The Vernacular Methods of Laurie Baker

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Abstract

This brief review paper explores the pioneering work of British-born Indian architect Laurie Baker. A prominent architect renowned for integrating vernacular techniques with sustainable design principles, Baker's approach challenges the conventional notion that grand, modern structures are the epitome of architectural success. The paper explores how Baker incorporated local construction methods through his use of materials and the positive impacts gleaned from this transition away from modern construction techniques.

Introduction

From the towering Burj Khalifa to the richly decorated Hagia Sophia, architecture is typically associated with structures of vast dimensions and undeniable presence. Amidst such structures, however, it is easy to overlook the architects without whom our daily lives would be incredibly different—those who not only built homes, schools, and hospitals, but communities as well. Laurie Baker was one of these individuals. His work demonstrates how vernacular architecture can prove useful in the pursuit of sustainable development that allows both nature and local communities to thrive.

Notable Vernacular Techniques of Laurie Baker

Drawing inspiration from vernacular construction practices is often overlooked due to the rise of modern architectural styles. Baker built his first buildings in Pithoragarh, India, and it was here that he recognised that the contemporary design practices he had learnt in England would prove futile in the local climate; hence, he sought advice from the locals on traditional construction methods.[1] His aim was not to imitate such methods, but to innovate upon them to suit his objectives and those of his clients as well.[2]

Apparent throughout Baker's work is his ability to unite nature with reinterpretations of vernacular architecture, allowing his buildings to be integrated with ease into the environment. For instance, Baker avoided glass windows in his work in India and instead used perforated brick walls (influenced by traditional Indian *jali* walls), which brought in both natural light and ventilation to the interiors of his buildings.[3]

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[1] G. Bhatia, "Laurie Baker: Life, Work, Writings" New Delhi: Penguin Books, 1994, pp. 10-11

[2] "Quotes", Laurie Baker: Architect's Official Website [https://lauriebaker.net/index.php/work/quotes last accessed 22nd December 2021]

[3] Prof. G. Padmakumar, "LAURIE BAKER AND ECONOMICAL CONSTRUCTION" The Trinity College, 29 June 2013 [https://thetrinitycollege.wordpress.com/2013/06/29/laurie-baker-and-econonomical-construction/ last accessed 22nd December 2021]

Furthermore, when choosing materials, Baker stated that "their respective costs are one important consideration, but just as important is the question of how much energy (or fuel) was used in their manufacture."[2] With the building and construction sector responsible for nearly 40% of all carbon emissions annually[4], it is crucial for architects to adopt this mindset in order to minimise the environmental damage of construction work. Materials used in vernacular architecture provide a simple solution as they have a minimal carbon footprint (especially when compared to contemporary building materials),[5] which Baker recognised early on in his time in India. His choice of materials employed the skillsets of the locals and was regularly influenced by availability on-site,[6] providing job opportunities and ensuring materials didn't need to be imported.

Baker's application of traditional materials is demonstrated by his modifications to reinforced cement concrete (RCC) slabs that were to be used in floors and roofs. Conventional RCC slabs consist of concrete in their bottom portion, its only purpose being to hold the steel reinforcement together; the concrete thus unnecessarily adds extra load to the RCC slab, requiring more reinforcement. Due to this, Baker replaced the concrete with lightweight materials used in traditional housing, such as clay.[3] By doing so, he had reduced the amount of reinforcement steel required, thus lowering construction costs.

Conclusion

It is thus evident that Laurie Baker's architectural works are a reflection of the extent to which he allowed nature and local traditions to influence his design approach, enabling communities to comfortably reside in and utilise his structures. By drawing inspiration from these sources, Baker's techniques were inherently cost-effective—a testament to the merits of being influenced by one's environment.

[4] "Global Status Report 2017", World Green Building Council. [https://www.worldgbc.org/news-media/global-status-report-2017 last accessed: 22nd December 2021]

[5] S.S. Sawwalakhe, Prof. S.L. Kolhatkar "Carbon Footprint Comparison Between Vernacular Building And (Modern) Contemporary Building" International Journal of Architecture (IJA) 6:1 (2020): pp. 36-37

[6] G. Bhatia, "Laurie Baker: Life, Work, Writings" New Delhi: Penguin Books, 1994, p. 55

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