

CHAPTER 5

5.1 SUMMARY

This chapter summarizes the study's primary findings, draws conclusions based on data analysis, and makes recommendations for future research and practical applications in incorporating traditional traditions and modern technologies into non-engineered building designs in Lagos, Nigeria.

5.2 Summary of Key Findings:

Integrating Traditional and Modern Techniques

Architects in Lagos frequently draw inspiration from ancient architectural forms, spatial layouts, and construction processes, merging them into contemporary buildings to enrich cultural heritage and promote sustainability.

A noteworthy trend in hybrid architecture mixes traditional methods with new technologies, such as designs that combine modern glass facades with mudbrick walls or solar panels with bamboo covers.

Challenges and solutions:

When utilizing non-engineered methods, it is difficult to ensure structural integrity and conformity with building codes.

Finding traditional materials and competent craftspeople can be challenging, needing meticulous preparation and logistical solutions.

Cultural and Environmental Benefits:

Homeowners respect the historical and cultural significance of traditional materials like as thatch roofing and mudbrick walls, which also provide excellent insulation.

Traditional homes instill a sense of community and belonging in their people.

Maintenance and modern adaptations:

Traditional dwellings require regular maintenance, especially during the rainy season.

Homeowners have adapted by putting modern utilities like electricity and plumbing into traditional dwellings.

Comparative Analysis of House Design:

Traditional homes make use of locally obtained materials, place an emphasis on cultural identity, and have simpler layouts and public spaces.

Modern houses prioritize comfort, convenience, and efficiency, with more private spaces and modern amenities.

Sustainable Aspects:

Traditional construction methods are naturally sustainable since they utilize renewable and locally available resources.

Traditional home design includes natural temperature and airflow adjustment, which reduces the need for artificial heating and cooling.

Challenges and limitations:

Rapid urbanization and modern development pressures endanger the survival of traditional behaviors.

Traditional methods may be regarded as obsolete or inferior to modern construction processes.

Integration recommendations:

Encourage urban planning rules that integrate traditional approaches with modern building codes. Raise awareness and execute training programs to preserve and adapt historic skills in modern situations.

Invest in research to develop and refine conventional procedures for current urban settings.

5.3 CONCLUSION

This study emphasizes the significance of combining traditional building practices with modern innovations in order to produce sustainable and culturally relevant urban landscapes in Lagos. The study demonstrates that traditional approaches provide important insights into sustainability, community cohesiveness, and cultural heritage preservation. At the same time, contemporary improvements improve structural integrity, safety, and comfort. Combining these ideas allows us to handle current urban development concerns while conserving Lagos' unique architectural past.

5.4 Recommendations

According to the study's findings, numerous recommendations can be made to encourage the fusion of traditional and modern building methods in Lagos.

Policy Support

Create and promote urban planning rules that make traditional methods more compatible with modern construction codes. Implement policies that encourage the use of locally sourced materials and traditional construction processes.

Education and Training

Create training programs for architects, builders, and craftspeople to improve their skills in traditional building processes.

increased awareness among homeowners and the wider public about the advantages of combining traditional and modern techniques.

Research & Innovation:

Invest in research to develop and improve conventional practices, ensuring their relevance and feasibility in contemporary urban settings.

Encourage the creation of hybrid architecture designs that combine the best of traditional and modern approaches.

Community Engagement:

Engage local communities in the development and execution of housing projects to ensure that their cultural and practical requirements are addressed. Residents can develop a sense of ownership and pride by participating in the preservation and adaption of traditional construction processes.

Sustainable Initiatives:

Encourage the use of sustainable materials and construction processes that minimize environmental effects. Encourage design features that improve natural ventilation, insulation, and energy efficiency.

5.5 Suggestions for Further Research

While this study provides useful insights on the integration of traditional and modern building techniques in Lagos, more research is needed to explore other facets of this topic.

Comparative studies:

Conduct comparative studies in different parts of Nigeria to better understand how traditional methods differ and how they might be merged with new advancements.

Longitudinal Studies:

Conduct longitudinal research to analyze the long-term effects of combining traditional and modern techniques on sustainability, cultural preservation, and community well-being.

Technological Advances:

Investigate how new technologies, such as digital fabrication and smart building materials, might improve the blending of old and modern methods.

Policy Impact Analysis:

Examine the effect of urban planning laws and regulations on the preservation and adaption of traditional building techniques.

Conclusion

This study highlights the potential benefits of combining traditional building techniques and technological innovations in non-engineered building designs in Lagos, Nigeria. Traditional methods of sustainability, cultural importance, and community cohesion can be combined with modern approaches of structural integrity, safety, and comfort to create durable and culturally rich urban environments. The ideas give a framework for policymakers, architects, builders, and communities to collaborate on a sustainable and inclusive future for Lagos.

REFERENCES

- Afinowi, T. A. (2018). Sustainable Housing Through Urban Renewal in Contemporary Lagos (Doctoral dissertation, University of the Witwatersrand, Faculty of Engineering and the Built Environment, School of Architecture and Planning).
- Agamah, F. U. (2018). City morphology and effective control mechanisms: towards land use optimization and sustainable development: a case study of Lagos mega city (Doctoral dissertation).
- Akin, A. O., Oguntola, B. K., Alabi, F. M., Odetoye, A. S., & Bello, M. K. (2022). Livability Correlates of High Rise Buildings in Eti-Osa Local Government Area, Lagos, Nigeria. *Human Geography*, 10(1), 1-17.
- Akinosun, F. O., & Olojede, O. A. (2022). An Assessment of Urban Service Delivery in Ife East Local Government Area of Osun State, Nigeria. *Revista Română de Geografie Politică Year XXIV*, (2), 61-73.
- Aliyu, A. A., & Ismail, A. S. (2021). AFROCENTRIC ARCHITECTURE FOR LOW-COST HOUSING DESIGN IN KANO, NIGERIA: EXPLORING OPPORTUNITIES.
- Amasuomo, T. (2021). Barriers to the Adoption of Environmentally Sustainable Design Methods in Residential Buildings. The Architects' And Building Owners' Perspectives in Four Nigerian States (Doctoral dissertation, Open Access Te Herenga Waka-Victoria University of Wellington).
- Arslanoğlu, U. (2019). The role of spatial designer in the prestigious housing projects: the case of Ankara (Master's thesis, Middle East Technical University).
- Auwalu, F. K., & Dickson, P. D. (2019). Bamboo as a sustainable material for building construction in Nigeria. *Civil and Environmental Research*, 11(8), 30-36.
- Buitenhuis, A. J., Zelenika, I., and Pearce, J. M. (2010). Open design-based strategies to enhance appropriate technology development, *Proc. of the 14th Annual National Collegiate Inventors & Innovators Alliance Conference*. 1–12.
- Conejos, S., Langston, C. A., & Smith, J. (2011). Improving the implementation of adaptive reuse strategies for historic buildings. In the International Forum of Studies Titled SAVE Heritage: Safeguard of Architectural, Visual, Environmental Heritage (pp. 1-10).
- Correia, M., Dipasquale, L., & Mecca, S. (2014). *Versus: heritage for tomorrow: vernacular knowledge for sustainable architecture* (p. 288). Firenze University Press
- Chahanjiri, J. G., Golabchi, M., Bemanian, M. R., & Pourmand, H. (2014). Developing Neo-Vernacular Building Technologies to Integrate Natural and Built Environments: A Model Tourist Village in Qeshm Island. *Research Journal of Recent Sciences*. ISSN, 2277, 2502.
- Daniel Immerwahr (2007). "The Politics of Architecture and Urbanism in Postcolonial Lagos, 1960-1986". *Journal of African Cultural Studies*, 19 (2): 165–186.
- Dayaratne, R. (2010). Reinventing traditional technologies for sustainability: contemporary earth architecture of Sri Lanka. *Journal of Green building*, 5(4), 23-33.
- Emiedafe, W. (2015). 6 ways Nigerian construction companies can survive naira devaluation, available online @<http://sapienvendors.com.ng/ways-nigerian-construction-companiessurvive-naira-devaluation> accessed on 3/12/2019

- Fadli, F., & Sibley, M. (2009). Hammāms of North Africa: An architectural study of sustainability concepts in a historical traditional building. In 26th International Conference on Passive and Low Energy Architecture: Architecture Energy and the Occupant's Perspective, PLEA 2009. Presses de l'Université Laval.
- Guardian (2017) "Five Architectural Wonders of Lagos". The Guardian. Retrieved 30 May 2017.
- Hardy, M. (Ed.). (2008). The Venice Charter revisited: modernism, conservation and tradition in the 21st century. Newcastle upon Tyne: Cambridge Scholars.
- Hegazi, Y. S., Shalaby, H. A., & Mohamed, M. A. (2021). Adaptive reuse decisions for historic buildings about energy efficiency and thermal comfort—Cairo citadel, a case study from Egypt. *Sustainability*, 13(19), 10531.
- Ilesanmi, A. O. (2010). Urban sustainability in the context of Lagos megacity.
- Immerwahr, D. (2007). The politics of architecture and urbanism in postcolonial Lagos, 1960–1986. *Journal of African Cultural Studies*, 19(2), 165-186.
- Wu, T. (2022). Measuring the circularity of modular units in modular construction projects.
- Lewandowska, A., Branowski, B., Joachimiak-Lechman, K., Kurczewski, P., Selech, J., & Zablocki, M. (2017). Sustainable design: A case of environmental and cost life cycle assessment of a kitchen designed for seniors and disabled people. *Sustainability*, 9(8), 1329.
- Mehdizadeh, M. (2023). BEYOND BLUEPRINTS: NAVIGATING ARCHITECTURAL TRANSFORMATIONS IN VIRTUAL REALITY (Doctoral dissertation, Politecnico di Torino).
- Nguluma, H. (2003). Housing themselves: Transformations, modernisation and spatial qualities in informal settlements in Dar es Salaam, Tanzania (Doctoral dissertation, Infrastruktur).
- No, S., & Never, A. O. O. R. (2017, March). TRADITIONAL PRESERVATION PRACTICES. In 15 th UGC Sponsored National Conference on (Vol. 30, No. 27, p. 57).
- Okeke, F. O., Chendo, I. G., & Sam-Amobi, C. G. (2019). Resilient architecture; a design approach to counter-terrorism in the building for the safety of occupants, IOP Conf. Series: Mater. Sci. Eng. 640012003 doi:10.1088/1757-899X/640/1/012003.
- Okoye, P. U., & Ngwu, C. (2021). Assessing the adequacy and sustainability performance of multi-family residential buildings in Anambra State, Nigeria. *Regional Sustainability*, 2(1), 23-35.
- Okpako, J. (2022). Catholic Church Architecture in Ibadan, Nigeria after Vatican II: Lessons for Modern Church Designers. *Journal of Asian and African Studies*, 00219096221144691.
- Olagunju, O. A. (2014). The Development of a framework for sustainable housing delivery in Lagos, Nigeria.
- Olaniyan, O. R., & Adegoroye, A. (2024). Bridging Development and Sustainability: An Analysis of the Nigerian Real Estate Sector. *European Journal of Theoretical and Applied Sciences*, 2(2), 809-823.
- Osasona, C. O. (2007). From traditional residential architecture to the vernacular: the Nigerian experience. Online [http: www. mainline. Org/aat/2007_ documents/AAT_ Osasona](http://www.mainline.Org/aat/2007_documents/AAT_Osasona), 17-19.

- Osasona, C. O., Ogunfolakan, B. O. & Ewemade, F. O. (2011). The renewal of Ile Akogun in Ile-Ife, Nigeria: A paradigm for the conservation of Yoruba iconic architecture. *Africa Habitat. The Journal of the School of the Built Environment, University of Nairobi, Kenya*, 4(4) pp. 225–238.
- Osasona, C. O. (2015). Heritage architecture as domestic space: A tale of three buildings in Ile-Ife, Nigeria. *International Journal of Sustainable Development and Planning*, 10(1), 42–65. DOI: 10.2495/SDP-V10-N1-42-65
- Pietilä, A. M., Nurmi, S. M., Halkoaho, A., & Kyngäs, H. (2020). Qualitative research: Ethical considerations. *The application of content analysis in nursing science research*, 49-69.
- Pişkin, N. (2019). Cultural differences in the use of public spaces: a case study on coastal park in Mersin (Master's thesis, Middle East Technical University).
- Qureshi, R. A., Shah, S. J., Akhtar, M., Abbass, W., & Mohamed, A. (2022). Investigating Sustainability of the Traditional Courtyard Houses Using Deep Beauty Framework. *Sustainability*, 14(11), 6894.
- Rane, N. (2023). Integrating leading-edge artificial intelligence (AI), internet of things (IOT), and big data technologies for smart and sustainable architecture, engineering and construction (AEC) industry: Challenges and future directions. *Engineering and Construction (AEC) Industry: Challenges and Future Directions* (September 24, 2023).
- Rapoport, A. (1992). On cultural landscapes. *Traditional Dwellings and Settlements Review*, 33-47.
- Sen, J. N. (2020). The Role of Vernacular Construction Techniques and Materials in Developing Sustainable Building and Construction in Africa (Master's thesis, Eastern Mediterranean University (EMU)-Doğu Akdeniz Üniversitesi (DAÜ)).
- Udeh, C. A., & Okeke, F. O. (2018). Urban regeneration eradicating urban decay for improved human settlement. *J. of Envir. Mgt & Safety*, 9(1), 49– 54.
- Van Heesch, U., Avgeriou, P., & Hilliard, R. (2012). A documentation framework for architecture decisions. *Journal of Systems and Software*, 85(4), 795-820.
- Wuni, I. Y., & Shen, G. Q. (2020). Barriers to the adoption of modular integrated construction: Systematic review and meta-analysis, integrated conceptual framework, and strategies. *Journal of Cleaner Production*, 249, 119347.
- Yan, B., Mai, F., Wu, C., Chen, R., & Li, X. (2024). A computational framework for understanding firm communication during disasters. *Information Systems Research*, 35(2), 590-608.