

# *Approaches to the Bungalow Beyond Time and Distance: Notes of Comparison Between India, the United Kingdom, and Australia*

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*The origins of the typology of the bungalow is often understood as the importation and fusing of British houses to the Bengali peasant dwelling to adapt to the distinctive climate conditions of India. Later, the idea and image of a single-storey house with a verandah, the bungalow, was taken up in various countries, such as Britain and Australia. The bungalow sustained its own development, integrated with local construction methods, architectural culture, and trends particular to each country. This paper identifies commonalities and differences that were a consequence of temporal and spatial distance in the uptake of the bungalow typology through the measurement of an early extant example. Through its emergence either as houses for expatriates in hill stations or the tea garden in colonial India, the common form of the bungalow type—a detached house with a verandah in a compound—was exported as an abstracted image, and introduced as holiday houses for the British suburban middle class. Within its original context, the importance of the verandah to the type is most explicit: as a tool to mediate environmental factors, and as a spatial setting in which to enjoy the natural landscape. The locality of type that had appeared through materiality and construction in India was converted into an expressive locality. These two localities—one intrinsic, the other imaginative—acquired by bungalows in the process of its development, appeared in a mixed form in Australia, where it was developed as a dominant housing model. This paper clarifies the commonalities that are evident in the development of room layouts in the bungalow in its different settings, and the differences in the significance and function of the verandah in each case, as well as in the general representation of its locality.*

*Keywords: bungalow; colonial house type; detached house; verandah; locality*

The British colonial “bungalow” house type is a global phenomenon. The term “bungalow” means “of, or belonging to Bengal,” and is said to have developed through a process whereby the features of local peasant dwelling were incorporated into British colonial housing in India as an adaptation to local climatic conditions. Typically, the bungalow is a single-storey building with a central hall and surrounding verandah. It was subsequently adapted to suit local circumstances in each new location in which it arose and often integrated local construction methods to elicit specific outcomes in each country.

Anthony D. King’s comprehensive study, *The Bungalow: The Production of a Global Culture* outlined the dynamic history of bungalow type as it has emerged around the world. According to King, the British colony of India became suddenly involved in the European capitalist economic competition, and consequently, the bungalow was made to meet European’s cultural expectations while also becoming a sign of adjustment to the tropical climate.<sup>1</sup> Above all, it was the bungalow’s verandah that illustrated the manifestation of social, spatial, economic and political symbols.<sup>2</sup> King has regarded the bungalow as a symbol of the consumption of the city-state that was suburbanized by the accumulation of capital due to the expansion of industrialization and overseas trade in the new colonies.

1 Anthony D. King, *The Bungalow, The Production of a Global Culture*, 2<sup>nd</sup> ed. (New York, Oxford: Oxford University Press, 1995), 258-59.

2 King, *The Bungalow*, 265.

The historical development of early bungalows illustrates how colonial powers adapted their own housing styles to the colonial climate. While the bungalow can be considered a global type, it is, however, often localized through the integration of local materials, construction method, and its adaptability to many given topographical situations. This global and regional duality of the bungalow is at the root of the discussion on the standardization and local identity of housing, which continues today. The main purpose of this study is to clarify how these global/regional dualities took spatial form in the process of establishing bungalow types within a specific area. Hence, using a series of case studies, this paper examines the examples in three countries—India, United Kingdom, and Australia—focusing on a survey of room layouts, construction methods and materials. Discussions of the bungalow tend to focus on its dualistic history based on the conflict among metropole-colony relations. These discourses make the bungalow a distinctive housing type of the colonial period. Here, we will discuss the commonality and differences of this housing type, inherited beyond time and distance.

## Anglo-Indian Bungalow as Prototype

According to Anthony D. King, by the late eighteenth century, a new form of dwelling for European occupation based on the Bengali peasant dwelling had emerged: the Anglo-Indian bungalow defined by “its free-standing and single-storey structure, the plinth, the pitched thatched roof and the verandah.”<sup>3</sup> Subsequently, the Anglo-Indian bungalow was built in many places within India as housing for the officials of the East India Company and, after 1858, for government officials. The study of Madhavi Desai, Miki Desai and John Lang, *The Bungalow in Twentieth-Century India*, outlines how the Anglo-Indian bungalow evolved from its original form into a number of new house types that are still referred to as “bungalows” in post-colonial society.<sup>4</sup> With its absorption into the life of the Indian middle class in the twentieth century, the term “bungalow” came to have a meaning quite different from its Bengali origins.<sup>5</sup> Among such bungalows, this paper features existing bungalows built for Britons in the mid-nineteenth century, during which the transformations from the Bengali peasant dwelling can be found. The first is Shimla, a “hill station” that was established to avoid the severe climatic conditions of the coastal colonies. The remaining examples are the “tea gardens” located in Darjeeling and Assam.<sup>6</sup>

The hill station Shimla is located on the south-western ranges of the Himalayas. Discovered by the East India Company in 1819, Shimla was initially used as a restoration area for civil and military personnel. After 1864, Shimla functioned as the “summer capital” of Calcutta until 1911, when the capital of the British Raj was transferred from Calcutta to Delhi.<sup>7</sup> In Shimla, the colonial government built a number of bungalows as summer residences for their officers.<sup>8</sup> In contrast, Darjeeling, a town in West Bengal, and Assam, a region spread over the bank of Brahmaputra River in north-eastern India, are where a number of tea-gardens were established around 1830, during the popularization and expansion of the tea industry. Here, the tea company supplied furnished bungalows to staff, close to the plantation fields and factories in accordance to their employment status—director, manager, and general staff.

These examples have different topographic and climatic conditions (fig. 1). In Shimla, the city centre is located on a mountain ridge with the bungalows typically occupying the south-facing slopes that would invite warm winter sunlight from south. In contrast, Darjeeling’s tea gardens are spread over a steep mountain slope. Accordingly, factories and bungalows

3 King, *The Bungalow*, 28.

4 Madhavi Desai, Miki Desai and Jon Lang, *The Bungalow in Twentieth-Century India: The Cultural Expression of Changing Ways of Life and Aspirations in the Domestic Architecture of Colonial and Post-colonial Society* (Aldershot: Ashgate, 2012), 42-43. According to Desai, by the end of nineteenth century and with the development of new roof construction methods, colonial engineers introduced European style room layouts to the plan of bungalow. Consequently, a permanent form of bungalow used by British military personnel, civil servants and business people was established.

5 Desai, *The Bungalow in Twentieth-Century India*, 3-4.

6 Survey in Shimla in August 2018, collection of materials at Indian National Trust for Art and Cultural Heritage (INTACH), interview with local historian, Raaja Bhasin, inspection of bungalows. Survey in Darjeeling, Assam, in August 2014, collection of materials at Indian Tea Association and INTACH, measurement of bungalows and interview with owners and managers.

7 Raaja Bhasin, *Every House Tells a Story* (Himachal Pradesh: Department of Tourism & Civil Aviation, 2010), 4.

8 Bhasin, *Every House Tells a Story*, 6. In 1822, the first European house was built. There were about 290 houses in 1866.

Location	● Shimla, Himachal Pradesh (hill station)	● Daejeeling, West Bengal (tea garden)	● Guwahati, Assam (tea garden)
Average Altitude	2,206 m	2,042 m	50-680 m
Annual Rainfall	1,480 mm	2,547 mm	1,698 mm
Temperature	average temperature: 14.2 °C warmest month: June 20.9 °C coldest month: January 5.6 °C	average temperature: 17.8 °C warmest month: July 17.3 °C coldest month: January 6.6 °C	average temperature: 24.6 °C warmest month: August 29.0 °C coldest month: January 17.5 °C

were built by cutting into the mountainous topography. In Assam, tea gardens were located on the river plain with a scattering of factories and bungalows. The construction of bungalows in each area were based on the concept of a “bungalow-in-its-compound” and “one site, one house.” All the examples presented in this study were surrounded by hedges or walls, and separated from the local Indian population. The living environments were made to suit a lifestyle that was comparable to the expectations of British culture at that time. The creation of a secured and independent environment that set comfortable long-term living conditions was a priority within what was perceived to be an uncultivated context.

According to King, the room layout of the Bengali peasant dwelling was based around a single room that allowed for multiple functions. This room layout was ultimately subdivided into convenient compartments by the European settlers according to their lifestyle.<sup>9</sup> In the examples presented in this paper, clear regional differences in the treatment of the room layout and verandah were identified. The bungalows in Shimla are currently used as housing for government officers. Due to security reasons, it was not possible to confirm the planning of the interior room layout. However, according to local historian Raaja Bhasin, the standard bungalow in Shimla is a one-and-a-half-storey residence with a central hall, a fireplace set between two rooms, a garret and accompanying stair, and dormer window (fig. 2). Most of these bungalows have a verandah—generally arranged towards the front of the bungalow—and are covered in glazing. Like those in Shimla, the bungalows in Darjeeling are located at high altitudes and are planned around a central hallway. Rooms are symmetrically arranged around the central hall, and a fireplace is installed in the center of the house for thermal efficiency. In contrast to Shimla and Darjeeling, Assam has a relatively mild climate. Although the bungalows

Figure 1. The location of the bungalows in different condition. (Photograph by author.)

<sup>9</sup> King, *The Bungalow*, 24-30.

● Daejeeling, West Bengal - Stenthal Tea Garden



Steinthal Tea Bungalow



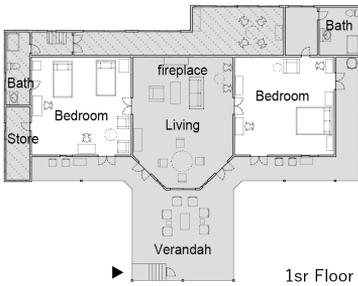
Central hall



Front verandah

The first tea garden in Darjeeling established in 1852.  
**Construction year:** 1852  
**Structure:** Stone construction with timber framework  
**Extension:** 1994-1998, extension of kitchen and bath

● Guwahati, Assam - Eastern Assam Tea Garden



Chowkidinghee Heritage Chang Bungalow



Living room with fireplace



Verandah facing tea garden



Limbuguri Tea Estate was handed over to Eastern Assam Tea Company in 1970.

**Construction year:** About 100 years ago

**Structure:** Wooden, partially steel

**Extension:** Some part of verandah was enclosed / Ground-floor was extended into guestroom, office, kitchen with brick construction / Enhancement of bathroom, kitchen etc

**Legend**

Verandah, Hall    Extension to be inferred

Scale 0 5m (common)

in Assam have varied room layouts, mostly are accessed from the verandah into the living room. This well-ventilated room layout extends the interior living areas to the semi-outdoor spaces through mosquito-netted verandahs with fitted furniture. In this way, the examples of this study show that the division of rooms by Europeans are common to each case. However, there are distinct regional differences in the composition of each room and the climatic role of verandah. These regional differences are more explicit in the materiality and construction method. Shimla

Figure 2. The room plan of bungalows in Darjeeling and Assam. (Photograph and drawing by author.)

is surrounded by natural forests. Bungalows in this region are thus built in the local *dhajji* system of timber-framing, utilizing Himalayan cedar, brick nogging, lath and plaster. In contrast, the bungalows of Darjeeling are predominantly made of stone. One such example is a bungalow named “Steinthal,” which translates into “stone valley,” which is made out of 18-inch local stone. In Assam, bungalows consist of two predominant types, “the ‘mati’ bungalow at the ground level, usually on a high piece of ground in a clearing with good natural drainage all around, or the more common ‘chang’ type built of posts about ten to fourteen feet above the ground” (fig. 3).<sup>10</sup> Due to the lack of soil types suitable for brick-making,<sup>11</sup> the walls were often made from either *ikra* reed daubed with earth, or timber planking.<sup>12</sup> The reason behind the predominance of the *chang* bungalow was the protection it offered from wildlife, leeches, insects, and the threat of malaria fever.<sup>13</sup> Moreover, some of the steel columns of Chowkidinghee Chang Bungalow feature the mark of the British steel company “Cargo Fleet ENGLAND.” When rebuilding a bungalow damaged by a large earthquake of 1897, steel frames—which had been standardized as a construction material at the time—were introduced and used as structural materials for the elevated bungalow.<sup>14</sup>

From these examples in India, three trends can be ascertained. The first is the concept of “one site, one home”: a way to secure an independent environment from surrounding areas and create a comfortable living environment in an as yet undeveloped area. The second is that the room layout of the bungalow highlights the common functional division made by European; however, there are clear regional differences in the relationship between these rooms and the function of the verandah. Thirdly, bungalows reflecting British expectations were created by using local materials and construction methods, as a way of responding to the diverse climate and architectural culture of India. As Bhasin notes: “The composition is essentially European while the structural elements are indigenous.”<sup>15</sup>

10 G. M. Kapur, *Burra Bungalows and All that: Glimpses of Built Heritage and Memorabilia of the Tea Industry in Assam* (New Delhi: Indian National Trust for Art and Cultural Heritage, 2012), 19.

11 George M. Barker, *Tea Planter's Life in Assam* (Calcutta: Thacker, Spink & Co., 1884), 94-95.

12 Kapur, *Burra Bungalows and All That*, 19. “Ikra” was used because Assam is susceptible to earthquakes.

13 Kapur, *Burra Bungalows and All That*, 19; Barker, *Tea Planter's Life in Assam*, 96. A similar story was confirmed in the interview.

14 According to an interview with the manager of Chowkidinghee Chang Bungalow.

15 Bhasin, *Every House Tells a Story*, 6.

Figure 3. Two predominant construction type in Assam. (Photograph by author.)



**Mati bungalow** on the ground level. Wathai Bungalow currently owned by Assam Tea Comapny.

**Chang bungalow** elevated from ground level. Manacotta Bungalow currently owned by Assam Tea Comapny.

## Adaptation of Bungalows as Leisure Houses for the Middle Class in the United Kingdom

The first bungalows in England were introduced in 1859 by British veteran from India, Captain Bamford.<sup>16</sup> Following this introduction, the demand for bungalows spread in line with the development of resort areas for middle-class Britons in the suburbs of London through the expansion of the railway network from the 1840s onwards. Within these resort areas and far away from the foul environments of the city, a new housing image for the middle-class family was sought while offering a distinct break from traditional models of the countryside cottage. Therefore, the architect invented a “new form,”<sup>17</sup> referring to the images of Indian hill station bungalows in newspapers such as *The India Gazette*, *Calcutta Gazette*, *Bombay Courier*, and books published by East India Company artists. This “new form” increased public perception of the bungalow as a hygienic housing type imbued with an abundance of much-desired fresh air.<sup>18</sup> In what follows, this paper examines the existing bungalows from 1850s onward,<sup>19</sup> built in Birchington-on-Sea, a coastal resort in the south-east of England, and Bellagio Estate, an inland resort in southern London.<sup>20</sup>

With the rapid expansion of the bourgeois society and following the opening of a railway station in the 1840s, Margate and Ramsgate in Kent developed into a middle-class social leisure area complete with theatres and multiple dwelling houses. Westgate-on-Sea and Birchington-on-Sea, where the railway opened in the 1860s, were called “The Village of Hygeia”: a therapeutic location with fresh air from the sea as a private recreation area.<sup>21</sup> In the 1870s, John Taylor (an architect from London), together with his friend and fellow architect, John Pollard Seddon, developed a private recreation resort for families in Birchington-on-Sea, which was separated by a gated boundary from the surrounding environment. In this survey, twenty six bungalows were confirmed in this location.<sup>22</sup> In contrast, the Bellagio Estate, in West Sussex, was developed following the opening of a railway station in 1884. The inland resort marketed itself as a weekend destination for London’s population of middle-class bachelors.<sup>23</sup> Promoted as a “New Bungalow Town and Club” in the directories of the period,<sup>24</sup> the resort was comprised of a number of bungalows and a central clubhouse providing meals, services and exercise facilities. A 1914 map of the resort depicts the estate surrounded by lakes, ponds, and rivers, with each independent bungalow situated in its own lush and gentle landscape.<sup>25</sup> It was in this context that

16 King, *The Bungalow*, 69.

17 King, *The Bungalow*, 74.

18 King, *The Bungalow*, 70-82.

19 According to King, the Indian Rebellion of 1857 brought attention to India’s trends once again and the images of bungalows in India were regarded as positive experiences for metropole through the advent of photographic technology.

20 Survey in Birchington-on-Sea in January 2017, collection of materials and interview with archivist Jennie Bruggess at Birchington Heritage Trust, inspection of bungalows, collection of material at Victorian and Albert Museum. Survey in Bellagio Estate, August 2017, collection of materials at Surrey History Center, East Grinstead Library, and Victoria and Albert Museum, measurement of the Pleasaunce Bungalow and interview with owner.

21 Athol Mayhew, *Birchington-on-Sea and its bungalows, with an historical sketch of Thanet, and notes on the island*, by S. W. Kershaw ... *With illustrations* (London: B. T. Batsford, 1881), 7.

22 Since there is no data to indicate the location of bungalows built in Birchington-on-Sea, a diagram showing the location of each bungalow was made by author based on collected data.

23 Vincent Davies, *A History of Dormans Park* (Dormans Park, 1993), 3.

24 Davies, *A History of Dormans Park*, 5.

25 Locality Survey, *Surrey, Sheet XLII, N,E*, (1914).

the architect R. A. Briggs (nicknamed “Bungalow Briggs”) became involved in bungalow design with introduction of London investor Arthur Burr. These bungalows were planned as a compact, economical, and efficient leisure house in compounds as found in India.

What should be noted in comparison with the Anglo-Indian bungalow is the relationship between the house and the unique siting of the resorts. The first point is the arrangement of bungalows on their sites (fig. 4). The most significant bungalow in Birchington-on-Sea is the Tower Bungalow along the coast. Here, four Tower Bungalows are separated from their surrounds by an entry gate and a shared private path. At the time, families and servants would reside at the resort for a certain period. The accompanying coach house, in which a servant stayed on the first floor and stored carriages and food on the ground floor, was built behind the Tower Bungalow across from the private road. The Tower Bungalow is situated on an elongated site with sea frontage and a depth of approximately eighty metres. There is a spacious lawn garden for cricket and a private path from the cliff to the sea called a “subway.” In contrast, the Pleasaunce Bungalow in the Bellagio Estate is situated on a slope located at the edge of Dormans Park. Here, the slope descends toward the northern side of the site and is surrounded by a hedge. On the southern side, the entrance of the bungalow is positioned on the ground level and faces the road. On the northern side, the bungalow has been designed as a double-height volume with a sloping garden so that the south-facing main verandah might obtain a view towards the lake.

The room layout of the Tower Bungalow is based on the central hall layout that is typical of the Anglo-Indian bungalow, but adds a large drawing and dining room that faces toward the sea, and a billiard room facing towards the adjoining private avenue. In India, the bungalow was accessed from garden facing verandah; however, in the case of Tower Bungalow, the entry and sitting area with its deep verandah are separated, with the latter privileging views towards the sea. Moreover, the bedroom in the tower, as examined in Westgate-on-Sea,<sup>26</sup> was adapted to other bungalows, ultimately illustrating a strong focus towards sea frontage which is not present in the bungalows of other areas. In contrast, the Pleasaunce Bungalow is surrounded by a verandah on three sides of the house (currently enclosed). The hall-sitting room has a double-height ceiling and deep verandah. (R. A. Briggs regarded this as very important in his book.)<sup>27</sup> In common with the Tower Bungalow, the entrance is separated from the deep verandah. In this respect, it is clear that the

<sup>26</sup> The bungalows which have a tower are: at Westgate-on-Sea, The Bungalow, Sea Tower, Sea Lawn, Cliff Lodge; at Birchington-on-Sea, Birce Bungalow, Corby Tower, The Hut, Orion, Carmel Court, Basketts, and Wingwam.

<sup>27</sup> R. A. Briggs, *Bungalows and Country Residences, A Series of Designs and Examples of Executed Works* (London: B.T. Batsford, 1891), 8.

● Tower Bungalow and Coach House, Birchington-on-sea, Kent



**Tower Bungalow, "Sea Tower" Floor Plan**  
Transcript from *The Building News*, 20 October, 1905



**Coach House, "Poet's Corner" Floor Plan**  
The ground floor was enclosed later.  
Transcript from locally conducted research.

Tower Bungalow, Sea Tower

Coach House, Poet's Corner

● Pleasance Bungalow, Bellagio Estate (Currently Dormans Park), East Grinstead



Original Floor Plan; Transcript from *The Studio*, 16 April 1894, vol.13 No.13

Viewed from road side | Formerly Verandah has been enclosed.

Hall-sitting room | Inglenook in the front right side

View from garden | Fountain in garden with gentle gradient.

Veranda | Current owner restores the handrail to its original design.

**Legend**  Verandah  Extention to be inferred  Scale 0 5m (common)

function of the room layout and verandah, as a device to adapt to the harsh climate of India, was transformed here into a device for leisure and the enjoyment of the natural surrounds.

The two architects behind these two variations had differing rationales in their approach. It is likely that John Taylor endeavored to design a more pragmatic bungalow by inventing his own original construction system from roof to building base that aimed to prevent the problems of damp, thus improving health.<sup>28</sup> Additionally, Taylor also attempted the use of prefabricated timber components in the Rosetti Bungalow and Bungalow Hotel. In contrast, R. A. Briggs's bungalow projects adopted a traditional half-timber structure with a heavy roof that evoked the form of the Anglo-Indian bungalow. In

Figure 4. The room plan of bungalows in England. (Photograph and drawing by author.)

<sup>28</sup> Mayhew, *Birchington-on-Sea and its Bungalows*, 39.

his pattern book, *Bungalows and Country Residence*, Briggs focused on the differences in climatic, economic and sanitation/ environmental concerns between the England and India, and illustrated a number of points for consideration in the planning of the bungalow. Thus, it is clear that the early British bungalow model was orientated towards two different considerations: “cheap and effective” functional planning, and “picturesque” imagery.<sup>29</sup>

29 Briggs, *Bungalows and Country Residences*, 8

## The Bungalow in Australia as a Family Home for New Settlers

In Australia, and in line with the development of the Anglo-Indian and British bungalow, the Queensland House type was a “bungalow-in-form-if-not-name,”<sup>30</sup> bearing remarkably similar features to the Anglo-Indian bungalow. The Queensland house, described as “some of the most ‘bungalow-looking’ dwellings in Australia,”<sup>31</sup> became widespread from the 1860s onwards. The relative affordability of land and house pricing was the background to the predominance of the typologies with colonial

30 King, *The Bungalow*, 230.

31 King, *The Bungalow*, 232.

Figure 5. Development of construction method and room layout of the Queensland House. (Photograph by author.)

### ● Boondooma Homestead (1852), Boondooma Homestead Museum & Heritage Complex, South Burnett



Low set house in the original site



Slab wall of hand-sawn iron bark



Living room as entrance for each room

### ● Barmundo Homestead (1871), Calliope River Historical Village, Gladstone



Low set house, relocated from the original site



single-skin construction with stud frames and horizontal lining



Central hall, relatively narrow compare to other rooms of both side

### ● Carrajong (1888), Townsville Heritage Centre, Townsville



Low set house on brick piers in the original site



single-skin construction with stud frames and horizontal lining



Central hall separates large living room and other rooms



Stumps of slab hut, Queensland (Hervey Bay Historical Village & Museum)

Stumps of cottage, Queensland (Pine Rivers Heritage Museum)

Damage caused by termites, Queensland (Caboolture Historical Village)

Figure 6. The detail of stumps. (Photograph by author.)

emigrants and working class families.<sup>32</sup> Here, the “bungalow-in-compound,” as seen in India and England, was transformed into a “single-family detached house-on-purchased land.” In a short period, the initial typological floor plan of a one-room building with verandah evolved into the central hall layout in which rooms were functionally divided. This rapid evolution of the Queensland house can be identified from extant examples that are accessible to the public via historical villages and heritage houses.<sup>33</sup>

Timber slab huts hewn from hand-sawn timber were the predominant housing type prior to 1850. The slab houses surveyed in this study (fig. 5) were planned with direct access from the verandah into the living room, as represented by Boondooma Homestead (1852). However, the later Carrajong house (1888) was constructed using single-skin construction with hardwood stud frames and softwood lining sawn mechanically,<sup>34</sup> with a plan composed around a central hallway that organized many rooms in an efficient planning layout. Barmundoo Homestead (1871), built between of these two examples, can be recognized as transitioning from the direct access from verandah to living room to a centred hallway room layout. One typical feature of the Queensland house common to all these examples is the elevated floor plate—a characteristic shared with the *chang* bungalow of Assam.<sup>35</sup> While the *chang* bungalow utilized large uprights sunk deep into the earth to form a continuous connection between ground and roof,<sup>36</sup> the structural stump and upper portion of the house are typically separated in Queensland (fig. 6). The continuous uprights in Assam evolved due to the risk of earthquake events. Within the Queensland context, this risk was minimal, allowing for structural separation that enabled the typology to adapt to various topographical conditions whilst also minimizing the risk

32 Ray Sumner, “The Queensland Style,” in *The History & Design of the Australian House*, ed. Robert Irving (Melbourne: Oxford University Press, 1985), 291.

33 Survey in Queensland in 2015 and 2019, collection of materials at State Library of Queensland and the University of Queensland Library. Thirty places were surveyed from Townsville to the Southern Downs, and Thirty measured drawings and nine existing drawings of house (slab hut, cottage, homestead, built 1842-1920) obtained.

34 Donald Watson, *The Queensland House: A Report into the Nature and Evolution of Significant Aspects of Domestic Architecture in Queensland* (Brisbane, 1981), 5.11. This construction method came about through the introduction of steam sawmill technology which dramatically altered the lightness and affordability of housing.

35 Donald Charles Roderick, “The Origins of the Elevated Queensland House” (PhD diss., University of Queensland, 2004), 166. Roderick pointed out that the reason for the initial adoption of the elevated mode is widespread fear of malaria. As background of it, he shows examples in other British colony, a part of it, *chang* bungalow in Assam is shown to be derived from the original model of Malay house.

36 Barker, *Tea Planter's Life in Assam*, 96.



Viewed from road side | The house was relocated from original site.



Skylight room as hall with high ceiling.



View from back garden | The house was elevated and ground floor was enclosed after relocation.



Air passages between the eaves and the wall.

Figure 7. Fairymead House. (Photograph by author.)

of severe termite damage.<sup>37</sup> This technological development of efficient construction methods and the flexibility brought about through the separation of house and ground made the typology's widespread dissemination possible throughout the region.<sup>38</sup>

37 Watson, *The Queensland House*, 6.1-12.

38 Watson, *The Queensland House*, 5.11.

In addition to the functional aspects outlined above, the influence of the bungalow as an “image” can also be confirmed. This can be illustrated in the Fairymead House (1890), which was built on a sugar plantation in the town of Bundaberg. Sydney architect John Shedden Adam designed an Indian bungalow-style house for the original owners, migrants from New Zealand. In response to the hot and humid climate of Bundaberg, the design incorporates air passages between the eaves and the wall whilst offering larger floor-to-ceiling heights than most Queensland houses.<sup>39</sup> While the construction and materiality are much the same as a typical Queensland house, the form of Fairymead's roof is particularly emphasized (fig. 7). This formal emphasis on the roof as an important part of the aesthetic image of the bungalow type is also evident in the fact that within the broader catalogue of the Queensland house type is a sub-type called “bungalow style.”<sup>40</sup> Here the principal roof form is emphasized by continuing from its peak to the very edge of the verandah. Thus, the Queensland house can be understood as a bungalow—itsself an entity generated between regionality

39 According to staff of Fairymead House Sugar History Museum, the ceiling height of typical house around here is 12 feet, but at Fairymead House it is 16 feet.

40 Peter Bell, *Timber and Iron, Houses in North Queensland Mining Settlements, 1861-1920* (St Lucia: University of Queensland Press, 1984), 9; Judy Gale Rechner, *Brisbane House Styles 1880 to 1940, A Guide to the Affordable House* (Brisbane: Brisbane History Group Inc., 1998), 11.

(topography, climate, materials), technological advances, and an image received over time and distance.

## Conclusion

Through its emergence in colonial India, the form that was common to all bungalows—a detached house with verandah set within a large plot of land—was exported as an abstracted and idealized image by the British. The bungalow in Britain can be seen as a product of various overlapping factors: health-oriented attitudes towards deterioration of urban environment, ongoing interest of architects from the RIBA, and technological developments that stemmed from the industrial revolution.

Within this context, the importance of the verandah to the type is most explicit—as a tool to mediate environmental factors, and as a spatial setting in which to enjoy the natural landscape. The locality of type that had appeared through materiality and construction in India were converted into an expressive locality. These two localities—intrinsic locality and imaginative locality—acquired by bungalows in the process of its development, appeared in a mixed form in Australia, where its development as a principal housing model was rapidly accelerated through the development of the steam sawmill. Spatially, the commonalities are evident in the development of room layouts, and differences in the significance and function of the verandah and in the general representation of a locale. In this way, bungalows have locality in ideas, technologies, construction methods, and materials. However, the balance of where regionality was emphasized is dependent on the time and place of construction. The bungalow can be recognized as a housing type that has survived beyond time and distance by changing its balance. (topography, climate, materials), technological advances, and an image received over time and distance.