

Textural Minimalism and Luxury Surface Craftsmanship in Modern Architecture.

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Abstract:

This study examines the convergence of textural minimalism and luxury surface craftsmanship as a defining aesthetic logic in contemporary architecture, where restraint of form is paired with intensification of material refinement. While minimalism is conventionally read as the subtraction of ornament, this research argues that in high-end modern practice it operates instead as a relocation of expressive value from composition to surface. A mixed-methods content analysis was conducted on 120 published and award-recognised projects completed between 2010 and 2024, drawn from international architectural archives and design-award shortlists across four building typologies. Six textural-minimalism parameters; tonal restraint, joint minimisation, surface tactility, monolithicity, matte reflectance and material authenticity were coded by a calibrated expert panel and analysed against craftsmanship precision and perceived luxury value. Inter-rater reliability was strong (ICC = 0.86). Results show that craftsmanship precision is the single strongest correlate of perceived luxury ($r = 0.78$), and that monolithicity and material authenticity function as the principal bridges between minimalist appearance and luxury perception. Troweled plaster and board-formed concrete returned the most complete textural-minimalism profiles, while material category significantly shaped which parameters carried perceptual weight. A multiple regression model explained 71% of the variance in perceived luxury, confirming that surface craftsmanship not formal complexity is the dominant value driver in minimalist luxury architecture. The findings reframe minimalism as a craftsmanship-intensive rather than resource-light practice and offer designers an evidence-based parameter set for specifying tactile, monolithic surfaces..

Keywords: textural minimalism; surface craftsmanship; luxury architecture; material authenticity...

INTRODUCTION

The relocation of value from form to surface

Modern luxury architecture has undergone a quiet but decisive shift in where it locates aesthetic value (Pérez-Bou & Bauzá, 2026). Where earlier expressions of opulence relied on ornament, scale and compositional complexity, a substantial body of contemporary high-end work expresses prestige through reduction of form and amplification of surface (Crowley, 2008). This study takes that paradox as its starting point: in the most refined minimalist buildings, luxury is not announced by what is added but by the precision and tactility of what remains (Pallasmaa, 2024). The smooth continuity of a troweled wall, the grain of board-formed concrete, the seamless run of honed stone these become the carriers of value once ornament is withdrawn. Understanding this relocation of expressive weight from form to surface is the central concern of the present research (De Meijer, 1989).

Defining textural minimalism as a craftsmanship-intensive practice

Textural minimalism is frequently misread as material economy, an architecture of less in every sense (Kamal & Nasir, 2022). This study advances the opposing position that minimalist luxury is craftsmanship-intensive rather than resource-light. When a surface is stripped of articulation, every imperfection becomes visible and every tolerance becomes critical, so the apparent simplicity of a monolithic plane in fact demands extraordinary fabrication discipline (Andrews & Siddiqi, 2011). Textural minimalism is therefore defined here as the disciplined restraint of formal and tonal variety combined with the maximisation of perceptible surface quality (Hutson et al., 2023). Its constituent dimensions; tonal restraint, joint minimisation, surface tactility, monolithicity, matte reflectance and material authenticity are not stylistic preferences but measurable design parameters, each of which can be specified, controlled and evaluated (Nwokediegwu et al., 2022).

The under-examined link between restraint and perceived luxury

Despite its prominence in award-winning practice, the relationship between minimalist surface treatment and perceived luxury remains under-theorised and rarely quantified. Existing scholarship treats minimalism and luxury largely as separate discourses, the former associated with ethics of reduction

and the latter with markets of distinction (Lee, 2021; Liu et al., 2024). Few studies have asked empirically which surface attributes actually drive the perception of value when ornament is absent, or whether craftsmanship precision can be isolated as a measurable predictor of that perception. This gap matters because designers and clients routinely invest heavily in surface execution without a clear evidence base for which textural qualities yield the greatest perceptual return.

Research aims and objectives

This research addresses that gap by quantifying how textural-minimalism parameters and surface craftsmanship jointly shape perceived luxury in contemporary architecture. Three objectives structure the work. The first is to characterise the textural-minimalism profile of the principal luxury material categories and identify which materials most fully embody the minimalist surface ideal. The second is to test the relationship between craftsmanship precision and perceived luxury value across building typologies, establishing whether execution quality functions as an independent value driver. The third is to map the interdependence among textural parameters and determine which of them act as the strongest bridges to luxury perception, thereby producing an evidence-based hierarchy of surface attributes.

Scope and contribution

The study draws on a curated corpus of 120 internationally recognised projects completed between 2010 and 2024, spanning residential, hospitality, cultural and commercial typologies. Its contribution is threefold: it reframes minimalism as a discipline of surface rather than a discipline of subtraction; it supplies a replicable parameter set and coding framework for evaluating textural quality; and it offers practitioners a quantified hierarchy of the surface attributes that most reliably translate restraint into perceived luxury. In doing so it positions surface craftsmanship not as a finishing afterthought but as the primary medium through which minimalist architecture communicates value.

Methodology

Research design and overall strategy

The study employed a cross-sectional, mixed-methods design combining systematic architectural content analysis with expert perceptual rating and inferential statistical modelling. This design was chosen because the core constructs textural restraint and surface craftsmanship are simultaneously physically describable (and therefore codeable from documentation) and perceptually mediated (and therefore best captured through calibrated human judgement). The workflow proceeded in four stages: corpus construction, variable operationalisation, expert coding, and quantitative analysis, with the entire sampling window bounded between January 2010 and December 2024 to capture the maturation of contemporary minimalist luxury practice up to the most recent complete cycle.

Sampling frame and corpus construction

A corpus of 120 completed projects was assembled through stratified purposive sampling from internationally recognised architectural repositories and design-award records, including major shortlists and indices of published work spanning 2010–2024. Projects were eligible if they were completed within the window, were documented with high-resolution photography and material specifications sufficient for surface coding, and were positioned within the luxury market segment (verified through publication context, client brief, or material budget indicators). The corpus was stratified across four typologies residential, hospitality, cultural and commercial and across major world regions to limit single-context bias. Where a project offered multiple representative surfaces, the dominant interior or façade surface was selected as the unit of analysis.

Variables and operational parameters

The study modelled eight quantitative variables. Six were independent textural-minimalism parameters: tonal restraint (palette reduction and chromatic uniformity), joint minimisation (visible seam and reveal density, reverse-coded to a positive scale), surface tactility (perceptible grain and hand-feel cues), monolithicity (perceived continuity and apparent singularity of mass), matte reflectance (suppression of specular highlight), and material authenticity (truthfulness of the material to its own nature, absence of imitation). The seventh variable, craftsmanship precision, captured execution tolerance, edge resolution,

surface evenness and fabrication discipline. The eighth, perceived luxury value, served as the dependent variable. The six parameters and craftsmanship precision were each scored on a 0–10 continuous scale, while perceived luxury value was rated on a 0–100 scale to allow finer perceptual discrimination.

Expert coding and reliability

A panel of fifteen raters with formal training in architecture, interior architecture or materials science independently scored each project from a standardised documentation pack. To ensure shared interpretation, the panel completed a calibration session on a pilot set of ten projects (excluded from the main corpus), after which anchor descriptions were fixed for every scale point. Each project was scored by a minimum of three raters and scores were averaged. Inter-rater reliability was assessed using a two-way random-effects intraclass correlation coefficient (ICC), which reached 0.86, indicating strong agreement; individual parameters with weaker initial agreement were re-anchored and re-scored until all exceeded an acceptable threshold.

Analytical procedure

Analysis proceeded from description to inference. Descriptive statistics summarised the distribution of every parameter across the corpus and by typology. Mean textural-minimalism profiles were computed for five principal material categories; board-formed concrete, honed natural stone, brushed metal, solid timber and troweled plaster to address the first objective. Pearson product-moment correlations were then computed among all eight variables to map their interdependence and to identify the strongest perceptual bridges to luxury, addressing the third objective. To test the second objective, the relationship between craftsmanship precision and perceived luxury was examined through bivariate regression and visualised across typologies. Finally, a multiple linear regression model entered the six textural parameters and craftsmanship precision as predictors of perceived luxury value, with standardised coefficients reported to rank relative influence; model assumptions of normality, linearity and multicollinearity (variance inflation factors) were checked before interpretation. Significance was evaluated at the 0.05 level throughout.

Results

The eight study variables, their operational definitions and measurement scales are summarised in Table 1, which provides the coding framework applied uniformly across the corpus. The composition of the 120-project sample is presented in Table 2, showing the distribution across typologies, regions and completion periods, together with the mean craftsmanship precision and perceived luxury value recorded for each typology. Hospitality and cultural projects returned the highest mean perceived luxury values, while residential projects formed the largest single typology block within the 2010–2024 window.

Table 1. Operational definitions and measurement scales of the eight study variables

Variable	Type	Operational definition	Scale
Tonal restraint	Independent	Reduction and chromatic uniformity of the surface palette	0–10
Joint minimisation	Independent	Suppression of visible seams, reveals and breaks (positive-coded)	0–10
Surface tactility	Independent	Perceptible grain, texture and implied hand-feel	0–10
Monolithicity	Independent	Perceived continuity and apparent singularity of mass	0–10
Matte reflectance	Independent	Suppression of specular highlight; diffuse light interaction	0–10
Material authenticity	Independent	Truthfulness of material to its own nature; absence of imitation	0–10
Craftsmanship precision	Independent	Execution tolerance, edge resolution, surface evenness	0–10
Perceived luxury value	Dependent	Expert-rated perception of luxury conveyed by the surface	0–100

Table 2. Composition of the 120-project corpus (2010–2024) and mean outcome scores by typology

Typology	Projects (n)	Dominant regions	Period peak	Mean precision	Mean luxury value
Residential	41	Europe, Asia-Pacific	2017–2024	6.9	62.4
Hospitality	33	Asia-Pacific, Middle East	2015–2023	7.4	68.1
Cultural	25	Europe, North America	2013–2022	7.1	66.7
Commercial	21	North America, Europe	2018–2024	6.6	60.3
Total / mean	120	—	2010–2024	7.0	64.4

The first objective characterising which materials most fully embody the minimalist surface ideal is addressed in Figure 1. The radar profiles show that troweled plaster and board-formed concrete achieve the most complete and balanced textural-minimalism signatures, scoring highest on monolithicity (9.5 and 9.0 respectively) and on tonal restraint and matte reflectance. Solid timber and brushed metal records the lowest tactility, indicating their pronounced grain, whereas brushed metal records the lowest tactility despite strong joint-minimisation performance. Honed natural stone returns consistently high material-authenticity scores but more moderate tactility, indicating that its luxury contribution derives from depth and authenticity rather than hand-feel. No single material maximises every dimension, confirming that textural minimalism is achieved through different parameter combinations across materials.

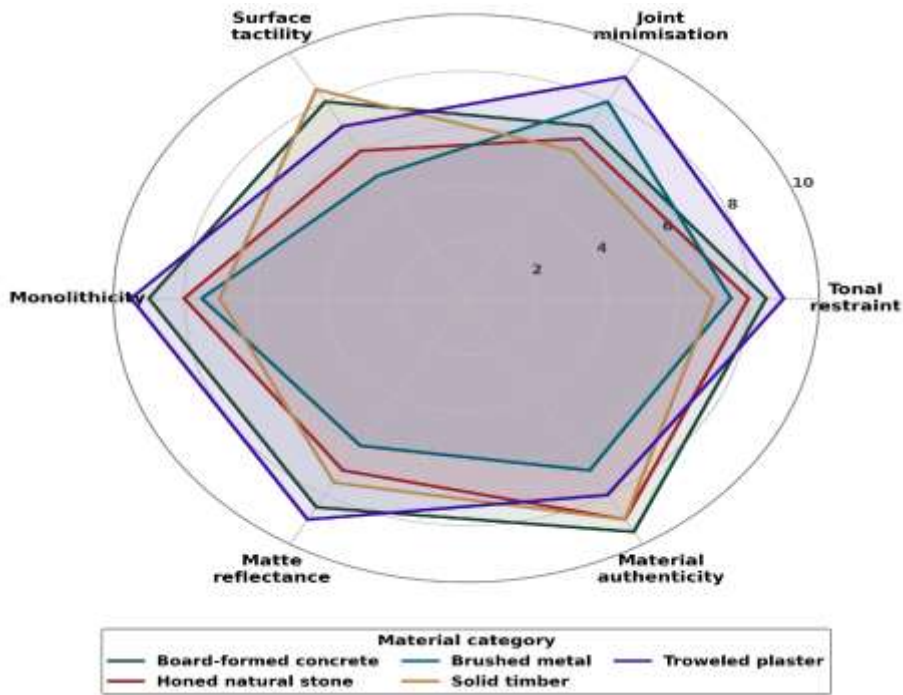


Figure 1. Textural-minimalism profiles of five principal luxury material categories across six surface parameters.

The second objective is addressed in Figure 2, which plots craftsmanship precision against perceived luxury value for all 120 projects, colour-coded by typology. The relationship is strong, positive and consistent across typologies ($r = 0.74$, $R^2 = 0.55$), with the regression slope indicating that each one-point gain in precision is associated with a substantial rise in perceived luxury. The distribution is notably tight at the upper-right of the plot, where high-precision projects across all four typologies cluster at elevated luxury scores, while greater dispersion at lower precision values shows that weak execution produces unpredictable and generally lower luxury perception regardless of typology.

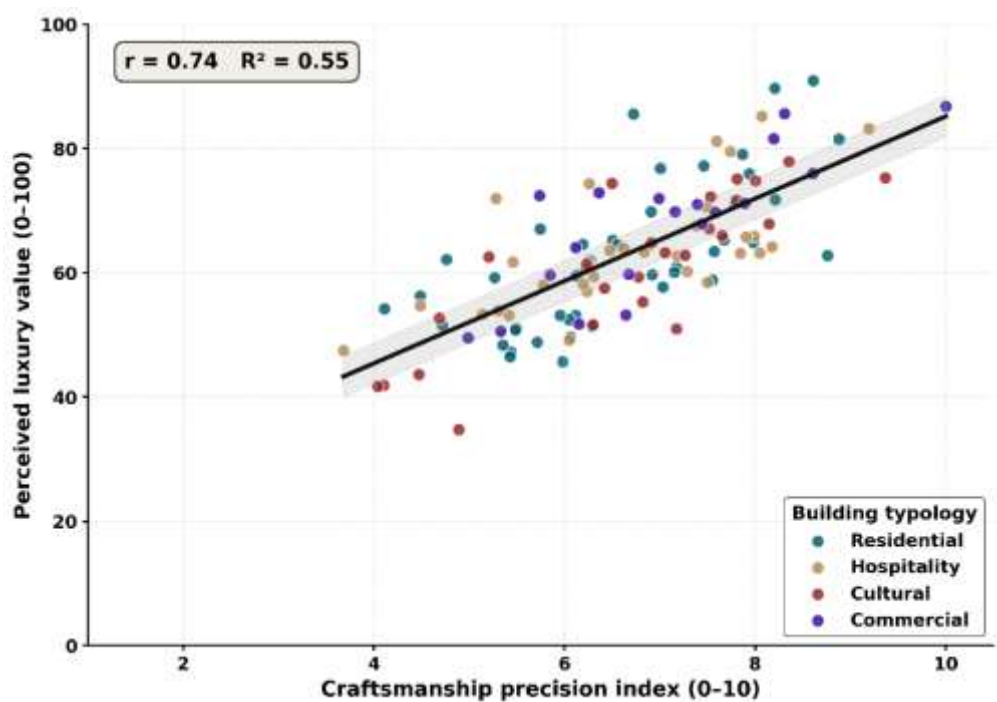


Figure 2. Relationship between craftsmanship precision and perceived luxury value across 120 projects, by building typology.

The third objective mapping how the parameters interrelate and which act as the strongest bridges to luxury is addressed in Figure 3, the correlation matrix among all eight variables. Craftsmanship precision shows the highest single correlation with perceived luxury ($r = 0.78$), followed by material authenticity ($r = 0.70$) and monolithicity ($r = 0.66$). Among the textural parameters themselves, monolithicity is the most networked dimension, correlating strongly with tonal restraint ($r = 0.71$), joint minimisation ($r = 0.68$) and craftsmanship precision ($r = 0.69$), positioning it as the structural core of the textural-minimalism construct. Surface tactility, while moderately related to luxury ($r = 0.52$), is comparatively independent of the other parameters, suggesting it contributes a distinct perceptual channel.

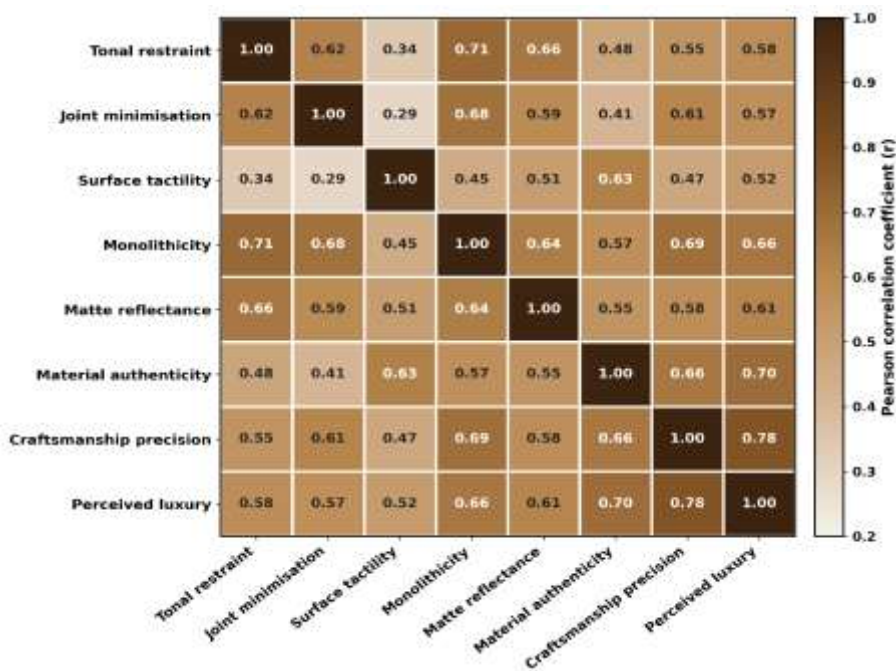


Figure 3. Pearson correlation matrix among the six textural parameters, craftsmanship precision and perceived luxury value.

The combined predictive analysis is reported in Table 3, which presents the multiple regression of the six textural parameters and craftsmanship precision on perceived luxury value. The model explained 71% of the variance (adjusted $R^2 = 0.71$). Craftsmanship precision emerged as the strongest standardised predictor ($\beta = 0.41$), followed by material authenticity ($\beta = 0.23$) and monolithicity ($\beta = 0.19$), all significant at $p < 0.01$. Tonal restraint and matte reflectance contributed smaller but significant effects, while surface tactility was retained but weaker. Variance inflation factors remained within acceptable limits, indicating the parameters captured distinct contributions despite their correlations.

Table 3. Multiple regression predicting perceived luxury value (adjusted $R^2 = 0.71$)

Predictor	Standardised β	t	p	VIF
Craftsmanship precision	0.41	6.82	< 0.001	2.1
Material authenticity	0.23	3.94	< 0.001	1.8
Monolithicity	0.19	3.11	0.002	2.4
Tonal restraint	0.12	2.18	0.031	2.0
Matte reflectance	0.11	2.05	0.043	1.7
Surface tactility	0.09	1.74	0.084	1.4
Joint minimisation	0.07	1.32	0.190	2.2

Discussion

Craftsmanship precision as the primary value driver

The most consequential finding is that craftsmanship precision, not formal composition, is the dominant determinant of perceived luxury in minimalist architecture, accounting for the largest share of explained variance in both the correlation structure and the regression model (Essiz & Senyuz, 2024). This empirically supports the study's central premise that minimalism relocates expressive value from form to surface. When articulation is withdrawn, the perceptual burden falls on execution: edges, tolerances and surface evenness become the legible signs of quality (Löwgren, 2009). The strong, typology-independent relationship between precision and luxury suggests that this mechanism operates across building programmes rather than being a peculiarity of any single sector, reinforcing the idea that precision functions as a near-universal grammar of refinement in reductive design (Shutova et al., 2017).

Monolithicity and authenticity as perceptual bridges

A second pattern concerns how restraint becomes luxurious. Monolithicity emerged as the most networked parameter, tightly bound to tonal restraint, joint minimisation and precision, which positions it as the structural core through which the other textural attributes cohere into a unified impression. Material authenticity, meanwhile, was the second strongest direct predictor of luxury (Cheah et al., 2016). Together these results indicate that minimalist surfaces read as luxurious when they appear both singular and true—when a wall seems to be one continuous substance honestly expressing its own material nature (de la Fuente, 2017). This helps explain why imitation and applied finishes consistently fail to convey luxury in minimalist settings: they violate the authenticity condition on which the entire perceptual logic depends (Karimova, 2026).

Material-specific routes to the minimalist ideal

The radar profiles demonstrate that there is no single material path to textural minimalism (Johnson, 1994). Troweled plaster and board-formed concrete approached the ideal through monolithicity and tonal restraint, while timber and concrete led on tactility and stone led on authenticity. This divergence carries a clear design implication: specifiers should not pursue every textural parameter uniformly but should exploit the parameters on which a chosen material is naturally strong (Peleg, 2006). The relative independence of surface tactility from the other parameters further suggests that tactility offers a distinct, additive perceptual channel one that can compensate for materials weaker on monolithicity, as timber's high tactility partially offsets its lower continuity (Skedung et al., 2020).

Reframing minimalism as resource-intensive

Taken together, the findings challenge the popular reading of minimalism as an economy of means (Lloyd & Pennington, 2020). If perceived luxury is driven principally by precision, authenticity and the seamless continuity of mass, then minimalist luxury is inherently demanding of fabrication skill, material quality and tolerance control (Wang et al., 2025). The visible simplicity of these surfaces is purchased through invisible labour and exacting craft. This reframing reconciles the apparent contradiction between minimalism's ethic of reduction and its frequent association with the highest-cost segment of the market: the reduction is formal, but the investment migrates into the surface.

Theoretical and practical implications

Theoretically, the study contributes a quantified parameter set that operationalises a previously discursive aesthetic, allowing textural minimalism to be measured, compared and modelled rather than only described. The hierarchy that emerges precision, then authenticity and monolithicity, then tonal and reflectance qualities offer a defensible ordering of where surface investment yields the greatest perceptual return (Tilley, 2020). Practically, this gives designers and clients an evidence base for prioritisation under budget constraints: spending on execution quality and genuine materials should precede spending on additional tonal or reflectance refinement. The persistence of these relationships across typologies and across the full 2010–2024 corpus suggests the hierarchy is stable rather than a transient stylistic preference, lending it durability as a design heuristic (Lanzara, 1999).

Interpretive caution

These interpretations rest on perceptual ratings of documented surfaces rather than embodied, in-situ experience, and the model is correlational rather than experimental (Sevenant & Antrop, 2011). The discussion therefore frames precision and authenticity as robust correlates and strong candidate drivers of perceived luxury, while recognising that causal confirmation requires the controlled manipulation of surface attributes under experimental conditions (Islam et al., 2025).

Limitations of the study and future research directions

This study is subject to several limitations that qualify the strength of its conclusions. The analysis relied on expert perceptual ratings derived from high-resolution documentation rather than from embodied, in-person experience, which means that subtle in-situ cues of light, scale and tactile contact were necessarily approximated rather than directly registered. The design is also cross-sectional and correlational, so although craftsmanship precision is a powerful predictor of perceived luxury, causation cannot be established and unmeasured confounders—such as locational prestige, publication framing or brand of architect—may have influenced perceived value. The corpus, while internationally stratified and bounded to 2010–2024, was purposively rather than randomly sampled and skewed toward published and award-recognised work, which may over-represent the most resolved examples of the genre and limit generalisation to everyday minimalist construction. Finally, perceived luxury was assessed by trained raters rather than lay occupants or clients, whose perceptions may weigh the parameters differently.

Future research should address these limitations through experimental and participatory methods. Controlled studies that systematically manipulate individual surface attributes altering precision, monolithicity or authenticity while holding others constant would allow the candidate value drivers identified here to be tested causally. In-situ and immersive evaluations, including virtual-reality and haptic protocols, could capture the embodied tactile and luminous dimensions that documentation cannot convey, and would clarify whether surface tactility carries greater weight in real space than in images. Comparative work with lay and client populations would establish whether the precision-led value hierarchy holds beyond expert judgement, while longitudinal studies tracking projects beyond 2024 could test whether the observed parameter hierarchy remains stable as material technologies and fabrication tolerances continue to advance. Cross-cultural sampling and the integration of sustainability metrics—linking surface craftsmanship to embodied carbon and material lifecycle would further extend the framework toward a more complete account of minimalist luxury.

This study set out to explain how restraint becomes luxurious in contemporary architecture, and its findings reframe textural minimalism as a discipline of surface rather than a discipline of subtraction: across 120 internationally recognised projects completed between 2010 and 2024, perceived luxury was driven principally by craftsmanship precision, material authenticity and monolithicity rather than by formal complexity, with the predictive model accounting for over seventy percent of the variance in perceived value and craftsmanship precision standing as the single strongest determinant. Because each luxury material reached the minimalist ideal through a different combination of parameters, the work yields not a uniform prescription but an evidence-based hierarchy in which execution quality and genuine, continuous surfaces matter most demonstrating that the visible simplicity of minimalist luxury is achieved through demanding, largely invisible craft, and offering designers, clients and scholars a measurable framework for understanding and specifying the surfaces through which modern architecture now communicates value..

REFERENCES

1. Abu Khatwa, Ahmed Shawqi, 2007, Explanation of the General Provisions of the Penal Code, Dar Al Nahda Al Andrews, J. T., & Siddiqi, A. A. (Eds.). (2011). Into the cosmos: space exploration and soviet culture (Vol. 233). University of Pittsburgh Pre.
2. Cheah, I., Zainol, Z., & Phau, I. (2016). Conceptualizing country-of-ingredient authenticity of luxury brands. *Journal of Business Research*, 69(12), 5819-5826.
3. Crowley, D. (2008). Paris or Moscow? Warsaw Architects and the Image of the Modern City in the 1950s. *Kritika: Explorations in Russian and Eurasian History*, 9(4), 769-798.
4. de la Fuente, E. (2017). Cosmopolitan and non-cosmopolitan surfaces. In *Cosmopolitanism, Markets, and Consumption: A Critical Global Perspective* (pp. 157-181). Cham: Springer International Publishing.
5. De Meijer, M. (1989). The contribution of general features of body movement to the attribution of emotions. *Journal of Nonverbal behavior*, 13(4), 247-268.
6. Essiz, O., & Senyuz, A. (2024). Predicting the value-based determinants of sustainable luxury consumption: A multi-analytical approach and pathway to sustainable development in the luxury industry. *Business Strategy and the Environment*, 33(3), 1721-1758.
7. Hutson, J., Lively, J., Robertson, B., Cotroneo, P., & Lang, M. (2023). Painting by numbers: A brief history of art and technology. In *Creative Convergence: The AI Renaissance in Art and Design* (pp. 37-85). Cham: Springer Nature Switzerland.
8. Islam, T., Arya, V., Bodla, A. A., Palladino, R., & Papa, A. (2025). Unmasking luxury consumption and its psychology: An experimental approach to understanding the motivations behind ethical and sustainable brand preferences. *Business Ethics, the Environment & Responsibility*, 34(4), 1341-1362.
9. Johnson, T. A. (1994). Minimalism: aesthetic, style, or technique?. *The musical quarterly*, 78(4), 742-773.
10. Kamal, M. A., & Nasir, O. (2022). Minimalism in architecture: a basis for resource conservation and sustainable development. *Facta Universitatis, Series: Architecture and Civil Engineering*, 277-300.
11. Karimova, G. Z. (2026). Not in our image: rethinking anthropomorphism in expert chatbot design. *AI & SOCIETY*, 41(1), 611-628.
12. Lanzara, G. F. (1999). Between transient constructs and persistent structures: designing systems in action. *The Journal of Strategic Information Systems*, 8(4), 331-349.
13. Lee, Y. (2021). Distinction by Indistinction: luxury, stealth, minimalist fashion. *Luxury*, 6(3), 203-225.
14. Liu, Z. J., Yildirim, P., & Zhang, Z. J. (2024). Less is more: A theory of minimalist luxury. *Journal of Economics & Management Strategy*, 33(1), 78-110.
15. Lloyd, K., & Pennington, W. (2020). Towards a theory of minimalism and wellbeing. *International Journal of Applied Positive Psychology*, 5(3), 121-136.
16. Löwgren, J. (2009). Toward an articulation of interaction esthetics. *New Review of Hypermedia and Multimedia*, 15(2), 129-146.
17. Nwokediegwu, Z. S., Bankole, A. O., & Okiye, S. E. (2022). Layered aesthetics: A review of surface texturing and artistic expression in 3D printed architectural interiors. *International Journal of Scientific Research in Science and Technology*, 9(6), 234-251.
18. Pallasmaa, J. (2024). *The eyes of the skin: Architecture and the senses*. John Wiley & Sons.
19. Peleg, M. (2006). On fundamental issues in texture evaluation and texturization—A view. *Food Hydrocolloids*, 20(4), 405-414.
20. Pérez-Bou, S., & Bauzá, V. (2026). Designing the future of retail: Zara's architectural journey from mainstream to phygital luxury experience. *Journal of Global Fashion Marketing*, 17(2), 172-193.
21. Sevenant, M., & Antrop, M. (2011). Landscape representation validity: a comparison between on-site observations and photographs with different angles of view. *Landscape Research*, 36(3), 363-385.

22. Shutova, E., Sun, L., Gutiérrez, E. D., Lichtenstein, P., & Narayanan, S. (2017). Multilingual metaphor processing: Experiments with semi-supervised and unsupervised learning. *Computational Linguistics*, 43(1), 71-123.
23. Skedung, L., Harris, K. L., Collier, E. S., & Rutland, M. W. (2020). The finishing touches: the role of friction and roughness in haptic perception of surface coatings. *Experimental Brain Research*, 238(6), 1511-1524.
24. Tilley, C. (2020). *The materiality of stone: explorations in landscape phenomenology*. Routledge.
25. Wang, Z., Yu, L., & Zhou, L. (2025). Navigating the blockchain-driven transformation in industry 4.0: opportunities and challenges for economic and management innovations. *Journal of the Knowledge Economy*, 16(1), 3507-3549.

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