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BRIDGING THE GAP

Professional Perceptions and Adoption of Mud Construction Techniques in Nigerian Urban Architecture

A CASE STUDY OF LAGOS ISLAND

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THE RESEARCH JOURNEY

From the problem to the evidence

Six stages connecting sustainability concerns to professional adoption readiness.

01 **Introduction**
The context

02 **Aim & objectives**
Research focus

03 **Literature review**
Existing knowledge

04 **Methodology**
Survey design

05 **Data presentation**
Key findings

06 **Conclusion**
What comes next

WHY THIS MATTERS

A material question. A professional adoption gap.

THE CONTEXT

01 High-impact construction

Reliance on concrete and steel intensifies energy use, emissions and loss of architectural identity.

02 Tropical performance

Many contemporary buildings increase cooling demand instead of responding passively to local climate.

03 An overlooked alternative

Mud construction offers local availability, low embodied carbon and climate-responsive properties.

THE STUDY

Why is adoption still limited?

This study examines architects' perceptions and readiness to adopt mud construction in urban Lagos Island.

Conceptual lens: Rogers' Diffusion of Innovations theory · Sources cited in original presentation.

RESEARCH FOCUS

One aim. Five measurable objectives.

RESEARCH AIM

Examine professional perceptions and readiness to adopt mud construction techniques in Nigerian urban architecture, using Lagos Island as a case study.

01 Assess architects' awareness of mud construction techniques

02 Evaluate current application in urban projects

03 Examine perceived performance and suitability

04 Identify the key barriers to wider adoption

05 **Explore future willingness to adopt or recommend**

LITERATURE REVIEW

The case for earth —and the constraints

Six themes from the literature frame the adoption challenge.

01 Environmental urgency

Low embodied energy and thermal efficiency as alternatives to carbon-intensive materials.

02 Culture & identity

Mud architecture reflects Nigerian vernacular heritage and community knowledge.

03 Building performance

Thermal regulation, humidity balance and passive cooling; stabilization can improve durability.

04 Institutional barriers

Building-code gaps, limited standards, training shortfalls and weak policy support.

05 Local material supply

Laterite and clay create opportunities, but supply chains remain a constraint.

06 Construction methods

Rammed earth, adobe, CSEB, superadobe, wattle & daub, straw-clay.

RESEARCH DESIGN

A survey of practising architects

Quantitative approach within a pragmatic research framework.

120

Questionnaires distributed

102

Valid responses

85%

Response rate

01 Study population

Registered architects practising within Lagos Island; target informed by ARCON records.

02 Data collection

Structured questionnaire with closed-ended and Likert-scale items.

03 Analysis

Descriptive statistics: frequencies and percentages; thematic grouping of open-ended responses.

FINDING 01

Awareness is high. Application lags.

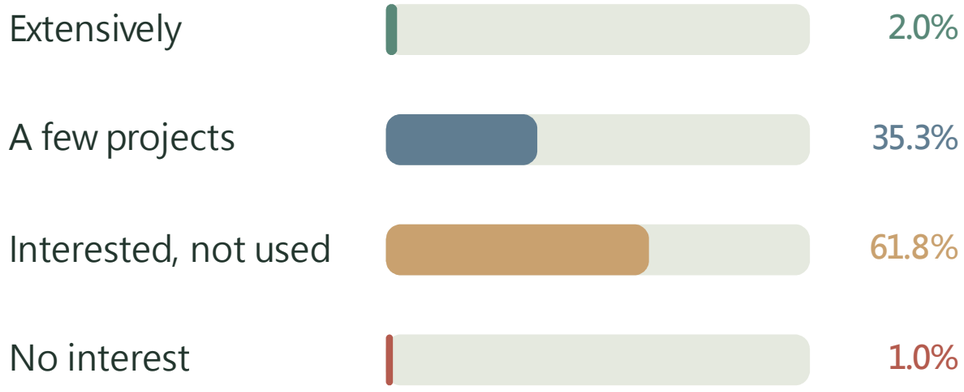
The clearest gap in the survey: knowing about mud techniques does not mean using them.

AWARENESS



81.5% of respondents are aware

PRACTICAL USE

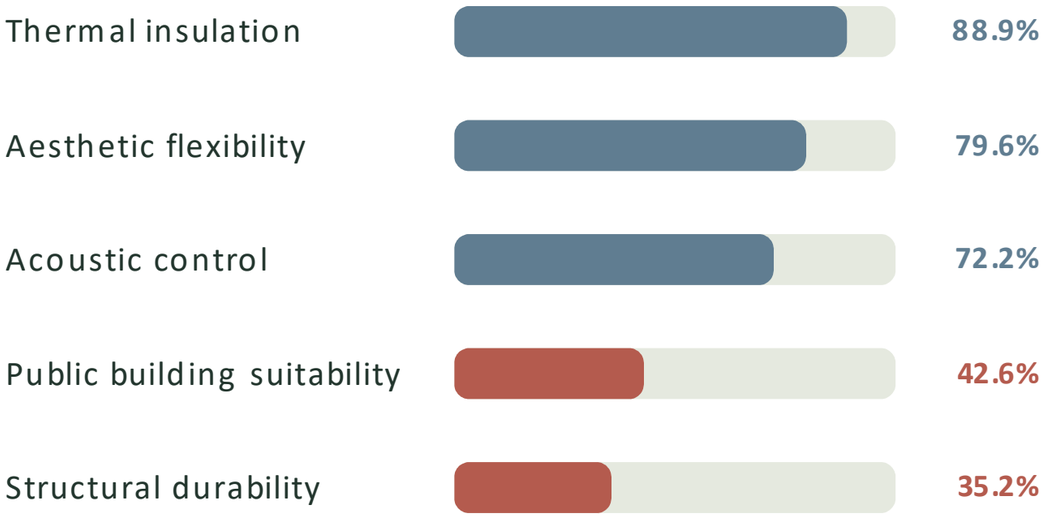


Only 37.3% report any use (extensive or on a few projects).

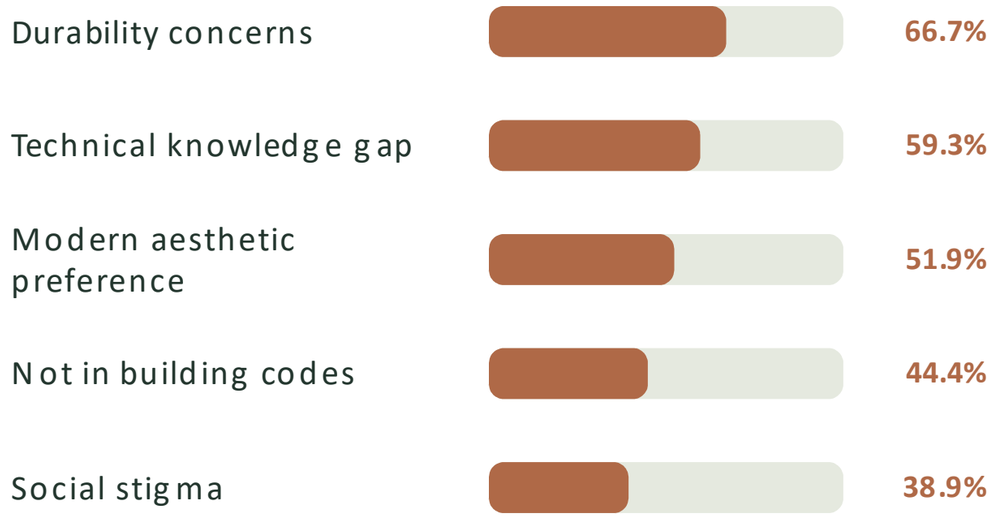
FINDING 02

Benefits are recognized. Risks remain.

PERCEIVED PERFORMANCE / SUITABILITY



BARRIERS TO ADOPTION



Positive environmental and cultural perceptions coexist with uncertainty over durability and urban suitability.

FINDING 03

The appetite for adoption is real

Policy, technical confidence and practical experience are the next frontier.

PROFESSIONAL ATTITUDES



THE SHIFT

From awareness to enabling conditions

Better standards, training and confidence can support adoption of stabilized and hybrid earthen systems.

CONCLUSION

Five insights. One direction.

01	Awareness	81.5% of responding architects know about mud construction.
02	Application	Just 37.3% have applied it — the knowledge-to-practice gap is significant.
03	Perception	Thermal and cultural strengths are valued; durability and public-use confidence remain weak.
04	Barriers	Technical knowledge, codes, perceptions and durability concerns constrain adoption.
05	Willingness	64.8% would recommend it for future projects, particularly hybrid or stabilized systems.

TAKEAWAY / Adoption depends on building technical and institutional trust.