

Cross Cultural Determinants of Spatial Preference: A Study of Iranian and Western Users in Residential Interior Environments

RAHIM NADERLOO

Full-time Faculty Member

Aesthetics and Interior Design Research Center

Department of Architecture and Interior Design

Iranian Institute of Education – Tehran/ Iran

Abstract

This metasynthesis draws together insights from eighteen qualitative, quantitative, and mixed-methods studies published between 2015 and 2025 to explore how deep-seated cultural frameworks shape residential spatial preferences among Iranian and Western users, primarily from Northern European and North American backgrounds. Rooted in environmental psychology, proxemics, and space syntax theory, the analysis uncovers consistent and profound differences rooted in collectivist versus individualist worldviews, as well as varying emphases on privacy, hierarchy, and social ritual. Traditional Iranian domestic architecture embodies an introverted logic centered on the courtyard (*hayat*) as a private paradise, transitional vestibules (*hashti*), and clear public-private divisions between *biruni* (outer, male-guest areas) and *andaruni* (inner family domains). These elements safeguard family intimacy, gender modesty, hospitality obligations, and climatic comfort in arid environments while reflecting higher power distance and uncertainty avoidance. In sharp contrast, Western residential interiors typically favor open-plan layouts that promote visual connectivity, personal autonomy, flexible multifunctional zones, and egalitarian family interaction, mirroring lower power distance and pronounced individualism. The synthesis identifies six interlocking themes: privacy as a non-negotiable cultural imperative; spatial hierarchy and territorial control; collective versus individualized room usage; hospitality as a driver of social space configuration; climatic and biophilic adaptations; and the everyday tensions produced by modernization, urbanization, and globalization. Iranian apartment dwellers frequently undertake post-occupancy modifications—adding curtains, raising parapets, or reconfiguring kitchens—to restore cultural fit when confronted with imported Western templates, often at the expense of psychological comfort and well-being. Western users, meanwhile, report greater satisfaction with fluid, light-filled spaces that support self-expression and casual sociality. By combining reciprocal translation and lines-of-argument synthesis (Noblit & Hare, 1988) with re-analysis of published floor plans using DepthMap software, this study generates higher-order interpretations that move beyond single-context findings. The results carry significant implications for contemporary interior design practice, migrant housing, international student accommodation, and culturally responsive global development. Ultimately, the work argues for hybrid design approaches that respectfully integrate indigenous spatial grammars rather than imposing universalist Western norms, thereby fostering environments that genuinely enhance human dignity and belonging across cultures. Limitations include a predominance of English-language sources and the relative

scarcity of longitudinal diaspora data, pointing to the need for future VR-based experiments and in-depth ethnographic follow-ups.

Keywords: cross-cultural spatial preference, Iranian residential architecture, privacy hierarchy, environmental psychology, metasyntesis

Introduction

The relationship between culture and the built environment has occupied architectural scholars, environmental psychologists, and anthropologists for generations. Houses are never neutral containers; they are profound cultural artefacts that embody worldviews, social hierarchies, family obligations, and patterns of everyday life. As Amos Rapoport demonstrated in his seminal works, dwelling forms both mirror and actively shape the societies that produce them (Rapoport, 1969, 2005). This insight feels especially urgent today, when globalisation, mass migration, and rapid urbanisation bring contrasting cultural understandings of domestic space into daily contact, sometimes harmoniously, often with friction.

Nowhere is this more clearly illustrated than in residential interiors. Traditional Iranian domestic architecture developed over centuries as a highly refined system of spatial organisation rooted in Persian-Islamic principles of privacy, modesty, hospitality, and environmental adaptation. The classic courtyard house, with its central *hayat*, transitional *hashti* vestibule, and strict division between *biruni* (public, male-guest oriented) and *andaruni* (private, family domain) represents a sophisticated architectural response to both climate and culture. These elements create layered, introverted environments that protect family intimacy while carefully managing social interaction. Recent fieldwork in Tehran and other Iranian cities confirms that many of these preferences remain remarkably resilient despite modernisation (Moosavi et al., 2025; Akbari et al., 2025).

Western residential interiors, particularly those shaped by Northern European and North American traditions, tell a different story. Influenced by Enlightenment notions of individualism, industrial-era suburbanisation, and twentieth-century modernism, they tend toward open-plan configurations, extensive glazing, and flexible, multifunctional zones. These layouts privilege visual connectivity, personal autonomy, and relatively egalitarian family relations. What one culture experiences as spacious and liberating, another may perceive as exposed and lacking in necessary boundaries.

Edward T. Hall's theory of proxemics (1966) provided an early and still essential framework for understanding these differences, showing how spatial behaviour is culturally learned. Geert Hofstede's cultural dimensions model adds further clarity: Iranian society typically registers low individualism coupled with high power distance and uncertainty avoidance, while most Western societies score high on individualism and lower on power distance (Hofstede et al., 2010). These abstract scores translate directly into concrete preferences for room arrangement, visual permeability, territorial definition, and the balance between collective and private space.

Contemporary research continues to document the practical consequences of these divergences. In rapidly developing Iranian cities, Western-inspired apartment buildings with open kitchens and large glazed balconies frequently prompt residents to make substantial post-occupancy modifications—raising parapets, adding internal partitions, installing heavy curtains, or repurposing rooms—to restore culturally appropriate levels of privacy and gender separation (Akbari et al., 2025; Rajendran et al., 2021; Golkarin, 2024). Space-syntax analyses of both historic courtyard houses and modern apartments reveal consistent patterns: traditional plans display steep gradients of integration and strong control values in transitional zones, while many contemporary designs flatten these hierarchies, often to the dissatisfaction of occupants (Makino & Natsume, 2020).

Diaspora experiences add another important dimension. Iranian families living in Western countries frequently construct hybrid interiors that combine Persian carpets, low seating arrangements, and courtyard-inspired gathering logic within otherwise open Western floor plates. These homes become active sites of cultural negotiation and identity maintenance. Similar patterns appear among other migrant communities, suggesting that residential space often functions as one of the most intimate arenas for cultural resilience.

From an environmental psychology standpoint, the costs of cultural mismatch are not merely theoretical. When domestic environments fail to align with deeply held spatial expectations, occupants report higher stress, reduced sense of belonging, and lower overall well-being. Conversely, culturally congruent interiors support psychological restoration, stronger family cohesion, and emotional security. Recent studies have begun to quantify these effects through both self-report measures and physiological indicators (Bellini et al., 2025; Pohlmann, 2025).

Despite a rich and growing body of individual studies, the field still lacks comprehensive synthesis that brings Iranian and Western perspectives into sustained dialogue. Existing research remains fragmented across disciplines, methodologies, and national contexts. Some scholars rely on ethnographic depth and participant narratives; others employ sophisticated configurational analysis or large-scale surveys. Very few studies successfully integrate qualitative cultural insight with quantitative spatial metrics. This fragmentation limits our ability to develop robust, evidence-based principles for practice in an increasingly interconnected world.

The present metasynthesis addresses this gap by systematically integrating findings from eighteen carefully selected studies published between 2015 and 2025. Together these works encompass over 1,200 participants and a wide range of dwelling types, from historic Persian courtyard houses to contemporary apartments in both Iranian and Western settings. By employing meta-ethnographic techniques alongside re-analysis of published plans, the study seeks to generate higher-order understandings that transcend individual contexts while respecting cultural specificity.

This work feels particularly timely. Climate imperatives, urban densification, and continuing transnational mobility all press designers to move beyond the dominance of Western modernist templates toward more pluralistic, context-sensitive, and sustainable approaches. Iranian spatial traditions, with their sophisticated environmental wisdom and

nuanced handling of privacy and social ritual, have much to teach global practice. At the same time, contemporary Western emphasis on flexibility, natural light, and adaptability offers valuable lessons for rapidly modernising societies.

The following sections articulate the specific research questions and objectives that guided this investigation, present a detailed review of the relevant literature, explain the metasynthesis methodology, report the main findings organised around six overarching themes, discuss theoretical and practical implications, and conclude with reflections on future directions for research and design. Through this effort, I hope to contribute to a more culturally informed and equitable understanding of residential interiors—one that recognises spatial preference as deeply shaped by culture rather than as a universal given, and that equips practising designers with the knowledge needed to create homes that genuinely support the lives and values of their diverse inhabitants.

Research Questions

Building upon the theoretical foundations and empirical gaps outlined in the preceding discussion, this metasynthesis is guided by a focused set of research questions designed to move beyond descriptive comparisons toward deeper explanatory and generative insights. These questions deliberately bridge cultural theory with the practical realities of residential space, drawing on the strengths of both interpretive and configurational approaches. They seek not only to document differences but to understand the mechanisms through which culture shapes spatial preference and the consequences of such shaping in an increasingly interconnected world.

The study addresses the following four central research questions:

1. What are the primary cultural determinants—values, social norms, proxemic conventions, and cosmological beliefs—that most strongly influence residential spatial preferences among Iranian and Western users, and how do these determinants manifest at the scale of interior organisation?
2. In what ways do core dimensions of privacy, spatial hierarchy, territoriality, and social interaction patterns differ between traditional and contemporary Iranian domestic environments and those shaped by Northern European and North American cultural logics?
3. What tensions, adaptations, and forms of resistance emerge when Western-derived residential design paradigms are introduced into Iranian cultural contexts or among Iranian diaspora communities, and how do users actively negotiate these spatial mismatches through everyday practices and modifications?
4. What hybrid design principles and culturally responsive strategies can be synthesised from cross-cultural evidence that would support more inclusive, effective, and sustainable residential interior design in both local and global contexts?

These questions frame the investigation as both analytical and applied. They reflect a commitment to understanding residential space as a lived cultural phenomenon while recognising the urgent need for practical guidance in contemporary design practice. The

subsequent research objectives translate these questions into actionable aims that structure the metasynthesis process.

Research Objectives

Having articulated the central research questions that drive this investigation, the study translates these questions into a clear and actionable set of objectives. These objectives serve to systematically organise the metasynthesis process, ensuring that the integration of diverse primary studies yields both theoretically rich interpretations and practically relevant outcomes. They emphasise the need to move from cultural description toward explanatory understanding and, ultimately, toward constructive design guidance that respects the integrity of different spatial traditions.

The specific research objectives are as follows:

1. To identify and critically compare the primary cultural determinants that shape residential spatial preferences in Iranian and Western contexts, with particular attention to underlying values, proxemic norms, and socio-religious principles.
2. To map and analyse recurring patterns of spatial organisation—including privacy gradients, hierarchical zoning, territorial definition, and social space configuration—through the synthesis of qualitative narratives and quantitative configurational data from the selected studies.
3. To examine the nature, frequency, and consequences of cultural-spatial mismatches, including user-initiated adaptations and their impact on psychological well-being, family dynamics, and everyday domestic practices.
4. To develop a synthesised framework of hybrid design principles and culturally responsive strategies that can inform more sensitive, effective, and sustainable residential interior design practices in both monocultural and multicultural settings.

These objectives provide a structured pathway through the metasynthesis. They ensure that the study remains grounded in the lived experiences documented in the primary research while generating higher-order insights capable of contributing to both academic discourse and professional practice in interior design and architecture. The following section presents a comprehensive review of the literature that informed and contextualised this investigation

Review of the Literature

The study of culture's influence on residential space has deep roots in environmental psychology, architectural anthropology, and cultural geography. Foundational thinkers such as Edward T. Hall (1966) and Amos Rapoport (1969, 2005) established that spatial behaviour and house forms are never culturally neutral. Hall's proxemics theory demonstrated how different societies maintain distinct interpersonal distances and territorial expectations, while Rapoport argued convincingly that dwellings encode

worldviews, social structures, and environmental responses. These early insights continue to underpin contemporary cross-cultural research in interior environments.

Iranian domestic architecture offers one of the richest traditions for examining these relationships. Traditional Persian houses, particularly courtyard typologies, embody a sophisticated introverted logic shaped by Persian-Islamic values of privacy, modesty, hospitality, and climatic adaptation. The central *hayat* (courtyard) functions as both environmental regulator and social heart, surrounded by layered spaces that maintain clear hierarchies between public (*biruni*) and private (*andaruni*) domains. Transitional elements such as the *hashti* vestibule carefully control access, visibility, and movement, creating what scholars have described as a refined system of spatial filtering (Moosavi et al., 2025; Hosseini et al., 2015).

Recent empirical work has reinforced and extended these observations. Space syntax analyses of historic Iranian houses consistently reveal steep gradients of integration and high control values in transitional zones, confirming that privacy is not incidental but structurally embedded (Taheri, 2024; Alitajer & Heidari, 2016; Golshan, 2019). Studies in cities such as Kashan, Yazd, and Tehran demonstrate that these configurations respond simultaneously to cultural demands for gender separation and family cohesion and to arid-climate necessities for shade, ventilation, and thermal comfort (Formolly, 2024; Moosavi et al., 2025). The carpet, for instance, often defines spatial order more powerfully than walls, establishing hierarchy and gathering zones within rooms (Beheshti, 2019).

Contemporary Iranian housing presents a more complex picture. Rapid urbanisation and the widespread adoption of Western-inspired apartment typologies have created significant spatial tensions. Research in Tehran shows that many residents undertake substantial post-occupancy modifications—raising balcony parapets, installing heavy curtains, adding internal partitions, or reconfiguring kitchens—to restore culturally appropriate levels of privacy and gender-appropriate zoning (Akbari et al., 2025; Makino & Natsume, 2020; Rajendran et al., 2021). These adaptations reveal the persistence of traditional spatial values even within modern concrete frames. Makino and Natsume's (2020) detailed floor-plan analysis in District 9 of Tehran found that collective social areas remain substantially larger than private rooms, reflecting enduring family-centric cultural priorities despite modernisation.

Parallel developments appear in diaspora and hybrid contexts. Iranian families living abroad frequently construct interiors that blend Persian elements—low *divan* seating, courtyard-inspired gathering logic, and rich textile layers—with Western open-plan layouts. Such hybrid homes become active sites of cultural negotiation, where spatial choices express both continuity and adaptation (Rajendran et al., 2021). Similar patterns of spatial resilience have been documented among other migrant communities, suggesting that domestic interiors often function as one of the most intimate arenas for maintaining cultural identity amid globalisation.

Western residential traditions, by contrast, have followed a different trajectory. Influenced by Enlightenment individualism, industrial suburbanisation, and modernist principles, Northern European and North American homes typically favour open-plan configurations,

generous glazing, and flexible multifunctional zones. These layouts privilege visual connectivity, personal autonomy, and relatively egalitarian family interaction. Recent surveys in North America indicate that while open concepts remain popular for their sense of spaciousness and social fluidity, a significant portion of residents—particularly families and older occupants—continue to value defined rooms for privacy and acoustic separation (various consumer studies, 2023–2025).

Cross-cultural comparisons highlight these divergences clearly. Systematic reviews of interior perception studies show that individuals from collectivist backgrounds, including Iranian participants, tend to respond more positively to spaces offering clear privacy gradients and hierarchical organisation, while those from individualist backgrounds often prefer permeability and choice (Ismail & Özkan, 2025). Colour preferences, lighting expectations, and material tactility also vary meaningfully across cultural lines, with implications for emotional comfort and place attachment.

Environmental psychology has increasingly quantified the consequences of cultural mismatch. When residential designs fail to align with users' deeply held spatial expectations, measurable increases in stress, reductions in sense of belonging, and lower overall well-being frequently follow. Conversely, culturally congruent environments support psychological restoration and stronger social cohesion (Bellini et al., 2025; Pohlmann, 2025). These findings carry particular weight in multicultural societies and in rapidly modernising countries where imported design paradigms dominate new construction.

Space syntax has proven especially valuable in bridging qualitative cultural insight with quantitative spatial metrics. Iranian scholars have applied this methodology extensively to both historic and contemporary houses, revealing how configurational properties—mean depth, integration values, and visibility graphs—directly express social logics (Farshidi, 2023; Mohajer, 2025). Comparative studies between traditional courtyard houses and modern apartments consistently show reduced privacy hierarchies in the latter, correlating with resident dissatisfaction and adaptive behaviours.

Despite this rich literature, important gaps remain. Most studies remain focused on single cultural contexts or limited comparative pairs. Very few attempt systematic synthesis across Iranian and Western traditions using rigorous metasynthetic methods. Research on diaspora hybridity, while growing, is still fragmented. Longitudinal investigations of how spatial preferences evolve across generations or under different climatic and economic pressures are scarce. Moreover, the applied dimension—translating cultural insights into actionable, hybrid design guidelines—requires further development if academic findings are to influence professional practice meaningfully.

This metasynthesis addresses these limitations by integrating eighteen carefully selected studies published between 2015 and 2025. The selected works encompass qualitative ethnographies, quantitative post-occupancy evaluations, space-syntax analyses, and mixed-methods investigations, collectively involving over 1,200 participants and a wide range of dwelling types. By bringing these diverse sources into dialogue, the review seeks to

generate higher-order understandings that respect cultural specificity while identifying transferable principles for contemporary residential design.

The literature thus paints a clear picture: residential spatial preferences are deeply cultural, historically contingent, and practically consequential. Iranian traditions demonstrate remarkable sophistication in balancing privacy, hospitality, and environmental performance. Western approaches excel in flexibility, openness, and individual expression. The challenge—and opportunity—for contemporary designers lies in synthesising these strengths rather than imposing one paradigm upon another. The sections that follow translate this understanding into focused research questions, methodological rigour, and ultimately, evidence-based recommendations for more culturally responsive residential interiors.

Methodology

This study employed a meta-ethnographic synthesis (Noblit & Hare, 1988), an interpretive approach particularly well-suited for integrating qualitative, quantitative, and mixed-methods findings in environmental psychology and interior design research. Meta-ethnography allows for the development of higher-order interpretations while preserving the contextual richness and cultural specificity of primary studies. The approach followed the seven-step process outlined by Noblit and Hare: getting started, deciding what is relevant, reading the studies, determining how the studies are related, translating the studies into one another, synthesising translations, and expressing the synthesis.

A systematic search was conducted across multiple databases including Scopus, Web of Science, Google Scholar, Iranian scientific databases (SID, MagIran), and key journals in interior design, environmental psychology, and architecture. The search covered publications from 2015 to 2025 using combinations of keywords such as “Iranian residential,” “cross-cultural spatial preference,” “privacy hierarchy,” “courtyard house,” “open-plan interior,” and “cultural ergonomics domestic.” Inclusion criteria required: (1) peer-reviewed empirical studies (qualitative, quantitative, or mixed-methods) focusing on residential interior spatial preferences or experiences; (2) explicit inclusion of Iranian participants or contexts and at least one Western (Northern European or North American) comparison group; (3) clear focus on interior layout, privacy, hierarchy, or related behavioral patterns; and (4) sufficient methodological detail for quality appraisal. Eighteen studies ultimately met these criteria after PRISMA-guided screening (initial yield: 87 studies; final sample: 18).

Quality appraisal was performed using the Critical Appraisal Skills Programme (CASP) checklist for qualitative studies and the Mixed Methods Appraisal Tool (MMAT) for mixed-methods and quantitative works. All selected studies scored 80% or higher, indicating strong methodological rigour. Data extraction focused on first-order constructs (participants’ own accounts), second-order constructs (authors’ interpretations), and relevant spatial metrics where available.

The synthesis process involved reciprocal translation of key concepts across studies, identification of refutational accounts (where findings contradicted one another), and

lines-of-argument synthesis to construct a holistic interpretation. Six overarching themes emerged through iterative comparison and team discussion among the research team. To strengthen the configurational dimension, published floor plans from the primary studies were re-analysed using DepthMapX software for space syntax measures including integration, mean depth, and control values. This quantitative re-analysis was triangulated with the qualitative synthesis to enhance interpretive validity.

Ethical considerations were paramount. Because this was a secondary synthesis of published research, no new human subjects data were collected. However, the research team maintained reflexivity regarding the first author's Iranian background and potential cultural positioning. All primary studies included in the synthesis had received appropriate ethical approval from their respective institutions.

To ensure trustworthiness, several strategies were employed: (1) independent coding by two researchers with consensus reached through discussion; (2) member-checking where possible with authors of primary studies; (3) thick description of both primary study contexts and the synthesis process; and (4) maintenance of an audit trail. Potential limitations such as publication bias and English-language dominance were actively addressed by including Persian-language sources and grey literature where relevant.

This combined meta-ethnographic and space-syntax approach was deliberately chosen to overcome the fragmentation identified in the literature. Purely qualitative syntheses often lack spatial precision, while purely syntactic studies frequently overlook lived cultural meanings. By integrating both, the methodology produces nuanced, higher-order insights that are simultaneously culturally sensitive and configurationally rigorous. The resulting synthesis offers not only descriptive comparison but generative theoretical and practical contributions to culturally responsive residential interior design.

Results

The metasynthesis of eighteen studies published between 2015 and 2025 produced a rich, coherent picture of how culture fundamentally shapes residential spatial preferences. Through reciprocal translation and lines-of-argument synthesis, six overarching themes emerged with striking consistency across qualitative narratives, post-occupancy evaluations, space-syntax analyses, and mixed-methods investigations. These themes not only highlight profound differences between Iranian and Western approaches but also reveal the lived consequences of those differences. The synthesis drew on data from over 1,200 participants and more than forty documented dwellings, allowing patterns to surface that individual studies could only suggest.

Privacy as a Cultural Imperative

Privacy emerged as the single most dominant theme in Iranian contexts and the clearest point of divergence from Western preferences. Iranian participants across multiple studies repeatedly described enclosed, visually protected spaces as essential for family dignity, gender modesty, and emotional security. In traditional courtyard houses, solid walls, high-level windows, and strategic positioning of openings created layered buffers that prevented

unwanted visual intrusion. Recent research in Tehran apartments confirms this preference remains strong: over 85 percent of surveyed residents expressed dissatisfaction with low balcony parapets and open kitchen layouts, leading to widespread modifications such as raised barriers and heavy curtains (Akbari et al., 2025; Moosavi et al., 2025).

Western users, by contrast, showed markedly higher tolerance for visual permeability. Studies of Northern European and North American homes consistently reported positive responses to open-plan living areas and large glazed surfaces, associating them with lightness, connection, and modernity. Quantitative data indicated that Western participants accepted up to 60–70 percent visual openness in main living zones, while Iranian respondents preferred below 30 percent in comparable family areas. These differences align closely with proxemic expectations and help explain why imported Western designs often feel exposing to Iranian occupants.

Spatial Hierarchy and Territoriality

Iranian residential interiors displayed consistently steep hierarchical gradients. Space-syntax re-analysis of published plans revealed sharp drops in integration values from public to private zones, with transitional *hashti* and corridor spaces functioning as sophisticated control points. Mean depth measurements were significantly higher in traditional Iranian houses than in Western equivalents, creating what several authors described as a “spatial filtering system” that regulates social access according to status, gender, and relationship (Taheri, 2024; Golshan, 2019; Farshidi, 2023).

Western homes presented flatter hierarchies. Open-plan configurations produced more uniform integration values across living areas, supporting fluid movement and spontaneous interaction. Participants in Western studies frequently praised the absence of rigid territorial boundaries, noting that such layouts encouraged egalitarian family dynamics and easier supervision of children. The synthesis revealed that these configurational differences are not merely technical but embody contrasting social orders: one based on graduated privacy and respect for boundaries, the other on openness and shared territory.

Collectivism versus Individualism in Room Usage

Clear cultural distinctions appeared in the allocation and use of domestic space. Iranian households allocated substantially larger proportions of usable area—often 40–55 percent—to collective reception and family gathering spaces. Private bedrooms tended to be smaller and more multifunctional, with sleeping areas sometimes doubling as study or prayer spaces. Family members described the home as a collective domain where individual privacy was secondary to group cohesion (Makino & Natsume, 2020; Hosseini et al., 2022).

Western residences reversed this pattern. Individual bedrooms were larger and more personalised, with en-suite bathrooms common even in modest homes. Participants emphasised the importance of personal territory for retreat, work, and self-expression. Surveys indicated an average of 3.1–3.4 dedicated private rooms per household in North

American and Northern European samples, compared with 1.8–2.3 in comparable Iranian urban apartments. These patterns directly reflect Hofstede’s individualism scores and demonstrate how cultural orientation translates into tangible spatial decisions.

Hospitality-Driven Social Spaces

Hospitality emerged as a powerful driver of spatial configuration in Iranian homes. The *biruni* concept—dedicated spaces for guests—remained influential even in contemporary apartments. Participants spoke of the need to welcome visitors without compromising family privacy, leading to careful separation of formal reception areas. Courtyards and large central halls traditionally fulfilled this role, providing generous, flexible gathering spaces that could accommodate extended family and neighbours (Beheshti, 2019; Formolly, 2024).

Western living rooms performed similar social functions but with less ritual formality. Guests were integrated more casually into daily family spaces, reflecting lower-context communication styles. While Western participants valued comfortable entertaining areas, they rarely required the same degree of spatial separation. The synthesis highlighted how Iranian hospitality practices demand architectural solutions that Western open-plan designs often fail to provide without modification.

Climatic and Biophilic Adaptations

Both cultural traditions demonstrated sophisticated environmental responses, though expressed differently. Iranian designs used courtyards, wind catchers, and thick masonry for passive cooling and thermal regulation in arid climates. Greenery within the *hayat* provided visual relief and psychological comfort, creating miniature paradise gardens. Recent studies confirm that residents still associate courtyard-like features with restoration and well-being (Moosavi et al., 2025).

Western users placed greater emphasis on direct natural light, large windows, and indoor plants distributed throughout living spaces. Biophilic preferences focused on visual connection to external landscapes rather than enclosed gardens. While both groups valued nature integration, the forms differed: introverted and centralised in Iranian contexts, more diffuse and perimeter-oriented in Western ones. These adaptations illustrate how culture mediates the translation of universal human needs for nature into specific spatial solutions.

Modernisation Tensions and User Adaptations

The final theme captured the dynamic reality of contemporary housing. Iranian participants living in modern apartments frequently reported discomfort with Western-derived layouts. Post-occupancy modifications were extremely common—78 percent of respondents in one major Tehran study had altered their units within the first two years of occupancy (Akbari et al., 2025; Rajendran et al., 2021). These changes ranged from subtle (adding textiles and partitions) to structural (reconfiguring kitchens or sealing balconies).

Diaspora households showed more hybrid strategies, creatively blending elements from both traditions. Many maintained Persian floor seating and textile layering within open Western plans, creating culturally meaningful zones within otherwise neutral spaces. Western users, while generally satisfied with their interiors, occasionally expressed desire for greater acoustic privacy and defined territories in high-density housing.

Taken together, these six themes demonstrate that residential spatial preferences are not superficial preferences but deeply rooted cultural expressions. The metasynthesis reveals consistent, measurable differences in privacy needs, hierarchical organisation, collective versus individual space use, hospitality requirements, environmental responses, and adaptive behaviours. These findings provide a solid empirical foundation for the discussion that follows, where theoretical implications and practical design recommendations are explored in detail.

Discussion

The findings of this metasynthesis illuminate the profound ways in which culture continues to govern residential spatial preferences, even amid powerful forces of globalisation and modernisation. The six emergent themes—privacy as cultural imperative, spatial hierarchy and territoriality, collectivism versus individualism, hospitality-driven social spaces, climatic and biophilic adaptations, and modernisation tensions—do not merely catalogue differences; they reveal coherent, internally consistent spatial grammars that reflect distinct worldviews. These patterns challenge the assumption, still prevalent in much international design practice, that residential interiors can be approached through universal functionalist principles. Instead, the synthesis reaffirms and extends the foundational arguments of Rapoport (1969, 2005) and Hall (1966): houses are cultural texts, and ignoring their cultural syntax produces environments that users must continually resist or repair.

The centrality of privacy in Iranian spatial logic deserves particular emphasis. The consistent preference for visual buffering, layered transitions, and protected family domains aligns closely with Islamic-Persian concepts of *haya* (modesty) and *khususiyat* (privacy). This is not a superficial cultural quirk but a sophisticated architectural response to both social and environmental realities. The high frequency of post-occupancy modifications documented across multiple Tehran studies (Akbari et al., 2025; Moosavi et al., 2025; Rajendran et al., 2021) demonstrates active cultural resistance rather than passive acceptance of imported forms. When Western-style open kitchens and low-parapet balconies are imposed, residents experience them not as liberating but as intrusive, confirming Hall's assertion that violations of culturally programmed proxemic boundaries generate measurable stress. In contrast, the greater Western tolerance for visual openness reflects lower-context communication styles and higher individualism, where personal autonomy takes precedence over collective shielding. These divergences map almost perfectly onto Hofstede's dimensions and underscore why attempts at direct transposition of Western residential models into Iranian contexts frequently fail to achieve user satisfaction.

The theme of spatial hierarchy further enriches this understanding. Traditional Iranian plans, with their steep integration gradients and powerful control values in transitional zones, embody a graduated social order that respects status, gender, and familiarity. Space-syntax re-analysis in the synthesised studies consistently showed higher mean depth and stronger territorial definition than in Western open-plan equivalents (Taheri, 2024; Farshidi, 2023; Golshan, 2019). Western layouts, by flattening these hierarchies, facilitate the casual, egalitarian interaction valued in Northern European and North American domestic life. The synthesis reveals that these configurational choices are not value-neutral technical decisions but expressions of fundamentally different social contracts. One organises space to protect and differentiate; the other organises space to connect and equalise.

Equally significant is the contrast in collective versus individual space allocation. Iranian households' emphasis on larger reception and family gathering areas, often at the expense of private bedroom size, reflects a collectivist orientation in which the home serves the family unit more than the autonomous individual. Western patterns invert this priority, privileging personal territory and self-expression. These findings extend Makino and Natsume's (2020) observations and align with broader cross-cultural environmental psychology research showing that collectivist users derive greater psychological benefit from shared multifunctional spaces, while individualist users thrive when provided with clear personal domains (Ismail & Özkan, 2025; Bellini et al., 2025).

Hospitality emerges as a particularly powerful cultural driver in Iranian contexts. The enduring importance of *biruni*-style separation between guest and family zones reveals that domestic space must accommodate both intimate family life and generous social obligation. This dual requirement creates architectural challenges that open-plan Western templates rarely address adequately without modification. The synthesis suggests that successful contemporary Iranian housing must solve this equation—offering both protected family cores and flexible hospitality zones—if it is to achieve genuine cultural fit. Western living rooms, while socially important, operate under less formal and less spatially segregated expectations, reflecting different norms of social distance and spontaneity.

The environmental dimension of the findings carries timely implications for sustainability discourse. Iranian courtyard traditions demonstrate centuries of refined passive design strategies—thermal mass, shading, evaporative cooling, and integrated greenery—that achieve comfort with minimal energy input. Western biophilic approaches, emphasising daylight and distributed planting, offer complementary strengths in different climatic contexts. Rather than choosing between these systems, the synthesis points toward productive hybridisation: for example, incorporating protected courtyard-like atria within denser urban blocks or combining Western glazing strategies with Iranian shading and privacy devices. Such approaches could significantly advance both cultural appropriateness and environmental performance in a warming climate (Formolly, 2024; Moosavi et al., 2025).

Perhaps the most practically urgent theme concerns modernisation tensions and user adaptations. The high rate of post-occupancy intervention in Iranian apartments signals a serious mismatch between prevailing development models and lived cultural needs. These

modifications, while creative, often compromise building performance, increase material consumption, and reflect a broader failure of contemporary design processes to engage seriously with cultural variables. Diaspora hybridity offers more optimistic models. Iranian families abroad frequently demonstrate remarkable spatial creativity, layering Persian textiles, floor seating, and ritual zones within Western structural frames. These practices suggest that hybridity need not mean dilution but can become a generative design strategy when approached with cultural intelligence.

Theoretically, this metasynthesis contributes to several ongoing conversations. It strengthens the case for culturally situated environmental psychology and extends space syntax methodology by demonstrating its value in cross-cultural comparative work. By integrating qualitative depth with configurational rigour, the study offers a methodological template for future research in diverse cultural settings. It also engages with decolonising discourses in architecture and interior design, arguing that the continued dominance of Western spatial paradigms in global practice constitutes a subtle form of cultural imposition that deserves critical scrutiny.

From a practice perspective, the findings carry direct implications for interior designers, architects, and developers. Culturally responsive design cannot rely on superficial application of motifs or colours; it requires deep engagement with underlying spatial logics. The synthesis suggests several hybrid principles: (1) maintaining protected private cores while allowing flexible social zones; (2) designing sophisticated transitional spaces that manage privacy without sacrificing light and connection; (3) providing both collective gathering areas and personalised territories within the same dwelling; (4) integrating climatic wisdom from multiple traditions; and (5) building in adaptability so that users can fine-tune their environments over time. Design education should incorporate these considerations, moving beyond Western-centric studio traditions toward genuinely pluralistic approaches.

Limitations of the present study must be acknowledged. The metasynthesis relied primarily on English-language and accessible Persian sources, potentially under-representing certain regional variations within Iran. Most studies focused on urban rather than rural contexts, and longitudinal data on how preferences evolve across generations remain limited. Diaspora research, while insightful, often captures relatively recent migrants rather than long-established communities. Future research should address these gaps through expanded multilingual synthesis, VR-based experimental studies that test hybrid prototypes, and long-term post-occupancy evaluations in both origin and destination countries.

The broader significance of this work extends beyond residential interiors. In an era of unprecedented human mobility and cultural exchange, the ability to create environments that support rather than undermine diverse ways of living becomes a matter of social equity and psychological health. Homes that respect cultural spatial grammars enhance well-being, strengthen family and community bonds, and contribute to more sustainable patterns of habitation. Conversely, culturally insensitive design generates hidden costs in stress, adaptation effort, and resource consumption.

This metasyntesis demonstrates that Iranian and Western residential traditions each possess sophisticated strengths developed over centuries in response to particular environmental and social conditions. The challenge for contemporary design lies not in choosing one over the other, nor in superficial fusion, but in developing nuanced, context-sensitive syntheses that honour the integrity of different spatial cultures while addressing shared contemporary needs. By taking cultural determinants of spatial preference seriously, the field of interior design can move toward more humane, effective, and culturally pluralistic practice—one that recognises the home as both a universal human need and a deeply particular cultural expression.

Conclusion

This metasyntesis has demonstrated that residential spatial preferences are neither arbitrary nor universal but are deeply embedded in cultural worldviews, social structures, and historical experience. The six interlocking themes that emerged from eighteen rigorous studies reveal two coherent yet contrasting spatial grammars. Iranian domestic interiors continue to prioritise layered privacy, hierarchical organisation, collective family spaces, ritualised hospitality, and environmentally attuned introversion, even as urbanisation exerts pressure toward Western models. Western residential traditions, particularly in Northern European and North American contexts, emphasise openness, visual connectivity, personal autonomy, and flexible egalitarian living. These differences are not superficial stylistic variations but fundamental expressions of distinct cultural logics.

The study makes several contributions. Theoretically, it extends the classic work of Hall (1966) and Rapoport (1969, 2005) by providing a contemporary, empirically grounded synthesis that links cultural dimensions directly to interior-scale phenomena. Methodologically, it illustrates the value of combining meta-ethnographic synthesis with space-syntax re-analysis, offering a model for future cross-cultural research in the built environment. Practically, it challenges the uncritical export of Western residential templates and provides a foundation for more culturally responsive design strategies. The persistent pattern of post-occupancy modifications in Iranian apartments and the creative hybridity observed among diaspora communities both confirm that users actively reshape their environments when professional design fails to accommodate their spatial expectations.

For interior design and architectural practice, the implications are clear. Culturally intelligent design requires moving beyond tokenistic application of traditional motifs toward a deeper engagement with underlying spatial logics. Hybrid approaches that maintain protected private cores while enabling flexible hospitality zones, sophisticated transitional spaces, and adaptable layouts offer promising pathways. Such solutions can enhance user well-being, reduce unnecessary modifications, lower long-term environmental costs, and support more inclusive cities. Design education must also evolve. Studio curricula that remain anchored exclusively in Western modernist paradigms risk producing graduates ill-equipped for global practice. Incorporating cross-cultural spatial literacy should become a core competency.

The findings carry broader societal significance. In an age of mass migration, transnational families, and rapid urban development across the Global South, the ability to create homes that genuinely support diverse ways of living becomes a matter of equity and public health. Culturally congruent environments strengthen psychological well-being, family cohesion, and social stability. Conversely, culturally insensitive housing generates hidden costs in stress, adaptation effort, and resource waste. Iranian spatial traditions, with their refined handling of privacy, hospitality, and passive environmental performance, have much to offer global design discourse, just as Western traditions contribute valuable lessons in flexibility, daylighting, and individual expression.

Limitations remain. The synthesis drew primarily from accessible urban studies and English-language sources, leaving rural variations and certain regional differences within Iran less fully represented. Longitudinal research tracking how spatial preferences evolve across migrant generations would further enrich understanding. Future studies should employ virtual reality prototyping to test hybrid models empirically and expand multilingual, decolonised approaches to cross-cultural research.

Ultimately, this investigation reaffirms that the home is one of the most intimate expressions of cultural identity. By recognising and respecting the cultural determinants of spatial preference, designers and scholars can contribute to environments that do not merely shelter bodies but nurture ways of life. The challenge ahead is to develop a truly pluralistic interior design practice—one that honours the sophistication of diverse spatial grammars while addressing the shared demands of contemporary existence. In doing so, the field can move toward creating residential environments that genuinely enable human flourishing across cultures. Only through such respectful dialogue between traditions can we hope to build homes that feel, in the deepest sense, like home.

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