

COLONIAL BUNGALOW DESIGN IN THE TWENTY-FIRST CENTURY KARACHI: A CULTURAL IDENTITY BASIS FOR ARCHITECTURAL IDENTITY OF PAKISTAN

Arisa Samani*, Baharak Tabibi**

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* Graduate Student, Institute of Sciences and Engineering, Department of Architecture, Istanbul Okan University, Istanbul, Turkey. arisa.samani@gmail.com

** PhD., Assistant Professor, Department of Architecture, Istanbul Okan University, Istanbul, Turkey. baharak.tabibi@okan.edu.tr

ABSTRACT

Culture; the essence of Pakistan's independence of 1947; has been impacted by various ideologies and civil powers like Mughals, Sikhs, Hindus, and most influential Britishers who ruled the land long before the country got its independence. Karachi, the port city of Pakistan has particularly attracted many powers for economic benefits, dominantly Britishers who later took over the land. Britishers brought the Bungalow-compound complex as a permanent residence typology due to their long stay in the city. The importation and transformation of this new housing typology have framed the architectural identity of Pakistan and have defined the lifestyle of its citizens, which is a cultural synthesis between the East and the West. Though the Bungalow design in Karachi has evolved with time as per the native's culture and needs having different plot sizes, shapes/forms, open/built ratio, space arrangements, and materials that have changed its overall aesthetic point of view but the core remain the same. This research aims to analyse the British reign in pre-independence India through their socio-cultural, economic, and political influence on bungalow design and its transformation over time in the context of Karachi, Pakistan, i.e., Western influence combined with modernity.

Keywords: Cultural Identity, Architectural Identity, Colonial Bangalows, Twenty-First Century Bangalows, Karachi

INTRODUCTION

CULTURAL AND ARCHITECTURAL IDENTITY OF KARACHI

Karachi- the metropolis city and seaport of Pakistan is identified by its multi-cultural traditions (Mughal 2017). These traditions formed the city's architectural identity as people's interpretation of the reality of their surroundings depends on individual aspects related to certain cultural, social, and contextual conditions of their experienced environment (Tran. n.d.). The architectural identity of Karachi is always recognized by the colonial buildings that were gifted by Britishers who ruled here before the independence of 1947. The city's architecture, now called modern, is influenced by the Western world, indicating the natives' fascination to imitate the West to become a modern

and world-class city. Hence, the architecture of Karachi is classified as traditional and modern buildings having a distinct social, and cultural fabric. As architectural identity is an unstable, contextual construct that is culturally malleable and historically discontinuous across time, therefore resulted in the severe identity crisis faced by the city today (Mughal, 2017).

RESEARCH METHODOLOGY

The research is designed around the mixed methodology that involves quantitative i.e., case studies, and qualitative research i.e., collecting, analysing, and interpreting data. Primary data collection was done by selecting case studies as per their importance. Secondary data collection included research from relevant journals, articles and research papers, thesis, books, and websites.

THE EVOLUTION OF BUNGALOW DESIGN: A HISTORICAL BACKGROUND

Britishers came to pre-partition India further to the entry of the East India Company i.e., British officers in India and resided here from 1757 to 1947. This time period in history is considered as a transforming phase, as the built environment of the sub-continent saw the impact of the lifestyle and work of the Britishers in India. This period's designs and forms took inspiration from English scale and shapes, resulting in a distinctive indigenous-like architecture. This architecture resulted from their different socio-cultural traditions, practices, and locally available resources in an environment that was dissimilar to Britain. Their buildings are part of the culture of South Asia and Southeast Asia (Bhardwaj and Garg, 2016).

Britishers under their rule in India built numerous new towns and suburbs to house their needs bringing new town planning patterns. They followed certain urban design and planning principles that focused on building new areas separated from the old ones thus separating the Europeans from the locals both socially as well as physically (Nangia, 2004). There are dominant examples of colonial architecture at all levels. For instance, at the urban level, the cantonments and civil lines they developed, and at the building level, the dominant architecture was the Bungalow-compound complex i.e., a basic residential compound unit (Bhardwaj and Garg, 2016).

The bungalow's form is said to be Indian and British hybrids having an imported English vernacular form as of cottages achieved by the architectural skills of Bengalis evident in the mid of 18th century's Bengal Presidency which is considered as initial bungalows.

These Indian bungalows were made incorporating building techniques of Bengalis like using structural elements of

wood with clay walls, bamboo, and thatched roofs to cater to the climatic conditions (Figure 1). In addition, according to Bhardwaj, this vernacular architecture seems to be designed and supervised by a civil engineer as the architectural techniques used were a cheap and easy-to-build solution for housing, hence was adopted by the Indians (Bhardwaj and Garg, 2016). The major urban design schemes including the cantonments and the civil lines i.e., the colonies of the elite, majorly depict the 19th-century British existence and have put an influence on the middle-class housing development of Pakistan today (Nangia, 2004). The elite natives were fascinated by the idea of imitating the Western ideology as they considered it to be modern therefore, were the first after Britishers to live in bungalows. Whereas, after a long time i.e., by the 1930s the development of a new class structure i.e., the middle class took place whose housing outlooks were defined by the economic possibilities as well as the city's rural-based elites' (landed gentry) customs. This class adapted the bungalow typology and customized it according to their finance, needs, and regions. Hence, the bungalow became a popular, beautifully ironic cultural representation that framed the mindset of the natives by



Figure-1: Rural Bengal House (Bangla).
Source: Jain, 2015

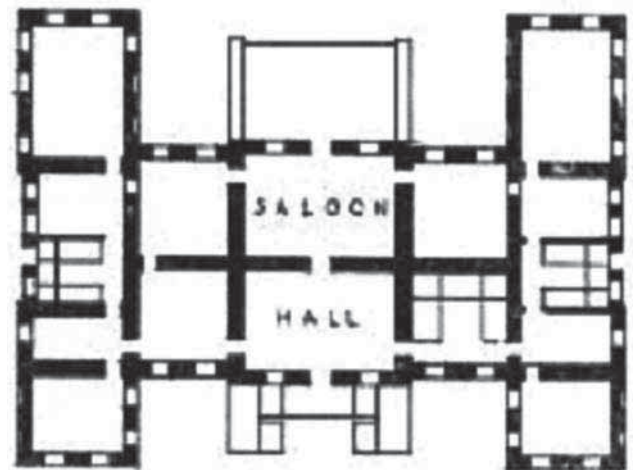


Figure-2: Plan of House Belton, Lincs, England, 1685-88.
Source: Summerson, 1959



Figure-3: Elevation of House Belton, Lincs England, 1685-88.
Source: Summerson, 1959

developing several socio-cultural meanings and technological, stylistic, and spatial distinctions associated with the modern house (Desai, Desai and Lang, 2011).

Furthermore, the introduction of bungalow typology greatly transformed the culture and lifestyle of the natives by introducing modern ideas and culture. Around the 17th and 18th centuries, the bungalow typology emerged from England and was imported by the Britishers to India under their rule in the 18th century. Therefore, in this paper, the bungalow typology in England is taken as the first of its kind while studying its introduction and evolution in India.

The first example of a bungalow was in England from where the typology emerged, after the Civil War of the 17th century, the architecture of the country-house/bungalow was monotonous and reserved as a whole i.e., one basic typology was followed as shown in a famous model of the house

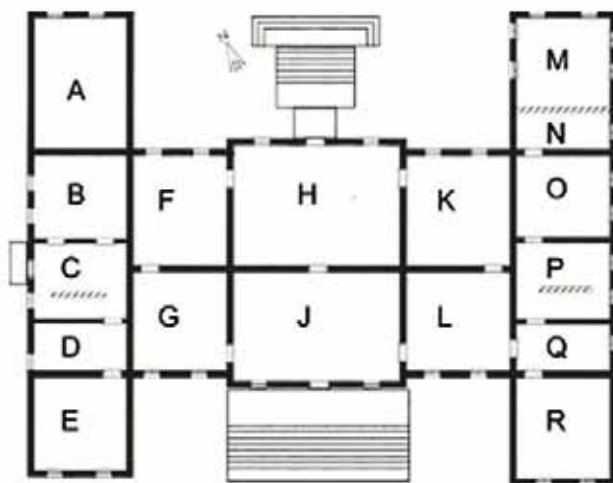


Figure-4: Detail Plan of Belton Lincs, England.
Source: En. Wikipedia.org, 2007

A: Upper storey of Kitchen (main dining room formed from the upper storey of kitchen). **B:** Service room- now Breakfast Room. **C:** Back stairs and West Entrance. **D:** Closet. **E:** School Room. **F:** Withdrawing room- now Red Drawing Room (smaller drawing room). **G:** Little Parlour- now Tapestry Room. **H:** Great Parlour- now Saloon (placed on an axis approaching to the northern official gardens). **J:** Marble Hall (serves as the grand entrance to the house). **K:** Withdrawing Room- now Tyrconnel Room (smaller drawing room changed to state bedroom).

L: Great Staircase (3 flights linking north, west and east parts to the Dining room above the marble room). **M:** Upper storey of chapel. **N:** Gallery of private pew overlooking chapel. **O:** Ante Room (now Chapel Drawing Room). **P:** Back stairs & east Entrance. **Q:** Sweetmeat closet. **R:** Bed chamber (now Blue Room).



Figure-5: Buckingham House, Westminster, 1703-05.
Source: Summerson, 1959

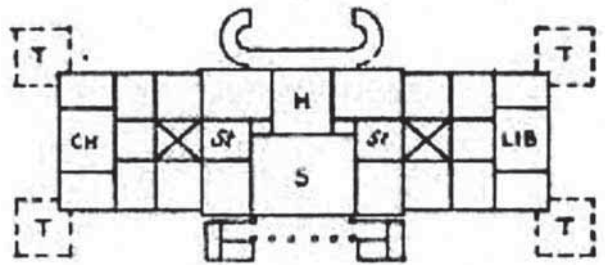


Figure-6: Plan of Wanstead Essex, 1702.
Source: Summerson, 1959



Figure-7: Elevation of Wanstead, Essex, 1720.
Source: Summerson, 1959

Belton (Figures 2 and 3). It was built all over England since the 1650s as the illustrative basis of the country house of England and had the ability to expand or contract. The most vital element of the plan that alone makes the typical 17th-century house of a smaller category is the central part combining hall and saloon around which all rooms were arranged as shown in Figure 4. This is evident in all three examples i.e., Belton House, Buckingham, and Wanstead. Later, though a few essential changes were made to the country house, like enhanced or not, a short or long house with 2 or 3 storeys made in stone or brick but that did not distort its overall design (Figure 3, Figure 5 and Figure 7).

From the analysis of all three examples, the typical plan of the British bungalows is found to be symmetrical with a portico or an enhanced entrance leading to a centralized hall that served as a receiving space for guests. The rooms are placed back-to-back to achieve a “double-pile” i.e., a 2-room deep house. The reason for such placement of the spaces was to get better accessible and related rooms with better privacy along with enhanced lighting and heating in all rooms. In construction terms, this layout and form permitted a more compact and solid house with one roof that was easy to be constructed with lower building costs and having more than 2 facades. Service and staff rooms

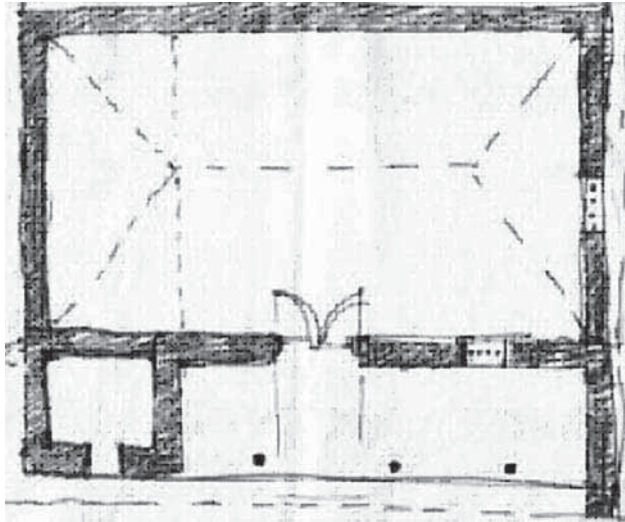


Figure-8: Plan of Rural Bangal House (Bengla).
Source: Jain, 2015

were placed on different floor levels encompassing the idea that employers wished to live separately from the servants. There used to be a prominent and grand staircase in the bungalow (Summerson, 1959).

Whereas, an example of the initial bungalow from pre-partition India was the Bengal house (Bangla); which became an inspiration for constructing the British bungalow; was a simple hut having a distinct curved roof as shown in Figure 1 (Jain 2015). In Bengal during the 18th century, the military engineers of the Colonials being the traders transformed a conventional local structure into a more permanent and stereotypical residence for the East India Company with the help of Indian contractors and craftsmen. Therefore, regardless of the construction advancements, materials, and techniques, the physical form of the bungalow has the essence of the Indian architectural heritage (Desai and Desai, 2016). The form of the initial Bangla as shown in Figure 1 was constructed up to 2 storey houses made of bamboo structures plastered with clay walls. The thatched roof was made for durability; extended 4ft to 5ft from the walls supported by bamboo poles in a row that served as a veranda and provided shelter from the rain as shown in Fig. 1 and Figure 8 (Jain, 2015). Later at the start of the 20th century, the bungalow became the standard dwelling that was associated with the British officers and a few of the wealthy Indians. The adoption of the bungalow by the Indians transformed the model as per the different climatic conditions and cultural variations of the regions in India.

As shown in Figure 9, in India Bungalow is a low one-storey spacious building with a compound that consists of a separate living, dining, bedrooms later added with attached



Figure-9: A Twentieth Century Delhi Cantonment Bungalow and Compound.
Source: Photo by Monalisa Bhardwaj in Bhardwaj and Garg, 2016



Figure-10: Veranda Around the Bungalow was a standard Element of Design
Source: Photo by Monalisa Bhardwaj in Bhardwaj and Garg, 2016

baths, and a Veranda Figure 10. The organization of day-to-day activities of Britishers formed the design of the bungalow. Landscaping was an important element of a bungalow as Britishers were fond of gardening. The



Figure-11: Early Bungalows of India.
Source: Desai, Desai and Lang, 2011

bungalows of India also represented discrimination in planning like for the wealthy people i.e., Britishers, the bungalow had a walled setback from the main road that was used as a compound. The open-built ratio of the bungalow was used to symbolize the status of the officers. For example; the senior officer's bungalow had a 15:1 ratio (garden: built form) and the ratio could be 1:1 for a beginning rank (Nangia, 2004).

As shown in Figure 11, bungalows that were made at first, reflected classical lines that were long and low accompanied by details. Whereas with the Gothic revival in England, the bungalow design changed with pitched roofs and ornately carpentered detailing like the “monkey tops” of Bangalore (Figure 18). The bungalow design of India not only depicts European heritage but also became the symbol of Britain's political and military power. The evidence of this is found in the exterior resemblance of the colonial bungalows with the European classical form/Villa and elements such as roof supported by Doric and Tuscan columns on the facade that was used to show the British social superiority (Nangia, 2004).

Economic, Social, and Urban Forms in Britain and India Forming Colonial Bungalows of India.

By the mid-19th century, India and Britain were affected by two economic systems of agriculture and industries. These systems of economic production affected social structure, land use, and urban form. India for centuries had well advanced urban centres but their city's physical form, population, and size were directed by technology that used animate energy. Whereas in Britain, technological advancement of the 17th century resulted in new sources of generating energy i.e., fossil fuel for the urban industrial economy of their 18th and 19th centuries. These differences in agriculture and industrial economies have developed distinct social structures (King, 1974).

The overall social structure of India remained comparatively stable, though was affected by the West along with the other inner influences in terms of their urban structures.

At the start of the 20th century, India experienced internal cities' growth, variations in population distributions i.e., urban and rural, and the development of a new class structure i.e., the middle class whose housing outlooks were defined by the economic possibilities as well as the city's rural-based elites' i.e., landed gentry customs. The urban middle-class consisted of people other than the European groups; who used to live in cantonment quarters, and suburban-style areas in detached compound bungalows-a typical residential unit (King, 1974).

During this time, change in living patterns of middle-class and working-class (natives performing functions) can be defined in two categories: as work; due to the advancement of factories, commercial activities, and focused office housings; and leisure; suburban areas, and transportation development with excessive finance generated. Therefore, in industrialized India, housing took into account not only the basic needs of its users but also provided spaces for leisure activities like a garden space around the bungalow that could now be afforded by new urban classes. By the mid-19th century, the concept of a nuclear family (a single-family house consisting of parents, children, and infrequent guests) prevailed regardless of the cultural parameters defining the family structure of the natives (who used to live in joint family housing previously) and metropolitan societies.

In addition, in structuring the industrial society the generalization of having one family in each house was inevitable because of the colonials coming from such backgrounds (separating home and leisure from the workplace) and emphasizing the indigenous culture having no such characteristics. Furthermore, in the second half of the 19th century, urbanization generated health along with physical and community problems. The important environmental problem was intolerable smells that resulted in pollution spreading disease. The result of this issue in the building and urban planning led to a solution of an aerial space that would restrict the disease transferal (King, 1974).

The bungalow-compound complex has two terms compound and bungalow. Firstly, the compound is a Malayan word that means an enclosure surrounded by fences. Since the late 18th century, the compound has been referred to as a fenced ground surrounding the Anglo-Indian house. Though the word has its origin in the Malayan language, it was manipulated in English form denoting the core norm of colonialism i.e., adopting from one culture and transferring to another. Secondly, a bungalow is a Hindi/Mahrati term that means a Bengali belonging was used to denote a native

structure from this chunk of India. Since the late 18th century, the structure of the bungalow was adopted as a basic European house type in India comprising main characteristics like detached/isolated building, a veranda, and having one storey. The external ornamentation of the bungalow was adopted from the metropolitan culture known as Classicism along with acquiring external recreational space and internal space divisions according to the standards of the metropolitan society (King, 1974).

Architectural Spaces in Colonial Bungalows of India

The Bungalow of India in Britisher's era was built on a brick base elevated 1ft, 2ft, or 3ft from the ground that consisted of only one storey. A vernacular building with a plain plastered rectangular block and a portico or porch at the entrance that acted as an essential element in the bungalow providing space for the vehicles parking and receiving of the guests while guards awaited (Bhardwaj, and Garg 2016; King, 1974). The boundary wall was a low fenced wall often used to mark the boundary rather than protecting against thieves as they had a guard (chowkidar) to look over people's movements (King, 1974).

As shown in Figure 12, the plan of the bungalow had a centralized large room i.e., the hall used to receive guests to maintain a high degree of privacy, lit from sides with windows and a door in the centre (Bhardwaj and Garg, 2016). On the left side of which is a dining room i.e., a completely separate compartment so that the servants can set the table and prepare the meal in disguise, and on the right side is the sitting room with 2 bedrooms and a bathroom at each corner. The hall is separated from the lounge using a screen for the privacy of occupants. All the bedrooms and bathrooms have a separate entrance to maintain privacy and ensure its use by guests without crossing the bedrooms. The built spaces were covered with a single thatch roof that goes low at corners (King, 1974).

In the civil station, bungalows were developed according to the professional community's needs. Therefore, the veranda provided a place for food serving of get-togethers and was used as a relaxation space that provided a sensational experience from the flora and fauna of the compound (Bhardwaj & Garg, 2016; King, 1974). The form of the bungalow was designed to complement the tropical climate of India. Later after 1857 when the East India Company was replaced by the British Imperial Government, the built form of the bungalow altered a bit. New construction materials were used like tiled roofs and sun-dried bricks

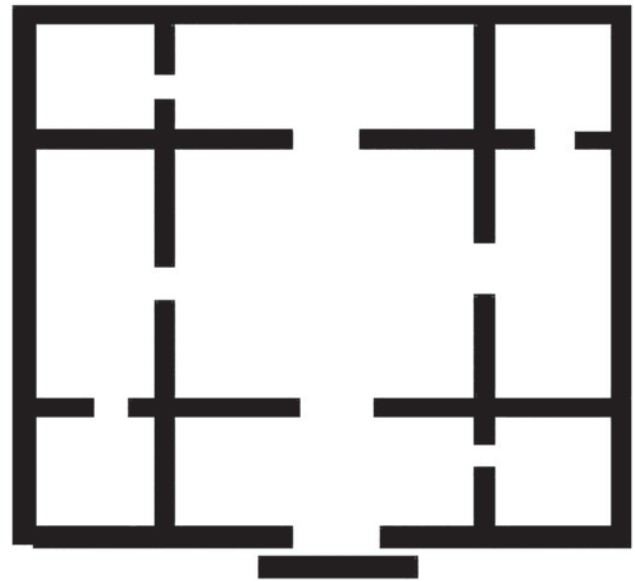


Figure-12: Typical Plan of an 18th Century Anglo-Indian Bangla.
Source: Cody, 2011

with structural changes like hipped gable roofs as per climatic conditions in different parts of India (Bhardwaj and Garg, 2016).

The covered area of the bungalow in proportion to the compound was hardly more than 1/10th. The huge compound space of the bungalow was used to buffer the residents from unwanted events providing a comfortable place having kitchen gardens, a storage space (godowns), and servant quarters. The services were placed far from the house; at least 20-30 ft. in small bungalows; to avoid the smell and noise of cooking and servants reflecting the social segregation between the leaders i.e., Britishers, and the locals i.e., Indian's lifestyle. The compound also had a garden for growing preferred fruits and vegetables i.e., exported seeds symbolically significant in celebrating colonial ritual festivals and was maintained by females because of their lack of duties due to more servants. Similar to the European classical Greco-Roman models, Britishers used compounds varying in sizes to show the owner's status-enhancing the appearance of the simple building in the visitor's eye. The cluster of trees in the compound was used to provide shelter from the sun and indicated Britisher's preference for a diversified built environment indicating their socio-culture of variegation. The hygiene and comfort around the bungalow complex were a key element in its design that is indicated from view/approach to the building, setback norms, and introduction of the veranda, landscape, and service roads far from the site (Bhardwaj and Garg, 2016).

Furniture in Colonial Bungalows of India

The standard of living and activities of the Europeans continued, though a bit modified in the colonial culture. Because of this, spaces were provided to accommodate their cultural equipment and objects. For example, three to four kinds of chairs were required depending on the use, like a dining chair for eating purposes, a chaise lounge for private relaxation (Figure 13), and an informal chair for conversations (Figure 14). In the twentieth century, though native elites adopted the utensils and practices from Colonials still the majority of the native residents were living a basic life without furniture i.e., eating with their fingers in a single dish or plates made from banana leaves. They used to either

sit cross-legged on the floor or on a round mattress and cushion or place themselves on a charpai i.e., a four-legged cot made with knitted yarn. Figure 15 illustrates native hawkers sitting on the floor on a veranda. Colonials, unlike the natives, had special dining tables, chairs, utensils for eating, and repositories for keeping food due to their habits like eating meat and drinking alcohol. Figure 16 exemplifies dining room furniture pieces. Also, reading as a favourite hobby desired the occasional table, distinct cabinets, and storage for books; writing as a females' hobby, required a writing desk with a suitable chair; storage places to store instruments and materials for recreation activities like sewing, collecting and painting was required that resulted in distinct furniture products (King, 1974).



Figure-13: Cretonne Clad Chairs for Verandas.
Source: King, 1974



Figure-14: Sitting Room of a Colonial Bungalow in India, 1870.
Source: http://www.columbia.edu/itc/mealc/pritchett/00routesdata/1800_1899/britishrule/incontry/chandannagar1870.jpg retrieved from Ahmed, 2017



Figure-15: Hawkers (Natives) Sitting on Floor at East Parade Bungalow.
Source: King, 1974



Figure-16: Dining Room of a Colonial Bungalow in India, 9th Century.
Source: Anon., N. D.

Colonial traveling remained a practice hence, required storage and display areas i.e., shelves and cabinets for the souvenirs. These cultural objects were not only used for aesthetics but had psychological affiliations associated with them like the owner's achievements, a continuous identity, and a record of activities undertaken (King, 1974).

Context of Colonial Bungalows of India

Bungalows were usually used in three contexts:

- In rural context as an isolated or semi- isolated compound separated from other members of the colonial community. Example: planter's house, admin's rest house, the bungalow of a traveller, or inspection bungalow (Figure 17).
- Housing clusters outside and away from the native's settlements accommodating colonial representatives in politics, technical system, and administration fields (Figure 18).
- In civil lines; residence of citizens working on government positions along with other people belonging to the colonial community; and military cantonments; living zones of British officers; known as Colonial urban settlement that along with the native settlements formed the Colonial City. The area featured low dense, single-storey, horizontal bungalows with wide roads lined with trees giving access to the arrangement of huge compounds in which the bungalow was roughly centrally positioned as shown in Figure 19 (King 1974).

MODERN BUNGALOWS OF KARACHI: TRANSFORMATION OF CULTURAL IDENTIFIED BUNGALOWS

Colonial Bungalows in Karachi

Colonials and Hindus were attracted to Karachi because of the seaport and left a major impact on evolving housing typologies of Karachi. These housing typologies were named Colonial Bungalow and Hindu Ghar respectively. As evident in Figure 20, Hindu Ghar was an introverted i.e., a courtyard style mixed-use housing typology that developed as per the Hindu merchants and natives socio-economic and climatic needs. Whereas, as shown in Figure 21, Colonial Bungalow was an extroverted built form introduced by foreigners later adopted by the natives having compulsory open spaces for ventilation (Ahmed, 2014). This research focuses on colonial bungalows and



Figure-17: Travelers Bungalow in India, 19th Century
Source: Anon., N. D.



Figure-18: Typical Colonial Bungalow of a White Ruler in India, 19th Century
Source: Anon., N. D.

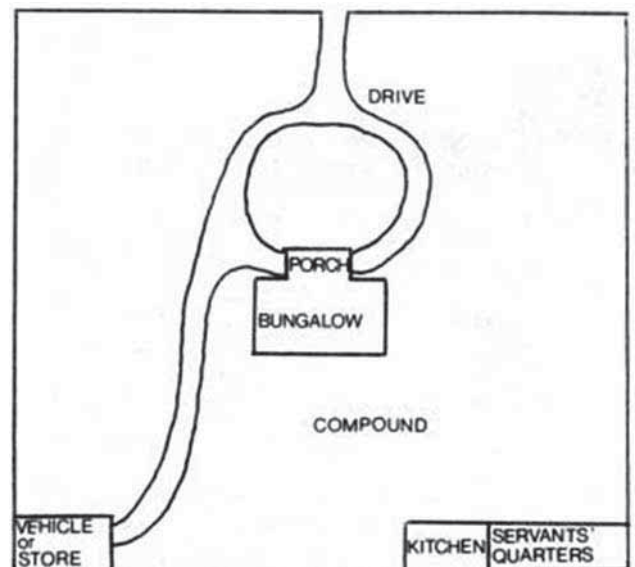


Figure-19: Layout of Standard Colonial Bungalow
Source: King., 1974.

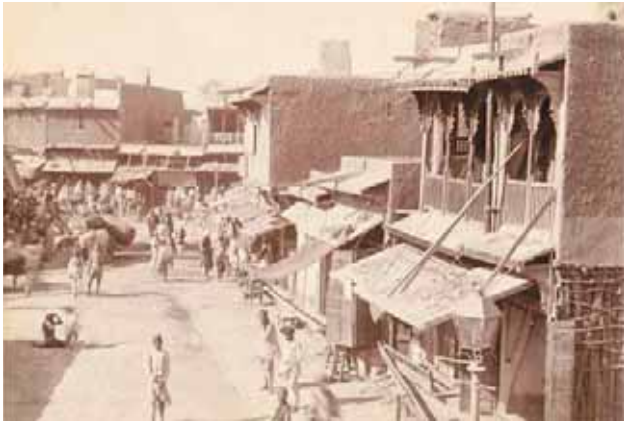


Figure-20: Karachi's Native Town, 1900.

Source: <http://www.bl.uk/onlinegallery/onlineex/apac/photocoll/k/zoomify/57510.html> retrieved from Ahmed, 2017



Figure-21: Colonial Bungalows in Karachi, 1900.

Source: <http://defence.pk/threads/old-karachi.386898> retrieved from Ahmed, 2017



Figure-22: Front Facade of Flag Staff House, Karachi.

Source: Ahmed, 2017

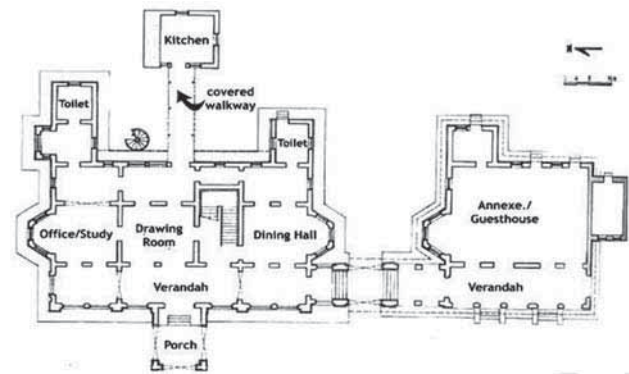


Figure-23: Ground Floor Plan of Flag Staff House, Karachi.

Source: Lari & Lari, 2001, p. 310. retrieved from Ahmed, 2017

their impact on the modern house design of Karachi, as was more prominent than other housing typologies and became an element of the indigenous landscape.

In Karachi, numerous Colonial-era-built bungalows still survive today; though they require some repair and restoration work; are an integral part of the city's history (Ahmed, 2014). The examples of colonial bungalows in Karachi were selected for the study based on their data and drawings availability in listed architectural heritage records for preservation, restoration, and alteration purposes. Also, these cases are restored almost in the original form (except for National Foods Ladies Club that has been changed in planning but that is also recorded); that is the criteria made in analysing the planning of colonial bungalows. So that comparison with the modern bungalows based on the planning evolution could be made effectively. The case studies selected were: Flagstaff House (Quaid-e-Azam House Museum), Mohatta Palace, National Foods Ladies Club, and Aman House.

From the analysis of the drawings of the examples above, it would be correct to say that the colonial bungalows fulfilled the Europeans' needs, wants, and entertainment forming an exclusive lifestyle for the British officers residing here rather than an inclusive one. The bungalows of the British Raj were huge in scale with an enormous lawn or compound having an open-built ratio of hardly 10:1 (garden/compound: built). Site plans of the examples in Figure 24, Figure 26 and Figure 32 proves this. The height of the boundary wall used to be 3ft only that was constructed just to mark the boundary. As shown in Figure 22, Figure 31 and Figure 33, usually, the facade was found to be symmetrical (other than Aman House Figure 36) with a central enhanced entrance i.e., a porch or a portico carrying the projected veranda. As shown in plans of the case studies above, the veranda led to a centralized drawing-room as in typical British Bungalows which then opened up to the other rooms. All the living spaces i.e., bedrooms were placed at the back or on the other floors to maintain privacy. In colonial bungalows, the service area i.e., servant quarter and kitchen was a separate



Figure-24: Site Plan of Flag Staff House, Karachi.
Source: Ahmed, 2017

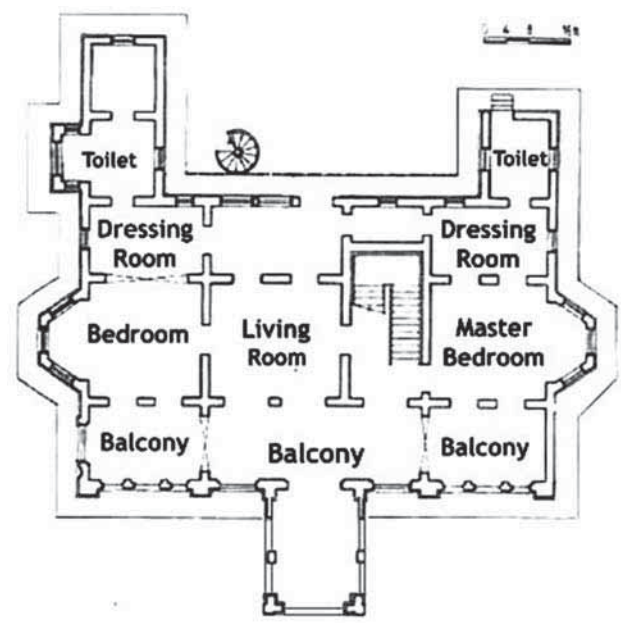


Figure-25: First Floor Plan of Flag Staff House, Karachi.
Source: Lari & Lari, 2001, p. 310. retrieved from Ahmed, 2017

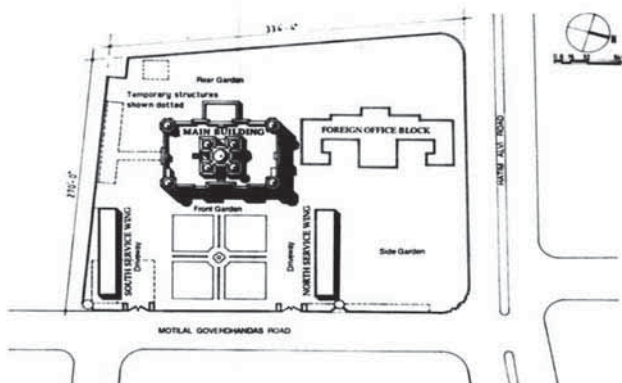


Figure-26: Site Plan of Mohatta Palace, Karachi.
Source: Heritage Foundation of Pakistan retrieved from Ahmed, 2017

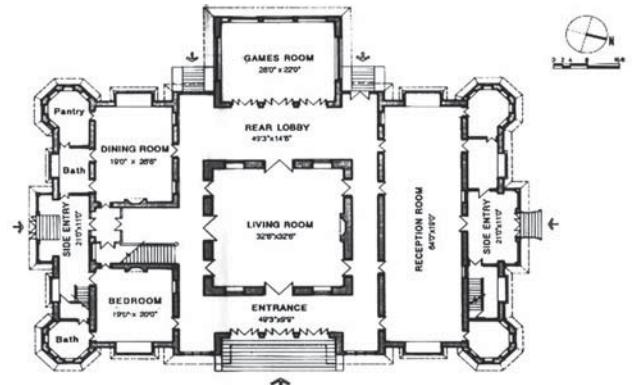


Figure-27: Ground Floor Plan of Mohatta Palace, Karachi.
Source: Heritage Foundation of Pakistan retrieved from Ahmed, 2017

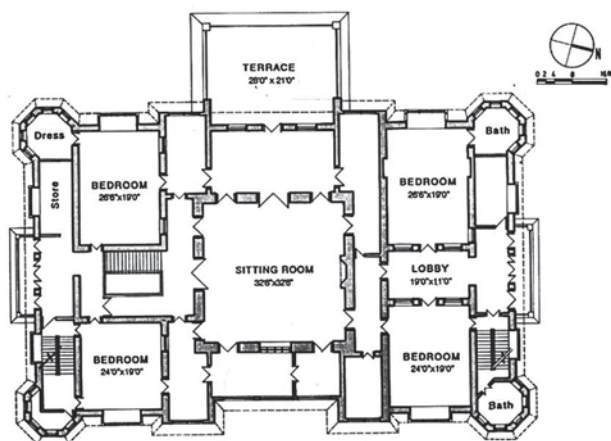


Figure-28: First Floor Plan of Mohatta Palace, Karachi.
Source: Heritage Foundation of Pakistan retrieved from Ahmed, 2017

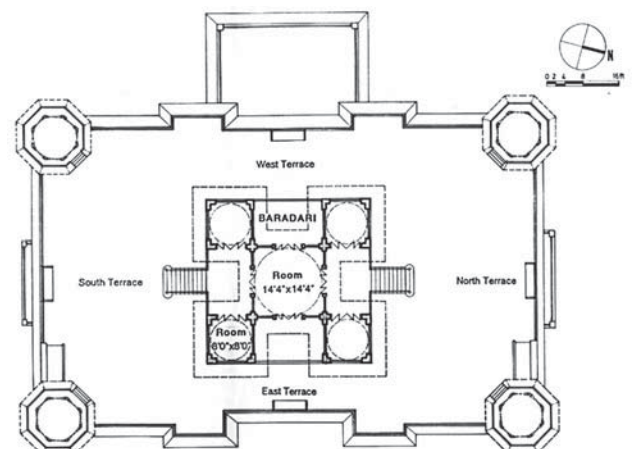


Figure-29: Roof Top of Mohatta Palace, Karachi.
Source: Heritage Foundation of Pakistan retrieved from Ahmed, 2017

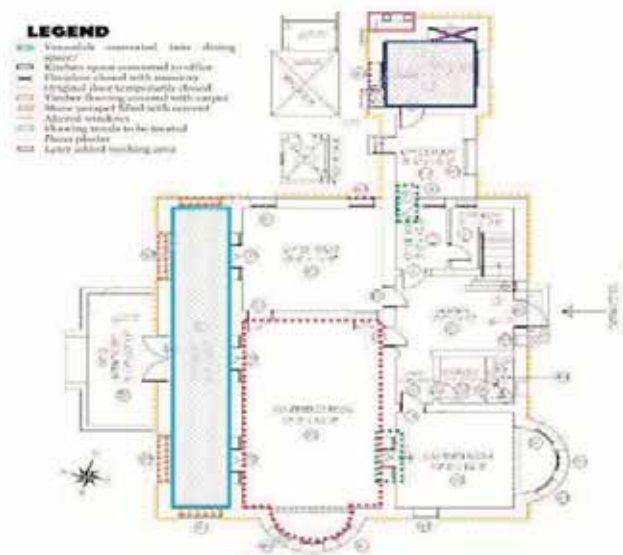
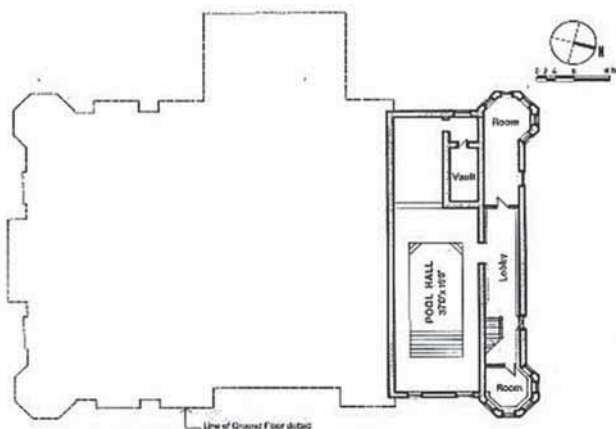




Figure-36: Front/West Facade of Aman House, Karachi.
Source: Naeem, et. al., 2016.

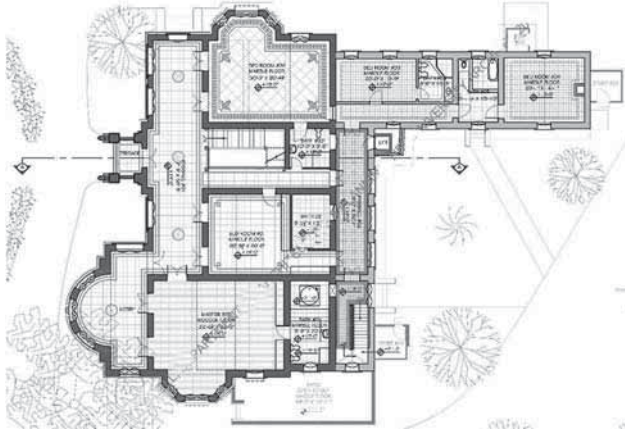


Figure-38: First Floor Plan of Aman House, Karachi.
Source: Naeem, et. al., 2016.

block from the main house to avoid social and cultural amalgamation of the owners with the native servants (except in National Foods Ladies Club and Aman House where it was attached to the main house but had separate entrance). The form of the colonial bungalows was an essential architectural element that showcased the metropolitan culture and reflected the Britisher's social status, power, and a hybridized lifestyle i.e., incorporating traditional and modern practices within the captivity of the colonial house (Figure 22, Figure 31, Figure 33 and Figure 36).

Modern Bungalows in Karachi

After the independence of 1947, many native elites who favoured the idea of social division quickly adopted the bungalow typology that segregated them from the traditional compact quarter living urban population in the historic areas of Karachi (Khan, 1990). Today the bungalows in Karachi have been largely transformed from the colonial bungalow model according to the social needs of the locals. The change of material from brick to concrete has transformed the overall aesthetic of the building. Britishers also introduced materials that are still used today in the bungalows of Karachi. These materials include a new standard size brick of 9"x4.5"x3"

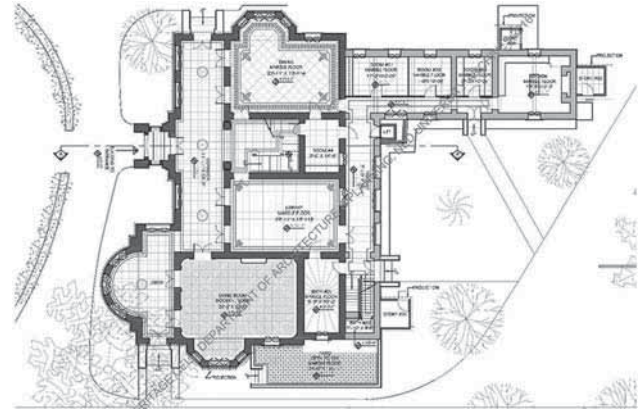


Figure-37: Ground Floor Plan of Aman House, Karachi.
Source: Naeem, et. al., 2016.

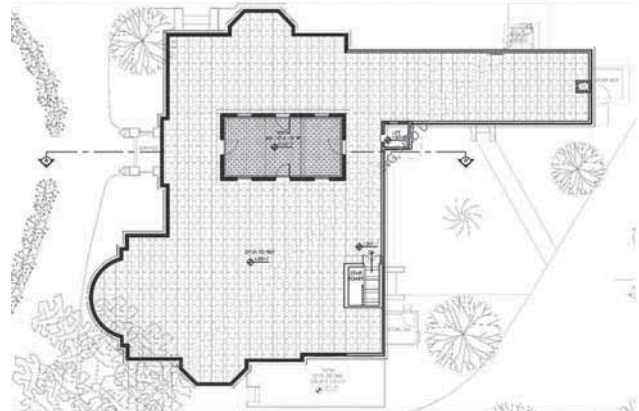


Figure-39: Roof Plan of Aman House, Karachi.
Source: Naeem, et. al., 2016.

that was introduced in the early 19th century, steel girders, glass-introduced in the 1920s as a coloured decorative item, cement, corrugated iron, and lime plaster (Ahmed, 2014).

The Colonial bungalows influenced and framed the culture of Karachi, Pakistan introducing social segregation based on the income-class groups. This has not only shaped the localities within the city but also the spaces within the bungalow. The income groups formed the spaces within the bungalow as per their social and economic needs, hence varies throughout the city. The case studies selected for the research include 5th Street Bungalow, P.D.O.H.A., Karachi; Mehdi Residence, D.H.A., Karachi; Mallag Assa Dashti, DHA, Karachi, and 200 sq. yds Bungalow, DHA, Karachi. The selection of these cases was based on the locality and the income class i.e., the elite class and middle- income class bungalows. Also, these examples are more likely to incorporate the essence and spaces within the bungalow inspired by the Britishers and have adapted to their lifestyle in a lust to adopt modern ideas and lifestyle.



Figure-40: Ground Floor Plan of 5th Street Bangalow, Karachi.
Source: Zaman, 2019.



Figure-41: First Floor Plan of 5th Street Bangalow, Karachi.
Source: Zaman, 2019.

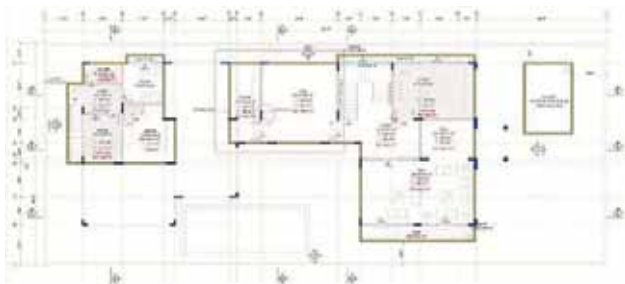


Figure-42: Basement Plan of 5th Street Bangalow, Karachi.
Source: Zaman, 2019.



Figure-44: Facade of Mehdi Residence, Karachi.
Source: Samani, 2018.



Figure-43: Facade of 5th Street Bangalow, Karachi.
Source: Zaman, 2019.

It is apparent from the plans of the above-mentioned examples (Figure 40, Figure 45, Figure 48 and Figure 50) that the modern bungalows of Karachi are small in size with fewer open spaces. Typically, more provision is given from the front for a lawn space that is used for gatherings having an entrance portal. The boundary wall height of the bungalows is about 8ft to 10ft high to avoid robberies. As shown in Figure 43 and Figure 44, facades of the modern bungalows in Karachi tend to have eliminated ornamentation and have a less decorated entrance to the house with an asymmetrical plan. The planning includes the drawing-room that is not centrally placed but is at the front for the guest's easy access and to maintain privacy. As shown

in the plans of the above-mentioned cases, all the bedrooms are placed at the back and on different floor levels to maintain the comfortability of its inhabitants and limit the guest's movement. The kitchen, servant quarters, and maid's room are part of the main house but have their separate access. The kitchen is accessed through grease kitchen having an entrance from outside the house (Figure 40, Figure 41, Figure 42, Figure 45, Figure 47, Figure 48 and Figure 49) i.e., the concept of social and income-class segregation. The form of modern bungalows varies but depicts modernity and Western influence.

COMPARISON BETWEEN COLONIAL AND MODERN BUNGALOWS OF KARACHI

The concept of the bungalow was opposite to the collective and community-oriented lifestyle of the natives. In the post-colonial time, it was absorbed in Pakistan's built environment like their own cultural and architectural identity as this typology had the ability to extend or contract and evolve as per different economic, social, and cultural needs. The social and cultural values of both the colonial



Figure-45: Ground Floor Plan of Mehdi Residence, Karachi.
Source: Samani, 2018.



Figure-46: First Floor Plan of Mehdi Residence, Karachi.
Source: Samani, 2018.



Figure-47: Basement Plan of Mehdi Residence, Karachi.
Source: Samani, 2018.



Figure-48: Ground Floor Plan of Mallag Assa Dashti, Karachi.
Source: Amin, 2018.



Figure-49: First Floor Plan of Mallag Assa Dashti, Karachi.
Source: Amin, 2018.



Figure-50: Ground Floor Plan of 200 Sq. Yds. Bangalow, Karachi.
Source: Amin, 2018.



Figure-51: First Floor Plan of 200 Sq. Yds. Bangalow, Karachi.
Source: Amin, 2018.

and the native communities formed the spaces and their use in a bungalow. From the above research following comparisons between the Colonial and modern bungalows of Karachi are abstracted:

- In pre-partition India, the bungalows were a standard dwelling unit for the members of the colonial community who stayed here. Whereas, the concept of a bungalow transformed in post-partition Karachi, Pakistan as per distinct income class groups and their affordability. Now, mostly elites and middle-class people live in bungalows.
- Colonial Bungalows was usually a low one-storey spacious building placed on an enormous lawn or compound. This was to resist environmental diseases and attain distance from the native community.

Whereas, the modern bungalows are not huge in scale and size but could go above G+1 and usually have a small lawn/compound/garden. Modern bungalows are comparatively small because of the population growth and land availability issues in the city.

- The open-built ratio of the modern bungalows, like the colonial bungalows is not 10:1 and varies according to different area's bye-laws but has fewer open spaces.
- The height of the colonial bungalow's boundary wall used to be 3ft only that was constructed to mark the boundary. The reason was the controlled entries and exits and no concept of theft. On the other hand, in modern bungalows, the boundary wall is usually 8ft-10ft high to avoid robberies.
- In modern bungalows, the entrance to the main house is less decorated, defined, and prominent as it used to be in form of a portico or porch in the colonial bungalows. The reason is because of the security concerns as per the city's situation.
- The plan of the colonial bungalow was mostly symmetrical with Veranda all around it, unlike the modern bungalows where the layout is usually asymmetrical with no concept of Veranda. Hence, now there is no transition space left between the main house and the lawn space other than the main entrance or entry portal reshaping the architectural identity of the typical colonial bungalow.
- In modern bungalows, unlike the colonial bungalows, the drawing-room/hall is neither centralized nor opens up to the other rooms. Rather it is placed close to the main entrance to ensure guest's separate entrance to maintain the privacy of the inhabitants transforming the architectural identity of the bungalow.
- The living spaces i.e., bedrooms of the modern bungalows similar to the colonial bungalows are either placed at the back of the house or on a separate floor for privacy purposes.
- Servant quarters of modern bungalows unlike the colonial bungalows, are attached with the main house but have separate access to maintain privacy and social segregation. Also, the kitchen is now attached to the bungalow having a grease kitchen for a separate entrance to and from the house unlike in the colonial bungalows. During the British Raj, there were usually 20 to 30 servants but in the post-colonial time there are lesser or no servants, hence does not require quarters for them.

- In the modern bungalows, the ornamentation on the facade is dependent on the client's requirement dissimilar to the colonial bungalows where it was an essential architectural element to showcase the colonial power/status.

CONCLUSIONS

Karachi having the Arabian Sea has attracted many communities. Most influential were Hindus and Britishers who left their impact in framing the housing typology of the area. Britishers not only brought housing typology to pre-partition India but also their culture, lifestyle, and class differences that framed the culture and architecture of the city. The modernism ideology generated by the Colonials in pre-partition India flourished in the region and affected the natives in evolving and framing their culture as they were not aware of the Modern trends of the West. Because of this phenomenon and the Western education of the natives, modern thinking prevailed among the natives that lead them to think and act for freedom, freedom of ideas, and culture. This led to the start of Pakistan's independence movement resulting in the establishment of Pakistan in 1947 as a separate nation. Pakistan suffered from the architectural identity crisis just after its independence because of the political deformity and instability along with the religious paradigm. Even today the state is surviving to cope up with the modern world and its trends. An example of this is the variation in the application of bungalow typology throughout the country irrespective of their economic, social, and cultural backgrounds, and beliefs.

This research attempted to study the colonial and modern bungalows of Karachi in the twenty-first century through some examples to analyse the transformation of the bungalow design over time. Hence, it can be concluded that the bungalow typology and its planning have evolved in Karachi from time as per the economic, social, and cultural needs of its inhabitants. Regardless of the change in spaces, their size, scale, and their purposes, the bungalow typology gave birth to social and cultural segregation among the locals. The elite class continued to practice the norms and essence of spaces in the bungalow as was initiated and brought by the Colonials, as they considered it to be modern. Furthermore, it would be correct to say that the introduction of the bungalow in Karachi not only mounted the culture and lifestyle of the natives that is an amalgamation of the East and the West along with becoming a symbol of their social and economic status but also became the basis for the architectural identity of Pakistan.

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