

Architectural Atmospheres for Spiritual Constructs: A Systematic Literature Review and Practice-Based Interviews in the Post-COVID Era

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Abstract

Architectural atmosphere for spirituality holds potential to support the physical and mental health of post-COVID urban populations, and people now spend more of their lives within buildings even as opportunities for spiritual engagement recede. Yet evidence-based knowledge for designing such environments remains limited. This study aimed to identify the architectural atmospheres for spiritual constructs through a systematic literature review and practice-based interviews conducted following the COVID-19 pandemic. Data from Scopus-indexed publications and architects' relevant expertise were analyzed using thematic content analysis, while word frequency and bivariate association analyses were employed to identify key architectural characteristics and their associations with spiritual constructs. The findings indicate that a holistic atmospheric approach should integrate spatial, perceptual, and natural features. Tangible atmospheric features such as space, natural materials, and object elements emerged as most prominent, alongside intangible features including illumination, acoustics, and temperature conditions. At the use-effect level, spatial experience and perception were most frequently reported. Positive spiritual constructs were linked to symbolic objects, sensory experiences, and lighting conditions, whereas negative spiritual constructs were primarily associated with temperature conditions. Future studies should extend inquiry across diverse linguistic, cultural, and temporal contexts while empirically validating the proposed framework in real-world environments.

Keywords: architecture atmosphere; architecture; atmosphere; spirituality; post-COVID; COVID-19



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1. Introduction

The ongoing expansion of urbanization [1,2], driven by population growth [3–5], economic competition [6,7], and technological advancement [8–10], shows little sign of slowing. Continuous population growth has intensified urban density and congestion [11,12], while increasingly competitive capitalism has contributed to mounting social and occupational pressures [13–16]. Simultaneously, rapid technological advancement has accelerated the pace of life to the point where there is little opportunity to pause and rest [17–20]. These developments have coincided with a shift in the sources of meaning available to

people [21–23], alongside changes in the role of religious institutions and narrowing the space available for spiritual engagement in everyday life [24–26].

Research has increasingly demonstrated that spiritual dryness is associated with a wide range of adverse health outcomes. These include accelerated biological aging [27], impaired immune function [28], elevated cardiovascular risk [29], and increased mortality [30]. At the psychological level, diminished spiritual well-being has been linked to loneliness [31], burnout [32], loss of meaning in life [32], anxiety [33], existential distress [34], depression [35], and suicidal ideation [36]. Given these implications, the promotion of spirituality has gained recognition across organizational [37–39], governmental [40,41], and international domains, including the National Institutes of Health and the World Health Organization [42–46].

Historically, spiritual experiences were primarily cultivated through human connections with nature [47,48], forming a foundational element of human societies across cultures worldwide [49,50]. In later periods, although human societies became increasingly disconnected from nature and more reliant on built environments, spirituality remained embedded in everyday life through religious and sacred architecture [51–54]. Today, while most people live in urban environments and spend more than 90% of their lives within buildings [55], contemporary architecture has largely prioritized functionality and aesthetics [56–58]. As a result, architecture has gradually lost much of its deeper meaning in relation to the human spirit [59].

Previous studies indicated that the lack of spirituality in architecture is associated with stress, anxiety, and fatigue [56], whereas those that enhance spiritual connectivity are linked to lower anxiety and improved health outcomes [60]. This evidence demonstrates that architectural design is associated with spiritual engagement [56]. Yet despite this growing body of evidence, a significant gap remains between research and practice [61]. Evidence-based design knowledge is still largely absent, a deficit that has become apparent following the COVID-19 pandemic [62]. There is an urgent need to explore architectural design approaches that honor the spiritual dimensions of human life [56,63], particularly in the post-COVID era [64–66].

Following the COVID-19 pandemic, as people increasingly live apart from the religious institutions and sacred spaces that once supported spiritual life [65,67,68], architectural atmosphere emerges as a key medium for fostering spirituality [69]. Due to its capacity to shape psychological experiences [56,61,70], it can communicate with people automatically at a universal level beyond specific cultural and religious knowledge [71,72]. Furthermore, spirituality is a multidimensional construct comprising multiple interconnected psychological and affective dimensions, commonly conceptualized as spiritual constructs [73–75]. This study therefore addresses the research gap concerning the relationship between architectural atmospheres and spiritual constructs in the post-COVID era.

1.1. Research Design

Spiritual architecture aims to foster experiences that transcend cultural and religious boundaries while drawing upon knowledge from diverse disciplines [56,76–78]. To develop a comprehensive understanding of this multifaceted field, this study employed a systematic literature review to integrate evidence from diverse cultural, religious, and disciplinary perspectives [79–82]. The review was bounded to the post-pandemic period, following established practice in which systematic reviews restrict their temporal scope to isolate evidence produced under distinct historical conditions [83–85].

However, developing an architectural design framework requires insights from professionals actively engaged in architectural practice [86]. Therefore, this study conducted practice interviews with five Thai architects from firms with recognized expertise in spiritu-

ally oriented design to complement the literature findings with practice-based knowledge and bridge the gap between theory and professional practice [87]. This methodological approach is consistent with recent qualitative studies that have drawn substantive theoretical insight from small, specialized expert samples [88], as well as with established in-depth qualitative approaches in which samples of three to six participants are standard [88–90]. Accordingly, this study develops a design framework for Architectural Atmospheres for Spiritual Constructs by integrating evidence from a systematic literature review with insights from practice-based interviews [91]. The resulting framework seeks to address the increasing demand for spiritually supportive architectural environments while responding to the limited availability of evidence-based design knowledge following the COVID-19 pandemic [56,63–66].

1.2. Research Structure

Section 1 presents the problem and significance that motivate this research, establishing the need for a design framework for architectural atmospheres associated with spiritual constructs. Section 2 develops the theoretical framework by examining spiritual constructs and architectural atmospheres as distinct bodies of knowledge, before synthesizing the relationships between them. Section 3 describes the research methodology, detailing data collection through systematic literature review and practice-based interviews, and how findings from both methods are synthesized. Section 4 reports the findings and presents the resulting design framework. Section 5 discusses the findings both holistically and individually, as well as their implications. Section 6 addresses the limitations of the study. Section 7 presents recommendations for future research, and lastly, Section 8 summarizes the key findings and takeaways of the study.

1.3. Research Terminology

Two foundational terms structure this research and warrant precise definition, as each carries distinct and sometimes contested meanings across architectural theory, environmental psychology, and religious studies.

Spirituality refers to the discovery of meaning and purpose in life [92–95], connection to one's inner self [92,93], the living environment [96], or with others and with God [95]. This concept is associated with dimensions of transcendence and experiences that go beyond ordinary human existence [92,94,96]. While religion and spirituality are often perceived as synonymous, spirituality is considered more complex and multidimensional, encompassing aspects beyond religious belief alone [92,97,98].

Architectural Atmospheres refers to the emotional quality conveyed by architecture that emerges instinctively and immediately upon entering a space, before conscious reflection or thought can occur [99,100]. Atmosphere can be understood as an emotional presence that fills space and affects bodily feeling through the relationship between environment and individual, rather than belonging solely to either [101,102]. Such an experience reflects multisensory perception that extends beyond the conventional five senses [69,103,104].

2. Literature Review

To address the objective of this study, the following review examines spiritual constructs and architectural atmospheres as distinct bodies of knowledge, then synthesizes their relationship, establishing the conceptual foundation from which the research framework and methodology are derived.

2.1. The Dimensions of Spiritual Constructs

Spirituality lacks a universally accepted definition and is conceptualized differently across studies [74]. This research defined a suitable framework for describing relevant

spiritual constructs of architecture. As spirituality cannot be observed directly, these constructs are assessed through the affective states that indicate their presence [105,106]. This study, therefore, operationalizes spiritual constructs as spiritually relevant affective states [73–75,107]. Spirituality is defined to comprise both positive and negative affective experiences, as understanding the deeper meaning of life requires humans to first confront their own negative experiences before they are able to adapt and fulfill themselves [108,109]. Prior research has indicated that considering spirituality solely from a positive perspective might distort research findings, and has emphasized the necessity of measuring negative spiritual experiences alongside positive ones [107,110].

Concerning the positive spiritual affective states, these consist of faith and hope, which are identified as the core layer of spirituality [105,106]. Astonished and surprised reflect experiences classified under self-transcendent experience [111,112]. Still, quiescent, and quiet connect to the characteristic of being spellbound at the moment [106,112,113]. Finally, calm and relaxed fall into a more peripheral category, linking to inner peace as a daily spiritual experience [56,114,115].

As for the negative spiritual affective states spectrum, these consist of distressed, which aligns with the definition of “Dark Night of the Soul” and “spiritual struggle” [116,117]; lonely, identified as a notable negative spiritual experience [118]; sorry, connecting to shame and self-blame within the process of spiritual purification [119–121]; nervous, reflecting the anxiety found during spiritual transition [122]; and sluggish, which closely resembles the psychological notion of loss of zest [94,96,123].

Since spirituality involves both positive and negative affective experiences, it can be summarized into a foundation for use in this research as follows: the first group, positive spiritual affective states, consists of faith, hope, astonished, surprised, still, relaxed, quiet, quiescent, and calm; and the second group, negative spiritual affective states, consists of distressed, lonely, sorry, nervous, and sluggish.

2.2. The Components of Architectural Atmospheres

Based on the concepts of Peter Zumthor and Juhani Pallasmaa, the components of Architectural Atmosphere can be categorized into three main types: Tangible, Intangible, and Use Effect [69,99,103,104]. Tangible refers to physical components that can be directly touched and perceived through the body and senses. Intangible refers to components that have no physical form yet can still be perceived and experienced through sensory experience. Use Effect refers to the outcomes or experiences that arise from the interaction between humans and architectural space, which affect the perception, feelings, and experiences of the users.

Firstly, Tangible characteristics consist of Physicality, Material, Object, and Sensing. Physicality refers to the physical properties of architecture that manifest through form, mass, and proportion [124,125]. Material denotes the materials used as a component of a space [124,126–132]. Object refers to the things situated within a space [129,130,132,133]; Sensing refers to the bodily perception mechanisms of humans that occur through all the senses [100,128]. Pallasmaa explains that these perceptions arise through peripheral perception, which is a whole-body mode of sensing.

The second group, Intangible, consists of Light, Sound, and Temperature. Light refers to light and shadow that affect the atmosphere of a space [96,125–127,130–134]. Sound refers to noise and silence that create the distinct character of an architectural environment [125–127,130–132,134]. Temperature refers to the thermal conditions and warmth that the body is able to perceive [96,125–127,131,132,134]. Peter Zumthor regards these components as crucial factors that shape the perceptual and atmospheric experience of the users, even though they do not manifest as physical objects [99].

The third group, Use Effect, consists of qualities of Between, Experience, Proximity, Connection, and Time. Between denotes the intermediate state between calmness and being drawn in [126,135]. Experience means the accumulated experiences that arise from inhabiting a space [124,132,134,135]. Proximity describes the spatial relationship of distance between the user and the space and the things within it [135]. Connection represents both the physical and emotional bonds that form between humans and a space [124,130]. Time refers to the past dimension of a given space or architecture [100,125,126,135]. Böhme and Pallasmaa both emphasize that these components do not exist within the space itself but rather emerge through the process by which humans inhabit and construct meaning from that architecture over time [100,136,137].

Architectural Atmosphere is a phenomenon that comes from the interaction of three groups of components: tangible, intangible, and use-effect. Böhme suggested that no single component can be considered separately from the others in practice [126,136]. As such, this study establishes an analytical framework for Architectural Atmosphere that encompasses all twelve components: Physicality, Material, Object, and Sensing within the Tangible group; Light, Sound, and Temperature within the Intangible group; and Between, Experience, Proximity, Connection, and Time within the Use Effect group. This framework enables the study to reflect the complexity of Architectural Atmosphere in a comprehensive manner.

2.3. *The Relationships Between Architectural Atmospheres and Spiritual Constructs*

Architecture of this nature has been linked to both sides of an affective response, the negative before the positive [63,138]. Spiritual experience always carries two spectrums, typically beginning with a sense of awe, overwhelm, and fear toward something greater than oneself, before giving way to feelings of attraction, wonder, and peace [139–142]. Spiritual architecture operates in the same way, often holding both of these spectrums at once.

Tangible components contribute to positive spiritual affective states in several ways. Architectural forms characterized by curvature and the incorporation of natural elements have been associated with positive feelings [56]. Likewise, high-volume spaces and symmetrical forms are linked to feelings of calmness [56]. Wood materials are linked to warmth and relaxation [127,143], while monumental and dramatic physicality has been linked to intense emotions such as surprise [144].

Intangible components show relationships with spiritual constructs. Some forms of lighting contribute to the stimulation of positive affective states [145–148]. Suitable temperatures contribute to a sense of comfort, positively affecting mental and spiritual well-being [149]. In the negative dimension, minimal lighting is associated with anxiety [150]. Similarly, a lack of acoustic regulation and thermal comfort, such as excessively high temperatures, results in sluggishness and other negative affective states [56,151–153].

Due to the people-oriented nature of contemporary architecture, use-effect components are fundamentally associated with both positive and negative spiritual affective states [154]. Positive spiritual constructs include instances in which spatial connection leads to calmness and hope [155], while proximity and betweenness in sacred settings are associated with stillness and faith [130,156]. Experiences within sacred spaces are also associated with faith and hope [157]. In contrast, negative spiritual constructs include feelings of loneliness arising from the absence of spatial connections [158]. Additionally, anxiety can be caused by a lack of meaningful experiences [150].

The literature reviewed above reveals that both architectural atmospheres and spiritual constructs are multidimensional and that atmospheric components meaningfully associate with spiritual experience (Figure 1). However, how these components should be intentionally designed to support such experiences remains underexplored, giving rise to the following research questions:

RQ1: What are the holistic characteristics of architectural atmospheres associated with spiritual constructs in the post-COVID-19 context?

RQ2: What are the features of each architectural atmospheric component associated with spiritual constructs in the post-COVID-19 context?

RQ3: Which architectural atmospheric components are associated with spiritual constructs in the post-COVID-19 context?

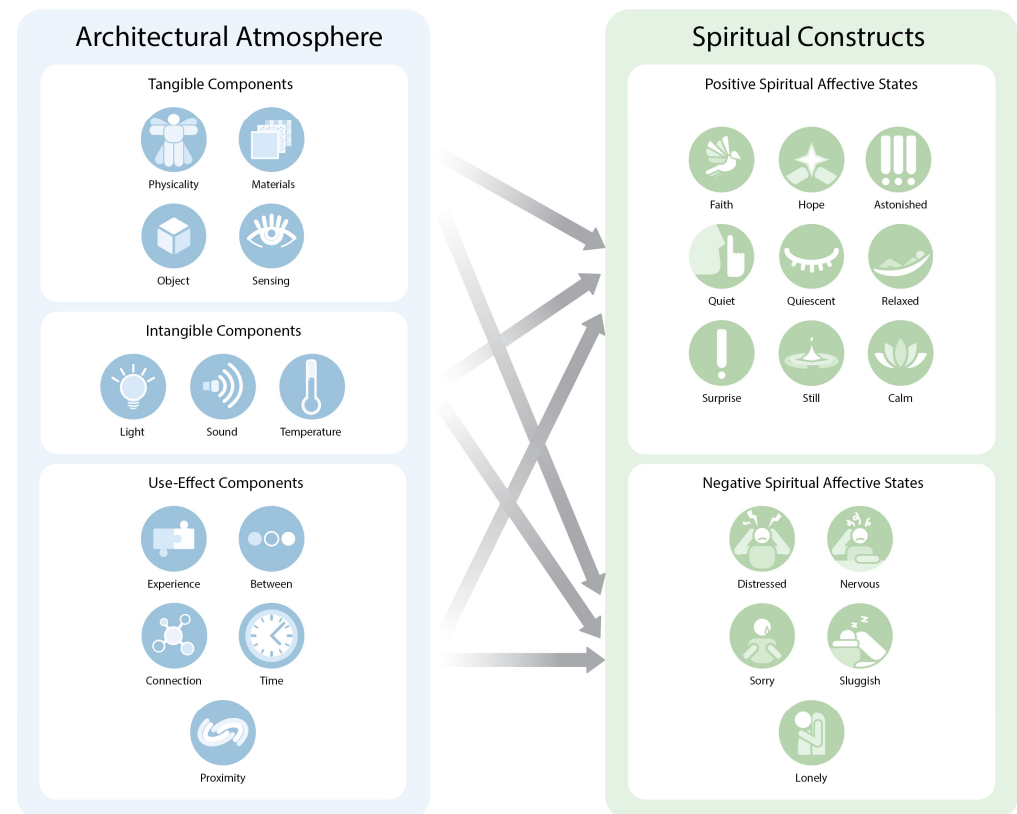


Figure 1. The conceptual framework of architectural atmosphere components and spiritual constructs.

3. Methodology

To address the three research questions outlined above, this section describes the two-method approach employed in this study. Data were collected independently through systematic literature review and practice-based interviews, and analyzed using the same analytical framework, allowing findings from both sources to be compared and synthesized.

Both sets of variables are treated as attributes at a single analytical level rather than as causal hierarchies of inputs, mechanisms, and outcomes. On the atmospheric side, this follows from atmospheric theory, in which no component can be isolated from the others in practice, and the atmosphere is apprehended as a whole rather than sequentially [100,126,135,136]. On the spiritual side, the fourteen affective states are likewise treated as parallel indicators of spiritual experience, which need not be homogeneous in kind [73–75].

3.1. Methods of the Systematic Literature Review

This section describes the systematic literature review process [159–161], detailing the data sources, selection criteria, and analytical method applied to extract findings relevant to the three research questions.

3.1.1. Data Sources

To capture the contemporary shift in architectural research, this study utilized the Scopus database, which was selected due to its extensive coverage as one of the largest and most comprehensive bibliographic databases for academic research [130,162,163]. The search period was restricted from January 2024 to the middle of April 2026. This specific timeframe was deliberately selected to isolate post-pandemic literature, aligning with the World Health Organization's declaration on 5 May 2023, which marked the end of COVID-19 as a Public Health Emergency of International Concern (PHEIC) [164]. January 2024 was adopted as the start date rather than May 2023 to allow for publication lag and to provide a consistent calendar-year boundary. Recent scholarship indicates a fundamental transformation in human-environment relationships post-pandemic, resulting in a renewed scholarly consensus regarding the built environment's role in promoting psychological well-being [165,166]. Furthermore, this period aligns with the United Nations' designated "new phase of accelerated progress" toward the 2030 Sustainable Development Goals following the 2023 SDG Summit [167]. Consequently, focusing on literature published from 2024 onwards is imperative to capture the most recent empirical data and theoretical insights in the post-pandemic context [168].

3.1.2. Data Collection

The literature search and selection process adhered to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines, encompassing four distinct phases [169–171]:

1. Identification Phase: To identify studies addressing the intersection of architectural atmosphere and spirituality, the search strategy utilized a combination of architectural and spiritual keywords. As the research gap addressed in this study lies on the architectural side, broad architectural terms were used at this stage to capture the full range of design discourse. The search was restricted to English-language publications in the Scopus database using the following Boolean search string:

TITLE-ABS-KEY ((Architecture OR "Architectural Design" OR "Architectural Atmosphere" OR Atmosphere OR "Built Environment") AND (Spiritual OR Spirituality)) AND (LIMIT-TO (LANGUAGE, "English"))

The search identified 455 records published between 2024 and 2026. Subsequently, all identified records were exported and independently screened based on their titles and abstracts. Studies that were not directly related to architectural atmosphere and its association with spirituality were excluded. Following this preliminary screening process, 283 articles were retained for further assessment.

2. Screening Phase: During the screening phase, the availability of the full-text articles and the relevance of the studies were evaluated. A total of 104 records were excluded due to the unavailability of full-text access or because they did not constitute empirical research. As a result, 179 articles remained for eligibility assessment.
3. Eligibility Phase: To ensure the accuracy and objectivity of the review, three architectural researchers independently reviewed the full-text articles to verify their relevance to the investigation of architectural atmosphere and its association with spirituality. Any disagreements were resolved through discussion until consensus was reached. Studies that did not provide a substantive discussion of architectural atmosphere and its association with spirituality were excluded. Following this assessment, 16 articles were removed from the dataset.
4. Inclusion Phase: Ultimately, after careful consideration and discussion by all authors, 163 articles satisfied the predefined inclusion criteria and were included in the final re-

view. The complete list of included articles and their detailed information is provided in the Supplementary Materials (Table S1). The predefined inclusion criteria included English-language empirical studies that explicitly addressed architectural atmosphere and its association with spirituality. These studies collectively demonstrated various characteristics of architectural atmosphere and their associated positive and negative associations with spirituality (Figure 2).

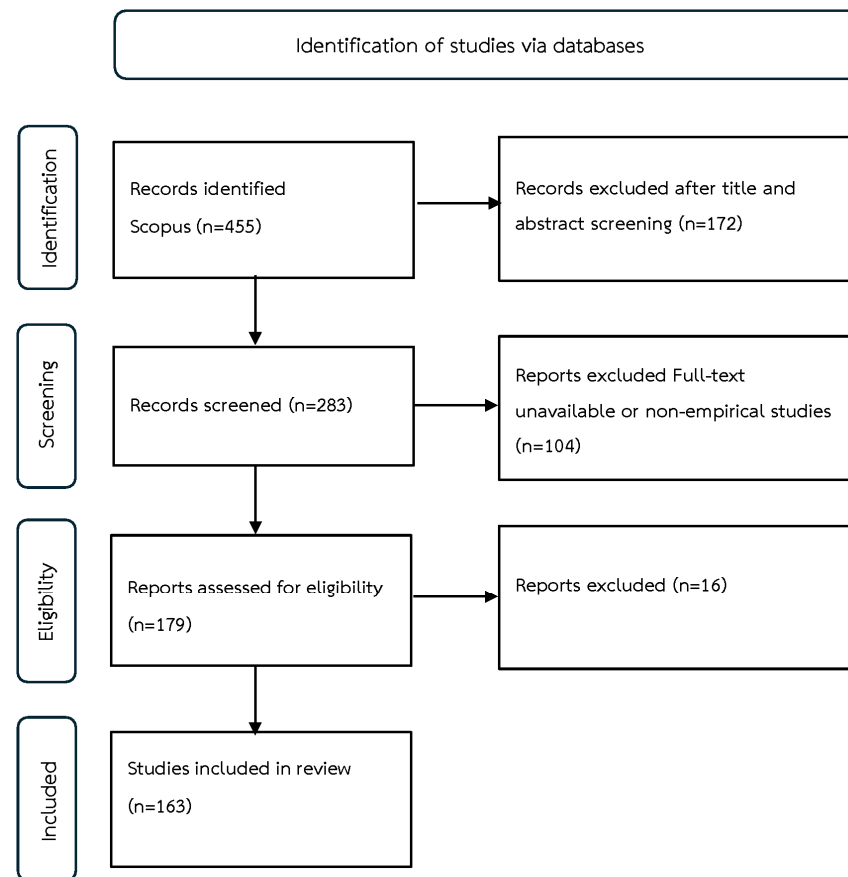


Figure 2. PRISMA flow diagram of the study selection process.

Given the cultural, religious, and disciplinary diversity of spiritual architecture research, the characteristics of the selected studies were documented and summarized to provide contextual transparency. Among the 163 included studies, the cultural context revealed that the highest volume of research originated from Asian countries, with the most significant contributions emerging from Indonesia ($n = 19$), China ($n = 17$), and Malaysia ($n = 6$). In terms of religion and belief, based on the dataset, Christianity emerged as the most frequently examined religious context ($n = 46$), followed closely by Islam ($n = 42$) and Buddhism ($n = 21$). Studies addressing non-specific or “Other Religions and Beliefs” accounted for 39 records. In terms of discipline, diversity is reflected in the wide range of publication outlets, with the literature predominantly disseminated in high-impact international journals and the highest number of articles published in Religions ($n = 10$), Buildings ($n = 8$), and Civil Engineering and Architecture ($n = 7$).

Following the selection, all retrieved literature was subjected to thematic content analysis. Relevant information concerning the characteristics of architectural atmosphere and its relationship with spirituality was extracted, classified, and categorized into keywords aligned with the conceptual framework (Sections 2.1 and 2.2). To ensure the validity and accuracy of the decoded data, this process was conducted through rigorous group discussions among multiple researchers, a method shown to substantially improve the reli-

ability and accuracy of qualitative coding compared to independent rating alone [172,173]. Each preprocessed keyword was then cross-checked against the coding framework by the research team to confirm it accurately reflected the intended construct, reducing the risk of noise from synonymous or context-dependent terms [174]. All extracted data were systematically compiled and stored in a secure cloud-based spreadsheet (Google Sheets) for subsequent quantitative calculation.

3.1.3. Data Analysis

To analyze the SLR data for addressing Research Questions 1, 2, and 3, a mixed-method synthesis approach was employed using Python (version 3.12.1) to synthesize findings from the datasets. Prior to analysis, the qualitative review data were transformed into a multi-column binary matrix. Binary coding was adopted to enable consistent, comparable analysis of recurring concepts across 163 heterogeneous studies spanning different theoretical traditions, allowing presence or absence patterns to be statistically tested in a way narrative synthesis alone could not support [175,176]. The unit of analysis was the individual record. Each review was coded as 1 (presence of mention) or 0 (absence of mention) across the two datasets of Systematic Literature Review (SLR; $N = 163$) that captures established theoretical knowledge, and practice-based interview data ($N = 5$) that captures practical experience from expert architect representatives, using two variable sets: architectural components ($N = 12$) defined in Section 2.2; and spiritual affective states ($N = 14$), defined in Section 2.1. To ensure statistical integrity, we exclude any categories with zero variance (one type of value) from the bivariate analyses. Among the twelve architectural components, Experience was present in all 163 reviewed records and therefore exhibited zero variance; consistent with this criterion, it was removed from the bivariate association analysis, leaving eleven architectural components eligible for pairwise testing. In addition to the fourteen spiritual affective states defined in Section 2.1, a broader “Spirituality” indicator, capturing the general presence of spirituality-related terminology within each record, was coded during the preliminary screening stage. As this indicator represents an overview construct rather than a discrete affective state within the framework, it was excluded prior to the formal bivariate association analysis reported in Section 4.3, which therefore comprises eleven architectural components tested against the fourteen defined spiritual affective states ($11 \times 14 = 154$ pairwise comparisons). Text preprocessing includes the removal of missing data, lowercase conversion, and removal of non-alphabetic characters, punctuation marks, numerical values, and stop words.

To answer Research Questions 1 and 2, which sought to identify the holistic approach and individual features of architectural atmospheres associated with spiritual constructs, a descriptive analysis was conducted through word frequency analysis to identify recurring architectural characteristics. Word count analysis and visualization were employed to illustrate the relative frequency of recurring expressions within the dataset. This step served to map the conceptual landscape of the corpus and was not, by itself, used as evidence for the design framework alone.

Research Question 3, which sought to identify what architectural atmospheric components are associated with spiritual constructs, was addressed by evaluating the strength and direction of the relationships between individual Architectural Components and constructs. The Phi Coefficient was calculated for all valid pairwise combinations [177]. Given the binary nature of the data, Fisher’s Exact Test was utilized to calculate exact p -values and provide a robust measure of statistical significance by accounting for the presence of a small sample size [178]. The framework reported in this study is derived from this association analysis, not from word frequency alone. Since the literature dataset provided a sufficient sample size, a strict statistical significance filter ($p < 0.05$) was applied. This

approach prevented over-saturation from the sheer volume of potential theoretical links, allowing the analysis to isolate and focus on the strongest observed associations established in the literature. Given the exploratory nature of this synthesis and the large number of pairwise comparisons (154 in total), p -values were not adjusted for multiple testing; reported associations should therefore be interpreted as nominally significant findings for hypothesis generation rather than confirmatory evidence. The full list of included articles and the complete pairwise comparison results are provided in the Supplementary Materials (Tables S2 and S3).

3.2. *Methods of the Practice-Based Interviews*

This section describes the interview process, detailing the participant selection criteria and data collection procedure. The same analytical method as in Section 3.1 was used, with minor adaptations to the analytical conditions to accommodate the differing data volume.

3.2.1. Data Sources

The qualitative phase utilized in-depth, semi-structured interviews with five selected architects specializing in spiritually oriented architectural design firms based in Bangkok, Thailand, namely Mspace Co., Ltd., IDIN Architects, Duangrit Bunnag Architect Limited, Oriental Studio Co., Ltd., and one firm that wished to remain anonymous. Each interview lasted between one and two hours, providing sufficient depth for participants to elaborate on their professional experiences and perspectives [179]. While the sample size is strategically concentrated, it is justified by the concept of “Information Power” [180], which posits that a smaller sample is adequate, and often preferable, when the study aim is highly specific, the sample consists of acknowledged experts, the dialogue is of high quality, and the analysis is grounded in established theory. This methodological approach is highly consistent with recent qualitative studies in the built environment domain, which have successfully employed small, specialized expert panels to yield profound theoretical insights [90,181].

3.2.2. Data Collection

The interview protocol was developed based on the conceptual framework derived from the literature review (Section 2), ensuring that the questions directly addressed the core themes of architectural atmosphere and spirituality. To mitigate respondent fatigue and ensure clarity [182], the questions were structured by consolidating the architectural atmosphere variables while bifurcating the spiritual outcomes into two primary inquiries:

What types of architectural atmospheres evoke spiritual emotions, and in what direction—positive or negative—do they manifest?

Data were collected through face-to-face conversations and audio recordings, conducted collaboratively by the main researcher and research assistants responsible for note-taking. The research protocol strictly adhered to ethical standards; questions concerning irrelevant personal information were avoided, and the identities of all participants were kept strictly confidential.

To maintain methodological consistency with the systematic literature review, the interview transcripts were subjected to content decoding. The data were categorized according to the architectural atmosphere and spirituality characteristics established in Sections 2.1 and 2.2. Three independent research assistants verified the audio recordings against the decoded transcripts to maximize data accuracy and reliability [183]. Finally, all qualitative data were securely stored within a coded, access-restricted Google Sheets database, accessible only to the primary research team.

3.2.3. Data Analysis

To analyze the interview data in order to answer Research Questions 1, 2, and 3, the same analytical procedure described in Section 3.1.3 was applied, using the same binary coding scheme and the same two variable sets of twelve architectural components and fourteen spiritual affective states. However, due to substantial differences in the amount of data, slight variations in the analytical conditions were introduced as follows.

For Research Questions 1 and 2, the same methodological approach was used, as both questions are descriptive in nature and concern the frequency distribution of the same binary-coded variables, differing only in the level of granularity at which findings are reported.

Whereas for Research Question 3, the same analytical approach applied to the SLR data was used, but with slightly different conditions.

Due to the constrained sample size of the qualitative interviews, traditional p -value thresholds were not utilized as an exclusion criterion. Instead, the analysis of the interview data prioritized descriptive characteristics and the magnitude of the phi-coefficients to capture user perception without inappropriately dismissing emerging patterns due to low statistical power. As no p -value significance threshold was applied to the interview data (see above), the multiple-testing consideration discussed in Section 3.1.3 does not apply to this analysis.

4. Results

The findings are presented in accordance with the three research questions. For each question, results from the systematic literature review and practice-based interviews are reported independently, followed by a synthesis of converging findings that form the basis for the proposed design framework.

4.1. Holistic View of Architectural Atmospheres Associated with Spiritual Constructs

This section presents findings on the holistic view of architectural atmospheres associated with spiritual constructs, drawing from both the systematic literature review and practice-based interviews. Finally, converging findings are synthesized to inform the corresponding design framework.

4.1.1. Findings from Systematic Literature Review

Based on the systematic review, when considering the architectural atmosphere as a holistic entity and examining the collective features of all components, ‘spatial’ ($n = 280$), ‘relation’ ($n = 149$), ‘symbolic’ ($n = 132$), ‘perception’ ($n = 126$), and ‘system’ ($n = 122$) emerge as the most prominent foundational features, as illustrated in Figure 3.

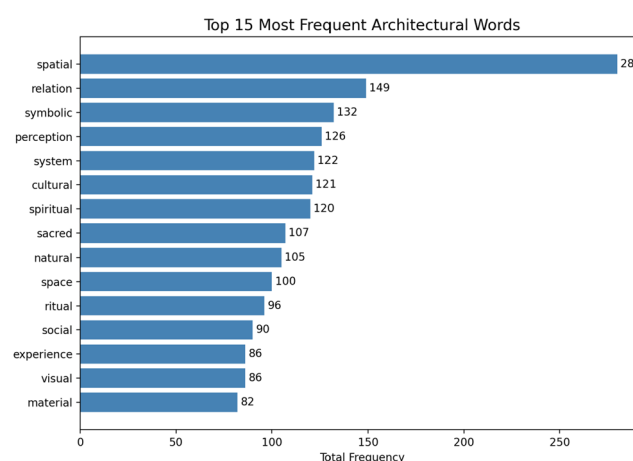


Figure 3. The architectural atmosphere word frequency (Systematic Literature Review).

4.1.2. Findings from Practice-Based Interviews

In parallel, the findings from the interviews reinforce this holistic exploration. Based on the interview data, ‘space’ ($n = 31$), ‘perception’ ($n = 18$), ‘wood’ ($n = 12$), ‘light’ ($n = 12$), and ‘view’ ($n = 5$) similarly emerge as the most frequently cited architectural features, as illustrated in Figure 4.

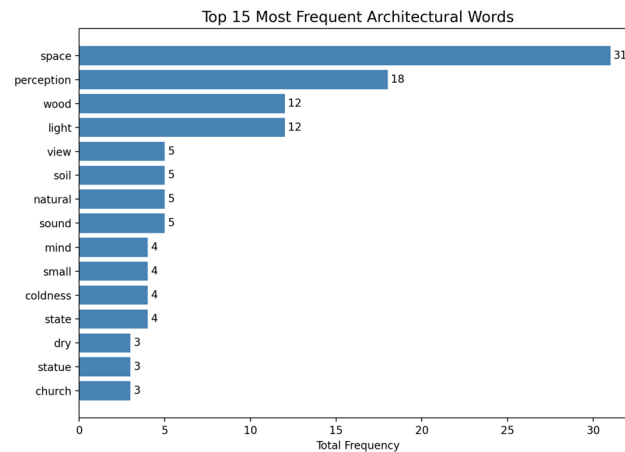


Figure 4. The architectural atmosphere word frequency (Practice-Based Interviews).

4.1.3. Synthesis of Converging Findings

Synthesizing the findings from both methodological phases reveals a profound convergence between theoretical discourse and subjective human experience. Notably, ‘spatiality’ (space) and ‘perception’ serve as the core bridging features, appearing prominently across both datasets. However, a nuanced dichotomy emerges in the supporting themes: while the systematic review emphasizes abstract, conceptual constructs (e.g., ‘relation’, ‘symbolic’, ‘system’), the interviews ground the architectural atmosphere in phenomenological qualities (e.g., ‘wood’, ‘light’, ‘view’).

4.2. Features of Each Atmospheric Component Associated with Spiritual Constructs

This section presents findings on the features of each atmospheric component that promote spiritual constructs, drawing from both methods. Where findings converge, they are synthesized into a component-specific design framework.

4.2.1. Findings from Systematic Literature Review

Drawing from the word frequency analysis, the data from the systematic literature review revealed prominent features of architectural atmosphere that are associated with spirituality, which are categorized into groups according to Section 2.2 as follows.

Regarding the Tangible components, the most frequently observed Physicality term was “spatial” ($n = 50$), followed by “structure” ($n = 43$), and “space” ($n = 40$). Regarding the Material variable, “material” emerged as the most common feature ($n = 70$), followed by “surface” ($n = 42$), and “stone” ($n = 32$). For the Object category, the analysis revealed: “element” ($n = 42$) as the top feature, followed by “sacred” ($n = 40$), and “symbolic” ($n = 33$). Within the Sensing category, “perception” was predominantly noted ($n = 94$), subsequently followed by “awareness” ($n = 49$), and “visual” ($n = 43$).

Concerning the Intangible components. In the Light category, the most frequent term was “light” ($n = 64$), followed by “illumination” ($n = 27$), and “natural” ($n = 23$). For the Sound variable, “acoustic” was the most prevalent ($n = 23$), followed by “ritual” ($n = 16$), and “sound” ($n = 16$). In the Temperature category, “condition” appeared most frequently ($n = 26$), followed by “thermal” ($n = 25$), and “climate” ($n = 21$).

In the Use-effect component, the Experience variable category indicated that the term “experience” was the highest ($n = 50$), followed by “spiritual” ($n = 38$), and “engagement” ($n = 33$). In the Between category, “relation” was the most common ($n = 55$), followed by “interface” ($n = 35$), and “spatial” ($n = 35$). For Proximity, the leading term was “spatial” ($n = 51$), followed by “distance” ($n = 44$), and “relation” ($n = 43$). Regarding Connection, “system” was cited most often ($n = 51$), followed by “relation” ($n = 47$), and “linkage” ($n = 42$). Finally, in the Time category, “temporal” was the most frequent feature ($n = 58$), followed by “continuity” ($n = 54$), and “historical” ($n = 37$), as seen in Table 1.

Table 1. The architectural atmosphere word frequency table.

Group	Component	Top Words
Tangible	Physicality	spatial (50), structure (43), space (40), layout (29), form (29), system (29), sacred (17), hierarchical (17), structural (14), environment (13)
	Material	material (70), surface (42), stone (32), natural (30), local (22), element (17), materials (15), wooden (15), system (15), wood (13)
	Object	element (42), sacred (40), symbolic (33), architectural (22), spatial (20), ritual (17), space (16), structure (14), cultural (14), religious (13)
	Sensing	perception (94), awareness (49), visual (43), spatial (32), sensory (29), experience (23), atmosphere (19), symbolic (19), environmental (15), spiritual (14)
Intangible	Light	light (64), illumination (27), natural (23), atmosphere (19), visual (19), symbolic (19), luminous (18), lighting (17), spatial (13), shadow (12)
	Sound	acoustic (23), ritual (16), sound (16), environment (10), silence (9), spatial (9), music (7), auditory (7), traditional (6), resonance (5)
	Temperature	condition (26), thermal (25), climate (21), comfort (16), environment (15), cool (10), environmental (10), temperature (8), cooling (8), natural (7)
Use-effect	Experience	experience (50), spiritual (38), engagement (33), ritual (32), spatial (32), cultural (19), communal (18), immersive (18), social (17), journey (16)
	Between	relation (55), interface (35), spatial (35), boundary (31), transitional (20), space (19), spiritual (19), transition (18), threshold (16), social (16)
	Proximity	spatial (51), distance (44), relation (43), proximity (40), interaction (27), social (17), close (13), central (13), immediate (13), intimate (11)
	Connection	system (51), relation (47), linkage (42), connection (38), social (32), cultural (31), spiritual (30), spatial (24), symbolic (19), unified (18)
	Time	temporal (58), continuity (54), historical (37), evolution (22), cultural (22), memory (18), time (18), history (16), cycle (16), duration (15)

4.2.2. Findings from Practice-Based Interviews

Drawing from the word frequency analysis, the data revealed prominent features of architectural atmosphere that are associated with spirituality, which are categorized into groups according to Section 2.2 as follows.

Regarding the Tangible components, the most frequently observed Physicality term was “space” ($n = 12$); participants described these spaces as “narrow and cramped,” “small, tiny,” or simply “not spacious.” This was followed by “church” ($n = 3$), which participants likened to “a pantheon,” and “hall” ($n = 3$), exemplified by “a hall, a staircase.” For the Material variable, “wood” was the most common feature ($n = 5$), described by participants as “a warm material” that “looks less hard, less rigid,” followed by “soil” ($n = 5$) and “material” ($n = 2$). Within the Object category, “wood” again emerged as the top feature ($n = 7$), with participants offering contrasting descriptions such as “an artificial tree” and “a dead tree,” followed by “buddha” ($n = 3$) and “statue” ($n = 3$), both described as “an

object of reverence.” In the Sensing category, “air” was the most frequently noted term ($n = 2$), often paired with humidity in descriptions such as “not sticky, with good relative humidity,” followed by “humidity” ($n = 2$) and “touch” ($n = 1$), exemplified by surfaces described as “dry, yet cool to the touch.”

Concerning the Intangible components, the most frequent term in the Light category was “light” ($n = 10$), most often qualified by participants as “natural light,” including descriptions such as “light from above” and “morning light,” followed by “dark” ($n = 3$) and “pitch” ($n = 2$). For the Sound variable, “sound” was the most prevalent term ($n = 4$), followed by “echo” ($n = 2$), described in terms of reverberation and reflection, and “absorption” ($n = 1$), referring to sound-absorbing surfaces. In the Temperature category, “coldness” appeared most frequently ($n = 4$), consistently described by participants simply as “cool” or “cold,” followed by “heat” ($n = 2$) and “degrees” ($n = 2$), with participants citing specific ranges such as “24–26 degrees.”

In the Use-effect component, the Experience variable category indicated that “perception” was the highest term ($n = 18$), with participants frequently describing spaces as evoking “a strong sense of perception” or as places where one could “sense energy,” followed by “space” ($n = 13$), often characterized as “an ill-fitting space” or one requiring the visitor to perceive it, and “state” ($n = 4$), as in “a comfortable state.” In the Between category, “space” was the most common term ($n = 1$), referring to the “space in-between,” followed by “small” ($n = 1$), as in a “narrow, small” passage. For Proximity, the leading term was “space” ($n = 4$), again referencing “proximity” and adjacency, followed by “heaven” ($n = 2$), described as “the realm above,” and “faith” ($n = 2$), exemplified by references to “God” and “faith.” Finally, regarding Connection, “space” was cited most often ($n = 1$), referring to “the connection between spaces,” followed by “ground” ($n = 1$) and “skyward” ($n = 1$), as in “ascending toward the sky,” presented in Table 2.

Table 2. The architectural atmosphere word frequency table.

Group	Component	Top Words
Tangible	Physicality	space (12), church (3), hall (3), museum (3), temple (2), natural (2), meditation (2), center (2), religious (2), building (2)
	Material	wood (5), soil (5), material (2), carpet (1), glass (1), teak (1), warm (1), dry (1), natural (1), yellow (1)
	Object	wood (7), buddha (3), statue (3), carpet (1), mural (1), painting (1), cross (1), stone (1), fake (1), dry (1)
	Sensing	air (2), humidity (2), touch (1), cool (1), good (1), relative (1)
Intangible	Light	light (10), dark (3), pitch (2), dimness (1), reflection (1), little (1), dim (1), bright (1), white (1), soft (1)
	Sound	sound (4), echo (2), absorption (1), bird (1), stunned (1), chirping (1)
	Temperature	coldness (4), heat (2), degrees (2)
Use-effect	Experience	perception (18), space (13), state (4), view (4), mind (4), surrounding (3), chaos (2), emotion (2), unpredictable (2), light (2)
	Between	space (1), small (1)
	Proximity	space (4), heaven (2), faith (2), sluggish (1), view (1), god (1), belief (1), hell (1), surprise (1), isolated (1)
	Connection	space (1), ground (1), skyward (1)

4.2.3. Synthesis of Converging Findings

Synthesizing the findings from both the systematic review and the experiential data reveals a profound convergence between the theoretical framing of architectural atmosphere and its actual phenomenological experience. Core components such as ‘space’ (spatial), ‘light’, and ‘perception’ serve as fundamental anchors across both datasets.

However, a distinct and complementary dichotomy emerges within the sub-categories. The systematic literature review largely conceptualizes the atmosphere through abstract, relational, and systemic terms (e.g., ‘structure’, ‘relation’, ‘interface’, ‘temporal’). In contrast, the experiential data translates these conceptual frameworks into highly tangible, sensory, and culturally specific realities (e.g., ‘wood’, ‘church’, ‘buddha’, ‘coldness’, ‘skyward’)

4.3. The Association of Each Atmospheric Component on Spiritual Constructs

This section presents findings on the relationship of each atmospheric component with spiritual constructs. Findings are examined for patterns of relationships across methods and synthesized to establish the relational basis for the proposed design framework.

4.3.1. Findings from Systematic Literature Review

Derived from the bivariate association analysis of the systematic literature review data, the relationship of architectural atmosphere components and spiritual states is categorized as follows. It should be noted that the Phi coefficient indicates the extent to which two concepts co-occurred within the same publications, rather than a causal or directional relationship between them.

Regarding tangible components, positive spiritual affective states showed that the most robust relationship was between the Material aspect and a Calm state ($\Phi = 0.39$). In addition, the Material aspect was associated with Faith ($\Phi = 0.22$). In contrast, no significant correlations were observed between tangible components and negative spiritual states.

Regarding intangible components, positive spiritual affective states indicated that sound co-occurred strongly with feeling Quiet ($\Phi = 0.26$). Furthermore, temperature was associated with feeling Relaxed ($\Phi = 0.22$) and Quiet ($\Phi = 0.18$). In contrast, for negative spiritual affective states, sound co-occurred with adverse psychological states, specifically feeling Sorry ($\Phi = 0.22$) and Distressed ($\Phi = 0.21$).

In terms of use-effect components, positive spiritual affective states showed that Time was linked to Hope ($\Phi = 0.25$). Connection showed a targeted relationship with Faith ($\Phi = 0.19$), while Proximity was associated with feeling Relaxed ($\Phi = 0.18$). Conversely, for negative spiritual affective states, Proximity was linked to feeling Distressed ($\Phi = 0.21$).

The associations between all components of the architectural atmosphere and spiritual feelings from the systematic literature review are depicted in Figure 5. Asterisks denote nominal (uncorrected) statistical significance from Fisher’s Exact Test (* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$); see Section 3.1.3 for details on multiple-comparison handling.

4.3.2. Findings from Practice-Based Interviews

Derived from the in-depth interview data, the architectural atmosphere components consistently associated with spiritual constructs are categorized as follows: Because the interview corpus comprises only five cases, the coefficients reported below, including values of $\Phi = 1$, arise from cross-tabulations in which cells may contain as few as one observation. They are therefore reported as indicators of consistent association rather than as measures of effect size. Given this limitation, these values should not be interpreted as indicating strong correlations; they are reported solely as indicators of consistent co-occurrence within a small sample, rather than as measures of effect size or strength of relationship.

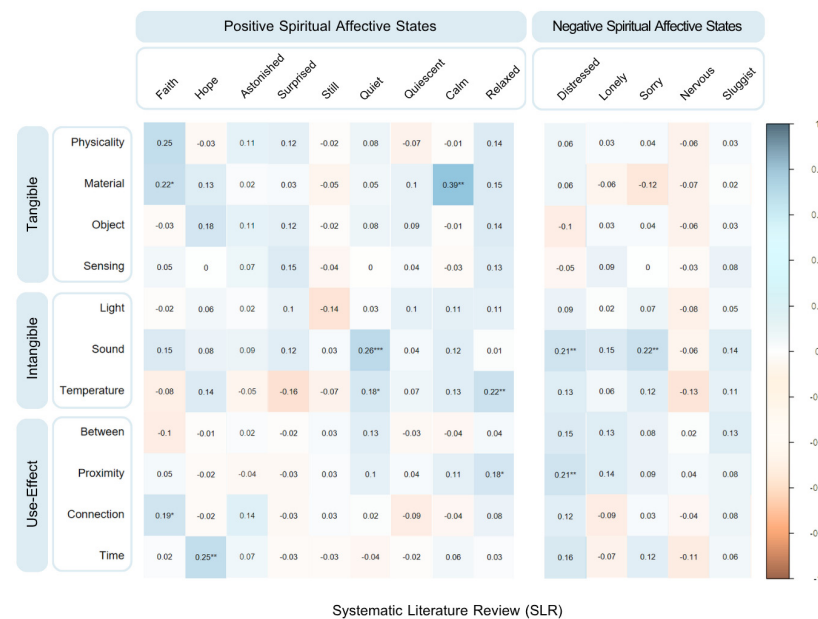


Figure 5. Atmospheric Component Association with Spiritual Constructs (SLR). Asterisks denote nominal (uncorrected) statistical significance from Fisher’s Exact Test (* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$); see Section 3.1.3 for details on multiple-comparison handling.

Regarding tangible components, positive spiritual affective states indicated that Material was most closely linked to a Calm state ($\Phi = 1$) and was also reflected in reports of feeling Relaxed and Hope ($\Phi = 0.61$). Object featured most prominently alongside feeling Relaxed and Hope ($\Phi = 1$), and appeared alongside Astonished and Calm states ($\Phi = 0.61$). Sensing tracked with a Calm state ($\Phi = 0.67$). For negative spiritual affective states, Object was most closely tied to feeling Sluggish ($\Phi = 1$) and was paired with feeling Lonely ($\Phi = 0.61$), while showing an inverse pattern with feeling Nervous ($\Phi = -0.41$). Material was likewise observed together with feeling Sluggish ($\Phi = 0.61$).

For intangible components, positive spiritual affective states indicated that Temperature was most strongly linked to a Calm state ($\Phi = 1$), and also appeared alongside feeling Relaxed and Hope ($\Phi = 0.61$). Light featured most prominently alongside feeling Relaxed and Hope ($\Phi = 1$), and was paired with feeling Astonished and Calm ($\Phi = 0.61$). Sound tracked with a Calm state ($\Phi = 0.67$). In contrast, for negative spiritual affective states, Light was most closely tied to feeling Sluggish ($\Phi = 1$) and paired with feeling Lonely ($\Phi = 0.61$). Temperature was likewise observed together with feeling Sluggish ($\Phi = 0.61$).

Regarding use-effect components, positive spiritual affective states revealed that Connection was related to feeling Astonished ($\Phi = 0.67$). The Between aspect was linked to a Quiet state ($\Phi = 0.61$). In contrast, for negative spiritual affective states, Connection was most strongly linked to feeling Lonely ($\Phi = 0.67$).

The associations between all components of the architectural atmosphere and spiritual feelings from practice-based interviews are depicted in Figure 6.

4.3.3. Synthesis of Converging Findings

Synthesizing the relational dynamics between architectural atmospheres and spiritual affective states across both datasets reveals critical theoretical and empirical alignments. Notably, the ‘Material’ aspect is consistently associated with a ‘Calm’ state in both the systematic literature review and the experiential interviews. Similarly, intangible components, particularly ‘Temperature’ and ‘Sound’, are associated with restorative psychological conditions, such as feeling ‘Relaxed’ and ‘Quiet’.

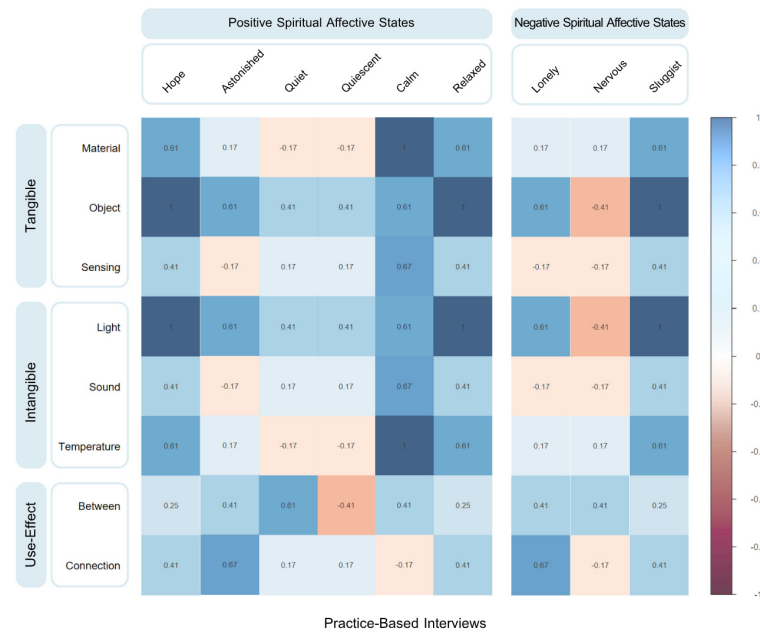


Figure 6. Atmospheric Component Association with Spiritual Constructs (Interviews).

However, a distinct contrast emerges regarding the intensity and nature of the reported spiritual states. The systematic literature review predominantly identifies moderate associations ($\Phi < 0.40$), associating atmospheric components with steady, foundational spiritual attributes (e.g., ‘Faith’, ‘Hope’) and generalized discomfort (e.g., ‘Distressed’). In contrast, the practice-based interviews capture affective extremes. The experiential data frequently shows the highest possible co-occurrence values ($\Phi = 1$), reflecting more acute and personalized psychological responses, such as feeling ‘Astonished’, ‘Lonely’, or ‘Sluggish’.

5. Discussion

When the results from the SLR and practice-based interview are considered together, the holistic design of architectural atmosphere for spirituality may draw particularly on the dimension of space or spatiality, which emerged as a prominent aspect. Furthermore, using the feature of perception as a foundation for design, as well as integrating architectural features related to nature into the design process, are important considerations that should be taken into account.

When examining architectural features at the individual component level in detail, it can be observed that, within the tangible group, the most frequently reported features for physicality were spatial or space design and the use of materials with natural characteristics. This also includes the selection of objects with symbolic significance to belief. For the intangible component, the SLR results highlight the prominence of the light component, particularly in terms of illumination, as well as sound quality in the aspect of acoustics. Meanwhile, cool and comfortable conditions were most frequently reported for the temperature component, supporting users’ perception. Within the use-effect group, space was the most frequently reported feature, as it is closely associated with key components such as between, proximity, and connection. Furthermore, based on the SLR findings, perception appeared most frequently within the experience component, as it is a key mechanism of architectural atmosphere for spirituality.

A closer examination of the tangible component reveals that the presence of the object should be taken into consideration when designing the architectural atmosphere for a spiritual construct, given its consistent association with a positive spiritual construct. Like-

wise, attention should also be paid to architectural features that can be sensed. Within the intangible component, the use of light is consistently associated with the positive spiritual construct, whereas when designing an architectural atmosphere intended to relate to a negative spiritual construct, the temperature component should be a primary consideration. For the design of the use-effect component, the use of connection is consistently associated with the positive spiritual construct. A closer examination of the associations between individual architectural components and spiritual constructs reveals that designing for calmness requires careful consideration of material qualities, while creating a relaxing atmosphere is associated with appropriate temperature conditions. Tangible elements, especially objects and materials, may also be considered where positive spiritual constructs such as relaxation and hope are sought.

Three associations were most consistent across both datasets:

- Material and calm: strongest in the Systematic Literature Review and consistently associated in the interviews. The literature attributes this to the tactile and thermal properties of natural materials, experienced peripherally rather than focally [127,143].
- Light and positive constructs: consistently associated with relaxation and hope in the interview data, corresponding with accounts in which illumination structures attention and frames spatial experience [145–148].
- Temperature and calm: consistently associated with calm and relaxation. The literature relates this to thermal comfort as a threshold condition supporting sustained attention [149].

6. Limitations

The systematic literature review was conducted using only the Scopus database and included only English-language publications published between January 2024 and April 2026. While this scope was intentionally selected to focus on post-COVID knowledge, it may have excluded relevant studies published in other languages or available in other databases, potentially limiting the coverage of the review. The search also used general terms such as “architecture”, “atmosphere”, “spiritual”, and “spirituality” rather than more specific ones such as sacred space, contemplative architecture, ritual space, awe, and spiritual well-being. Studies that used only these narrower terms may therefore have been missed, giving the review a broad but less detailed view of the field.

The geographical distribution of the reviewed literature was predominantly concentrated in Asian contexts, with most studies conducted in Indonesia, China, and Malaysia. While this concentration reflects the current state of research in the field, it may limit the transferability of the identified atmospheric spiritual qualities to Western contexts or other cross-cultural environments.

In the practice-based interview, the qualitative inquiry was conducted using a purposive sample consisting of five Thai architects with expertise in the field. Although the adequacy of this sample size is supported by studies [179,180], the interview findings reflect individual professional perspectives and subjective experiences, which may not be broadly representative of the architectural profession as a whole.

Although binary coding was necessary for comparison across large datasets, it may have reduced the interpretive complexity of architectural components. In addition, associations reported from the systematic literature review are based on uncorrected (nominal) *p*-values across 154 pairwise comparisons; given the exploratory nature of this synthesis, these associations should be regarded as hypothesis-generating rather than confirmatory.

The findings also revealed gaps in the identification of certain components of architectural atmosphere, particularly within the practice-based interview dataset. For example, the components of betweenness and connection were represented by relatively few instances

in the word frequency analysis when compared with other components or with findings derived from other research methods.

As an early study addressing this gap, the present research proceeded at the level of components rather than parameters. Architectural atmosphere comprises numerous interacting factors, and identifying which components are relevant is a prerequisite for specifying any of them in measurable terms. The framework therefore establishes a basis on which future studies may examine each factor in greater detail.

The framework developed here is intended as a foundation for future research and as a reference for designers, not as a validated set of solutions. Whether architecture designed according to these components helps address the loss of spiritual engagement identified in the introduction remains to be tested empirically. Future applied research that translates the design framework into measurable architectural specifications and evaluates them through assessments in real-world settings would perhaps help fill the gap between research and professional practice identified in this study, while creating empirical evidence that designers can directly apply in the future.

This study focuses specifically on the architectural dimension of spirituality. The broader social and urban processes outlined in the introduction, and the wider direct and indirect benefits that spiritually supportive environments may confer, lie outside its scope and remain to be examined.

7. Future Research

Future research should broaden the search scope to include additional databases and non-English-language publications, particularly from countries such as China and Indonesia. Cross-cultural replication studies could also be undertaken to evaluate the applicability of the proposed design framework across diverse cultural settings. Future reviews could also disaggregate the search into more targeted sub-groups, allowing the relationship between specific architectural conditions and specific spiritual constructs to be traced with greater precision.

The expert interview sample in this study consisted exclusively of Thai architects with professional expertise in the field. Future investigations could incorporate broader surveys of architectural practitioners or examine users' experiences of architectural spaces in relation to spirituality from wider backgrounds and cultures. Including perspectives from the general public, in addition to design experts, would offer a more comprehensive picture of how architectural atmospheres for spirituality are perceived by different populations.

Future research should move toward applied studies that can directly test how atmospheric spiritual variables influence measurable outcomes. Using scientific measurement tools alongside these studies would help build a stronger empirical foundation for the findings and complement the text-based evidence used in the present research. In addition, future research could complement this quantitative approach with in-depth qualitative methods to recover the interpretive detail that binary coding omits. Future research should also examine each atmospheric component in greater depth to establish measurable design parameters, yielding more precise design guidance than the component-level framework presented. Post-occupancy evaluation in completed buildings would further test whether the attributes identified here correspond to users' reported experience in practice.

8. Conclusions

As urban populations now spend the majority of their lives within buildings, architecture has become a primary setting for spiritual experience. This study therefore examines how architectural atmosphere can be designed to address the growing spiritual needs of urban populations. Drawing on evidence from a systematic literature review and practice-

based interviews conducted in the post-COVID-19 era, it developed a design framework for architectural atmospheres associated with spiritual constructs.

The findings suggest that a holistic approach should emphasize spatial design strategies that cultivate perceptual engagement while integrating natural elements into the built environment. At the tangible level, physical design should emphasize the creation of meaningful spatial settings and the placement of objects with symbolic significance. At the intangible level, design should prioritize the illumination of light, the acoustic qualities of sound, and temperature conditions that create a comfortable environment. At the use-effect level, design should emphasize spatial qualities that shape the atmospheric components of betweenness, connection, and proximity while also prioritizing the perceptual experience of the atmosphere. More specifically, the cultivation of positive spiritual constructs should prioritize the placement of objects, the cultivation of sensory experiences, the design of lighting conditions, and connections between spaces. In contrast, the mitigation of negative spiritual constructs requires attention to temperature conditions, as well as managing betweenness in the built environment.

By combining a systematic literature review spanning multiple religious and cultural contexts with the accounts of experienced practitioners, this study identifies atmospheric attributes described independently of any single religious tradition, offering a basis for design in secular and multi-faith settings.

However, this study was limited to English-language publications indexed in Scopus and perspectives from Thai architects experienced in spiritually oriented design during the period following the COVID-19 pandemic. Furthermore, the design framework developed through this research remains at a conceptual level and has not been empirically evaluated in built environments. Future studies should extend data sources across diverse linguistic, cultural, and temporal contexts while also empirically testing the framework to further develop design guidelines for architectural atmospheres associated with spirituality across different settings.

Supplementary Materials: The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/buildings16163312/s1>, Table S1: Included Articles; Table S2: Supplementary_Table_SLR_Bivariate_pValues; Table S3: Supplementary_Table_SLR_Frequencies.

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