

# TRUTH IN ARCHITECTURE

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**Abstract** -TRUTH forms the base of Indian culture. Architecture is also not averse to this very fundamental principle of Indian philosophy. MK Gandhi, popularly known as Mahatma had the highest regard for this virtue. The paper tries to throw light on how the truth can be reflected from the works of architecture. It is very important that the architectural work reflects its originality, which truly is an incarnation of truth. It is from this point of view that the works of architectural design practices of Laurie Baker, the legend in architecture, are examined in this paper. The paper emphasizes his architectural practices in the light of Gandhian thought and highlights important elements of Gandhian philosophy. Gandhian philosophy is a much acknowledged philosophy that inspired the entire world. Truth is one of the core values of Gandhian philosophy and in architecture also truth plays a major role in maintaining the decorum of the structure. Now a days it is very difficult to find truth or originality in the architecture in times of modernization, as in present times, the truth of form and function is vanishing from architectural creations. This paper gives Architect Laurie Baker's philosophy and practice of architecture in his works.

**Key Words:** Gandhian philosophy in architecture, hamlet, truth in architecture, Laurie baker

## 1. INTRODUCTION

Gandhism is a body of ideas that describes the inspiration, vision and the life work of MK Gandhi. Truth and non-violence are the two essentials of Gandhism. In Gandhi's philosophy there are 11 vows, which are Ahimsa (non-violence), Satya (truth), Asteya (non-stealing.), Brahmacharya (self-discipline), Aparigraha (non-possession), Sharirshrama (hard work), Aswada (control of palate and its turn control over desires), Sarvatra Bhayavarjanam (fearlessness), Sarv Dharm Samanatva (equality of all religions) Swadeshi (use of locally made goods, ingredients, in our case), Sprasha-bhavana (banning of untouchability).

All these are correlated with the architecture as under: Ahimsa means avoiding unnecessary things or elements just for the sake of whims and fancies as excessive use of unnecessary material results in harm to the environment, thereby disturbing ecology and harming those species that survive solely on the ecological sustenance. Satya means to improve and retain originality of form and function. Asteya means to refrain from copying other's work, designs or elements of design, however this should not bar the inspiration. Brahmacharya makes us refrain from frivolously manoeuvring

the design ideologies. Aparigraha intends to make the design sustainable and make optimum use of available material. Sharirshrama denotes no substitute to hard work, so that the ultimate outcome is best possible without resorting to unethical means to forward the spurious and under-rated design. By Aswada, we understand that work or the project is the most important thing and its accomplishment, the reward in itself. Control over our desires to get rewarded by unethical means is the very essence of it. Sarvatra Bhayavarjanam supports an architect in projecting his/her ideas fearlessly for the benefit of society. Sarv Dharm Samanatva assists in welcoming various design philosophies and not to restrict oneself with limited ideas. Swadeshi is the key to self-reliance or Atmanirbharta so that the best possible use of locally available natural and human resources i.e. material, techniques and manpower could be made. Sprasha-bhavana restricts us from limiting new ideas depending on its source.

Philosophy of MK Gandhi, the thinker-practitioner and a great soul forms the foundation of modern India and his genius lies in his insistence for independence from colonial rule through the search for an authentic selfhood that beholds the most sacred moral and ethical ideas of 'Ahimsa', Non-violence and 'Satyagraha' or the soul force. It's almost a century that these ideals of eternal significance are instrumental in making him known by 'Mahatma' or a great soul, the world over. There is a universal longing to study ideas and interpretations of his contributions since decades.

Jawaharlal Nehru was an Indian independence activist and, subsequently, the first Prime Minister of India, as well as a central figure in Indian politics both before and after independence. His stature was of an eminent leader of the Indian independence movement, serving India as Prime Minister from its emergence in 1947 as an independent nation, until his death in 1964. It was Nehru, who dreamt of industrial-modernity for India, acknowledged Gandhi's philosophy in governance.

The legacy of Gandhi's ideas has not merely remained as fancy or philosophy of the fanatics. There are instances where Gandhi's ideals have been put to practice in design and architecture. This paper tries to explore the selected design with reference to the post-independence era, where Gandhian ideas could be found instilled. The architectural works of Laurie Baker exhibits significant ideas of social design through an intuitive and un-self-conscious reference to the Gandhian model. Truth is Gandhi's major and ideal philosophy. Truth is most often used in civic society as reality of or sincerity of intentions. Truth is also sometimes defined as an idea of an authenticity. It shows Architect Laurie Baker's philosophy and practice of architecture by looking into his thought process and works.

Truth – Satyagraha Lack of truth is a daily issue for many. Political and corporate leaders mislead the public to achieve their ill-will and are in denial when it goes wrong. Untruth leads to Disaster. Truth and integrity are vital for bringing about the intended change non-violently. Pursuit of truth is an open-ended journey requiring respect for all points of view, however hard to articulate. It requires exceptional courage, especially in politics and business Organizations. Gandhi subtitled his autobiography “My experiments with truth”. Linked to truth is respect for all religious traditions – Sarava Dharma Samanatva - and tolerance for beliefs with which we may disagree. We need to see that beliefs representing different cultures and traditions have a common essence.

## 2. Methodology

In the scope of this paper, Gandhi’s important ideas and its application to architecture are studied through books, some scholarly and critical works. Ideas of architectural design practices of legendary Laurie Baker and his social innovation under the light of Gandhian philosophy and developed from live-experience, interviews and dialogues, ideas of design and innovation considered from literature as well as in the form of discussion, real life works etc. are studied and analyzed.

## 3. Study area

### Laurie Baker and his Building

#### 3.1 Introduction

British architect Laurie Baker is famed and prominent Architect. Well-known for his initiatives in cost-effective and energy-efficient or "green" architecture and designs that maximized space, optimum use of natural ventilation and light, maintaining an uncluttered yet striking aesthetic sensibility. Influenced by Mahatma Gandhi and his own experiences in the Himalayas, he promoted the revival of regional building practices and use of local materials; and combined this with a design philosophy that emphasized a responsible and prudent thus sustainable use of available resources and energy leading to a modest carbon footprint. He was pioneer of sustainable architecture so also of organic architecture, incorporating in his designs as early as in 1960s, concepts such as rain-water harvesting, minimizing usage of energy-gulping building materials, minimizing damage to the building site and seamlessly merging it with its surroundings. Due to his social and humanitarian efforts to bring architecture and design to the reach of common man, his honest use of materials, and his belief in simplicity in design and in life too, his staunch Quaker belief in non-violence, he has been rightly called the "Gandhi of architecture".

He moved to India in 1945 as an architect associated with a leprosy mission and continued to live and work in India for over 50 years. He became an Indian citizen in 1989 and resided in Thiruvananthapuram, the then Trivandrum, Kerala from

1969. He served as the Director of COSTFORD (Centre of Science and Technology for Rural Development), an organization to promote low-cost housing. Hamlet is Baker's own residence. As an example, Hamlet, the Baker's residence at Thiruvananthapuram, reflects the character and ethos typically.

“... in 1943, Gandhi told Baker that his knowledge of western architecture would be of very little help in India, where the rural areas needed more attention than the cities. Gandhi gave Baker his idea of building houses, saying that the materials needed to build a house should be acquired from within 5 miles of the site. This idea was to have a great impact on the architect's life a few years down the line.”

#### The Hamlet, Trivandrum

Baker's own residence is 'Hamlet' at Nalanchira, Trivandrum. Over the years, the house saw an organic growth, from the multipurpose single room hut to the first structure at the hilltop and later additions done following the contour downwards. Flexuous connections and access to each of the space flows along the architectural form. Most of the construction material came from rather unconventional sources over a period of time.

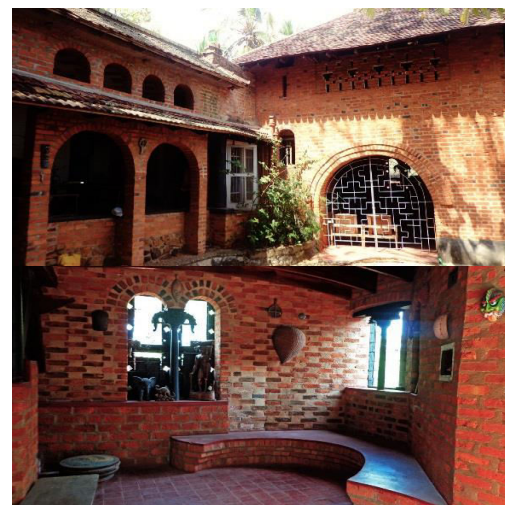


Fig. 1: hamlet view

#### 3.2 Approach, Appearance of the Building

The campus grows itself in several stages of described functions through movement. Exposed brickwork is sketched over with wild foliage. Wooden entrance door and other terracotta artefacts looks natural and simple yet elegant. Baker presents the Hamlet as spontaneously emerging built-form, appearing to grow from the ground. Fish tiles from some palace, dormers and roofing wood from a nearby dilapidated house, abandoned wood from a jetty and pieces of stone or tile, which he picked up, all contrasting in harmony.

### 3.3 Planning and architecture

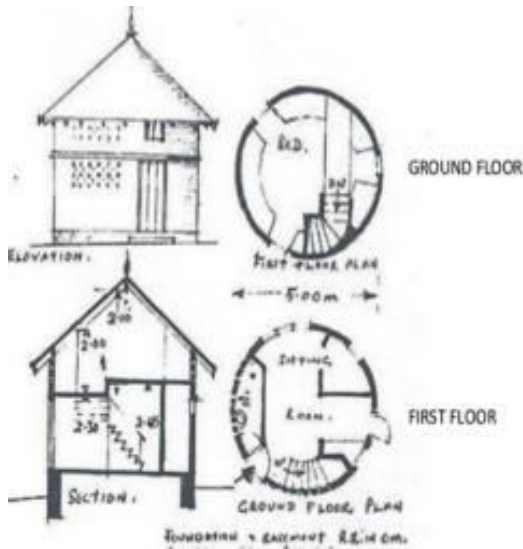


Fig. 2: hamlet plan



Fig. 3: hamlet building

Hamlet was built in stages. The first structure was made on the Hilltop owing to the gently emerging and organic built forms that emerged out of the stepped site. The connections between built structures are permitted to be flexuous and spatially fluid due to its architectural form. The architecture possesses the character of being transparent, simple and of exposed bricks. The overall form is found to be earthy and close to nature. Fluid ceiling, harmonious roof form and their junctions with vertical walls exhibit a compelling incentives.

### 3.4 Material and construction Methods

The strength of India's rural communities, artisanal crafts, reality, originality and austere simplicity is best reflected and displayed through Baker's architecture of highly intuitive and

original understanding of its material properties. He'd combined new and recycled materials with an astounding versatility that included pioneering technology such as light filler slab now being practiced as cost effective and thermally pleasing solution. His house displays a prudent innovation, his cornerstone approach to material, construction and a sneak towards resilient economy. Hamlet reflects a true design attitude as a building articulately designed and well planned with all the necessary spaces. The walls are made of mud bricks. Concrete roof embedded with chipped or broken terra cotta roofing tiles into the mixture for better thermal insulation. Pitched roof with Mangalore tiles is used for roofing. Clerestory arches used for getting natural sunlight also promote passive cooling. Gables had punctures through which hot air rises from the house to escape through. Jalis are used for boosting ventilation in the house.

### 3.5 Social Inclusion in the Building Design Process

Baker always felt that the mason and building craftsperson held the highest value in the construction eco-system. He parked the 'designer' ego at the drafting table itself and positioned himself as a co-worker on his various projects. Primary discussions regarding the design of a house were obviously done with client, the end user. Later, many of the on-site construction decisions were taken in consultation with his co-workers. Baker was always enthusiastic about workers' rights and fair wages to them.

### 3.6 Practice

Baker was keen in acquiring construction material from the local sources, many a times construction leftovers, touched by his innovative and inquisitive prudence and thus his works stand unique in the world of design. Being highly practical and versatile in approach, Baker created trend-setting designs of enduring value and eventually gave a new dimension to architecture. Baker's prime achievement is his counter to the formal system of building in India, then considered inevitable, which, based on codified and highly standardized products and processes has questioned the dominance of critical architecture based on cultural and resource differences. Equally to both, Gandhi and Baker, the prevailing formal system remained an unfortunate legacy of India's long colonial past, and stigma of ubiquitous social classes; corresponding notions of 'pucca' and 'kutcha' as evidence of social stratification and caste hierarchy that they resisted and each developed their unique individual responses to sublimate the same. By this, it implies that Baker's works are architectural justification at the levels of form, material and meaning, each.



#### 4. Discussion: Revisiting Gandhi for a Social Design Framework

Gandhi's vision and his specific ideas like '*Gramodaya*' and '*Gram Swaraj*' that impacted the architecture mingled with larger prospects of labour and economy are the outcome of his sustained struggle to overcome economic and social inequality. '*Gram Swaraj*' would make every village sustainable without having to be dependent elsewhere, and for this, there had to be consistent use of local produce and ingredients, notwithstanding the architectural products, which hitherto were regarded as a highly skilled process to be imported from towns and cities. And '*Gramodaya*' was possible only when '*Gram Swaraj*' was achieved in its real sense. Gandhi developed new institutional forms and meanings which were associated with liberal and democratic layers. Throughout his lifetime, Gandhi emphasized upon the recast and re-configuration of existing social realities engaging dimensions of social justice, morality, equality and empathy which advanced a new 'moral' paradigm of problem solving.

Gandhi's key contribution to social design, with an interaction between social, environmental and humanitarian domains that would bring the entangled benefits into the life of the last person on social hierarchy. A few points that can be drawn from Gandhi's integrated vision for India, as elaborated by various scholars on Gandhian philosophy are: *Karmabhumi* (Land of Work and Production), *GramSwaraj* (Self-Governance and Village Self Rule), Critical Industrialization for village crafts, Decentralization to empower villages become self-reliant, *Gramodaya* extended to *Sarvodaya* (Welfare of All), Equality of all Religions, Women's Empowerment, Banishing Untouchability, Basic Education to all etc. Out of this list, Critical Industrialization, Decentralization, *Sarvodaya* (Welfare of All) can be realized at the first order of production of design.

There has been a widespread negligence of the traditional service economy within a largely rural economy in the post-Independence era, possibly due to British policy of subverting local artisans and craft-persons, thereby create a market for their industrial products. To date, formal state institutions, particularly those devoted to science and technology and the building industry illustrated here as forms of a political economy, have tended to prioritize the industrial economy, pushing the informal to the margins; This asymmetric convergence was challenged somewhat, only by a very few individual scientists and professionals of conscience. The works of Baker and Hunnarshala lie beyond their immediate temporal, spatial or even social context, and this significant, enduring and relevant aspect anchors scholarly interest. The knowledge and social value of the works of Baker and Hunnarshala need to be assessed through a framework of ideas that incorporates social, ethical, artisanal

values within which the enduring social relevance can be seen taking shape.

Innovation attaches to a richer understanding of social design as an agent of change, where it is aimed at, embedded in and expressed as social imperative. Newer perspectives acknowledge innovation in the informal economy to be multi-dimensional and including diverse ecological, cultural and ethical concerns, which formal economic discourse has long been considering as unremunerative. Effective supplementation of science and technology, to include those where proven results are produced locally, outside the limelight of an institutionalized framework and industrial culture. It is also pertinent that the grassroots innovation is often denigrated and its acceptance is not easy to come by in view of the prevailing attitudes and there remain considerable obstacles for grassroots innovation at every step from the production to its acceptance by society and mainstreaming of technology. In this light, the works of Baker and Hunnarshala achieve the status of 'texts', and loci of discursive practices termed "Alternate Technologies" or a more acceptable, Intermediate Technology. In this way, Baker may be considered an 'icon', gracious in social design, in case of architecture. No wonder that Baker's school of thought has created numerous followers and it is pertinent that today, the students of architecture have a great longing to study Baker and his sustainable design ideals.

#### 5. Derivation

Above practice exhibits a greater model of design, which can be applied in various scales. After visiting through the literature on Social Design, possible Gandhian Ideas on Design in architecture, and the example which inclined towards the ideas of Laurie Baker, we can draw following points for a possible convergence with Gandhian thought. Based on the literature, personal experiences, and elite key informants, a few salient features are suggested below.

##### 5.1 Simple

Gandhi's main ambit was simplicity and he practiced this everywhere in his life. He used simple, local and natural material for construction of his huts, as can be seen at Sewagram, dist. Wardha, his *karmabhoomi*, and natural self-*charkha*-woven *khadi* for wearing. He used to eat simple food, Gandhi always preferred simple things in his life and advocated for simple yet sound solutions to complex problems through his ideologies. He rejected Morris Friedman's eight-spoke *charkha* as he felt that new design would be too complex for him. He said, existing Charkha was transparent, simple and an easily understandable machine. If at all any new thing gets added to it, it would have added to complexity and illegibility. In many of his problem-solving methods, he used the simplest solutions to solve the most complicated issues.

Similarly, the buildings designed by Baker are simple, transparent and utilitarian. Their structures and material are visible and legible to its users. They shows beauty from these values. So, simple and transparent design solutions are always sustainable. Simple buildings are easy to access and look elegant.

## 5.2 Empathetic

The Gandhian school of thought advocates thinking about the poorest of poor and the marginalized especially those without 'voice' or those who are refused to be 'heard'. As both the practices include the communities involved in the making, Baker's also cares about the creatures without voices, i.e. the ecological balance, the environment and the biodiversity. Baker even allowed lichens and moss to freely cover the barren walls in his courtyards. Since, the building materials are eco-friendly and natural so it causes least harm to nature. Hence, biodiversity is maintained in his projects and no harm to other living beings as well. Hence an automatic sustainable natural conservation is occurred.

## 5.3 Contextual

India generally possesses rich traditions as its cultural heritage and it is also reflected in the craft and building traditions of the villages. Gandhi strongly believed in this concept and it is reflected in the built spaces of the Sabarmati Ashram Ahmedabad and also in his own residence. Gandhi is said to have told Baker, "The materials needed to build a house should be acquired from within 5 miles of the site." In this, Baker involved the local and eco-sensitive material that doesn't change the larger economy. And the same idea was seen in Sewagram Ashram and the hut like buildings appear to be from the very place and are identified 'as their own' by its users and promotes the idea of *Swadeshi*. In this ashram, all materials used was local and natural which still looks contemporary and fresh. It doesn't burden the local economy in any way.

## 5.4 Innovative

Gandhi's innovative ideas had moral and social values. He followed the ideals of *Satyagraha* and *Ahimsa*, throughout his life. Baker used his ideas often in the materials and combinative techniques exemplified in the use of Thatch, Mud rolls, Waste wood floors, and Filler slabs with matkas that exhibits innovation rooted in building knowledge systems offering dignity to craft traditions and artisans. His highly innovative and creative problem solving spans using pioneering combination of materials and techniques that points to innovative and futuristic and these processes encourage contributions from various stakeholders like artists,

architects and artisans and they also respond to the social problems. Bakers used innovations in his designs all over his architectural creations.

## 5.5 Appropriate Technology

It is an important conceptual technology that serves rather than harms human beings. Technology is expected to aid, not replace human hands. This means technology be for service, not for greed, be with gratitude and humility towards nature. The aim of new technology should not be increased power, ego gratification, excessive profit and consumption. Change should not be for change's sake or to create obsolescence. Aptly this is achieved by using natural material and ingredients.

## 5.6 Truth

The most familiar sense of truth, and a sense that may suggest difficulties in the architectural context, is that truth is a matter of correctness between a representation and that which it represents.

It is originality reflected in each and every thing of designs.

## 6. Conclusion

The proposed Gandhian thought of design has developed over the common ground between the ideas of Gandhi, concepts in design and innovation, the practices done by Laurie Baker. The above points are reflected in the Baker's own residence and match with Gandhian philosophy and thought. The study can find its context in explaining practices within a spectrum including the traditional fields like architecture, industrial design and service design. The study gives us correlation between the vows of architecture and the truth in architecture. It increase the value of reality and simplicity. Hamlet is a true monument and the true embodiment and example of Gandhian philosophy.

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