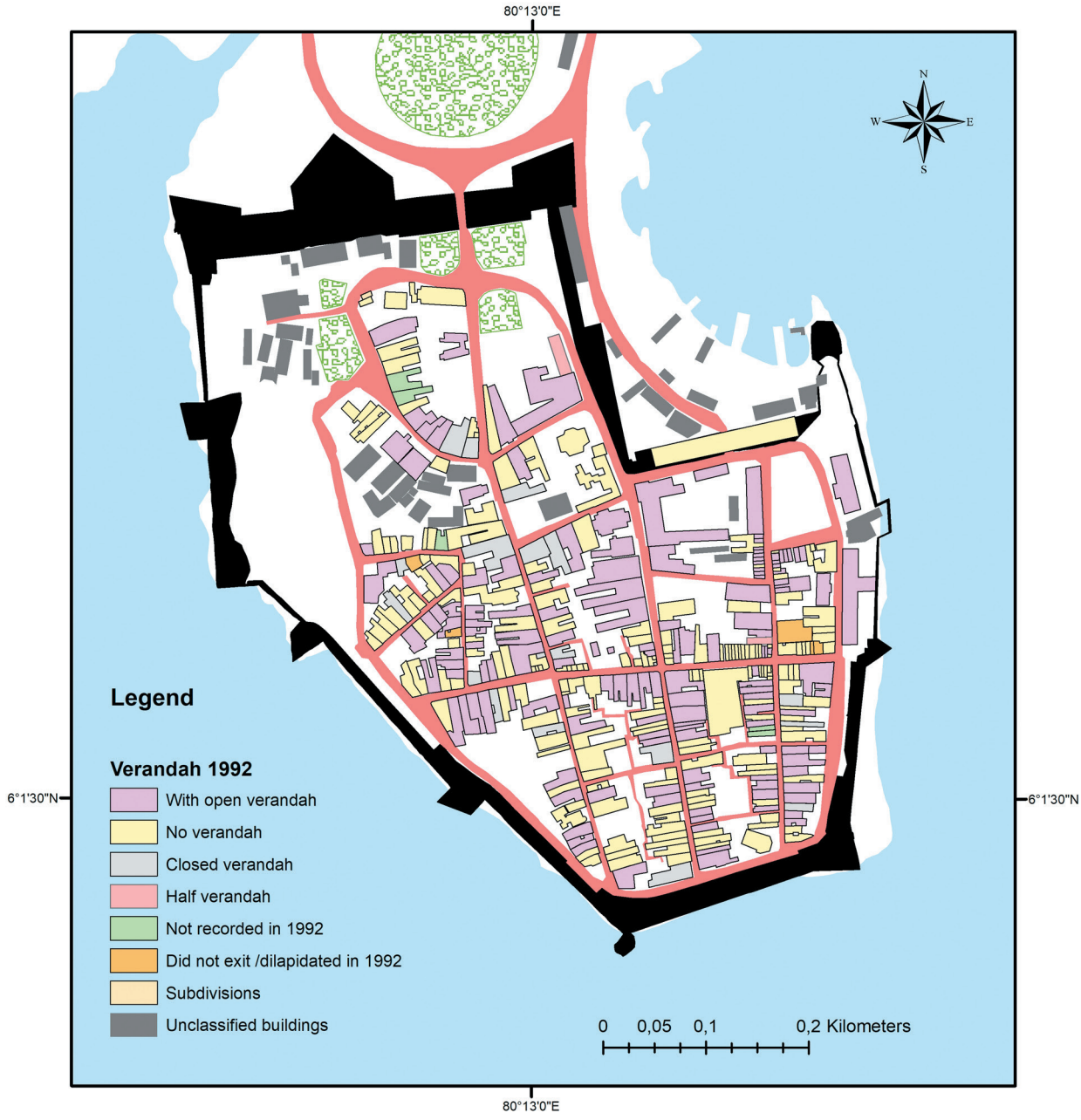


Fig. 104 Buildings with verandah, 1992 (source: Kuruppu and Wijesuriya, 1992).

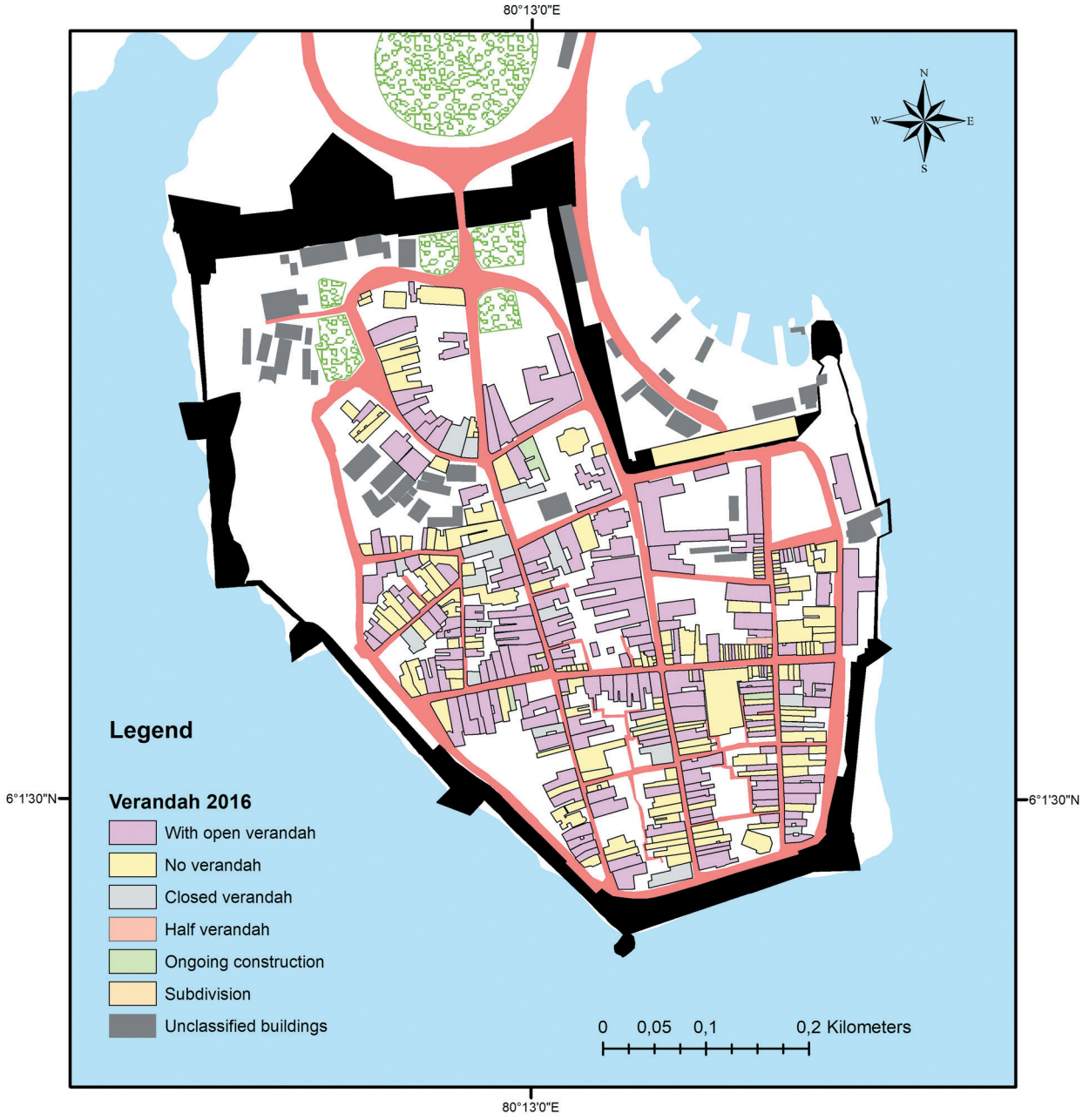
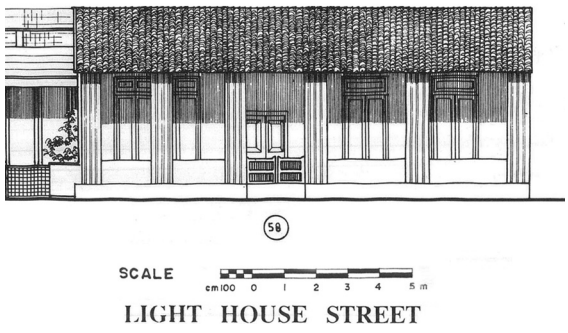
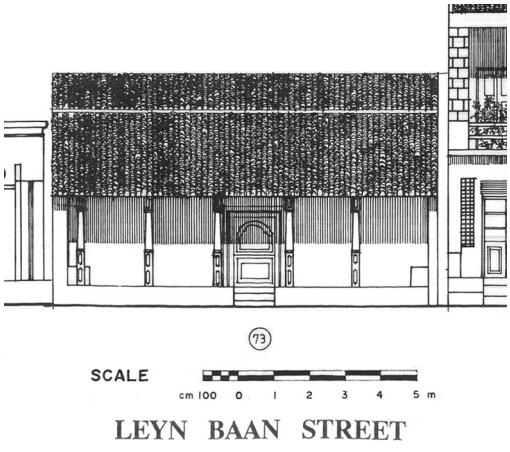


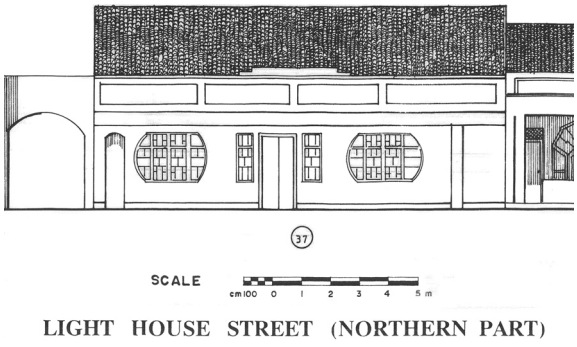
Fig. 105 Buildings with verandah, the same buildings in 2016.



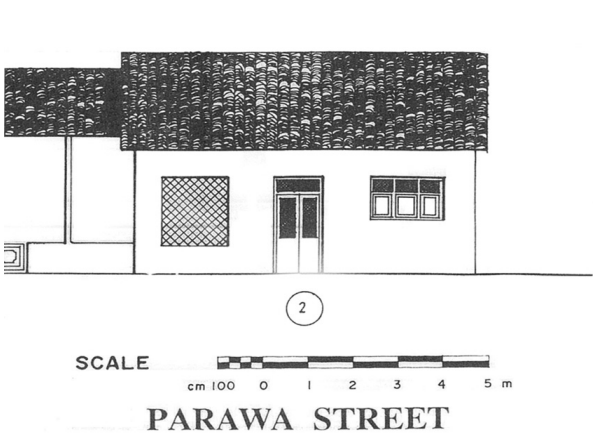
Figs. 106–107 A colonial verandah that had probably been modified even before 1992. The house is shown in 1992 (left; Kuruppu and Wijesuriya 1992, 181) and 2016 (right).



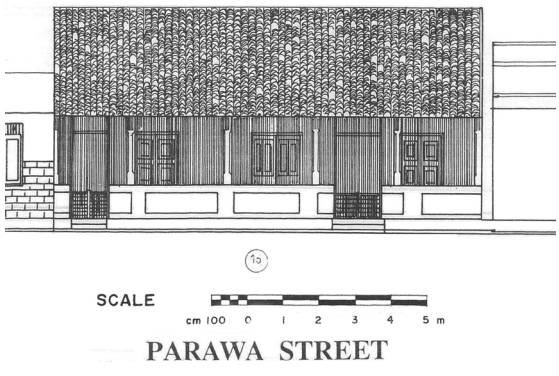
Figs. 108–109 Losing verandahs due to "unauthorized" developments: the same house in 1992 (left; Kuruppu and Wijesuriya 1992, 273) and in 2016 (right).



Figs. 110–111 The addition of a verandah due to an approved foreign-invested development: the same building in 1992 (left; Kuruppu and Wijesuriya 1992, 201) and in 2016 (right).



Figs. 112–113 The addition of verandah due to an approved development by a local resident: the same building is shown in 1992 (left; Kuruppu and Wijesuriya 1992, 175) and 2016 (right, as a tourist accommodation).



Figs. 114–115 Closing in a verandah for residential purposes: the same house in 1992 (left; Kuruppu and Wijesurirya 1992, 171) and in 2016 (right).

Figs. 116–117 Verandahs that have been partially and fully closed for commercial purposes.

Figs. 118–119 An alien verandah introduced by an approved development on Middle Street, in 2016 (left) and 2018 (right).

Fig. 120 Original colonial streetscape (Church Street, with British arched verandahs).[380]

Fig. 121 Reconstructed colonial streetscape (Light House Street, with new developments).

5.3.2 BUILDING COLOUR: THE BEST OBSERVED REGULATION

According to Article 70.18 (a) of the Special Regulations (2009), only white, grey and yellow (beige is also accepted in practice) are allowed in Galle Fort.[381] These were the most common colours of the buildings in colonial Galle, especially lime white and yellowish beige, the latter locally known as "Samara." The colours of the buildings as of 2016 were analysed for this study; however, no comparison can be made due to the unavailability of earlier data. Interestingly, nearly 90% of the buildings are painted according to the approved colour scheme (Figs. 122–124). While half of the buildings are painted in white (53%, 261) the rest are painted in beige (26%), yellow (7%), etc., leaving only 8% of buildings with unacceptable colours, such as brown, orange, pink, green (except mosques), black, etc. (Fig. 124–126). At the beginning of 2018, I noticed that some of the latter houses have changed over to the approved colours, showing the willingness of the owners to follow the regulation (Figs. 127–128). Overall, the colour code is the regulation that is best observed by property owners.

380 Both buildings in the first image date back to the British period. At left is the former Oriental Bank (current YWCA), and at right is the building known as the "Clan House."

381 "(a) Accepted colours are white, grey and yellow and no any other colours are allowed. (b) Two storied building shall be painted with a single colour. Light tonal differences are permitted (c) Facades of the building shall be painted with a single colour" (Article 70.18, Special Regulations, 2009).

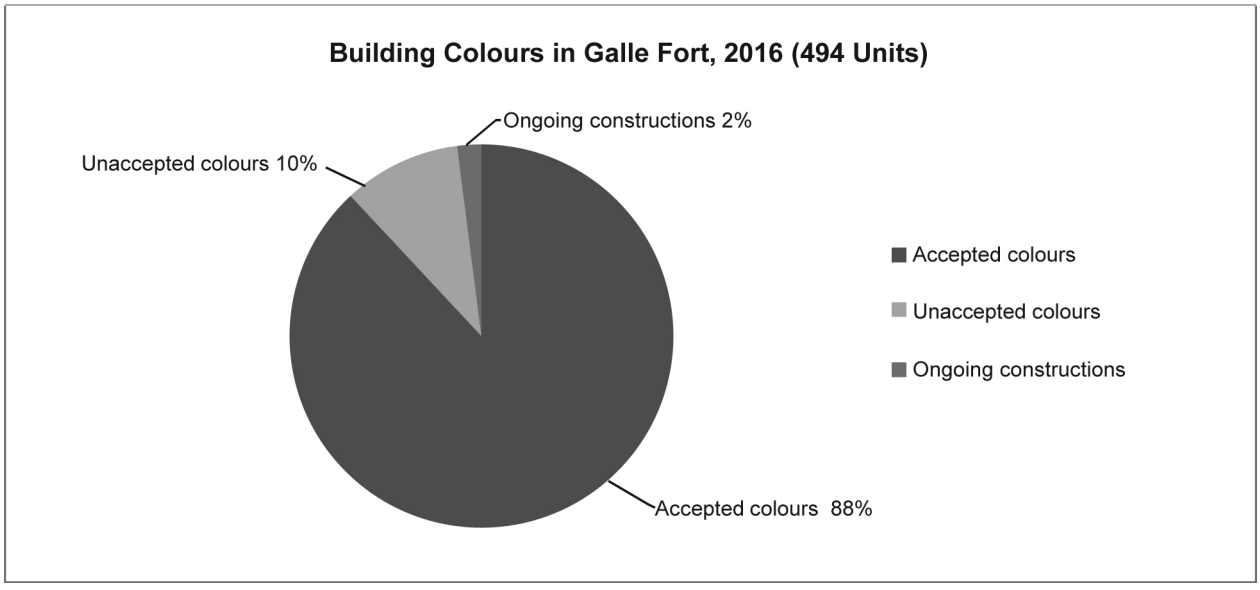


Fig. 122 Building colours in Galle Fort (as a percentage), 2016.

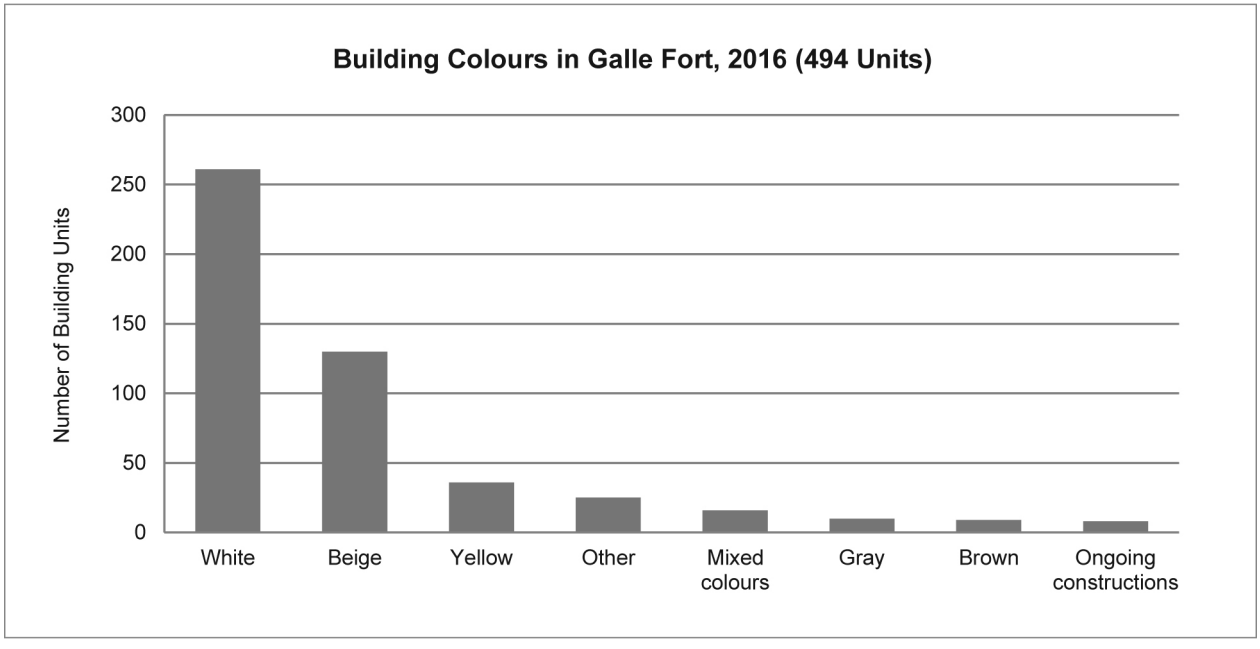


Fig. 123 Building colours in Galle Fort, 2016.

5.3.3 ROOFSCAPE: A SUBSTANTIALLY WELL-OBSERVED REGULATION

The roofscape can be identified as a controllable factor, unlike the factors that determine the floor area. Only clay tiles (including half-round tiles, Calicut tiles or other clay tiles) are allowed in roofing by the Special Regulations, 2009, while roof gardens are also allowed (Article 70.17 a). Asbestos or other sheet roofing materials were prohibited by the Draft Building Regulations of 2002 (Wijeratne 2002, 58). Half-round tile was the most common roofing

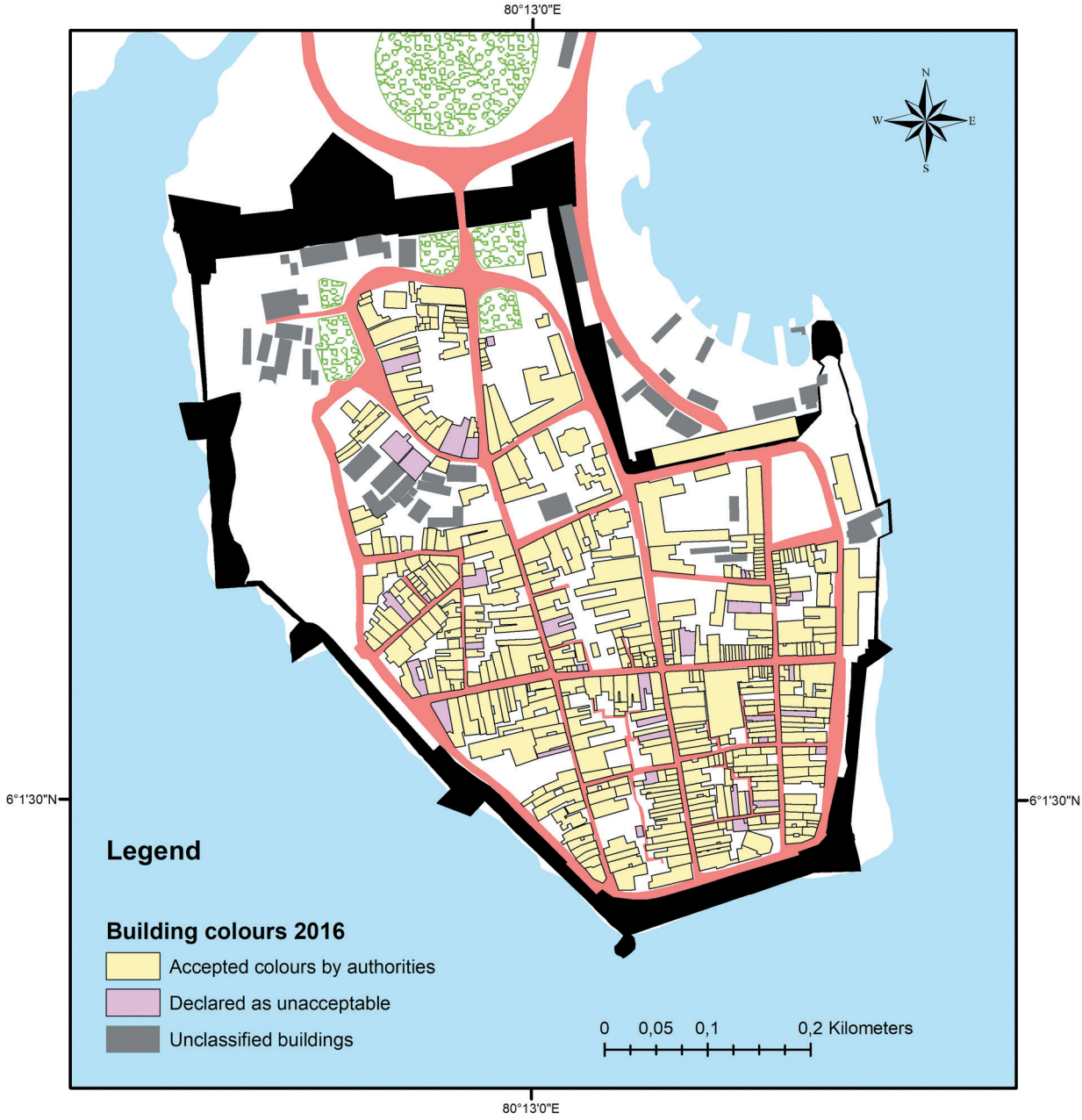


Fig. 124 Building colours, 2016.

Figs. 125–126 Street views of Church Street with buildings in approved colours, 2016 (the green building in the first image is a mosque).

Figs. 127–128 The unacceptable orange colour found on a house in 2016 (left) was changed into an approved colour by 2018 (right).

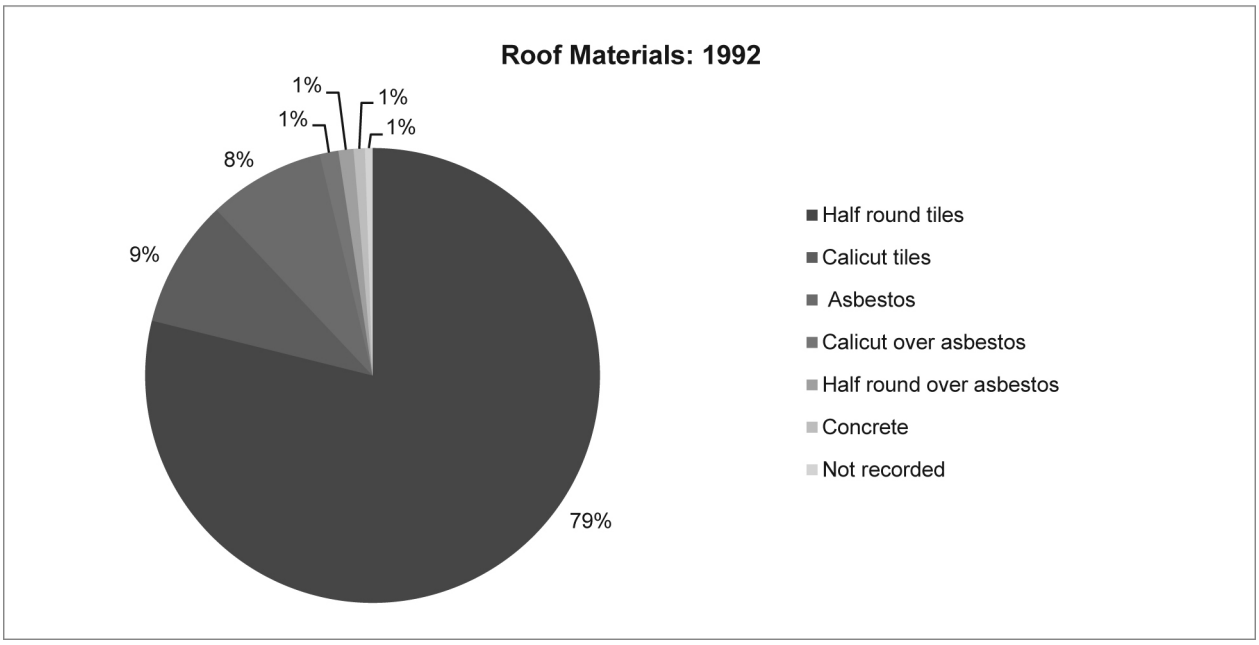


Fig. 129 Roof materials in 1992 (as a percentage).

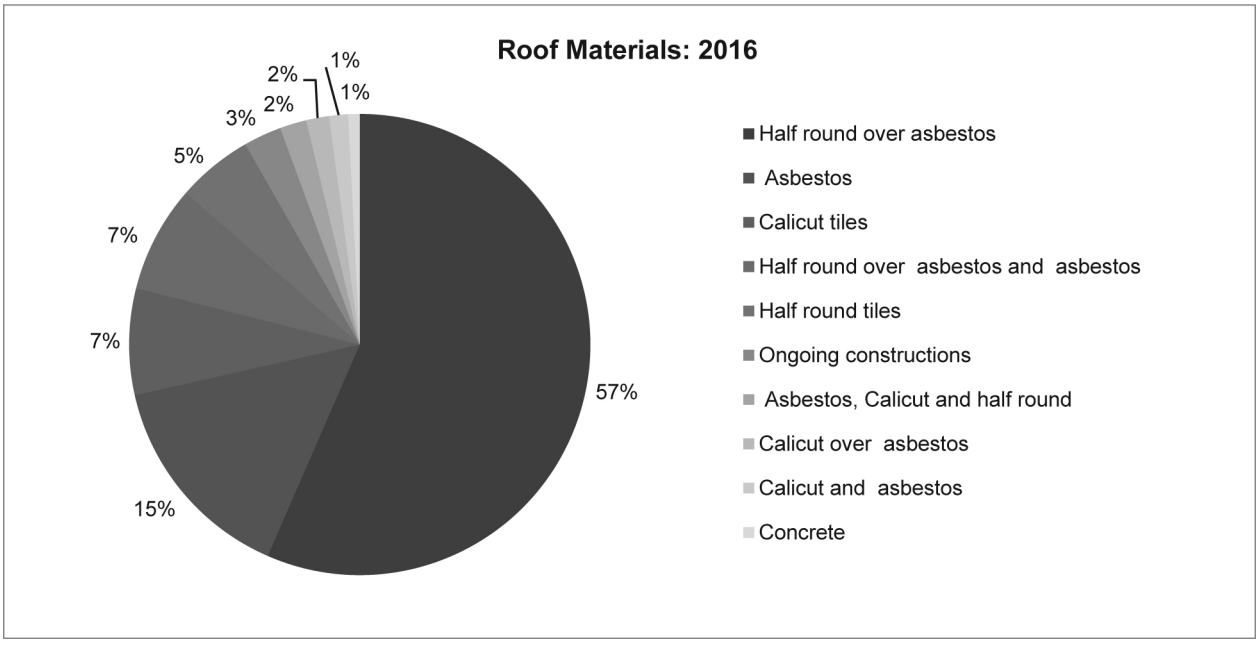


Fig. 130 Roof materials in 2016 (as a percentage).

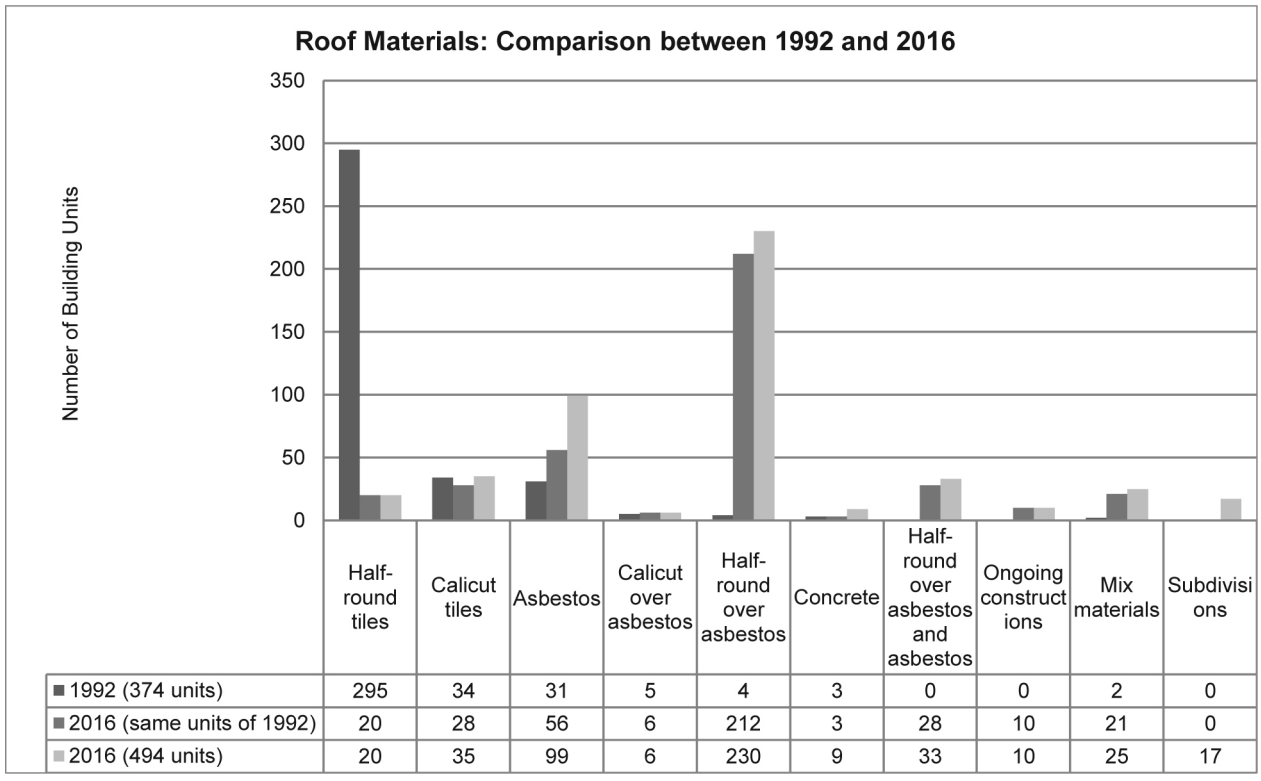


Fig. 131 Comparison of roof materials between 1992 and 2016.

material in the fort during the British colonial period, and even at the inception of the World Heritage project. The material, which was mostly limited to old buildings, was impractical due to frequent leakage, and was thus replaced by Calicut tiles and asbestos. Thus, the Planning Sub-Committee promoted half-round tiles over asbestos, primarily to prevent leaking while also maintaining the typical Lankan-colonial appearance.

In 1992, nearly 80% (295) of houses had half-round tiled roofs, followed by 9% (34) Calicut tiles, a somewhat similar amount of asbestos (8%, 31) and other materials, including concrete (Figs. 129; 131). 82% (316) of these roofs had changed by 2016, with the number of roofs with typical half-round tiles dropping to 5% (25) (Fig. 130; 131). However, nearly 60% of these roofs were covered by half-round tiles over asbestos in 2016, a positive trend usually followed in approved developments as well as ordinary roof renovations (Figs. 130–133). However, a number of "unauthorized" developments still have asbestos (Fig. 134). When considering the overall picture, including the new infill, the majority of roofs remain half-round tile over asbestoses (47%, 230), although there a significant increase in asbestos (20%, 99), which is not permitted (Fig. 131; 135).

It was observed by drone images that a number of buildings have half-round tiles only on the visible areas of the roof, while the rest is covered with asbestos. In addition, nearly 10% of the buildings have solar panels, a positive trend of using clean energy, especially popular with providers of tourist accommodation, both local and foreign.

5.3.4 STABLES AND GARAGES: DISAPPEARING ELEMENTS

Only some houses in Galle Fort had stables, which later turned into garages, as having a horse carriage or car was a luxury in the past. The rareness of the feature resulted in the Special Regulations (2009) identifying the garage as an unnecessary element in townhouses, and thus garages are not allowed in

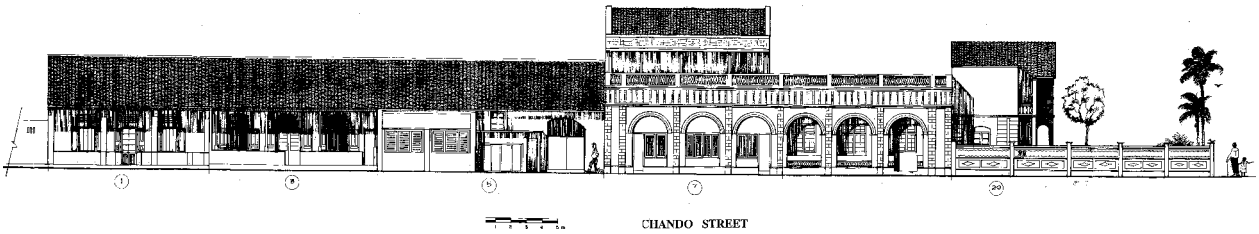


Fig. 132 Roofscapes of a few buildings in 1992, almost all of them covered with half-round tiles (Kuruppu and Wijesuriya 1992, 123).

Fig. 133 Roofscapes of the same buildings in 2016: four of them are covered in clay tiles, while only one (in the middle) has the prohibited asbestos. Furthermore, approved developments have positively increased the use of half-round tiles over asbestos (extreme right and the second from the left, also with solar panels).

Fig. 134 Difference in the usage of roof materials between approved and "illegal" developments: while half-round tiles over asbestos are used in approved developments (extreme left and right), the rest, in the middle, are covered with the prohibited asbestos.

Fig. 135 The roofscapes in 2016, showing more tiled roofs and a substantial amount of prohibited asbestos.

Figs. 136–138 Three stables in different conditions: unchanged (the first one, on Church Cross Street); renovated with positive changes (the second, on Parawa Street); and an ongoing "unpermitted" change, in December 2017 (the third, on Pedlar Street).

the façades during developments (Article 70.13).[382] Yet the city's economic prosperity due to tourism has resulted in a considerable increase in vehicle ownership, which has currently created huge issues with parking.

Colonial stables can be identified as a disappearing element due to their increasing commercial value as shop spaces. Nine out of 12 stables/old garages are used for commercial tourism purposes, which coincides with mostly discarding their colonial characteristics. While one stable on Parawa Street has been positively converted without much architectural change, alterations in another on Pedlar Street have destroyed the authentic stable, according to the Project Planning Officer of Galle Heritage Foundation (Figs. 136–138).[383]

5.4 BEHIND THE FAÇADE: HORIZONTAL AND VERTICAL EXPANSION OF SPACE

As the changes in the façades are satisfactory, it was also decided to explore the changes behind the façade to identify whether the law is also observed in preserving internal features. According to Special Regulations, 2009, "all internal and external appearance of the buildings shall be in harmony with the existing historical buildings" (Article 70.19).

5.4.1 CHANGES IN FLOORS AND DEVELOPMENTS BEHIND THE FAÇADE

The first policy document of 1987 indicates that the interiors of most buildings have remained in their original condition despite changes in the façades (Wijesuriya and Vos 1987). However, the situation has changed drastically today. Despite the contributing "colonial" façades, there are substantial developments behind the façade, both legally as well "illegally" which has mainly been identified through drone images (as discussed under the methods in sub-chapter 3.3.1). Therefore, the statistics may also increase when considering possible unidentified constructions. The constructions, which extend vertically as well horizontally, include the addition of floors, rooftops and even swimming pools, which will be discussed separately.

Nearly half of the buildings recorded in 1992 (47%, 178 units) underwent dramatic changes behind their façades by 2016, as shown by Figs. 139–141. The buildings with the fewest changes or without any change are as few as 12% (Fig. 139). However, a number of these changes could be considered "illegal" within the regulatory context, as is elaborated in sub-chapter 7.3.1. Yet they illustrate the growing requirements of property owners and their eagerness to gain benefits from the booming tourism industry; 117 out of 178 (65%) of the highly changed buildings were associated with tourism-related businesses (Figs. 142–144). Sixty-five buildings provide tourist accommodation, including villas, hotels, guesthouses and B&Bs. Interestingly, 47 (26%) of these highly changed buildings are entirely residential, which shows the residents also require modern living standards.

5.4.2 ADDITION OF FLOORS: THE VERTICAL EXPANSION OF THE CITY WITH TOURISM

The Special Regulations, 2009, which have been in effect since the early 2000s (as draft regulations), states that the height of the buildings "shall not exceed ten metres and only two floors are allowed" (Article 70.12a). According to the first policy document of 1987, high-rise structures were not permitted in the fort (Wijesuriya and Vos 1987, 10). Upper floors are only permitted in the rear wing, provided that the existing buildings have such floors as well, as per the Draft Building Regulations of 2002 (Wijeratne 2002, 58).[384] Single-storey was the style of a typical Lankan-Dutch house (as discussed in sub-chapter 5.1.3), while two-storeyed buildings and few three-storeyed buildings were introduced during British occupation. The heritage authorities

382 "Any garage, parking or similar use for vehicle, shall not be conducted in front of the building mentioned in the above Section 70.12."

383 Personal conversation, June 2018.

384 According to the Draft Building Regulations of 2002, there is no fixed height within the historic area; the streetscape and compatibility with the adjoining buildings dictates the height of a building (Wijeratne 2002, 59). However, there are guidelines: no upper floors are encouraged in front wing; upper floors are only permitted on streets with other such buildings; no existing single-storeyed building will be permitted to extend vertically. However, construction of an upper floor in rear wing may be permitted (Wijeratne 2002, 58).

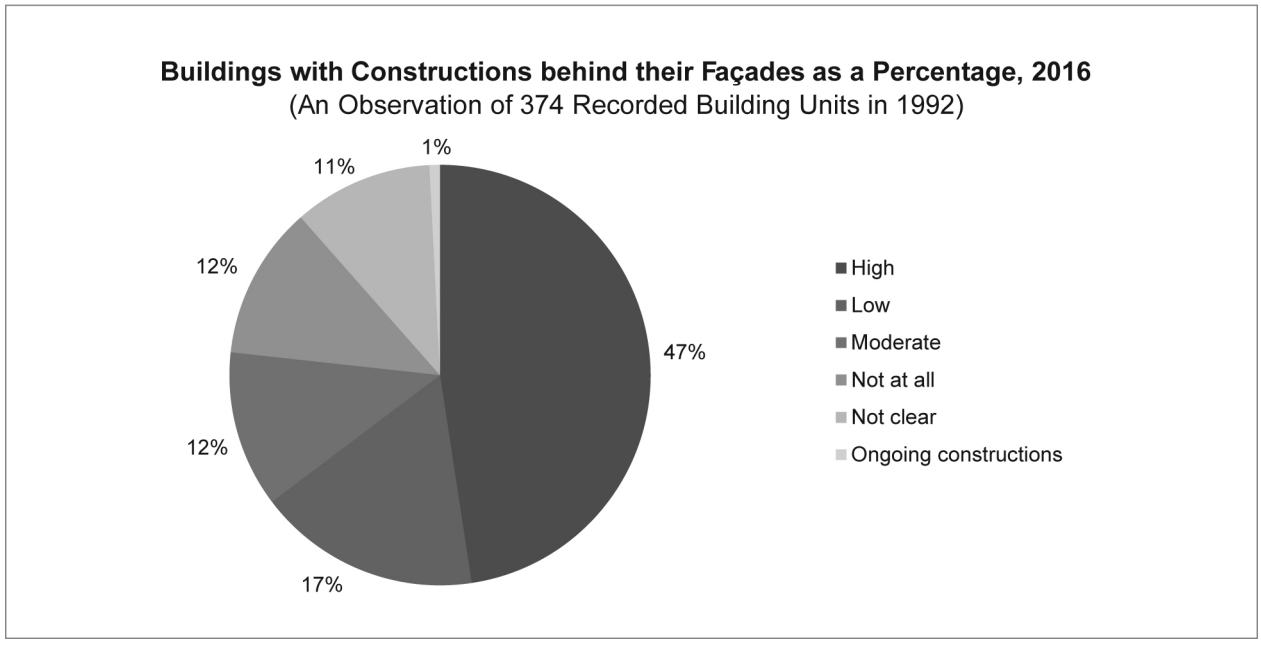


Fig. 139 Buildings with constructions behind their façades in 2016 as a percentage (among the buildings recorded in 1992).

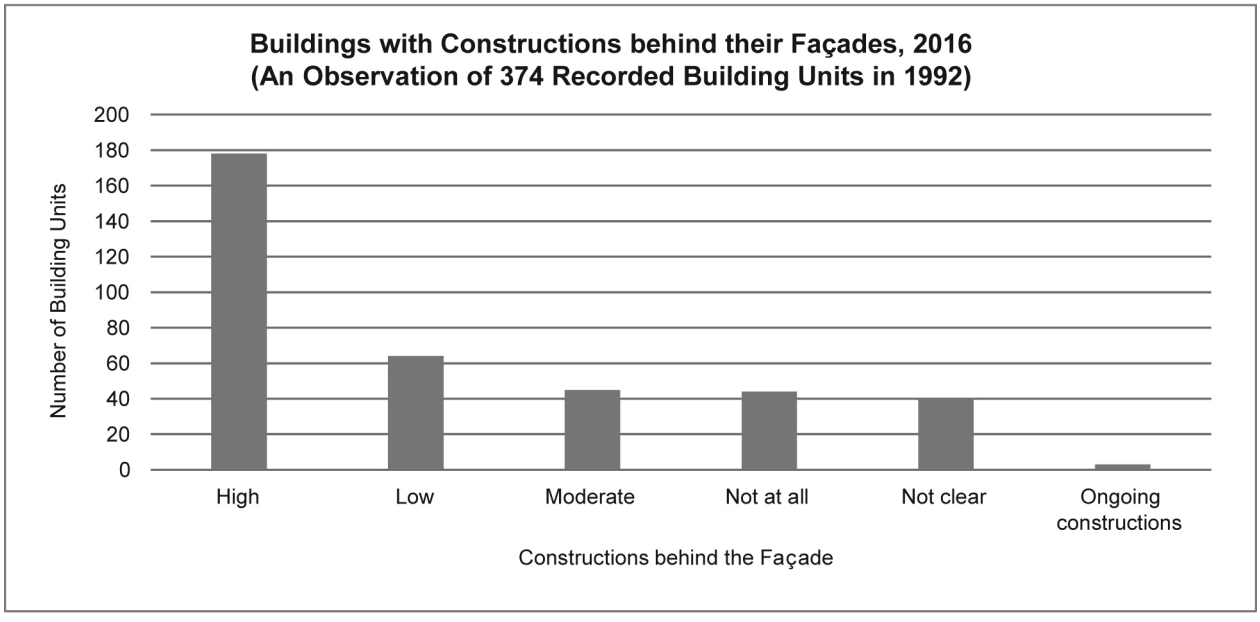


Fig. 140 Buildings with constructions behind their façades in 2016 (among the buildings recorded in 1992).

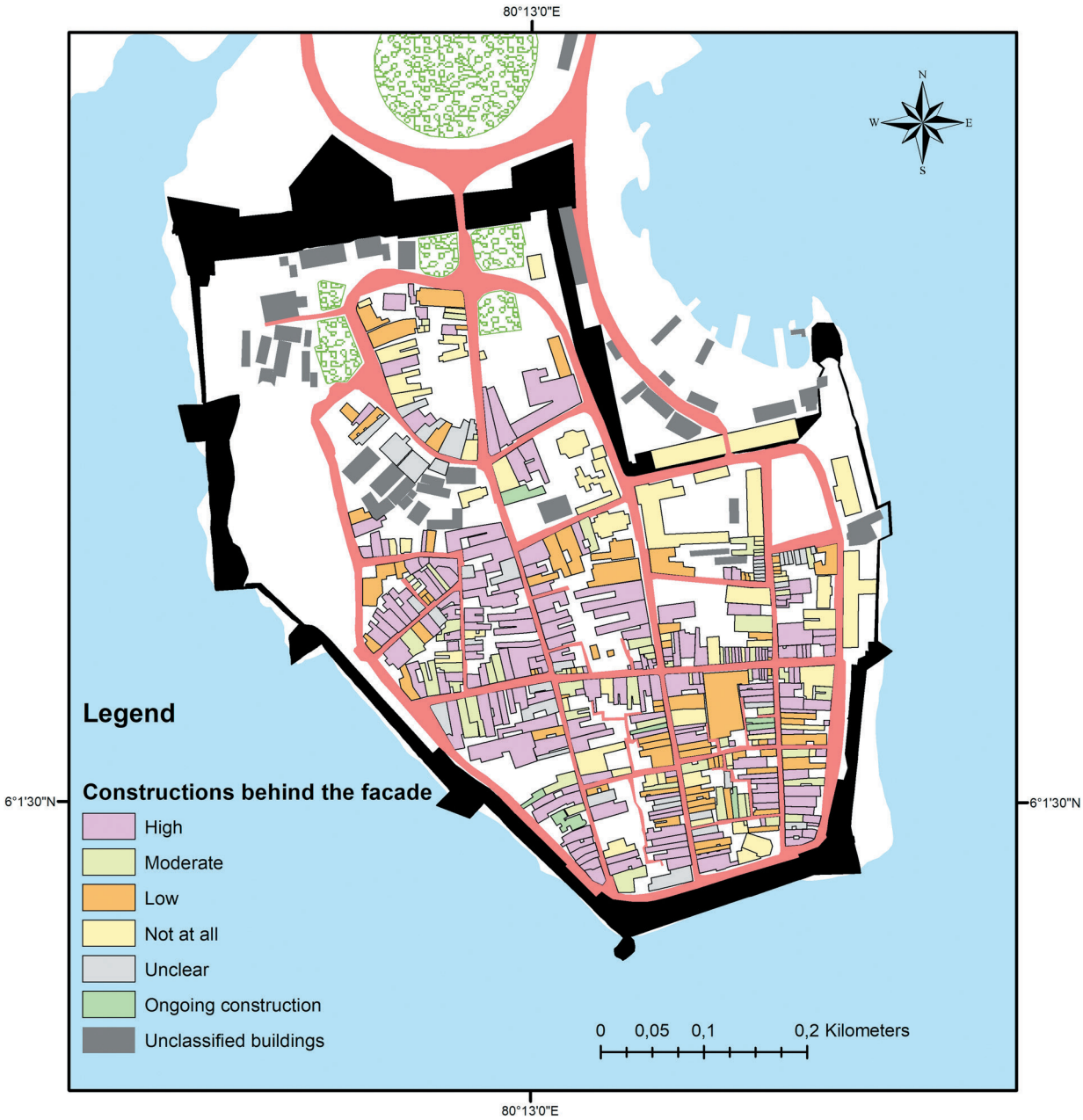


Fig. 141 Buildings with constructions behind their façades, 2016.

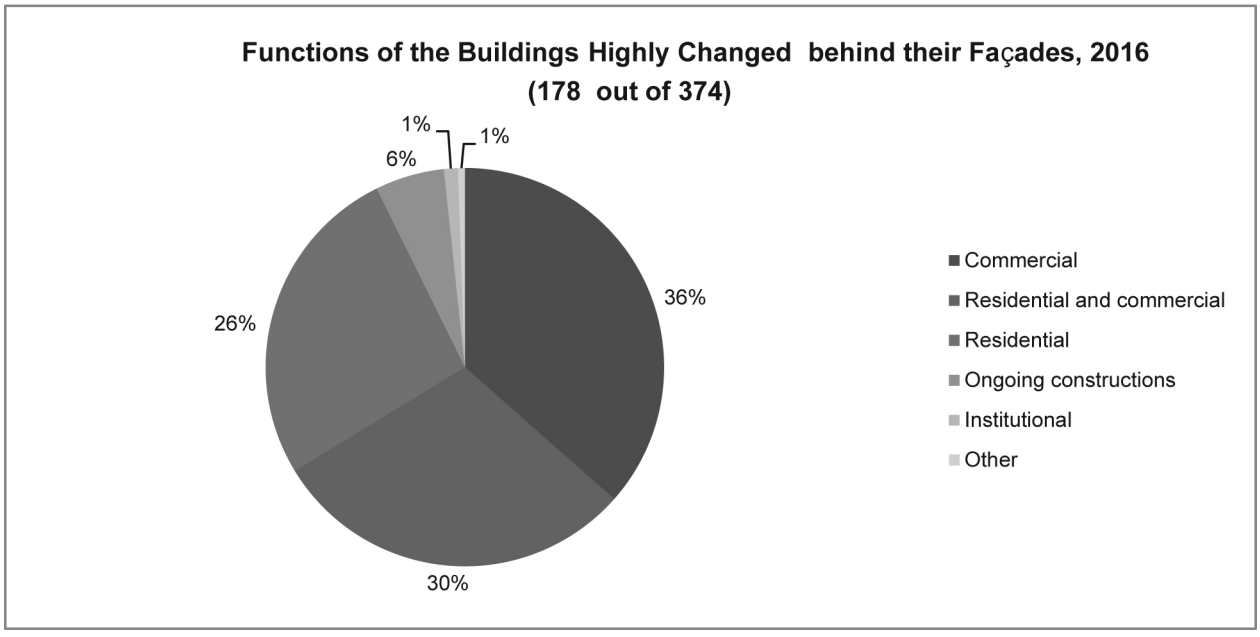


Fig. 142 Functions of the buildings highly changed behind their façades, 2016.

Figs. 143–144 The British façade kept as it is (left) and the aerial view of the development of the same building behind the façade (right), an ongoing approved development of a boutique hotel (2016).

were keen on maintaining the former colonial nature of the buildings.

A comparison of the number of floors between 1992, 2009 and 2016 is shown by Figs. 145–148. In 1992, nearly 70% of recorded buildings (261 units) were single-storeyed, 27% (103) two-storeyed and only 3% (10) three-storeyed buildings, mainly British-period buildings, including the former New Oriental Hotel (currently Amangalla) (Figs. 149–150). The same building stock changed drastically by 2016, with a sharp drop in single-storeyed buildings to almost half of the percentage of 1992 (36%), and the rise of two-storeyed buildings as the largest category (45%). In addition, there is a significant increase in buildings with three floors, totalling 15% (72), which are mostly "illegal."

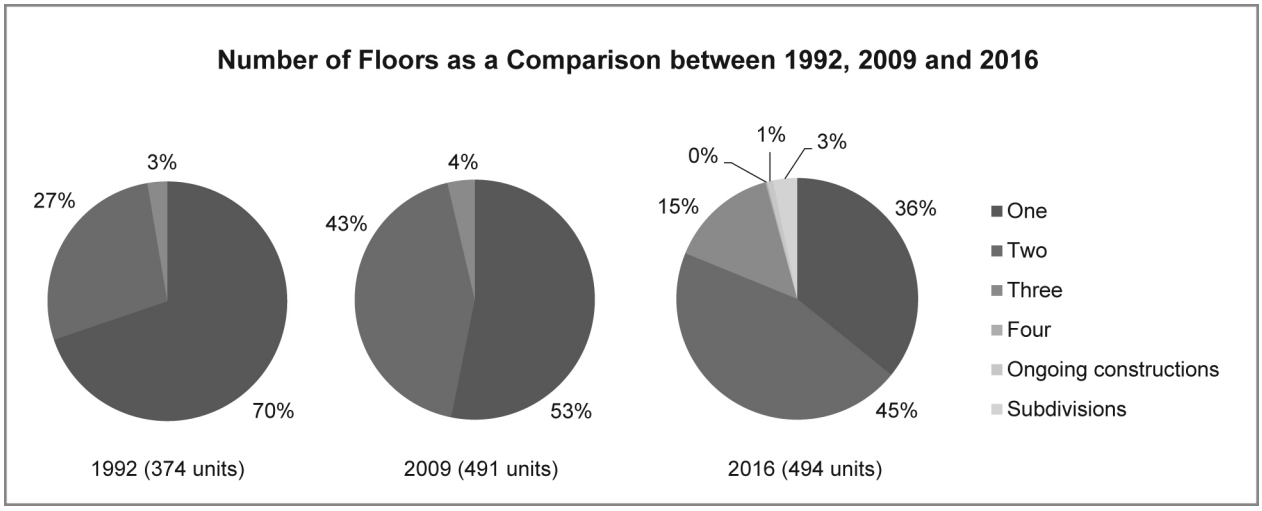
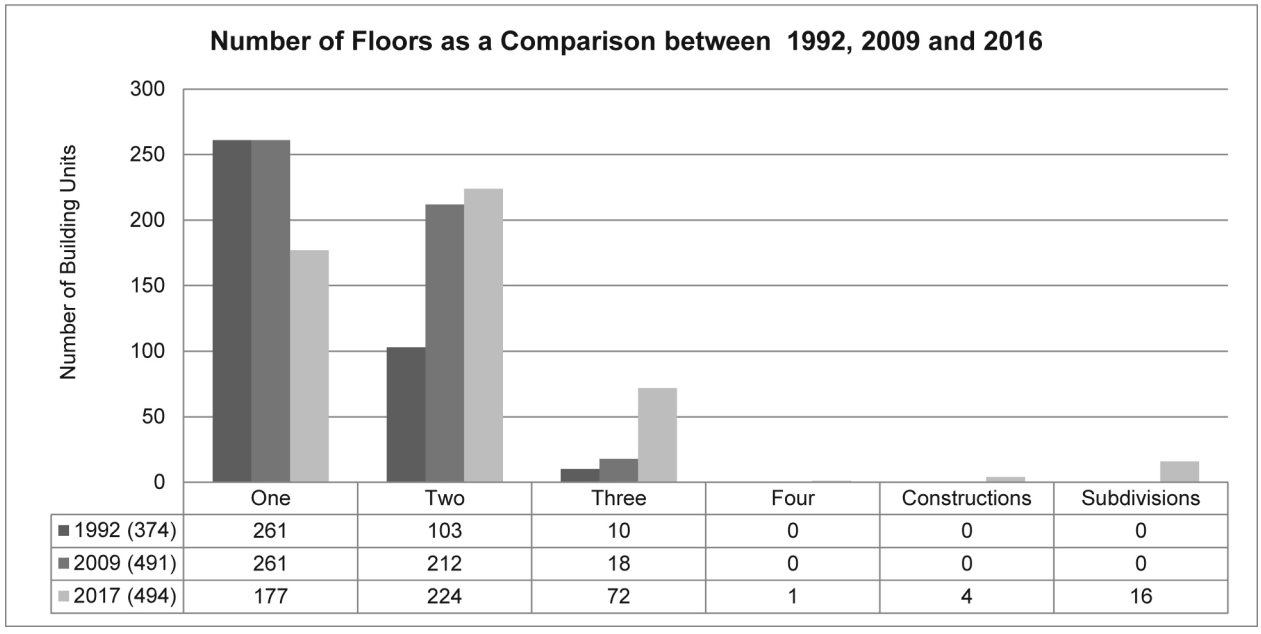


Fig. 145 Number of floors as a comparison between 1992, 2009 (GHF Survey)[385] and 2016.



	One	Two	Three	Four	Constructions	Subdivisions
1992 (374)	261	103	10	0	0	0
2009 (491)	261	212	18	0	0	0
2017 (494)	177	224	72	1	4	16

Fig. 146 Number of floors as a comparison between 1992, 2009 (GHF Survey)[386] and 2016.

While a number of these owners received lawsuits from the Galle Magistrate's Courts and were fined, more than 30 owners will be subject to legal action by the Urban Development Authority, as discussed separately in sub-chapter 7.5.1. There are also approved third floors that are built within the range of 10 metres, as elaborated in the next sub-topic.

385 Source: Galle Heritage Foundation (Liyana Arachchi 2009, 47).
386 Ibid.

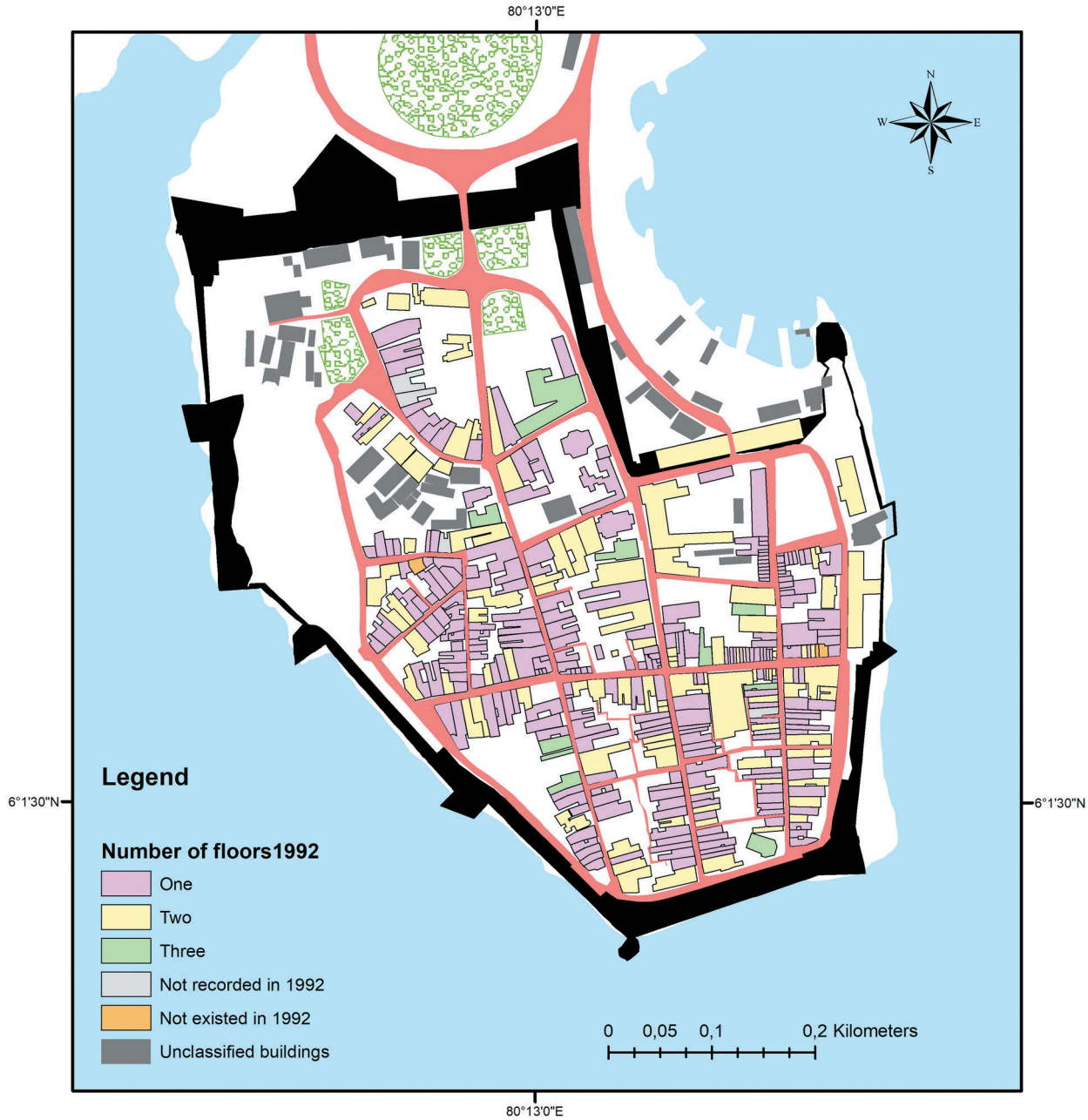


Fig. 147 Number of floors, 1992.

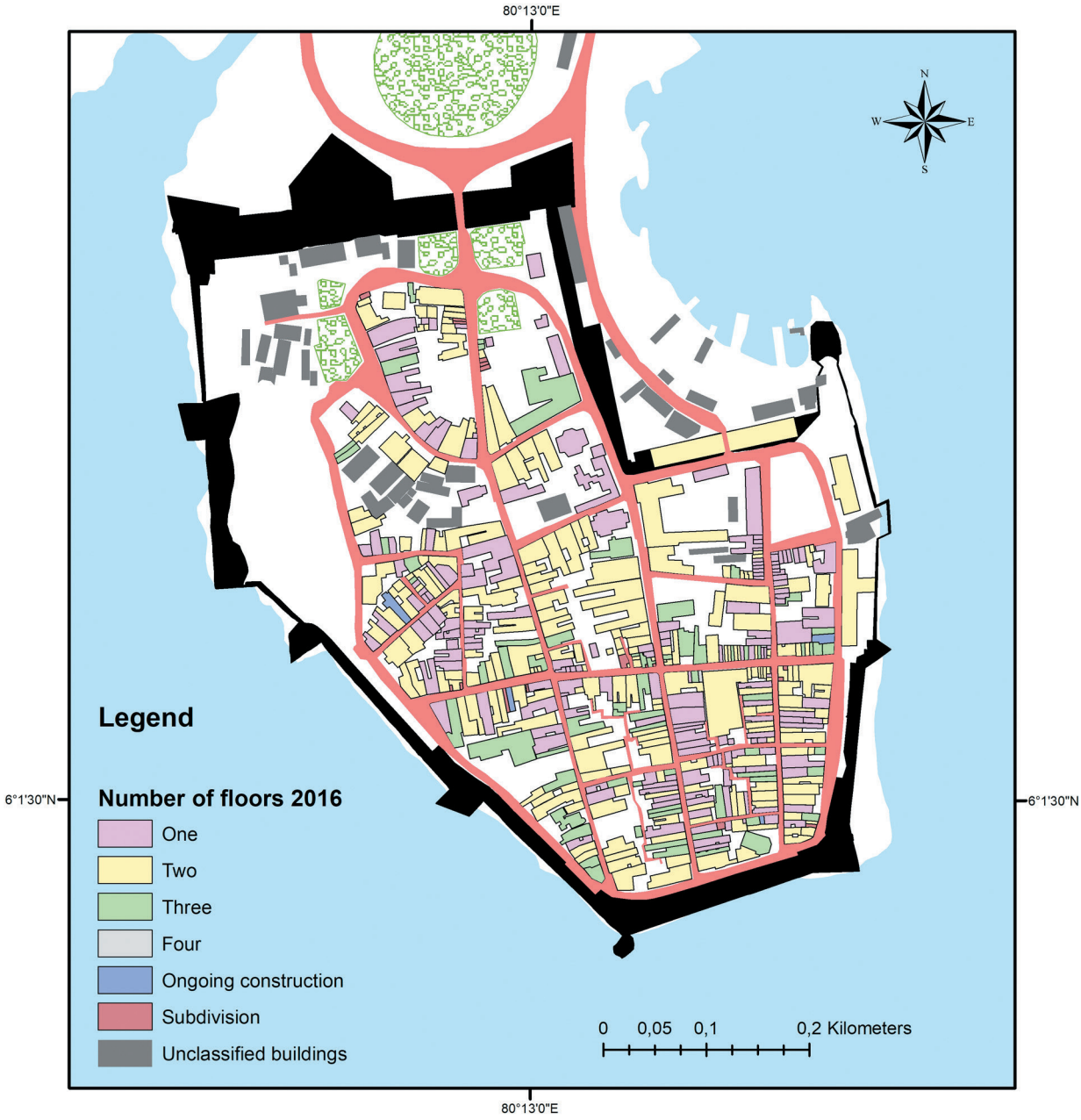


Fig. 148 Number of floors, 2016.

Figs. 149–150 British period buildings originally had three floors: the former New Oriental Hotel (currently Amangalla) and no. 50, Pedlar Street.[387]

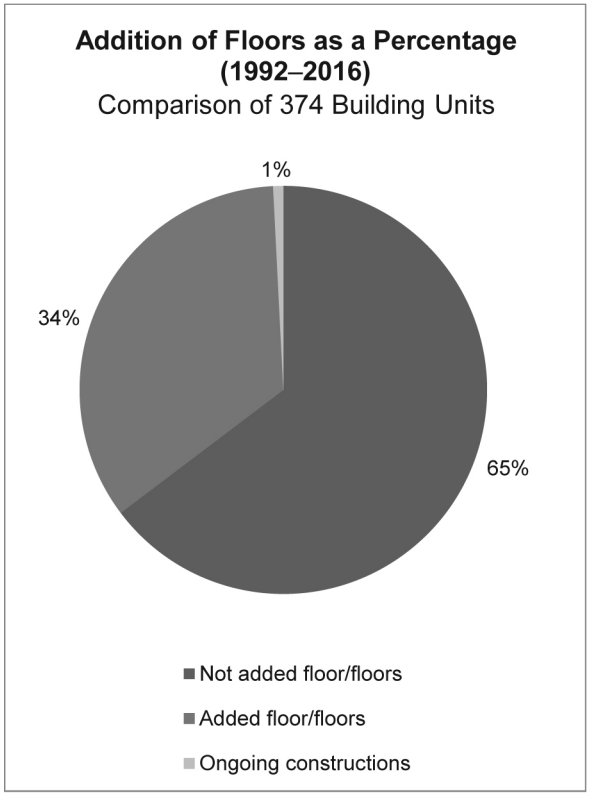


Fig. 151 Addition of floors as a percentage between 1992 and 2016.

Overall, 34% (129 out of 374) of the buildings surveyed in 1992 have added floors (either legally or "illegally") by 2016 (Fig. 151). The most common changes in the number of floors were turning single-storeyed buildings into either double-storeyed (86 units) or three-storeyed buildings (39 units). One hundred ten out of 129 of these buildings with added floors were residential buildings in 1992. The addition of floors is generally spread over the fort equally, the highest incidence can be seen on Pedlar Street, which is currently one of the most commercialized streets in the fort (Fig. 152). This is also linked to tourism-related businesses, as 83 out of 129 buildings that have added floors were associated with such businesses in 2016. Tourist accommodation providers and B&B owners are desperately in need of space, resulting in the "illegal" addition of floors, which was a common issue in Galle Fort and exemplified by an anecdote in sub-chapter 7.4.1 (Figs. 153–154). However, the addition of floors is the only possible way to increase the floor area in most cases, due to small plot sizes (plot sizes are shown in sub-chapter 6.3.4). The commercial, residential and social needs of the expanding community are further elaborated in chapters 6 and 7 from the perspective of the community, and thus sees these requirements in a more balanced view.

387 Currently owned by a leading local entrepreneur and use for commercial purposes.

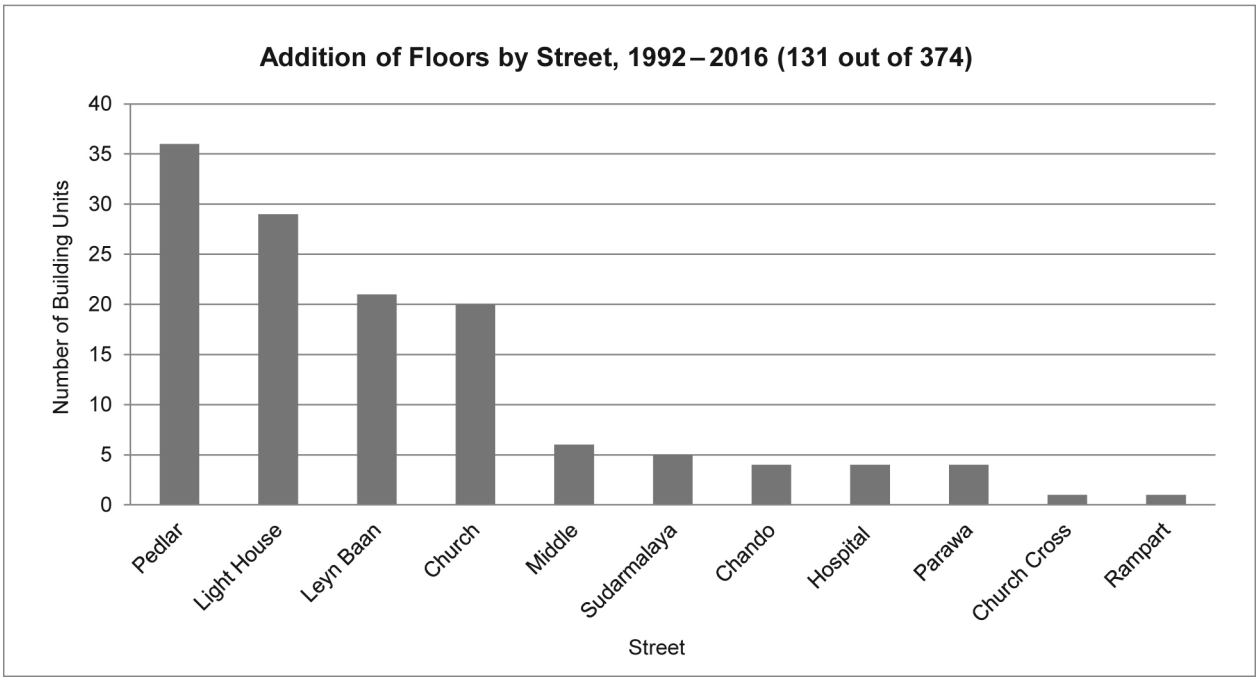
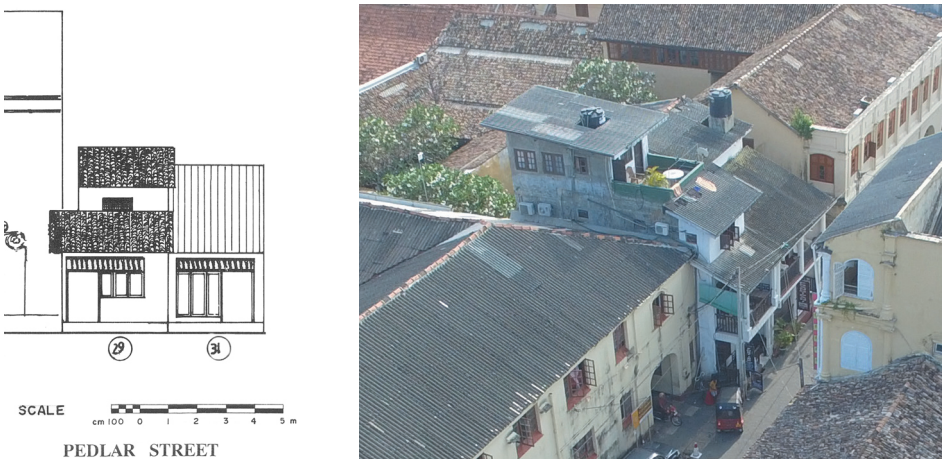


Fig. 152 Addition of floors between 1992 and 2016, by street.



Figs. 153–154 A B&B with third and fourth floors in the historic centre: the house in 1992 (first image; Kuruppu and Wijesuriya 1992, 151) and in 2016 (the second image).

5.4.3 HIDDEN FLOORS AND ATTICS: INCREASING SPACE

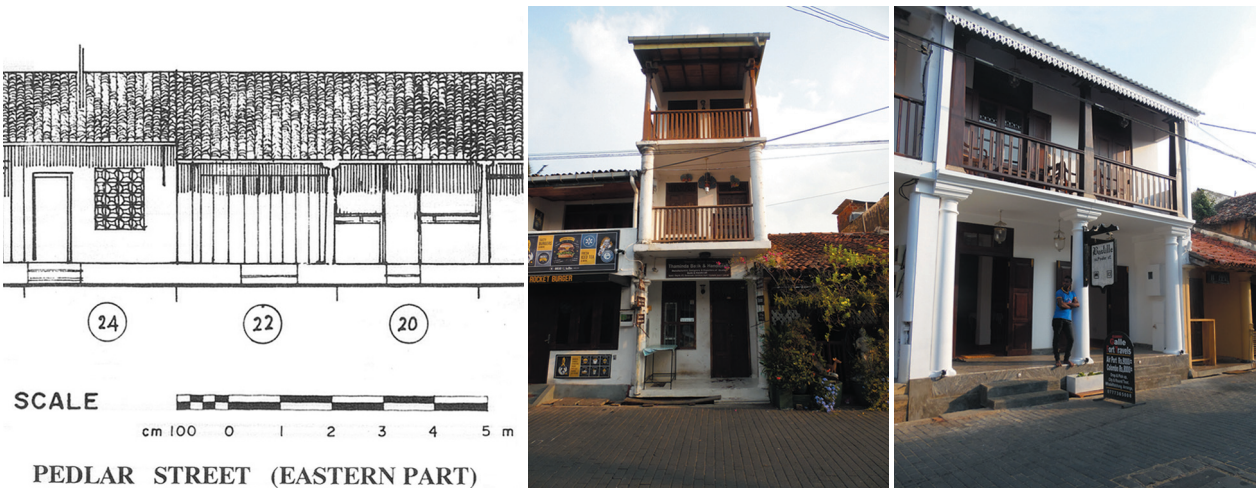
Generally, added floors are hidden in approved developments in order to maintain the original streetscape. Similarly, developers try to hide the floors when they are added "illegally," as this can often result in legal action against the developer. Overall, the added floors are hidden in 86 out of 131 of the above-mentioned buildings (Figs. 155–157).

Although adding a third floor is strictly prohibited according to Article 70.12 (a) of Special Regulations (2009), in practice, a hidden attic or floor within 10 metres and not visible from the façade is usually

Figs. 155–157 A house in 1992 (Kuruppu and Wijesuriya 1992, 273), currently a boutique villa with a hidden second floor (the middle and right). The approved development has not changed the original streetscape.

Figs. 158–160 A house in 1992 (Kuruppu and Wijesuriya 1992, 93) and part of the same in 2016 (middle) and 2019 (right). This is an approved development of a B&B with a hidden third floor.

Figs. 161–162 A guesthouse, an approved new construction with three floors within 10 metres, however visible in the streetscape.



Figs. 163–165 No. 22 (first image), a small boutique in 1992 (Kuruppu and Wijesuriya 1992, 141); the same building in 2016 with an "illegal" third floor (middle), and in 2018 (right), after its approved development (which also amalgamated the adjacent property).

Figs. 166–167 Rooftops of B&Bs which do not exceed 10 metres.

approved by the Planning Sub-Committee, depending the streetscape (i.e., provided that the neighbouring properties also have such a character). Currently, there is a significant trend of adding hidden attics and floors, especially in tourist accommodation (Figs. 158–160). However, there are occasions where these attics or third floors are visible from the façade even in approved developments (Figs. 161–162). Furthermore, some local investors have controversially been allowed third floors, as discussed in sub-chapter 7.5.1.

Positively, investment has resulted in removing "illegally" added third floors and developing "colonial-style" buildings, a new trend. In early 2018, I observed that a resident businessman developed a building with an "illegally" added third floor into a colonial-style tourist accommodation with two floors (Figs. 163–165).

5.4.4 ADDITION OF ROOFTOPS: AN ALTERNATIVE SPACE

Although "rooftops" are not mentioned in the Special Regulations (2009), the roofs should be covered with clay tiles, and roof gardens are allowed (Article 70.17 a), which indirectly implies that concrete rooftops are not allowed. Although rooftop gardening is allowed, it is considered "illegal" when the garden is on a third floor and exceeds 10 metres. In practice, it is accepted within 10 metres (Figs. 166–167).

Fig. 168 Rooftops of B&Bs, examples of further vertical constructions halted by the heritage authorities.

Fig. 169 The rooftop as an alternative to a courtyard: rooftop gardening in a B&B run by a retired resident couple who do not have a courtyard.

11% (43) of the total units surveyed in 2009 added rooftops by 2016, including rooftop gardens. Overall, the number increased to 58 (out of 494) with the new infill and the additions to buildings unrecorded in 1992. While 37 of these were in the buildings directly associated with commercial tourism purposes, the rest had a residential purpose. However, some cases in the historic centre feature a rooftop as the result of "illegal" vertical development halted by heritage authorities (Fig. 168).

It was observed that rooftops are used as an alternative space, for buildings that do not have a courtyard or those that have lost their courtyards due to development, for practical functions, such as gathering spaces, gardening, drying clothes, etc. (Fig. 169). Thus, this is an element that is practically useful for both residential and commercial purposes.

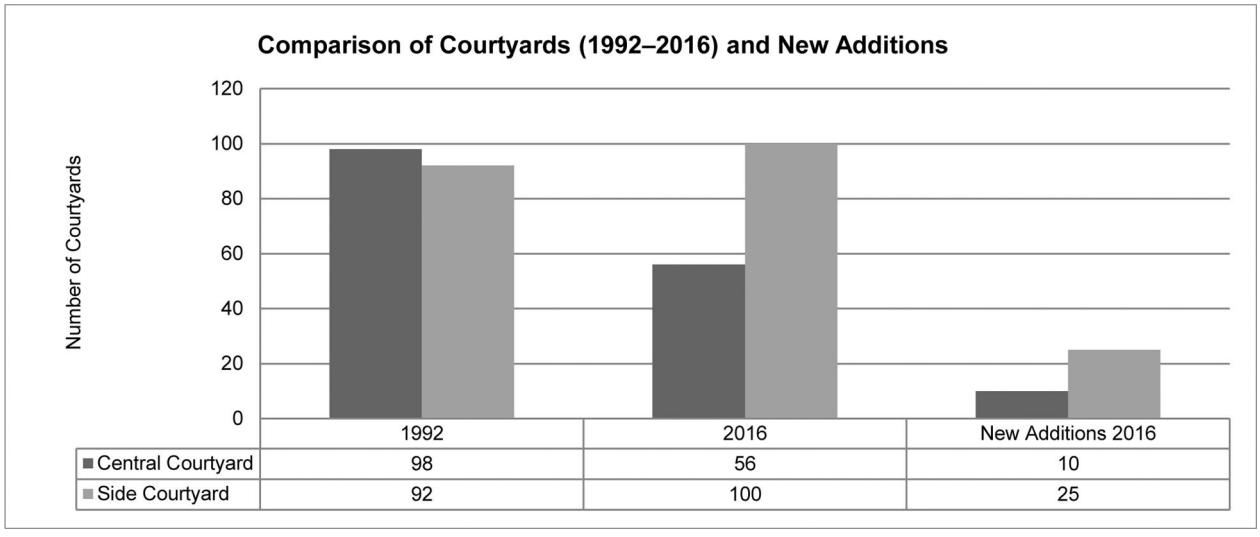


Fig. 170 Number of courtyards as a comparison between 1992 and 2016.

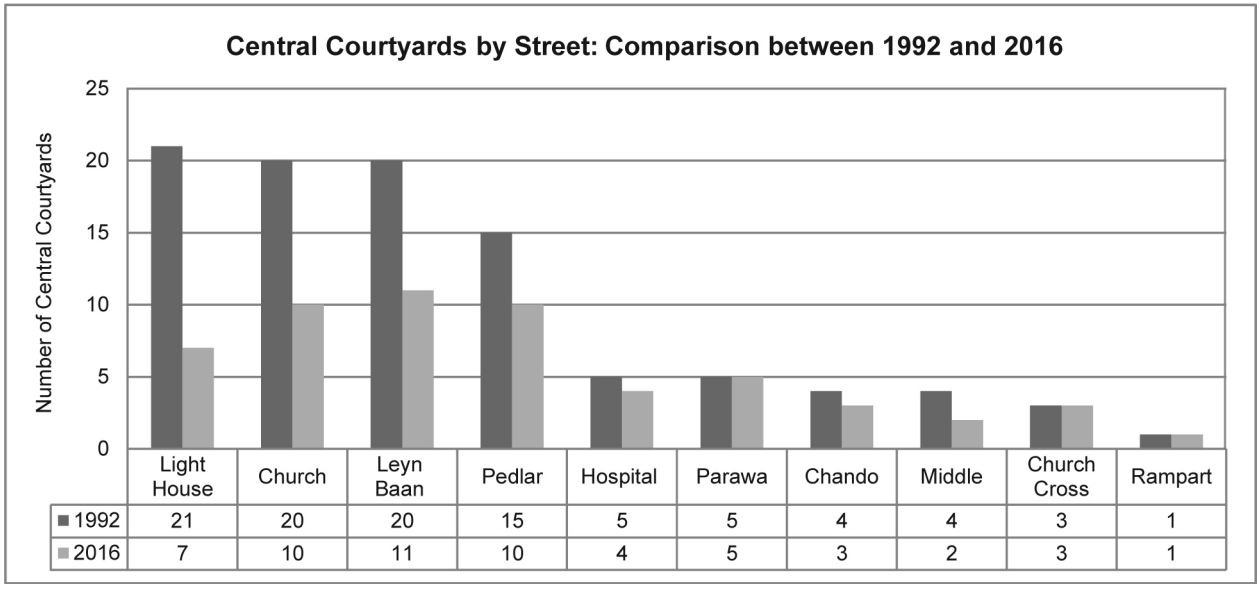


Fig. 171 Central courtyards by street as a comparison between 1992 and 2016.

5.4.5 DISAPPEARING CENTRAL COURTYARDS: COLONIAL FEATURES BEHIND THE FAÇADE

According to the first policy document of 1987 (which also appeared in 1992), the courtyards of most buildings remained in their original condition due to their practicality for daily life at the initiation of the World Heritage Project (Wijesuriya and Vos 1987, 9). However, the current analysis shows that contemporary commercial and residential requirements have drastically changed this situation.

Although one-fourth of the buildings had a central courtyard in 1992 (98), this dropped to 15% (56) by the year 2016, as shown by Figs. 170–173.[388] Generally, the number of courtyards has fallen significantly in three main streets of the fort, which

388 However, the 2009 GHF Survey (Liyana Arachchi 2009) identified 112 central courtyards.

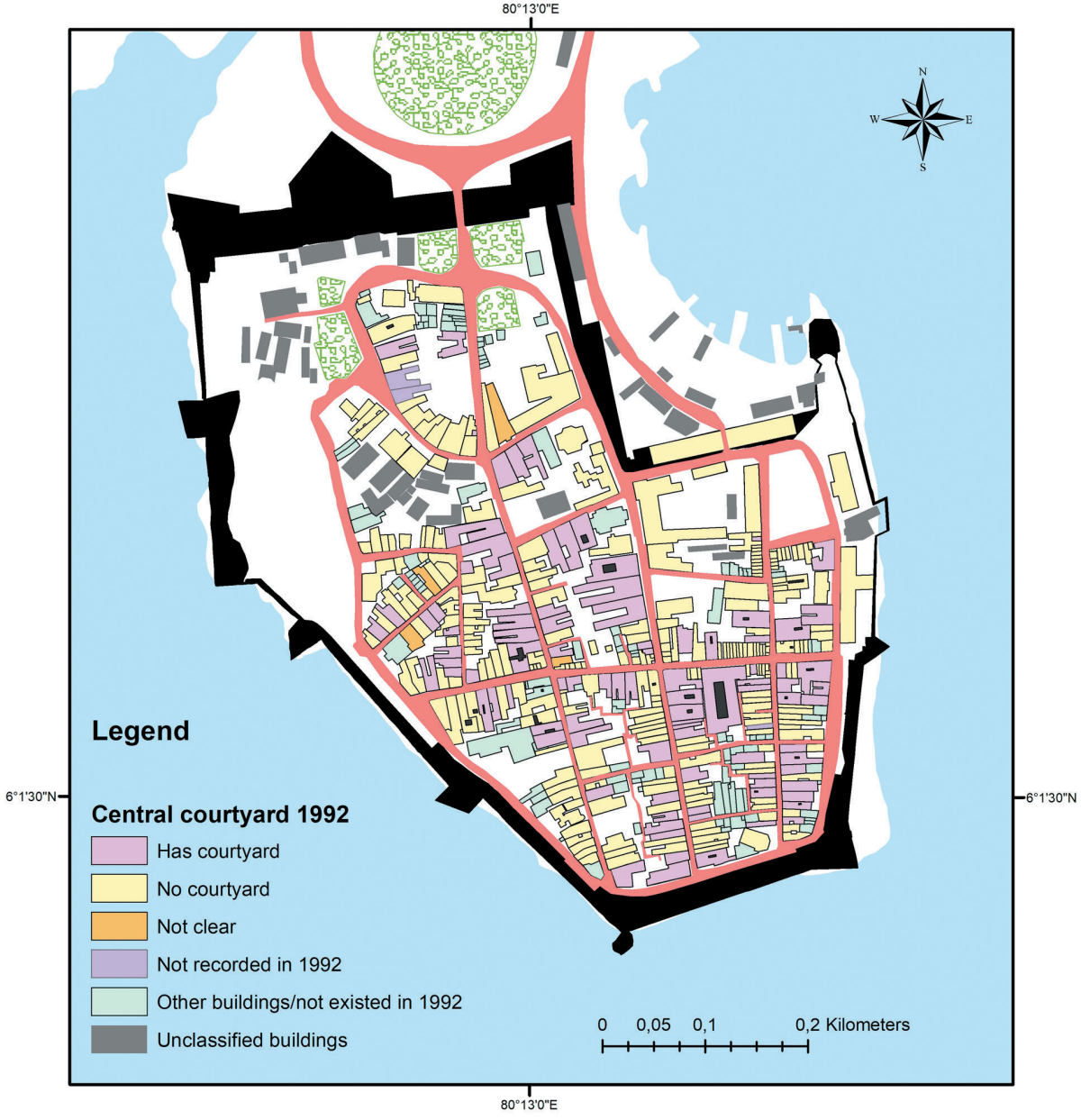


Fig. 172 Building with central courtyard, 1992 (source: Kuruppu and Wijesuriya, 1992).

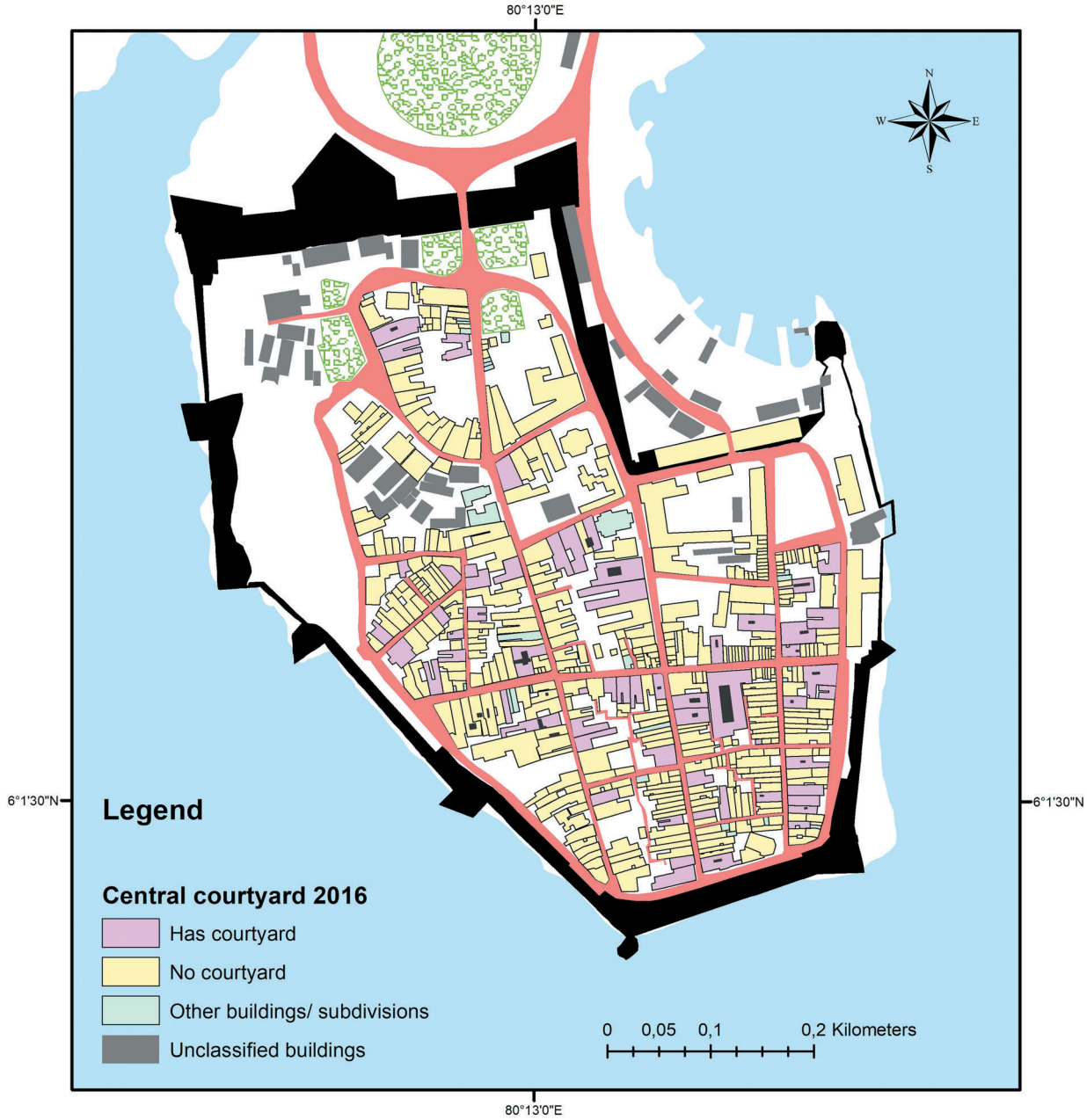


Fig. 173 Building with central courtyard, 2016 (some of the buildings categorized as "no courtyard" in the map show courtyards. In fact, some of these are now converted into swimming pools).

Figs. 174–175 A central courtyard in 1965 (first image) [389] that later turned into a side courtyard in the development of a tourist accommodation.[390]

Fig. 176 Small courtyard in an approved development at left vs. a (renovated) colonial central courtyard with a well at right, showing the change in the utilitarian function of courtyards.[391]

389 Aerial photograph 65.05.036 (1965), Survey Department, Sri Lanka.

390 However, this property is shown as bare land in Department of Archaeology's systematic documentation of buildings (1992).

391 No. 43, Leyn Baan Street is a new development of a preexisting building.

Fig. 177 A central courtyard as interior decoration in a tourist-related business place (January 2019).

had the highest numbers of courtyards at the inception of World Heritage project (Fig. 171). Light House Street is the most significant among them, as it has the highest number of central courtyards in 1992, but currently has the highest number of boutique villas. Interestingly, the number of side courtyards increased by 2% from 1992 to 2016 [24% (93) to 26% (100)]. This could be identified as the outcome of turning the central courtyard into a side courtyard as a result of new developments associated with tourism (Figs. 174–175). According to the observations of drone images, developments have also changed the placement and size of the original side courtyards. In contrast, the addition of central courtyards was not as common as the addition of verandahs, a compulsory element for new developments. On the other hand, central courtyards require more space, which is a financial loss in development due to the high land value. By 2016, only nine central courtyards and 25 side courtyards had been newly added to the units surveyed in 1992. Most of these new central courtyards were comparatively smaller in size and used as interior decoration, rather than their former domestic/utilitarian functions (Figs. 176–177).

Traditionally, the subdivision of houses was the main threat to the central courtyard, as it either divided the courtyard into two side courtyards or destroyed it totally. The demand for more floor area due to commercialization and the expansion of families are the main factors affecting changes in central courtyards today. Functional changes in courtyards, mainly turning courtyards into swimming pools and ponds (mostly "illegally"), have been identified as a threat to these colonial features by architect Ashley de Vos, as is discussed in the next sub-chapter (Vos 2016). Although an approved construction generally tries to preserve this element, some of the newly added courtyards contrast with the original colonial courtyards.[392]

392 Personal observations in 2016.

Fig. 178 A swimming pool in a newly developed villa; the pool replaced the former central courtyard.[394]

5.4.6 SWIMMING POOLS AND RESIDENTIAL TOURISM

Swimming pools were introduced to Galle Fort by foreign investors, the result of residential tourism after World Heritage recognition, but are not permitted as per the Special Regulations, 2009 (Article 70.22). According to architect Ashley de Vos, swimming pools interfere with the authenticity of the fort as they destroy the concept of the open courtyard, which was generally the only existing green space in most of the properties (Vos 2016). In addition, swimming pools also become a breeding place for mosquitoes when they are not properly maintained (Vos 2016). This was identified as a health risk by some residents at the end of 2015, with the outbreak of dengue at the fort (fieldwork observations).[393] According to the Director of Galle Heritage Foundation (2016), the large water consumption of swimming pools is one of the urban issues at Galle Fort that sometimes lead to frequent water cuts, also observed during my stay at Galle Fort.[395]

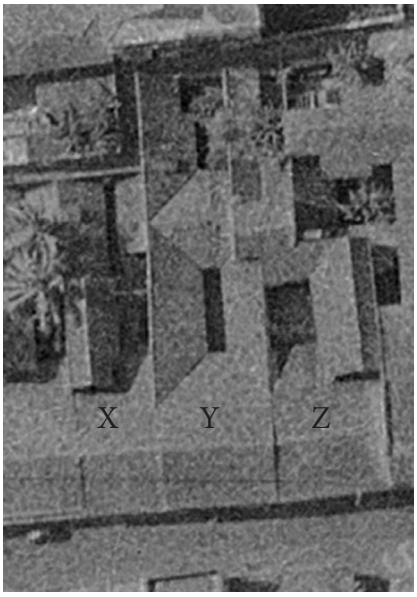
Fourteen and 15 swimming pools, respectively, were recorded by the UDA survey (2016)[396] and GHF survey (Liyana Arachchi 2009, 43). Nineteen swimming pools were identified in this study, including one plunge pool, by the joint use of drone images and websites of tourist accommodations that list their facilities. Sixteen of these pools have fully or partially replaced the courtyards (Figs. 178–181).

393 The fort was identified as a high-risk area for dengue at the end of 2016, affecting the residents, business community and the tourists who were staying at the fort. The major causes identified for the dengue outbreak were the improperly maintained underground drainage system, a large number of construction sites and closed properties where water accumulates and becomes a breeding places for mosquitoes (Public Health Inspector at a community meeting to control dengue at Sri Sudharmalaya Temple, Fort on 25 September 2015).

394 Kuruppu and Wijesuriya record a central courtyard in this building in 1992, which was replaced by the current swimming pool.

395 Interview, 9 March 2016.

396 Data received from UDA (2015), Galle.



Figs. 179–180 Areal views of the same location in 1965 (left)[397] and 2016 (right): the side courtyard was turned into swimming pool (X) and the central courtyard into a pond (Y), while the side courtyard remained unchanged (Z).

Fig. 181 A pond that replaced a central courtyard.

The addition of swimming pools is mostly linked to tourism and foreign investments. Thirteen out of the 19 pools are additions to foreign-invested properties, and 16 of them were additions to buildings recently converted into tourist accommodations. Only one of them had residential-foreign ownership in 2016.[398] Sixteen of these swimming pools were not permitted. However, a few investors were controversially allowed swimming pools, which is discussed separately under sub-chapter 7.5.4.

5.5 A "TOURISTSCAPE"

5.5.1 THE CONSTANT CHANGE

I observed a constant change in buildings, both functionally as well as structurally, within a short span of time, from 2015 to January 2019, mainly due to tourism-related commercialization. Most of these changes were architecturally positive, albeit with their social impact discussed in chapter 6. While dilapidated buildings turned into commercial places cater to tourists, the recently developed ones have also been redeveloped in an architecturally positive fashion (Figs. 182–187).

Developments (mostly tourism-oriented) are very common in the fort today (January 2019), while 26 (full) developments were observed in 2016. The change of ownership of commercial places (even residential buildings) was very common in the fort in 2016 to 2018, which also brought about structural

397 Aerial photograph 65.05.36 (1965), Survey Department, Sri Lanka.

398 According to the neighbours, ownership of this property changed over to local ownership with the death of the foreign owner in 2018.

Figs. 182–183 A dilapidated building in 2016 (left) and same as a restaurant in January 2019, after its development (right).

Figs. 184–185 A building in 2016 (left) and same one, in January 2018, as a gallery, after its development (right).

Figs. 186–187 A developed building as a shophouse in 2016 (left) and the same redeveloped with multiple businesses in 2018 (right).

Figs. 188–189 Streetscape of a formerly residential street in March 2016 (left) and in January 2018 (right). The formally residential buildings to the left and right have respectively changed into a tourist accommodation and a modest family-run restaurant.

Figs. 190–191 Investments improving the same streetscape on Pedlar Street: 2016 (left) and January 2018 (right).

changes; thus, the streetscapes are continuously regenerating, but towards a "touristscape" (Figs. 188–191). While development (mostly tourism-oriented) is common to most of the buildings, it was observed that ownership disputes are a major reason for buildings to remain unchanged.

5.5.2 ADAPTING "ANTIQUE [COLONIAL]" ARCHITECTURAL ELEMENTS

Adding antique colonial-style architectural elements, especially doors and windows, can be identified as a new trend in developments in order to give buildings an "antique [colonial] appearance." While this was popularized by the Dutch government-funded Preservation of Private Houses Project (2006–2009), the increasing resort architecture has also contributed to this. By 2016, 21% (81) of the total surveyed buildings had added antique-style doors and windows, both legally and "illegally"; this is common in approved developments (Figs. 192–197). While the colonial as well as local vernacular styles prevalent in the fort were respected, there were also instances of incompatible styles (Figs. 198–199). In addition, some developers reused vintage doors and windows removed from old houses outside the fort. However, a decrease in detailed work could be observed in the architectural elements, both colonial and local ones (Figs. 200–201).

Figs. 192–194 Colonial arch-shaped doors and windows: the Dutch warehouse (left), the Dutch-period Galle National Museum (middle) as well as a British-period window in a house on Pedlar Street.

Figs. 195–197 Developments adopting similar shapes and styles: a villa (first) and two houses (middle and right).

Figs. 198–199 Additions of doors of incompatible styles.

Figs. 200–201 Decreases in the detailed work of *wadimbu*[399] designs: an original (left) and a new example (right).

Although it is difficult to analyse the changes in these architectural elements due to the unavailability of previous data, observations revealed that nearly 30% (121) of the buildings still have old doors and windows, in both local and colonial styles (Figs. 202–203). In addition, some households still have intricate wooden carvings, including on ceilings, fanlights and separators (Fig. 204). Not only architectural elements, but everything that gives an

399 A carved wooden panel fixed to the edge of the roof to prevent water leaking in during the rain; it is also used as a decoration.

Figs. 202–203 Original doors with detailed carvings.

Fig. 204 Intricately carved wooden separator (of rooms) in a house.

Fig. 205 Integration of a traditional-style *kavichchi* (a type of sofa) set, with *wangediya* and *mōl gaha* (mortar and long pestle, in the corner)[400] as living-room decor in a B&B—an extremely unusual combination in the local context, as the latter is a traditional cooking utensil.

"antique appearance" that might attract tourists is embraced today to enhance the impression of antiquity, from vintage cars and furniture to traditional local kitchen utensils (Fig. 205).

5.5.3 INHERENT HYBRID COLONIAL ARCHITECTURE VS TROPICAL MODERNISM

It was mentioned in sub-chapter 5.1 that the domestic architecture of Galle Fort is a blend of colonial and local elements. However, new investments, especially boutique hotels and villas, follow Sri Lanka's "tropical modernism" style, an architectural style introduced to the country by Geoffrey Bawa (1919–2003), one of the most influential Asian architects from Sri Lanka.[401] The style, which promotes the indigenized aesthetic as the most appropriate "Sri Lankan" style, proved useful for the identity politics of the 1980s and the cultural themes appropriated

400 Long pestle, or *mol gaha*, made from the *kitul* palm tree (*Caryota urens)*. The literal meaning of *gaha* is "tree."

401 Bawa's "tropical modernism" was influenced by Fry and Drew, and ultimately by the work of Le Corbusier. Available at http://www.geoffreybawa.com/work/beginnings-tropical-modernism (accessed 3 August 2018). According to Pieris (2011), Bawa would abandon tropical modernism in favour of a designed vernacular in later years. Although Bawa's work extended to several countries, it is primarily in Sri Lanka.

Fig. 206 Using blue for an antique style door (in a newly developed villa), an alien colour for doors in colonial Galle, but used in Geoffrey Bawa's estate home, "Lunuganga Gardens."

Fig. 207 The combination of modern art with a colonial house (a newly developed guesthouse).

Fig. 208 The combination of stone-paved, timber-pillared verandah in the local style, Doric pillars and French doors of colonial origin and a modern swimming pool at a tourist accommodation.[402]

by the tourist industry (Pieris 2011). The national parliament and numerous hotels along the southern coastline—the former and some of the latter designed by Bawa—exhibit this style (Pieris 2011). According to Pieris, the style was characterized by a modernist free plan blended with the familiar vernacular forms of pitched roofs, verandahs and courtyards (Pieris 2011). According to Jazeel, Bawa was much more interested in an adaptive approach to opening up the colonial house rather than rejecting it outright (Jazeel 2007).

In the context of Galle, this could be seen as a blend of Dutch colonial hybrid domestic architecture and "indigenous"[403] elements with the modern luxuries of tourism and urban living. The incorporation of swimming pools into colonial townhouses and the use of traditional architectural elements, furniture, modern art, etc. could be viewed in this context (Figs. 206–208). The style is well reflected in the Barefoot Gallery (Pedlar Street) planned by Architect Channa Daswatta,[404] influenced by Bawa. However, the traditional interior of the townhouse has largely changed towards modernist resort architecture due to the new requirements of the tourist economy of Galle Fort (Figs. 209–210).

5.6 STATE-OWNED MONUMENTS AND THE GENERAL OUTLINE OF THE FORT

Despite the drastic changes in privately-owned buildings, state-owned monuments and religious monuments (the latter maintained by societies and the respective religious authorities) are restored and maintained to better standards. A number of major monuments were conserved with the financial assistance of the Dutch government, including the Dutch Reformed Church, Dutch Warehouse and the ramparts (Figs. 211–212).[405] Adaptive reuse was promoted by the restoration of the Dutch Hospital into a shopping precinct, also mentioned in sub-chapter 4.2.3. However, there also some public institutions housed in colonial buildings that are not maintained properly.[406]

Overall, both the general outline of the fort as delineated by the ramparts and the road network remain intact, as determined by comparing aerial photos (1965, 1992) with a recent satellite image (2016, Fig. 213–215). Changes in the shape of the (current) international cricket stadium in the buffer zone can be identified as a substantial visual change,

402 Image source: https://www.booking.com/hotel/lk/taru-villas-rampart-street.en-gb.html (accessed 3 August 2018).

403 The use of the term "indigenous" in the local context is elaborated in footnote 212.

404 Also the former chairman of Galle Heritage Foundation.

405 These conservation projects were discussed separately in sub-chapter 4.4.3.

406 Personal conversations with a Galle-based heritage officer, June 2018.

Fig. 209 Traditional residential interior.

Fig. 210 The modern interior of a guesthouse.

Figs. 211–212 The Dutch Reformed Church, Galle by J. L. K. van Dort, 1883 (De Silva and Beumer 1988, 166), and the same church in 2016, conserved with Dutch financial assistance in 2004.

Fig. 213 Galle Fort, 1965.[407]

and are discussed separately in sub-chapter 7.7.2. Careful observation of the images shows a gradual expansion of the buildings. In addition, paving the roads with cement paving blocks in 2011, a project carried out by Galle Heritage Foundation in response to the strong community request, has created a huge visual change in the fort.

Conclusion

While this chapter argues that strict building regulations have been successful in preserving the colonial façades, drastic changes can be identified behind the façades, indicating the interest of the local community and investors in reaping the benefits of the flourishing tourism industry. Despite the fact that the general outline of the fort remains unchanged, the colonial townhouses have been subject to both functional and architectural changes, turning them into income-generating objects.

407 No. 65.05.36, Survey Department, Sri Lanka.

Fig. 214 Galle Fort, 1994.[408]

408 No. 94.16.092, Survey Department, Sri Lanka.

Fig. 215 Galle Fort, 2016.