PRESERVATION OF PRIVATE HOUSES IN FORT OF GALLE, SRI LANKA: A CASE STUDY

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ABSTRACT

Fort of Galle is a declared World Heritage under the Criteria (IV) since 1988, and, since then, several actions have been taken to preserve its historic built environment in its authentic form. Establishment of Galle Heritage Foundation (GHF) as an organ under the Ministry of Culture and National Heritage was one of the pioneering and very important move taken towards this endeavour. GHF, closely working with the Special Planning Unit of the Galle Municipal Council (SPUGMC); Department of Archaeology (DOA); and other stakeholders for preservation of historic built fabric of the Fort. GHF plays a vital role in monitoring development activities within the fort; assisting in planning development activities; assisting in scrutinising development plans by residents and others; and, submitting their recommendations to the Planning Committee of Galle Municipal Council. The role and functions of the GHF in preservation of the historic built environment of the fort in its authentic character is distinctive.

A GHF initiated socio-economic survey of the Fort of Galle, revealed that, although numerous preventive measures that include monitoring of building activities and control of developments through specific guidelines etc were effective, the historic fabric of the fort was fast deteriorating and degrading, mainly due to facts such as negligence, poor maintenance, illegal constructions, and dilapidation of uses etc. Further, it has been found that the deterioration of the southern sector of the fort, where there is a high concentration of private dwelling houses, is much rapid than its northern counterpart with public and institutional buildings.

The socio-economic survey of the University of Ruhuna brought into light many valuable facts about the condition of private dwelling houses in the Fort, and, probable causes of their deterioration etc. There were altogether 60 houses, some of them were depicting high architectural characteristics of the colonial period that are worthwhile to retain for the posterity. The other houses, which are possessing elements of colonial architecture or their generic architectural characteristics were in the verge of collapse due to negligence, poor maintenance, and, dilapidation etc resulted from the poor affordability of the residents. Having identified the necessity of preserving them for the posterity, GHF, through the Ministry of Culture and National Heritage, launched an international campaign to raise financial assistance for this endeavour.

In 2007, the Government of Sri Lanka received the Netherland Government Cultural Grant, mainly to preserve and maintain Dutch Heritage of the Country, and the Government, with the consensus of the donors, decided to allocate part of this grant for improvement of private dwelling houses, in order to regenerate traditional Dutch Streetscape of the Fort of Galle.GHF was entrusted with the task of implementing the project.

Having recognised the need of receiving expert advice from architect-conservators, GHF invited Centre for Heritage and Cultural Studies of the University of Moratuwa (CHCS), to assist them in preparation of plans for Refurbishment and Preservation of Private houses in the Fort. Necessary nitty-gritty's finalised, and CHCS was appointed as Consultants to advice the GHF. All preliminaries have been identified by the GHF based on the Socioeconomic Survey conducted by the University of Ruhuna. About 60 private houses, which were eligible to receive financial assistance and technical guidance, too; had been identified. CHCS commenced the assignment, with an extensive Field Investigations and Preparation of Measured Drawings of selected houses. The cursory examination revealed that they had been renovated, modified and altered from time to time, without any records. Thus preparation of measured drawings and identifying original components had become a daunting task. A detail photographic recording completed the comprehensive documentation of Pre-refurbishment Stage.

This paper reports on a case study of the above project, elaborating on technical implications. Project, having recognised its contribution for preservation of Cultural Heritage, was awarded UNESCO-Asia Pacific Cultural Award 2010 (Merit Award).

Keywords: Preservation, Refurbishments; Streetscape, Rescue Conservation.

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1. Introduction

Fort of Galle, a World Heritage is the largest Dutch Colonial Township outside built and survives to date outside Europe. It had been a Dutch stronghold from 1640 until 1796, and thereafter a British Provincial Administration centre until 1948. After the independence, the township has been used continuously, and is considered as living monuments containing heritage from 1669 onwards. Due to those different phases of the History, the township possesses historic architectural remains belongs to all the periods since middle of the 17th century (Figure 1).

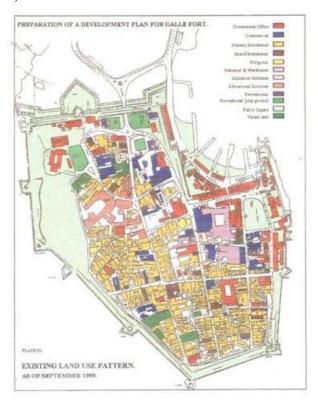


Figure 1: Fort of Galle and Its Heritage

The Fort contains many buildings, built during different eras to fulfil various requirements of regional administration as well as to service the community in and outside the Fort. Most of those buildings are concentrated in the northern segments of the Fort. Although there were not much ordinary residential facilities within it, during the latter part of the British period, it was opened up for ordinary communities too. They built their dwellings in the southern segment of the Fort, which had been comparatively low sense during the early periods.

After independence, very especially during 1960s, housing plots within the fort were fragmented into smaller plots, to accommodate extending families, mostly Muslim traders, and continue to living in their houses gradually decreasing in size.

With the passage of time, those houses became overcrowded, and at the same time, due to many reasons, their maintenance too was gradually neglected. At the turn of the millennium, majority of houses, especially in southern segment of the fort revealed impoverish characteristics such as poor maintenances, dilapidations, shabbiness etc. Project for refurbishment of private houses was a timely intervention in this regard.

Project for Preservation of Private Houses in the Fort of Galle comprised of several phases. First and foremost was the field investigation and documentation phase, aiming at preparation of a set of measured drawings of each and every house, which were selected to receive financial and technical assistance. Measurements and other supporting documentations were necessitated to prepare a draft conservation plan, which was the phase to follow. Draft plan was prepared in concurrence with residents as well as in consultation with other members of the project team, including Department of Archaeology, GHF, Central

Cultural Fund, and other stakeholders. Discussions on the draft conservation Plan were an indirect way of increasing awareness of the Fort Community.

Next Phase was for preparation of a detailed conservation plan, based on the outcome of discussions with the community, and, modifying draft conservation plan incorporating financial commitments as well as contributions promised by residents.

Penultimate phase was the project implementation, which was preceded by educating and training of a group of skilled labourers, including carpenters, masons and other artisans on conservation works.

Final phase, post-conservation documentation included comprehensive reporting on pre-; during-; and, post-conservation activities. Further, reporting on various studies and analyses; generic characteristics of houses; construction techniques; and, concept of planning too; are incorporated in the final report. This paper reports on a detailed case study of this project, which describes the lessons-learned during above phases followed by conclusions and implications for the construction industry.

2. FIELD STUDY AND DOCUMENTATION

CHCS commenced field investigation and documentation on identified houses for refurbishments, with assistance from students of the Department of Architecture, University of Moratuwa. Despite there were awareness programme for the community before commencement of the project, at the very inception, there were some resistance from them, and, no cooperation attitude was visible. However, when they were enlightened on merits of project, objectives, and, methodology to be adopted, resistances were transformed into enormous supports.

Some of the house owners, who were originally willing to take part in the programme and to receive financial assistance abiding with conditions laid down by Galle Heritage Foundation, later declared unwillingness, having believed on rumours. When positive improvements were visible in already implemented projects, the said owners returned to the programme, allowing investigations and documentations into their houses. Although those volatile decisions had some negative impacts on intended field investigations and preparation of measured drawings, they had no impacts on the final outcome mainly due to mitigating measures by the project implementers.

Another event, which had negative impacts on preparation of measured drawings, was the non-accessibility to some of the private properties; owners of them were living outside the fort, and their premises were closed most of the time.

However, with the dedication of all the stakeholders, project was successfully implemented as originally scheduled.

3. PROBLEMS ENCOUNTERED DURING FIELD INVESTIGATION/DOCUMENTATION PHASE

There were three main factors which resisted the collection of empirical data during site investigation and documentation, namely;

- (1) Some residents were not original owners of houses, but living there for a considerable period of time. It seemed that they had knowledge to disclose history of their houses, at least for last few decades. But they failed to disclose origin and developments, apparently due to unknown reasons. Perhaps, they may not have received information from their predecessors and, occasionally, it appears that they were pretending to that effect due to unknown reason;
- (2) Occasionally, there were legal disputes on ownership of premises. Current residents are either illegally occupied, or, have become owners as a result of prescriptive rights for living over a longer period in the same premises. Some of the properties are not divided among the legal heirs of original legal owners, and the residents there have become non-landholders; and,
- (3) In some houses, unauthorised constructions have been carried out in recent past, and the present owners whether they are responsible or not, pretend that they have no knowledge of illegal

constructions, which could have done by their predecessors. They reluctant to disclose actual facts, pretending that there were no modifications since they became residents in that house.

These backgrounds prevented the CHCS collecting accurate information about original forms of house; their subsequent renovations; and, refurbishments etc. Therefore, alternatively, historic information was constructed based on structures; materials; and their construction technology.



Figure 2: Houses with Diverse Characteristics

4. ANALYSING EMPIRICAL DATA

The southern sector of the historic fort of Galle is congested private hosing with extremely high density, providing accommodation for more than 400 families. The cursory examination reveals a group building, in poor status of maintenance, with some hidden order in their architecture (Figure 2). 60 houses for refurbishment have been selected from this neighbourhood.

The large majority of houses that have been studied for refurbishment revealed that they had been either constructed or subjected to major repairs during latter part of British and Early Post-independence Periods. Very few houses could be antedated, but repetitive repairs also have affected their authentic characteristics over the years. None of the houses could be dated to Dutch origin, or early British Period, though they possess some generic characteristics sympathetic to buildings of those periods (Figure 3).

Irrespective of period of construction, ground plan of domestic buildings within the Fort has some common characteristics (Figure 4). Generic form of the Town House Architecture of a veranda; one or two rows of private and semi-private spaces; a rear veranda; and, utility spaces articulated in a linear form, overlooking an internal courtyard, either enclosed or semi-enclosed.

Generally they had an open veranda, adjoining the street with no open ground space or garden in between them. Veranda is generally colonnaded or arcaded depending on the period of construction and features of the street in which the building is located (Figure 4). Occasionally, a half-high wall, spanning between pillars, protects the veranda. Most common alteration of domestic houses is the encroachment of this open veranda by a high wall up to the roof level, with few windows to bring light and ventilation to the interiors (Figure 4). Occasionally the window or louvers span between the pillars and surmounted on the short wall to convert open veranda into a semi-enclosed veranda.

Behind the veranda is a hall, occasionally divided into two or three different spaces, depending on width the road frontage. Narrow properties have a single space and wider properties the space divided into three with lobby in the centre and two bedrooms symmetrically locating on either sides. The access is provided from the lobby, maintaining the symmetry, and windows are provided on veranda side to borrow lights

and ventilation across the veranda.







Figure 3: Diverse Building Forms

In some of the houses, the second layer spaces are amalgamated with the veranda and restructured to have large bedrooms or larger living rooms.



Figure 4: Generic Plan of Townhouse

Behind the bedroom layer, in older version of the houses, have a secondary living room, spanning the full width the house, thus ensuring access from other spaces in the second row. In smaller houses as well as in later period houses, the second veranda is missing (Figure 5).

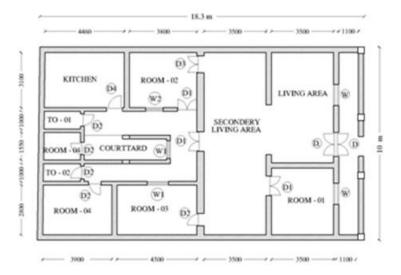


Figure 5: Generic Plan of Two Veranda House

Spaces accommodated in the main wing of the house are opened out to a rear veranda, in most cases spanning the full width of the house, and overlooking an internal garden or a courtyard.

In a typical house, one or two rear wings, depending on the width of the property, emanating from the rear veranda and runs up to the rear boundary wall, which is abutting a service alley. In case where there are no rear alleyways, the building ends up with leaving a rear space reservation, around two metres in depth (Figure 6).

In subsequent alterations, mostly illegal, rear space reservation and internal gardens had been encroached. A low pitch roof is constructed over the open space, preventing natural lights and ventilations in to the inner spaces. Though, approval from the local council is necessary for any development within the Fort, occupants are carrying out developments illegally, without informing any institution (Figure 7).

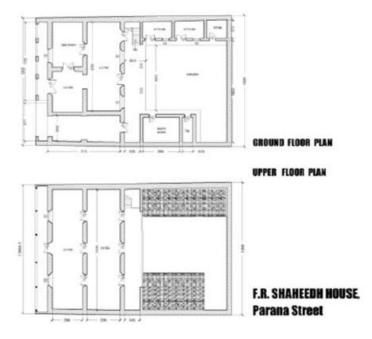


Figure 6: Typical two storied House

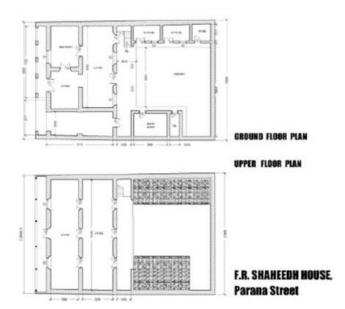


Figure 7: House with Encroachments

Few residents have encroached into the vertical space too; courtyard is covered by two-storied extension, preventing both natural lights and ventilation into the interiors.

One special characteristic of illegal renovations in recent past, especially after promulgation of new urban development and preservation regulations, is the methodology of carrying out them in series of unnoticeable small-scale works in hidden manner. In this manner, interior spaces are modified, altered and adopted, with no notice to the authorities, and, are not meeting the statutory requirements for lighting and ventilations of habitable spaces. Resultants interior architecture is one of the common characteristics of the majority of private houses in the Fort of Galle.

Summary of findings and their analyses lead for following comments, which will be the basis for determination of the Renovation Strategy for private houses, in Fort of Galle.

5. REFURBISHMENT STRATEGY AND PLANS

Since funds available for renovation of old houses were limited, main attention was focused on to use them optimally. Project was defined and scheduled as a Rescue Conservation programme. First priority was given for improvements of roof, which was identified as the primary cause for most of deteriorations. Reintegration of the lost streetscape accompanied the improvements to roof. A facade, sympathising with the architectural character of adjoining buildings were introduced to support the renovated roof, and helped in accomplishing the intended task of reintegrating the lost streetscape of fort (Figure 8).



Figure 8: Reintegrated Streetscape

Thereafter repairs were concentrated on consolidation of plaster works, rectification of cracks, prevention of deteriorated woodwork etc.

Changing attitudes of residents was considered as an intangible rescue conservation measure, and awareness programme has been used as an effective tool for the same. Further, it had become a strategy to discourage residents who were attempting to demolish their houses in order to rebuild them in an alien style, antithesis to historic landscape of the Fort of Galle.

A timeless style, which resembles Dutch-hybrid architecture of the Fort, was introduced as the key tool for refurbishment works. Though there were initial dislikes, when few houses were refurbished, majority of the residents acknowledged the type of architecture adopted for refurbishments (Figure 9).





Figure 9: Integration of Timeless Architecture

Refurbishment strategy for private houses is basically based on empirical data collected during site investigations, and, remedial measures were determined based on analyses of those findings.

- One of the key issues for residents to seek illegal construction and renovation as a console was
 due to the difficulty of obtaining statutory approval, as most of them have already violated light
 and ventilation regulations. Fear of receiving impractical recommendations from planning
 authorities, residents compelled to by pass them and seek easy way out, and to carry out their
 renovation works, without obtaining building permit from Galle Municipal Council or Galle
 Heritage Foundation.
- Having realised exorbitant cost incur in repairing historic structures, residents did not want to venture on their aged-old houses, spending considerable amount of resources. Further, buildings within the require renovations in compliance with conservation guidelines and regulations, and, thus no cheap conventional building materials can be used. According to owners, it is impossible to obtain value for money, thus investment on those houses are not fruitful. On the other hand, as a pull factor, there are better financial offers for old houses from foreigners, where the owners could obtain easy money.
- Due to repeated constructions, reconstructions, renovations, and modifications over the years, most of the house interiors have become uncomfortable for both physical usage of spaces as well as body comforts of inmates. Thus, there is a push factor to seek better accommodation outside Fort in a better and conducive living environment, if the urban conveniences are available. This desire also prevents owners spending on renovation of their houses.
- It was found that the most severe cause of deterioration of built environment was the ad-hoc renovations and modification of old houses. They had been constructed without permits and not follow set regulations and guidelines. Even the basic principles of building constructions have not been followed in later renovations and modifications. The whole attempts seem to be to get additional spaces, disregarding all environmental factors. Most visible result is the fast decaying roofs with poor roof drainage and leakages, which is the primary cause for most decays in old houses within the Fort of Galle.

6. REFURBISHMENT CONCEPT

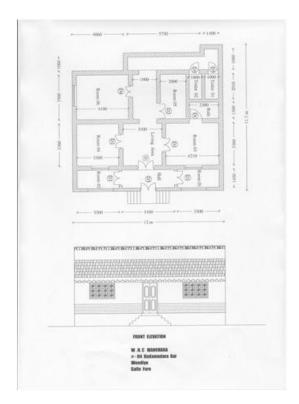
Refurbishment concepts and the guideline have been prepared based on analyses of above facts. Basic principal of refurbishment strategy is to regenerate lost historic atmosphere of streets, by reintegrating generic characteristics of Town House Architecture of the Fort. When there are genuine evidences from history, with authentic information of their original characteristics, houses were reverted back to original architecture, with the consensus of their occupants. However, when there are no records of original form or no authentic information on the original character of the houses, the renovation principal adapted was a form of reconstruction sympathising with the existing general characteristics of the neighbourhood.

Reintroduction of the veranda, which had been one of the key element of Town House Architecture of the Fort of Galle during the foregone period, either fully opened or semi-enclosed, was one of the primary tool used in regeneration of historic atmosphere for streets of the Fort. For this purpose, the existing floor plan of each house was honoured as much as possible, without attempting a complete deviation, except where authentic information available for possible alterations (Figure 10). When the veranda is reviewed, it was guided by the remnants of previous floor plan, for which authentic information could be found from the site itself (Figure 11).



Figure 10: Before and After Veranda Review

Other major area of interventions was the roof. It is found that the cause for deterioration of most houses was the roof, and thus roof renovation is carried out in almost all houses. Since available resources for each unit was limited, most essential reparation works, in the form of rescue reparation only have been carried out.



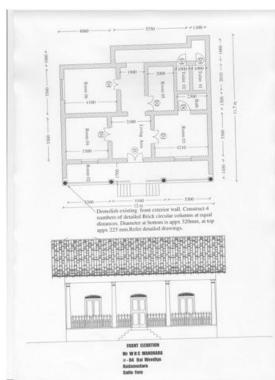


Figure 11: A House Before and After Intervention

Other remaining resources available were used to repair essential deteriorated works such as floors, walls, and veranda etc., mainly to prevent further decays.

7. CONSTRAINTS IN IMPLEMENTING WORKS

Although the Galle Heritage Foundation had conducted an awareness programme during the planning stage, some of the owners had distrust and doubts about the project. They were under the impression that houses would be subjected to various controls of statutory authorities; preventing them being used their ownership rights comprehensively. However, after completion of few projects, the mistrust disappeared and owners volunteered to take part in project.

Most notable constraint during implementation of the project was the finance. Majority of houses has not been renovated for decades, thus decays were extensive, and higher financial resources are required. And thus allocations for individual houses had to be restricted.

Lack of experienced and skilled labour, especially to handle repairs of historic buildings and renovation works, was another severe problem. Training staff under the guidance of Central Cultural Fund was a positive measure, which could mitigate the said problem.

Another difficulty anticipated was the renovation of a house which was being occupied by inmates. Limited space of house as well as non-availability of open spaces adjoining them further aggravated the gravity of implementation problem.

8. IMPLEMENTATION

Implementation of renovation works were commenced with appropriate solutions for previously identified setbacks, and thus it was able to complete the project as anticipated.

Financial constraints, one of the major hindrances in implementing the project, were mitigated by a strategic approach. The first priority was given to refurbishment of roofs, and rescue rectification works of damaged and decayed parts were first attended. Whenever, there is a large house, and allotted finances

were insufficient to implement proposed renovation works, residents were encouraged to contribute making the project a public-private initiative in the full sense of the word. Under this scheme, some of the residents contributed to the project by supplying materials, and, others, occasionally provided cost of labour from their own resources. Galle Heritage Foundation in collaboration with the Central Cultural Fund took appropriate actions at the commencement to train skill workforce for deployment in Renovations works. Few carpenters and masons from the local area had been selected and were educated on implementation of works in historic buildings. Further, they were trained at preservation sites, in order to get familiarise with nature of works and how to deal with a building which has some historic relevance. Experience supervisors have been selected and trained to implement the project.

9. CONCLUSIONS AND IMPLICATIONS

Field study as well as interviews with present occupants revealed that there are three main causes threatening the survival of house, and had taken precautions to mitigate them in the future;

- (a) Natural destruction as a result of age as well as impacts from natural elements had been further weakened by economic condition of occupation. Main threat to houses was from decayed roof, which had all elements of symptoms of a fast decaying building.
- (b) Impacts of changes in adjoining streetscape have compelled owners to refurbish their houses by themselves, based on own designs and technology, embodying modern amenities and a new outlook.
- (c) Strict conservation regulations and, urban development regulations etc to maintain historic streetscape and authenticity of the world heritage site, compelling residents to change their buildings by disobeying those rules and regulations, and engage in illegal reconstruction works.

Those factors were considered when setting the guidelines and recommendations for future interventions.

The maintenance of Refurbished Houses in their current form seems to be a difficult task. Ever increasing land prices as well as the demand for space within the township, accompanied by changing attitudes of the residents has become a severe threat to existing streetscapes. One of the primary forces behind these trends is the tourists' attraction to the city.

A suitable preventive measure, with consensus of the current owners, should be concluded no sooner the reparation works of old houses are completed. One of the attractive factors for preservation of private houses would be the exploitation of their hidden economic values. They could be used as museums, guesthouses or for any other activity, with adoptive and non-adoptive preservation of interiors. But it is essential to retain the exterior of those houses, which contribute immensely for maintaining the historic landscape and streetscape.