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# The Mediating Role of Sociological Security:Why Physical Design Alone Fails to Generate Bridging Social Capital in Contemporary Gulf Cities

## (Adapting Western Urban Theories to the Arab Habitus through a Mixed-Methods Study in Kuwait and Saudi Arabia)

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## ABSTRACT

This sequential explanatory mixed-methods study interrogates the paradox of why substantial investments in physically accessible, aesthetically modern public spaces across Gulf Cooperation Council (GCC) cities consistently fail to foster bridging social capital, despite high utilization metrics. Drawing upon Lefebvre's spatial triad and Bourdieu's concepts of habitus and social capital, we introduce 'Sociological Security'—the culturally mediated sense of visual and social discretion—as the crucial, latent mechanism linking high-quality physical design to collective social cohesion.

Data were sourced from two archetypal urban environments: the organically evolved Souk Al-Mubarakiya (Kuwait) and the master-planned Riyadh Boulevard (Saudi Arabia). A stratified survey (N=300) was rigorously analysed via hierarchical multiple regression and the Hayes' PROCESS mediation model. Concurrently, 30 semi-structured interviews underwent reflexive thematic analysis to contextualize the quantitative findings.

The results establish full mediation: physical design quality predicts bridging social capital exclusively through the perceived Sociological Security (indirect effect = .238, 95% BC CI [.168,.315]; mediating 77% of the total effect). The previously significant direct path becomes non-significant (β=.07,p=.058), confirming the mediator's critical role. Bayesian analysis further corroborates this finding with P("indirect">0)>.9999. The qualitative insights elucidate that design features promoting 'Contained Openness' (e.g., deep alcoves, low visual barriers, micro-climatic shielding) are culturally experienced as enablers of discretion, rather than restrictive or segregative elements.

**Keywords:** Sociological Security; Contained Openness; Arab Habitus; Bridging Social Capital; Mediation Analysis.


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## 1. Introduction

Contemporary Gulf Cooperation Council (GCC) cities represent accelerated laboratories of urban transformation. Driven by ambitious national visions—such as Saudi Vision 2030 and Kuwait's New Kuwait 2035—unprecedented capital has been directed towards creating spectacular public spaces. These investments are intended to pivot urban life away from car-centric sprawl toward vibrant, pedestrian-oriented, and socially inclusive environments. Yet, a persistent and costly paradox emerges: despite achieving global benchmarks for physical accessibility, aesthetic sophistication, and high utilization rates, many of these highly-funded spaces frequently fail to generate bridging social capital, remaining socially inert, marked by subtle segregation, fleeting presence, and limited meaningful inter-group interaction (Al-Harbi et al., 2025; Al-Mansoori & Koç, 2024).

This sociological failure cannot be adequately explained by conventional Western urban theory. Foundational concepts, such as Jane Jacobs' (1961) "eyes on the street" and Gehl's (2010) emphasis on maximal visibility and physical comfort, which guide most contemporary global planning, operate on a fundamental assumption: that unrestricted openness itself generates safety, trust, and social mixing. In the Arab Gulf context, however, the opposite trajectory often holds true: unrestricted visibility frequently induces discomfort, particularly among conservative segments of the population, violating deeply embodied cultural norms of haya (modesty) and visual privacy (Mahgoub, 2025; Van Geel, 2016). A physical design that excels by universal aesthetic standards may thus fail sociologically because it fundamentally contradicts the Arab habitus—the durable, culturally-conditioned set of dispositions (Bourdieu, 1984) that structures the perception and practice of public space.

This study posits that the relationship between high-quality physical design attributes and bridging social capital is not direct but fully mediated by a latent social construct we term Sociological Security: the culturally contingent feeling of being in public while simultaneously remaining socially and visually protected. We argue that only when urban design deliberately affords this sense of discretion and control can physical comfort translate into the willingness to linger, engage in spontaneous conversations with strangers, and ultimately form bridging ties across ethnic, class, and gender divides.

Using a rigorous sequential explanatory mixed-methods design (QUANT → QUAL), we test this mediation model in two archetypal GCC public spaces: Souk Al-Mubarakiya (Kuwait City), which represents an organic, habitus-aligned tradition, and the master-planned Riyadh Boulevard (Saudi Arabia), which embodies globally influenced modernity. The integration of hierarchical multiple regression and formal Hayes' PROCESS mediation analysis ($N = 300$) with a reflexive thematic analysis of 30 in-depth interviews empirically confirms the model. Our findings demonstrate that Sociological Security fully mediates the effect of physical design attributes on bridging social capital (accounting for 77% of the total effect), rendering the direct effects statistically non-significant. The robustness of this critical mediation is


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confirmed through advanced techniques, including Bayesian estimation and Monte-Carlo analysis.

By demonstrating that physical openness without cultural discretion produces “equipped” but not “lived” space (Lefebvre, 1991), this research offers a dual contribution. Theoretically, it advances the conversation on decolonizing urban theory by integrating the localized Arab habitus into global models of social sustainability. Practically, it provides immediate policy relevance: future Gulf mega-projects must institutionalize Sociological Security as a measurable Key Performance Indicator (KPI) and systematically adopt the ‘Contained Openness’ paradigm if they are to successfully translate physical investment into genuine social dividends.

## 2. Literature Review and Theoretical Framework

### 2.1 The Sociological Underperformance of "Global" Public Space in the GCC

Despite the unprecedented scale of financial investment, numerous contemporary studies and ethnographic accounts continue to document the sociological underperformance of new public spaces within Gulf Cooperation Council (GCC) cities. Venues developed under initiatives like Riyadh Season, waterfront promenades in Dubai, and the meticulously planned Msheireb district in Doha often exhibit high aesthetic quality and physical accessibility yet fail to sustain meaningful bridging social capital (Azzali et al., 2024; Al-Mansoori & Koç, 2024). Ethnographic research repeatedly describes these environments as "beautiful but empty" following their inaugural phases, noting that citizens frequently retreat to private, closed compounds, while migrant workers utilize the spaces only transiently (Elsheshtawy, 2019; Al-Harbi et al., 2025). Conventional explanations—such as a lack of programming, the harsh climate, or historical car dependency—are demonstrably insufficient. Many of these sociologically sterile spaces possess abundant shading, year-round active programming, and robust pedestrian prioritization, indicating that the failure lies beyond mere physical provision.

### 2.2 Western Urban Theory and its Cultural Dissonance

The dominant urban planning paradigm guiding these globalized projects is invariably derived from seminal Western thinkers like Jane Jacobs (1961), Jan Gehl (2010), and William Whyte (1980). This paradigm is built upon a fundamental and linear causal chain: maximal visibility equals perceived safety, which in turn fosters lingering, leading ultimately to unrestricted interaction and the generation of social capital. This sequence underpins nearly all contemporary global design guidelines and has been explicitly imported into Vision 2030-era projects through international consultancy expertise.

In the socio-cultural context of the Arab Gulf, however, two profounds cultural disjunctures systematically invalidate this imported causal chain. Firstly, visibility does not equal safety. High, undirected visual exposure is frequently experienced not as an assurance of safety but as a threat to familial modesty (haya) and established gender norms (Mahgoub, 2025; Van Geel, 2016). This leads to active visual withdrawal rather than engagement. Secondly, interaction is not spontaneous but


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hierarchically regulated. Traditional sociality is carefully cultivated within precisely calibrated degrees of intimacy and distance (emulating the logic of the majlis or diwaniya) rather than through random, undirected stranger contact. Consequently, public spaces designed for "absolute openness" often generate social anxiety instead of trust, significantly reducing the willingness of key conservative demographics to linger and engage across social differences.

2.3 Integrating Lefebvre and Bourdieu: A Decolonised Framework

To resolve this paradox of physically perfect, yet socially alienating, spaces, this study integrates Lefebvre's (1991) spatial triad with Bourdieu's (1984) sociology. In the GCC context, this framework highlights the disjunction: Conceived Space (the globalized design imposing Western visibility norms) dictates Spatial Practices (reduced lingering, self-segregation, defensive use of technology), resulting in a Lived Space that is felt as intimidating or "not for us". The crucial, missing theoretical link is Bourdieu's habitus: the embodied, pre-reflexive system of dispositions that filters and determines spatial practice. In the Arab Gulf, the habitus generates a systematic, culturally-validated preference for controlled visual exposure and graduated privacy (Al-Kodmany et al., 2025; Mahgoub, 2025). When the Conceived Space fundamentally contradicts these deeply rooted dispositions, the Lived Space becomes profoundly alienated despite its technical or aesthetic perfection.

2.4 Introducing Sociological Security and Contained Openness

Building on this critique, we propose Sociological Security as the central mediating variable. This is defined as the subjective state in which cultural norms of modesty, gender, and family honor are perceived to be protected while the individual or family remains publicly present. We argue that only under conditions of high Sociological Security can physically comfort and accessibility successfully translate into bridging social capital.

Operationally, Sociological Security is afforded by a design paradigm we term Contained Openness. This paradigm prioritizes design features that include deep shading, creating necessary visual buffering; low or perforated barriers permitting surveillance (eyes on the street) without compromising haya or visual exposure; recessed or tiered seating that replicates the intimacy of the majlis; and water features or dense vegetation providing auditory privacy in close proximity. Crucially, these elements are not regressive or segregative (as assumed by a universalist Western critique) but are in fact enabling features. They significantly lower the psychological cost of public presence for conservative users, thereby increasing the overall diversity, use, and potential for interaction within space.

2.5 Contribution and Formal Hypotheses

This framework makes three significant contributions to urban sociology and planning. First, it identifies the precise latent mechanism (Sociological Security) that explains why physically similar spaces produce highly divergent social outcomes across the GCC. Second, it offers the first formal mediation test of habitus-aligned design using robust frequentist and Bayesian statistics, providing a rigorous empirical


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foundation for the critique. Third, it proposes Contained Openness as a culturally legitimate and socially sustainable alternative to the universalist paradigm of absolute openness.

Based on this theoretical model, we test the following formal hypotheses:

- H1: Physical design attributes (comfort, accessibility) positively predict bridging social capital.
- H2: Sociological Security fully mediates the relationship between physical design attributes and bridging social capital.
- H3: Design features affording Contained Openness will be associated with significantly higher levels of perceived Sociological Security. Votre section Methodology est extrêmement détaillée et rigoureuse. Elle est un modèle pour la recherche mixte. Mon rôle ici est d'éliminer les puces et les tirets pour une lecture fluide, d'assurer que toutes les abréviations soient expliquées à leur première occurrence, et de présenter la robustesse des résultats de manière convaincante.

## 3. Methodology

3.1 Philosophical and Paradigmatic Position

This research adopts a Pragmatist paradigm (Morgan, 2014; Creswell & Plano Clark, 2017), prioritizing the complexity of the sociological research question over methodological purity. This approach argues that the GCC urban paradox is best understood by combining the explanatory power of statistical mediation analysis with the interpretive depth of lived cultural experience. This combination allows for a holistic understanding of the mechanism of Sociological Security in practice.

3.2 Research Design

The study employed a Sequential Explanatory Mixed-Methods Design (QUANT → QUAL). The initial quantitative phase (QUANT) was designed to rigorously test the magnitude and statistical significance of the hypothesized mediation pathway. The subsequent qualitative phase (QUAL) served to explain how and why the mechanism of Sociological Security is experienced, appropriated, or resisted by users in the field, providing cultural context to the statistical findings. Integration occurred at four critical levels: sampling (quantitative sites informed qualitative deepening), instrument development (quantitative items guided the qualitative probes), analysis (statistical mediation results directly seeded the qualitative codebook), and final interpretation (through the use of joint display tables).

3.3 Site Selection and Justification

We employed a maximum-contrast case selection strategy (Yin, 2009) to represent the polar types of contemporary Gulf public space. The two sites were Souk Al-Mubarakiya in Kuwait City and Riyadh Boulevard in Riyadh, Saudi Arabia.

Souk Al-Mubarakiya represents an organic, heritage-led, and incrementally developed urban environment, operating under the traditional governance of the Municipality and waqf (endowment) merchants. Its dominant design paradigm is the pre-oil


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traditional Arab market, utilizing deep, continuous souk canopies as its primary shading strategy, leading to a high cultural alignment with the habitus. It attracts an estimated daily footfall of 15,000–35,000.

In contrast, Riyadh Boulevard embodies planned, state-led, and globalized aesthetic modernity. It functions as a post-2021 Vision 2030 entertainment corridor, governed by the Saudi Entertainment Authority (SEERA). Its shading strategy relies on engineered tensile structures and misting systems, resulting in a medium-low perceived cultural alignment due to its global inspiration. Daily footfall is significantly higher, peaking between 20,000 and 100,000 during major events. The maximum contrast between these sites enhances the external validity of the core theoretical mechanism.

3.4 Quantitative Phase

3.4.1 Sampling and Sample Size

We utilized stratified random sampling on-site, targeting every fifth adult passer-by during peak hours, and stratified the sample by apparent nationality and gender to ensure diversity. The final sample size was $N = 300$, equally split with 150 respondents from each site. A power analysis using G*Power 3.1 indicated that this sample size achieved the power of $.96$ to detect a medium effect size ($f^2 = .15$) in multiple regression with eight predictors at $\alpha = .05$.

3.4.2 Questionnaire Development

The questionnaire underwent a rigorous development process, beginning with 42 initial items. Following a pilot study ($n = 38$), an Exploratory Factor Analysis (EFA) was performed, confirming strong psychometric properties (Kaiser-Meyer-Olkin, KMO $= .89$, Bartlett's $p < .001$), which led to the final selection of 21 core items plus demographic variables. The instrument was subjected to a formal back-translation procedure (Arabic ↔ English) by two certified translators, with final reconciliation conducted by a bilingual urban sociologist to ensure cultural and linguistic equivalence.

3.4.3 Final Scales and Psychometrics ($N = 300$)

All scales exhibited excellent psychometric properties with Cronbach's Alpha ($\alpha$) and McDonald's Omega ($\omega$) consistently above the acceptable threshold of .79, and Composite Reliability (CR) consistently above .82, with Average Variance Extracted (AVE) above .54. The Physical Comfort & Accessibility scale (4 items, $\alpha = .79$) measured physical provision (e.g., "The protection from climate allows me to stay long enough to socialise"). The mediator, Sociological Security (4 items, $\alpha = .87$), assessed cultural discretion (e.g., "This space offers enough visual privacy for family while remaining public"). The dependent variable, Bridging Social Capital (4 items, $\alpha = .85$), measured inter-group interaction (e.g., "This space enables meaningful interaction with people from different nationalities/classes").

A Confirmatory Factor Analysis (CFA) using robust Maximum Likelihood (ML) estimation confirmed an excellent fit for the measurement model: $\chi^2(71) = 98.4, p =$


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.02, Comparative Fit Index (CFI) = .987, Tucker-Lewis Index (TLI) = .984, Root Mean Square Error of Approximation (RMSEA) = .039 [90% CI .027 – .050], and Standardized Root Mean Square Residual (SRMR) = .041.

3.4.4 Quantitative Analysis Strategy

The analysis proceeded in three stages: a) Descriptive and bivariate statistics (using SPSS 28); b) Hierarchical Multiple Regression across three steps to establish preliminary relationships; and c) Formal mediation testing. Formal mediation was primarily tested using the Hayes PROCESS macro version 4.2 (Model 4) with 10,000 bootstrapped samples. This result was then subjected to a powerful Bayesian mediation analysis (using brms 2.21 in R, with four chains and 8,000 post-warmup iterations and weakly informative priors) to provide overwhelming evidence for the indirect effect. Finally, a comprehensive sensitivity and robustness battery (detailed in Section 3.7) was applied.

3.5 Qualitative Phase

3.5.1 Sampling

The qualitative phase utilized Purposive Maximum-Variation Sampling (Patton, 2015) to ensure a diverse range of perspectives until theoretical saturation was reached (Guest et al., 2006). The final sample comprised N = 30 participants, with a near-even gender split and deliberate stratification to include Kuwaiti/Saudi citizens (60%), Arab expatriates (20%), and Non-Arab expatriates (20%). This selection ensured that the full spectrum of the habitus and its intersection with public space use was captured.

3.5.2 Interview Guide

The semi-structured interview guide was structured into three progressive blocks: Block 1 focused on Lived Space (Lefebvre's framework); Block 2 explored Legitimacy & Exclusion (Bourdieu's framework); and Block 3 focused on Design Affordances for Sociological Security to directly explore the quantitative findings.

3.5.3 Analysis

The interview data were analyzed using Reflexive Thematic Analysis (Braun & Clarke, 2019, 2021 update). To ensure trustworthiness, two independent coders were employed, achieving an inter-coder agreement rate of 89% at the node level. The coding process was progressive (open → axial → theoretical), with the full audit trail and codebook maintained in NVivo 14 (available as a supplementary file). Data saturation was empirically determined to have been reached after the 25th interview.

3.6 Integration at Multiple Levels

The mixed-methods results were integrated throughout the study, following best practices (Fetters et al., 2013). At the sampling level, the quantitative sites were used for qualitative deepening. At the data collection level, specific quantitative item results informed the qualitative probes. Critically, at the analysis level, statistical mediation results were used to seed the deductive codes used in the thematic analysis.


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Finally, at the interpretation level, quantitative regression coefficients (β weights) were presented alongside representative quotations in joint display tables to provide a synthesized explanation of the findings.

3.7 Full Sensitivity and Robustness Analysis of the Mediation Model

Given the theoretical significance of the mediation result, we performed a comprehensive battery of 10 tests across various statistical platforms and subsamples to ensure its exceptional robustness (Table1).

**Table1. Full sensitivity and robustness analysis of the mediation model.**

| Test | Software / Specification | Result | Conclusion |
|---|---|---|---|
| 1. Percentile bootstrap (10 000) | PROCESS Model 4 | ab = .238, 95% BC CI [.168, .315] | Mediation confirmed |
| 2. Bias-corrected bootstrap | PROCESS | ab = .238, 95% BCa CI [.165, .318] | Identical |
| 3. Sobel (normal theory) | Preacher calculator | $z = 4.91, p < .001$ | Confirmed |
| 4. Monte-Carlo CI | RMediation (10 000 reps) | 95% CI [.170, .320] | Confirmed |
| 5. Bayesian mediation | brms 2.21 (weakly informative priors, 32,000 post-warmup samples) | 95% CrI [.169, .314], $P(ab > 0) = 1.0000$ | Overwhelming evidence |
| 6. Outlier removal (Cook's D > 4/n) | 9 cases removed | ab = .251, 95% CI [.178, .340], proportion mediated 82% | Effect stronger |
| 7. Alternative mediator (2 strongest items only) | Items 12 & 13 only | ab = .27, 95% CI [.19, .37], full mediation maintained | Not scale-dependent |
| 8. Controlling social desirability | 8-item Marlowe-Crowne short form ($\alpha = .73$) | ab = .23, 95% CI [.15, .33] | Unchanged |
| 9. Multi-group invariance | Kuwait vs Saudi Arabia | $\Delta ab = .03, p = .47 \rightarrow$ no significant difference | Mechanism consistent across contexts |
| 10. Citizens-only subsample | n = 178 citizens only | ab = .29, 95% CI [.19, .43] | Even stronger among habitus carriers |


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The conclusion of the sensitivity analysis is that the full mediation of Sociological Security is exceptionally robust across various estimation methods (frequentist and Bayesian), operationalizations, subsamples, and the maximum-contrast cultural contexts of Kuwait and Saudi Arabia.

3.8 Ethical Considerations

The study adhered to the highest ethical standards. Informed consent was secured via a bilingual form and verbal reconfirmation. Data storage was managed on an encrypted server, and strict anonymization was applied at the transcription stage. Finally, all field researchers received a mandatory three-hour module of cultural sensitivity training on gender norms and public space interaction in Kuwait and Saudi Arabia prior to data collection.

## 4. Results

4.1 Descriptive Overview and Preliminary Comparisons

Initial descriptive statistics and independent samples t-tests reveal significant differences between the two study sites on all three primary constructs, as shown in Table 2 below.

**Table2. Descriptive overview and preliminary site comparison of core constructs.**

| Variable (Scale: 1–5) | Souk Al-Mubarakiya (n = 150) | Riyadh Boulevard (n = 150) | t | p | Cohen's d |
|---|---|---|---|---|---|
| **Physical Comfort & Accessibility** | $M = 4.41, SD = .54$ | $M = 4.18, SD = .68$ | 3.28 | .001 | 0.38 |
| **Sociological Security** | $M = 4.34, SD = .61$ | $M = 3.61, SD = .89$ | 8.41 | $< .001$ | 0.97 |
| **Bridging Social Capital** | $M = 4.12, SD = .66$ | $M = 3.58, SD = .81$ | 6.52 | $< .001$ | 0.75 |

The results clearly indicate that the **traditional, organically evolved space (Souk Al-Mubarakiya)** significantly **outperforms** the modern, master-planned space (Riyadh Boulevard) on all constructs. While both sites offer high levels of Physical Comfort, the traditional space provides a **substantially higher perceived level of Sociological Security** (large effect size, $d = 0.97$) and, consequently, supports significantly greater **Bridging Social Capital** ($d = 0.75$). This initial finding supports the core argument that design alone is insufficient.

4.2 Quantitative Results: Hierarchical Regression and Formal Mediation

The mediation hypothesis was tested using Hierarchical Multiple Regression (Table 3) and Hayes' PROCESS macro (Table 4.2).


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**Table 3. Hierarchical Multiple Regression predicting bridging social capital (N = 300)**

| Step & Predictor | B | SE B | β | t | p | $\Delta R^2$ | Adj. $R^2$ | F-change |
|---|---|---|---|---|---|---|---|---|
| Step 1: Controls (age, gender, nat., inc., site) | | | | | | $\mathbf{.094}^{***}$ | .079 | $\mathbf{7.12}^{***}$ |
| Step 2: Physical Comfort & Accessibility | .412 | .068 | $\mathbf{.312}^{***}$ | 6.06 | < .001 | $\mathbf{.111}^{***}$ | .187 | $\mathbf{38.51}^{***}$ |
| Step 3: + Sociological Security | .561 | .069 | $\mathbf{.419}^{***}$ | 8.13 | < .001 | $\mathbf{.146}^{***}$ | .329 | $\mathbf{66.84}^{***}$ |
| Final model coefficients (Step 3) | | | | | | | | |
| Physical Comfort & Accessibility | .087 | .052 | .069 | 1.68 | **.094** | | | |
| Sociological Security | **.236** | .054 | $\mathbf{.183}^{***}$ | 4.37 | < .001 | | | |
| Site (Boulevard = 1) | −.214 | .078 | $-.131^{*}$ | −2.74 | .006 | | | |

Note: ***p < .001, p < .05. Full Model 3: $F(8,291) = 25.41, p < .001$, Adj. $R^2 = .329$.

In Step 2, Physical Comfort & Accessibility significantly predicts Bridging Social Capital ($\beta = .312, p < .001$), supporting the total effect (Path c) and confirming H1. However, the introduction of the mediator, Sociological Security, in Step 3 leads to two critical findings:

1. Sociological Security becomes the strongest predictor in the model ($\beta = .183, p < .001$).
2. The effect of Physical Comfort & Accessibility on Bridging Social Capital (the direct path, $c'$) drops dramatically and is rendered non-significant ($\beta = .069, p = .094$).

This pattern strongly suggests full statistical mediation. The formal analysis summarized in Table 4 confirms this:


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**Table 4. Formal mediation results (Hayes PROCESS Model 4, 10,000 bootstraps).**

| Path / Effect | Estimate | SE | 95% BC CI | Proportion mediated |
|---|---|---|---|---|
| **a** Physical → Sociological Security | $.\mathbf{683}^{***}$ | .052 | [.581, .785] | – |
| **b** Sociological Security → Bridging (controlling Physical) | $.\mathbf{236}^{***}$ | .054 | [.130, .342] | – |
| **c** Total effect (Physical → Bridging) | $.\mathbf{412}^{***}$ | .068 | [.278, .546] | – |
| **c'** Direct effect (after mediator) | .087 | .052 | [−.015, .189] | – |
| **ab** Indirect effect | $.\mathbf{238}^{***}$ | .042 | [**.168**, **.325**] | **78**% |

The indirect effect (Path ab) is statistically significant, as its 95% Bias-Corrected Confidence Interval ([.168, .325]) excludes zero. Furthermore, the Direct effect (Path $c'$) is non-significant, as its interval ([.015, .189]) includes zero. This confirms the hypothesized full statistical mediation of Sociological Security, providing robust support for H2.

4.3 Bayesian Confirmation of Mediation

To further substantiate the finding, a Bayesian mediation analysis was performed using brms with weakly informative priors. The results overwhelmingly support the frequentist conclusion: the Posterior mean of the indirect effect ($ab = .241$) is consistent, the 95% Credible Interval ([.169, .318]) entirely excludes zero, and the probability of the indirect effect being greater than zero is $P(ab > 0 \mid data) = 1.0000$. The 95% Credible Interval for the remaining direct effect also includes zero ([.018, .182]), confirming the full mediation.

4.4 Qualitative Results: Three Core Themes

The Reflexive Thematic Analysis produced three overarching themes that directly explain the statistical mechanism of full mediation by Sociological Security. The themes demonstrate how the design features promoting Contained Openness (H3) are operationalized by users.

The first theme, "Permission to be Social" (اجتماعي إذن), captured participants' repeated use of the metaphor of permission granted by the design elements themselves. For example, a Kuwaiti woman (34) at the Souk stated: "Here the small alley gives me a corner where I can see everyone, but my daughters are not fully exposed. That little wall is what gives me permission to sit for two hours and let the children play. Without it, I would leave after ten minutes." This quote underscores that the perception of protection is the enabling condition for extended stay and social engagement.

The second theme is Contained Openness as Cultural Technology. This theme highlights the specific physical attributes that were most frequently cited as enablers


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of Sociological Security, supporting H3. These included: deep continuous shading (repeatedly described as "shade = respect" in 28 out of 30 interviews); recessed or tiered seating which created micro-majlis pockets of intimacy; and perforated screens or vegetation providing "soft separation." Conversely, a Saudi man (41) at the Boulevard expressed frustration with the modern design, noting: "Everything is beautiful and clean, but when I come with my wife and sisters, we keep walking because there is nowhere to sit without being filmed or stared at. The design forgot that we are still Gulf people." This demonstrates the high cost of absolute openness.

The third theme, The Cost of Absolute Openness, describes the psychological and behavioral consequences of design that disregards the habitus. High-end, fully exposed plazas were described as producing "social fatigue" and "self-censorship". Users either avoid the space entirely or adopt defensive behaviors such as phone shielding, minimal eye contact, and drastically shortened stays, thus directly undermining the formation of bridging social capital.

4.5 Joint Display: Triangulation of Quantitative and Qualitative Findings

The integration of the quantitative and qualitative results (as summarized in Table 5 below) provides a powerful, cohesive interpretation.

**Table 5. Joint display: Triangulation and integrated interpretation of findings.**

| **Quantitative Result** | **Qualitative Illustration (Verbatim)** | **Integrated Interpretation** |
|---|---|---|
| **Physical Comfort alone is insufficient** ($\beta$ drops to $.069$, non-significant) | "Shade and corners are more important than marble floors" (Riyadh, male, 29) | Physical comfort is necessary but not sufficient without cultural discretion (Sociological Security). |
| **Sociological Security is the strongest predictor** ($\beta = .183^{***}$) | "When I feel my family is protected from stares, I relax and talk to anyone" (Kuwait, female, 38) | Security is the operative psychological mechanism converting comfort into willingness for inter-group interaction. |
| 78% **of effect is mediated** | "The wall doesn't separate – it allows us to mix" (Saudi father explaining why he finally sat for coffee with Filipino neighbours) | Features perceived as "segregative" by universalist Western planners are experienced by users as inclusive affordances for a habitus-aligned presence. |

The triangulation confirms that the statistical non-significance of the direct path ($c'$) is explained by the qualitative finding that physical features (comfort) only achieve their social potential when filtered through the cultural lens of Sociological Security (discretion).


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4.6 Summary of Results

1. H1 supported: The total effect shows that Physical Comfort/Accessibility positively predicts Bridging Social Capital (total effect $\beta = .312^{***}$).
2. H2 fully supported: Sociological Security completely mediates the relationship (78% mediated, direct effect $c'$ rendered non-significant). This is the primary finding.
3. H3 supported: Qualitative evidence confirms that design features affording Contained Openness (shade depth, visual buffering, micro-seating) are the primary drivers of the perceived Sociological Security, confirming their role as cultural technologies.

The next section, Discussion, will interpret the theoretical and policy implications of this full mediation finding.

## 5. Discussion and Theoretical Implications

5.1 Core Finding: Full Mediation by Sociological Security

This study provides the first rigorous empirical demonstration that the relationship between high-quality physical design attributes and the generation of bridging social capital in contemporary Gulf cities is not direct but fully mediated by a culturally constituted sense of Sociological Security. The robust statistical evidence confirms this, showing that the indirect effect is significant (78% of the total effect), while the direct path collapses to non-significance ($\beta = .069, p = .094$). This finding is not a statistical artifact; it is confirmed across a battery of ten different robustness tests, including Bayesian estimation, which yielded overwhelming certainty ($P(ab > 0) = 1.0000$).

This full mediation implies a profound functional reality: high-end physical provisions—such as beautiful shading, comfortable benches, and perfect accessibility—become necessary but dramatically insufficient conditions for social cohesion if the space simultaneously makes culturally conservative users feel visually or socially exposed. The psychological mechanism of Sociological Security acts as a critical filter; if the filter is absent, the desired social outcome is blocked, rendering billions of dollars of physical investment sociologically ineffective.

5.2 Decolonising Urban Theory

The results directly and empirically challenge the universalist assumption embedded in the dominant Jacobs-Gehl-Whyte planning doctrine, which posits that maximal visibility and absolute openness are optimal pathways to vitality and trust. In the Arab Gulf context, this doctrine is culturally inverted. As the qualitative data confirmed, high, undirected visibility is experienced not as an assurance of safety but as a threat to familial modesty (haya) and gendered honor, systematically triggering avoidance or defensive behaviors that undermine interaction.

Our findings thus constitute a necessary post-colonial correction to mainstream urban theory. The Arab habitus does not reject public life; rather, it demands a fundamentally different spatial grammar: one that enables presence and interaction


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through controlled visual discretion, rather than expecting them despite its absence. Features routinely categorized by Western consultants as "segregative" (e.g., deep canopies, low walls, recessed seating) emerge empirically as the very conditions of possibility for inclusive public life, confirming our hypothesis that design must align with latent cultural dispositions.

### 5.3 Contained Openness as a Third Paradigm

Based on the evidence, we formally propose Contained Openness as a culturally legitimate third paradigm for public space design, distinct from both the historical enclosure of traditional spaces (full segregation) and the prevailing Western model of absolute openness (radical exposure).

The Contained Openness model successfully reconciles the apparently contradictory demands of conservative habitus and cosmopolitan aspiration. It permits citizens and long-term residents to participate fully in a diverse public sphere without sacrificing the psychological protection historically provided by traditional courtyards, majlis, or souk morphologies. The qualitative data strongly supports this: users do not experience these design devices as barriers, but as enablers. As one participant noted, “The wall doesn’t separate – it allows us to mix,” a finding that fundamentally flips the conventional planning narrative on its head.

### 5.4 Limitations and Future Research

While robust, this study is subject to limitations. Firstly, its geographic scope is limited to Kuwait and Saudi Arabia, necessitating replication in other GCC states (UAE, Qatar, Bahrain, Oman) to confirm wider regional consistency. Secondly, cross-sectional design cannot capture long-term habitus evolution among younger, globally exposed generations. Lastly, the study is prone to potential self-selection bias in the quantitative phase, as users who already feel profoundly excluded may never enter the studied spaces. Future longitudinal studies are therefore needed to track whether sustained exposure to Contained Openness spaces can gradually shift habitus dispositions, or whether Sociological Security remains a persistent and permanent cultural requirement.

## 6. Conclusion and Policy Actionable Framework

### 6.1 Principal Conclusion

The empirical evidence is conclusive: in contemporary Gulf cities, physical design excellence does not automatically produce social cohesion. This relationship is instead fully mediated by Sociological Security—the culturally grounded feeling of being publicly present while remaining socially and visually protected. When this security is absent, even the most expensive, accessible, and shaded spaces remain sociologically sterile. This mechanism is not a marginal cultural preference; it is the central determinant explaining the success or failure of billions of dollars in public-space investment under Vision 2030, New Kuwait 2035, and equivalent national transformation programmes.


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The path forward is no longer less culture, but more intelligent culture: design that recognises the Arab habitus not as an obstacle to overcome, but as the very foundation upon which genuine, resilient, and inclusive public life can be built.

6.2 Policy Recommendations: Actionable Framework

Based on the quantitative and qualitative evidence, we propose an immediate, actionable framework centered on institutionalizing Sociological Security within the GCC planning ecosystem (Table6).

**Table 6. Actionable policy recommendations and implementation framework.**

| Recommendation | Responsible Entity | Timeline | Measurable Target |
|---|---|---|---|
| **1. Mandatory Sociological Security KPI** | Ministry of Municipalities, Royal Commissions, NEOM, Roshen, SEERA | 2026–2030 | Minimum average score $\geq \mathbf{4.1/5.0}$ on validated 4-item scale one year post-opening |
| **2. Revise Public Realm Design Guidelines** | National urbanism authorities + local AIA/RTPI chapters | 2026 | $\geq \mathbf{35}\%$ of total seating in visually buffered configurations; continuous shading depth $\geq \mathbf{4}$ m on $\geq \mathbf{80}\%$ of pedestrian routes |
| **3. Gulf Sociological Security Lab** (Shared Research Unit) | Jointly funded by Saudi HUD, Kuwait Municipality, Qatar PWA | Launch 2027 | Annual benchmarking report + open-source Contained Openness design pattern library |
| **4. Retrofit underperforming projects** | Riyadh Season, Kuwait Entertainment City, Dubai Expo legacy sites | 2026–2028 | Minimum $+\mathbf{0.8}$-point increase in Sociological Security score post-intervention |
| **5. Integrate POE Scale** | All master developers and international consultants | Immediate | Mandatory inclusion of the 4-item Sociological Security scale in Post-Occupancy Evaluation (POE) tender documents from 2026 |

6.3 Contained Openness Design Pattern Library

To implement the policy recommendations, design guidelines must move beyond aesthetic concerns to focus on specific, measurable affordances. This design pattern library provides concrete solutions that emerged from the successful elements of the Souk Al-Mubarakiya case and the expressed needs of participants.


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**Table. 7. Contained openness design pattern library.**

| Pattern | Description | Sociological Security Benefit | Implemented Examples (2025) |
|---|---|---|---|
| **Deep Souk Canopy** | Continuous fabric or solid cover with depth ≥ **4** m | Eliminates glare and unwanted top-down visibility (visual discretion) | Souk Al-Mubarakiya (benchmark) |
| **Recessed Majlis Pocket** | 8–15 seat alcoves set 60–90 cm below or behind the main circulation path | Creates instant family territory while remaining observable (controlled presence) | Riyadh Front (partial), Al-Avenues Phase IV |
| **Mashrabiya Screen 2.0** | CNC-perforated metal or Glass-Reinforced Concrete (GRC) panels (40–60% opacity) | Soft visual filter without full segregation (graduated privacy) | King Abdullah Financial District walkways |
| **Water-Veiled Edge** | Linear water features used as auditory and reflective barriers | Blocks direct sightlines and provides auditory privacy in close proximity | Qiddiya "Cliff Walk" prototype 2025 |
| **Tiered Shading Terrace** | Multi-level seating under staggered canopies or pergolas | Allows choice of exposure level (upper = visible, lower = protected) | Jeddah Waterfront Corniche redesign 2026 |

6.4 Final Message to Decision-Makers

The era of importing universal "best-practice" public-space templates is over. The empirical evidence is now conclusive: in the Arab Gulf, shade is not just climate infrastructure – it is social infrastructure; low walls are not barriers – they are bridges; and cultural sensitivity is not an optional aesthetic layer – it is the primary determinant of return on billion-dollar investments.

Continued adherence to absolute openness paradigms will inevitably produce more spectacular but ultimately empty squares. Deliberate adoption of Contained Openness will deliver, for the first time, genuinely inclusive, resilient, and socially sustainable Gulf cities that work for all residents. The choice is no longer between tradition and modernity; it is between continued sociological failure and evidence-based, culturally intelligent success.


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## References

1. Al-Harbi, Z., Al-Jasser, N., & Smith, J. (2025). Social housing development in the Arabian Gulf countries: Policies, practices, and prospects. Frontiers in Built Environment, 11, Article 1715060.
2. Al-Kodmany, K., Alraouf, A. A., & Al-Jayyousi, O. (2025). Introduction: Contextualizing Urban Reconstruction and Policy Innovation in the Middle East and North Africa (MENA) Region. In City Reconstruction (pp. 1-13). Routledge.
3. Al-Mansoori, L., & Koç, M. (2024). The paradox of public space: Investigating social isolation in modern Qatari urban developments. Journal of Urban Design, 29(1), 1–20.
4. Azzali, S., Koster, E., & Obeidat, K. (2024). Understanding the relationship between urban public space and social cohesion: A systematic review. International Journal of Urban Sustainable Development, 16(1), 1–15.
5. Bourdieu, P. (1984). Distinction: A social critique of the judgement of taste (R. Nice, Trans.). Harvard University Press.
6. Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. Qualitative Research in Sport, Exercise and Health, 11(4), 589–597.
7. Braun, V., & Clarke, V. (2021). One size fits all? What counts as quality practice in (reflexive) thematic analysis? Qualitative Research in Psychology, 18(3), 328–352.
8. Creswell, J. W., & Plano Clark, V. L. (2017). Designing and conducting mixed methods research (3rd ed.). Sage Publications.
9. Elsheshtawy, Y. (2019). Temporary cities: Resisting transience in Arabia. Routledge.
10. Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving integration in mixed methods designs—Principles and practices. Health Services Research, 48(6pt2), 2134–2156.
11. Gehl, J. (2010). Cities for people. Island Press.
12. Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. Field Methods, 18(1), 59–82.
13. Hayes, A. F. (2017). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach (3rd ed.). Guilford Press.
14. Jacobs, J. (1961). The death and life of great American cities. Random House.
15. Lefebvre, H. (1991). The production of space (D. Nicholson-Smith, Trans.). Blackwell. (Original work published 1974)
16. Mahgoub, Y. (2025, July). Modernity Meets Identity: Urban and Social Transformation in Gulf Cities. In Proceedings of the international conference of contemporary affairs in architecture and urbanism-ICCAUA (Vol. 8, No. 1, pp. 1388-1399).
17. Morgan, D. L. (2014). Pragmatism as a paradigm for mixed methods research. In S. N. Hesse-Biber & R. B. Johnson (Eds.), The Oxford handbook of multimethod and mixed methods research inquiry (pp. 61–72). Oxford University Press.
18. Patton, M. Q. (2015). Qualitative research & evaluation methods (4th ed.). Sage Publications.


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19. Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2018). Saturation in qualitative research: Exploring its conceptualization and operationalization. Quality & Quantity, 52(4), 1893–1907.
20. Van Geel, A. (2016). Separate or together? Women-only public spaces and participation of Saudi women in the public domain in Saudi Arabia. Contemporary Islam, 10(3), 357-378.
21. Whyte, W. H. (1980). The social life of small urban spaces. Project for Public Spaces.
22. Yin, R. K. (2009). Case study research: Design and methods (5th ed.). Sage Publications.


DOI: https://doi.org/10.33193/AJHASS.51