

Liquid Architecture: Cultural Narratives, Spatial Metaphors, and the Evolution of Fluid Form

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Abstract

Liquid architecture represents a fundamental rethinking of architectural space, moving away from the long-standing assumption that buildings must be static, permanent, and formally fixed. Rather than understanding architecture as an object defined by rigid boundaries and stable geometry, liquid architecture proposes space as a fluid condition shaped by movement, atmosphere, perception, and cultural meaning. Rooted in cultural theory, phenomenology, and spatial anthropology, this approach views architecture as an evolving narrative rather than a finished form. This article examines liquid architecture through its cultural and conceptual dimensions, deliberately distancing the discussion from technological determinism or engineering performance. Drawing on philosophical writings, architectural theory, and studies of embodied experience, the research explores how fluidity functions as a spatial metaphor that reshapes relationships between bodies, environments, and collective memory. Liquid architecture dissolves conventional oppositions, such as inside and outside, public and private, object and landscape, allowing spaces to remain open to reinterpretation over time. Through conceptual diagrams and spatial interpretations, the study illustrates how liquid architecture operates as a cultural language rather than a stylistic category. Atmosphere, temporal change, and sensory engagement become central architectural elements, replacing form-driven hierarchies with experiential continuity. The article also situates liquid architecture within global cultural contexts, demonstrating how traditions in African communal spaces, Japanese aesthetics of impermanence, and Middle Eastern courtyard typologies already embody principles of spatial fluidity. The research argues that liquid architecture should be understood as a philosophical stance that aligns architectural practice with the inherently fluid nature of human life. By embracing change, ambiguity, and emotional resonance, liquid architecture offers a framework for designing spaces that respond to evolving identities, social interactions, and cultural narratives. In doing so, it repositions architecture as a living cultural construct shaped by time, movement, and shared experience.

Keywords: Adaptive identity, conceptual design, cultural space, fluid form, liquid architecture, phenomenology, spatial metaphor

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INTRODUCTION

Architecture has historically been associated with ideas of permanence, stability, and control. From monumental stone structures to modernist concrete forms, the built environment has often been designed to resist time, movement, and uncertainty. Walls define boundaries, plans impose order, and structures assert authority over space. While these qualities have provided shelter and symbolic power, they often conflict with the fluid nature of human life, culture, and identity.

Human experience is rarely static. Identities shift across social contexts, cultures evolve through

memory and ritual, and everyday life unfolds through movement and interaction. As contemporary societies become increasingly mobile, digitally connected, and culturally hybrid, the limitations of rigid architectural thinking become more visible. Spaces designed for fixed functions struggle to accommodate changing uses, emotional needs, and collective behaviours. It is within this tension that the idea of liquid architecture emerges [1].

Liquid architecture does not refer to buildings made of water or literal fluid materials. Instead, it is a conceptual and cultural approach that treats space as something that behaves like a fluid. It adapts, flows, transforms, and remains open to reinterpretation. Rather than emphasizing fixed form, liquid architecture prioritizes atmosphere, transition, and experience. Space is understood as relational, shaped by bodies moving through it, by light shifting across surfaces, and by cultural meanings that evolve over time.

This article approaches liquid architecture as a philosophical position rather than a formal style. It argues that liquid architecture offers an alternative to the modernist obsession with control and certainty, proposing instead an architecture that accepts ambiguity, softness, and change. Influenced by phenomenology, cultural theory, and spatial anthropology, liquid architecture focuses on how spaces are felt, inhabited, and remembered rather than how they appear in static drawings.

The aim of this study is to examine liquid architecture through its cultural narratives and spatial metaphors. By exploring how fluidity functions as an architectural language, the article investigates how traditional binaries, such as inside and outside, public and private, and form and function, can be dissolved. Conceptual diagrams and theoretical interpretations are used to illustrate how space becomes an evolving experience rather than a fixed object [2].

Ultimately, this article positions liquid architecture as a response to the changing conditions of contemporary life. It suggests that architecture can no longer rely solely on permanence and formal clarity but must engage with time, movement, and emotional resonance. In doing so, liquid architecture reclaims architecture's role as a cultural medium that reflects, rather than resists, the fluid nature of human existence (Figure 1).



Figure 1. Conceptual diagram of fluid spatial boundaries.

LITERATURE REVIEW

The concept of liquid architecture draws from a wide range of intellectual traditions that challenge the idea of space as static and objectively defined. One of the earliest and most influential contributions comes from Marcos Novak, who introduced liquid architecture as an architecture without fixed form, capable of continuous transformation. Novak's work, particularly in the context of cyberspace,

positioned architecture as responsive, mutable, and interactive, opening the door for thinking beyond material constraints [3].

Sociological theory has also played a critical role in shaping the discourse. Zygmunt Bauman's notion of liquid modernity describes contemporary society as characterized by instability, mobility, and the dissolution of fixed social structures. When applied to architecture, this framework suggests that built environments should accommodate shifting identities rather than enforce rigid cultural norms. Architecture, in this view, becomes a participant in social change rather than a static backdrop.

Phenomenology provides another essential foundation. Maurice Merleau-Ponty emphasized that space is not experienced as abstract geometry but through the body, movement, and perception. Architecture, therefore, exists not only as physical form but as lived experience. This perspective aligns closely with liquid architecture, which prioritizes sensory engagement, atmosphere, and embodied interaction over formal composition [4].

Architectural theorists, such as Juhani Pallasmaa and Peter Zumthor, have further contributed to this experiential understanding of space. Their writings emphasize mood, material presence, and emotional resonance, arguing that architecture communicates through sensation rather than visual dominance alone. While their work does not explicitly label itself as liquid architecture, it supports the idea that spatial meaning is fluid and deeply personal.

Anthropological studies of space also inform the concept. Yi-Fu Tuan's exploration of space and place highlights how environments gain meaning through lived experience and memory. Similarly, Tim Ingold's work on movement and dwelling suggests that space is continuously formed through human activity. These ideas reinforce the argument that architecture is not a finished object but an ongoing process [5].

Together, these bodies of literature establish liquid architecture as a conceptual framework rooted in cultural, philosophical, and experiential thought. Rather than emerging from technological innovation alone, liquid architecture reflects a broader shift in how space, identity, and culture are understood in an increasingly fluid world [6].

CONCEPTUAL FRAMEWORK OF LIQUID ARCHITECTURE

Liquid architecture can be understood through three cultural foundations:

Fluid Identity

Architecture becomes a mirror of contemporary fluid identities that shift across cultural contexts, social networks, and personal experiences. Spaces adapt, rather than demanding that users adapt to them.

Temporal Atmospheres

Liquid architecture focuses on evolving atmospheres rather than fixed form. Time becomes a design material.

Porous Boundaries

Liquid architecture dissolves boundaries between

- interior and exterior.
- individual and collective.
- object and landscape.
- architecture and art.

This fluidity gives rise to spaces that behave like transitional environments rather than static enclosures (Figure 2).

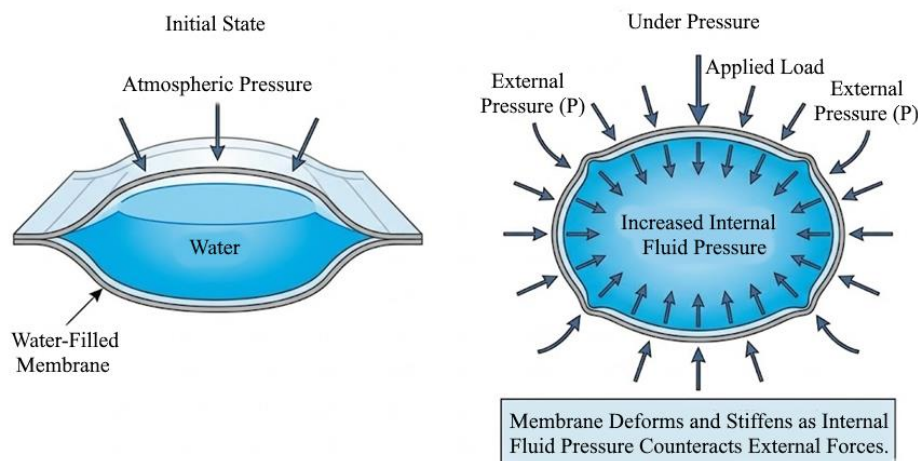


Figure 2. Conceptual diagram showing spatial fluidity and overlapping territories.

CULTURAL DIMENSIONS OF LIQUID ARCHITECTURE

Architecture as Narrative Flow

Traditional architecture often communicates through fixed symbols columns, façades, ornament. Liquid architecture replaces these symbols with movement and transformation. Space becomes a narrative that unfolds dynamically [7].

Collective Memory as Fluid Form

Communities carry memories in fluid ways stories, rituals, songs. Liquid architecture embodies this cultural looseness, allowing memory to circulate rather than freeze into monuments.

Space as Social Interaction

In liquid architecture, spatial boundaries adjust based on interaction. A room expands psychologically when animated by conversation, or contracts during moments of solitude [8].

Architecture as Cultural Softness

Rigid forms often symbolize authority or control. Liquid architecture expresses softness, empathy, openness, and inclusivity qualities essential to contemporary cultural landscapes (Figure 3).



Figure 3. Abstract diagram of transitional spaces in liquid architecture.

SPATIAL LANGUAGE AND FORM

Liquid architecture embraces forms that suggest movement, continuity, and transformation. These include:

- Curvilinear forms.
- Dissolving edges.
- Flowing partitions.
- Layered transparencies.
- Atmospheric gradients.

Space is not defined by enclosure but by relations and transitions.

Movement as a Formal Generator

Users' bodies become co-authors of the space. Movement activates spatial meaning.

Atmosphere as Architecture

Light, shadow, colour, and sound become primary design elements not for technical performance but for mood creation.

The Architecture of Dissolution

Instead of declaring boundaries, liquid architecture erodes them.

MATERIALITY AND REPRESENTATION

Liquid architecture does not depend on technical materials but instead employs representational materials that express conceptual fluidity [9]. These may include (Figure 4):

- Translucent surfaces.
- Layered fabrics.
- Flowing forms in plaster or clay.
- Reflective surfaces.
- Shifting colour fields.

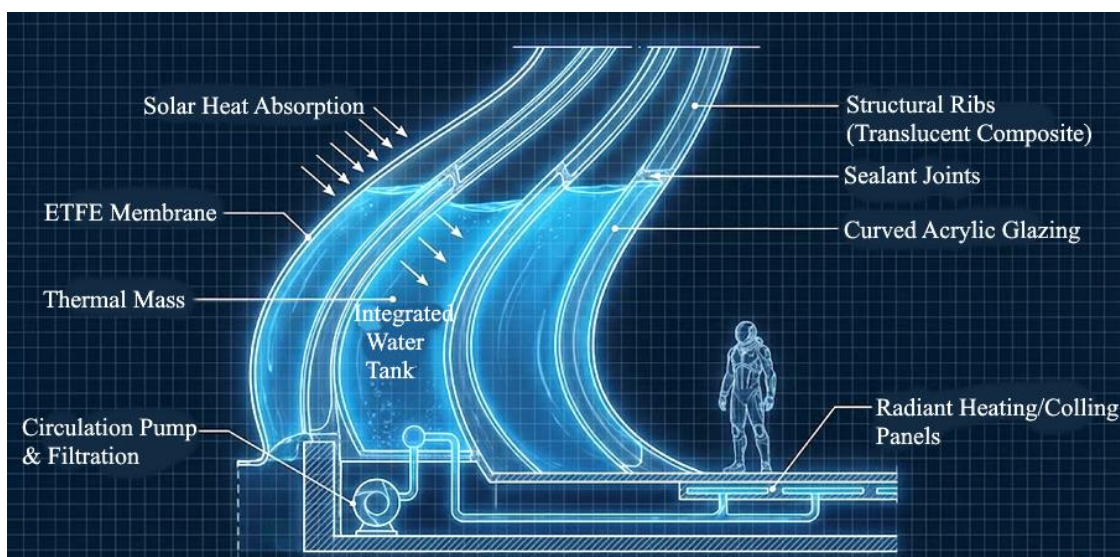


Figure 4. Technical section showing water-tank wall system in liquid architecture.

Light as Soft Material

Light in architecture behaves as a dynamic and intangible material that continuously changes throughout the day and across seasons. Unlike solid materials, it does not have a fixed form, allowing it to create evolving spatial experiences. It can soften rigid geometries, blur boundaries, and enhance depth perception within a space. Through reflections, refractions, and diffusions, light introduces a sense of movement, making architecture feel alive and responsive. This fluid quality of light enables designers to shape mood, hierarchy, and perception without altering physical structures.

Shadow as Fluid Boundary

Shadow acts as a transient architectural element that constantly shifts in response to light sources and user movement. It creates temporary edges and layers, redefining spatial boundaries in a non-static manner. Much like liquid spreading across a surface, shadows move, merge, and dissolve, producing a sense of continuity and transformation. These changing patterns enrich spatial complexity and invite users

to engage visually and emotionally. By manipulating shadow, architects can create depth, ambiguity, and a poetic interplay between presence and absence.

Colour as Emotional Fluid

Colour in architecture functions as a sensory and psychological medium that influences human emotions and perceptions. Rather than being static, colour can appear fluid through gradients, lighting variations, and material textures. Subtle shifts in hue and saturation can evoke different moods, ranging from calmness to vibrancy. Cultural contexts also play a significant role in how colours are interpreted, adding layers of meaning to spatial design. This fluidity allows colour to act as a connective element, linking physical space with emotional and cultural experience.

EXPERIENTIAL DIMENSIONS

Liquid architecture emphasizes experience over physical form, prioritizing how space is perceived and felt by users. It shifts the focus from static structures to dynamic interactions between users and their environment. The experience of space becomes temporal, evolving with movement, light, and activity. This approach acknowledges that architecture is not only seen but also lived and sensed. By engaging multiple senses, it creates environments that are immersive, adaptive, and emotionally responsive.

Embodied Movement

In liquid architecture, movement is a key factor in shaping spatial experience. As users walk, pause, or interact, their perception of space continuously changes, creating a personalized journey. The design encourages exploration and discovery rather than fixed viewpoints. Spatial sequences unfold gradually, responding to bodily motion and orientation. This embodied interaction transforms architecture into an active participant in human experience rather than a passive backdrop.

Immersion

Immersive environments in liquid architecture dissolve the clear distinction between user and space. Instead of being mere observers, users feel enveloped within the spatial atmosphere. Elements, such as light, sound, texture, and scale work together, to create a cohesive sensory experience. This immersion enhances emotional engagement and strengthens the connection between the individual and the environment. As a result, space is perceived as continuous and flowing rather than segmented or static [10].

Emotional Resonance

Spaces designed with fluid principles have the ability to evoke strong emotional responses. Through variations in light, shadow, scale, and materiality, architecture can communicate subtle feelings such as tranquility, intimacy, or dynamism. These emotional cues are not fixed but change with time and context, making each experience unique. The fluidity of these elements allows spaces to adapt to different moods and user interpretations. This creates a deeper and more meaningful relationship between people and their surroundings.

CULTURAL FRAMEWORKS AND GLOBAL INTERPRETATIONS

Liquid architecture is interpreted differently across cultural contexts, reflecting diverse philosophies and traditions. While some cultures emphasize permanence and solidity, others value impermanence and transformation. These differences influence how space is designed, experienced, and understood. Global interpretations of fluidity in architecture demonstrate that it is not a singular concept, but a spectrum of ideas shaped by cultural narratives. This diversity enriches architectural discourse and expands the possibilities of design.

Eastern Aesthetics

Eastern architectural traditions, particularly in Japan, have long embraced principles of fluidity and impermanence. Concepts, such as *wabi-sabi*, emphasize beauty in transience, incompleteness, and natural aging. Spaces are often designed with flexible boundaries, using elements like sliding screens and open layouts to create adaptability. Light, shadow, and natural materials are used to blur distinctions

between interior and exterior. These approaches reflect an early understanding of liquid architecture, where space is not fixed but continuously evolving with time and context.

African Spatial Fluidity

African spatial traditions often emphasize community, movement, and adaptability, which align closely with the principles of liquid architecture. Built environments are typically organized around circular or semi-circular forms, encouraging inclusivity and collective participation. Spaces are not rigidly defined but evolve based on social interactions, rituals, and daily activities. Movement plays a central role, with pathways and gathering areas facilitating fluid transitions between private and communal zones. This dynamic use of space reflects a living architecture that responds to cultural practices rather than imposing fixed spatial hierarchies.

Middle Eastern and South Asian Courtyard Fluidity

Courtyard architecture in Middle Eastern and South Asian contexts exemplifies spatial fluidity through its adaptability and multifunctionality. These courtyards act as central nodes that connect various parts of a building while accommodating a range of activities, from social gatherings to climatic regulation. The boundaries between indoor and outdoor spaces are often blurred through verandas, arcades, and transitional zones. Light, **हवा** (airflow), and shadow continuously transform the courtyard environment, making it responsive to time and season. This flexibility allows the courtyard to function as an expandable social container, adapting to both private and communal needs.

Western Conceptual Fluidity

Western architectural discourse has increasingly embraced fluidity through advancements in digital design tools and computational techniques. Parametric modelling and algorithm-driven processes enable the creation of dynamic, non-linear forms that visually express movement and transformation. However, this approach often prioritizes formal experimentation and aesthetic innovation over experiential or cultural depth. True liquid architecture in the Western context goes beyond visually fluid geometries to incorporate human experience, temporality, and contextual meaning. It requires integrating sensory engagement, social relevance, and cultural narratives, ensuring that fluidity is not merely a stylistic expression but a holistic spatial philosophy (Table 1).

Table 1. Cultural fluidity concepts mapped to architectural qualities.

Cultural idea	Origin	Architectural quality (liquid interpretation)
Wabi-Sabi	Japan	Imperfect, evolving, atmospheric space.
Ubuntu	Africa	Fluid boundary between self and community.
Flow State	Global	Spatial rhythm supporting uninterrupted movement.
Caravanserai	Middle East	Transitional space, open to change and exchange.

DISCUSSION

Liquid architecture challenges conventional architectural thinking by rejecting the assumption that buildings must impose fixed meanings and stable hierarchies. Instead, it proposes space as a medium of negotiation, where meaning emerges through movement, interaction, and cultural context. This shift has significant implications for how architecture is designed, represented, and experienced [11, 12].

One of the key strengths of liquid architecture lies in its alignment with human life. Identities evolve, relationships change, and social practices adapt over time. Spaces that remain open to reinterpretation are better equipped to support these transformations. By dissolving rigid boundaries, liquid architecture fosters inclusivity and psychological comfort, allowing users to engage with space on their own terms.

However, this approach also presents challenges. Traditional architectural tools, such as plans, sections, and elevations, struggle to capture fluid experiences. Liquid architecture requires alternative modes of representation, including diagrams, narratives, and temporal mappings that communicate change and atmosphere. This demands a shift in both design education and professional practice.

Culturally, liquid architecture offers a way to move beyond universalized architectural models. By engaging with local narratives, rituals, and sensory traditions, it supports pluralistic expressions of space. Rather than prescribing form, liquid architecture listens to cultural rhythms and adapts accordingly.

Ultimately, liquid architecture reframes architecture as a living cultural process. It resists the desire for total control and instead embraces uncertainty, softness, and empathy. In doing so, it opens new possibilities for spaces that resonate emotionally and culturally, rather than merely functioning as static containers.

CONCLUSION

Liquid architecture redefines the built environment by shifting attention from static form to lived experience. It proposes an architecture that behaves metaphorically like a fluid, responsive to movement, time, and cultural meaning. Rather than enforcing rigid spatial hierarchies, liquid architecture invites openness, transition, and transformation.

This article has argued that liquid architecture is not a stylistic trend, but a philosophical stance rooted in cultural theory, phenomenology, and spatial anthropology. By dissolving binaries, such as inside and outside, public and private, and object and landscape, it allows architecture to align more closely with the fluid nature of human life. Atmosphere, perception, and emotion become central architectural concerns.

Across global contexts, liquid architecture resonates with long-standing cultural traditions that value impermanence, communal interaction, and spatial ambiguity. Whether through African communal spaces, Japanese aesthetics, or courtyard based social structures, fluid spatial thinking has deep cultural roots. Liquid architecture offers a contemporary framework for reinterpreting these traditions without reducing them to visual motifs.

As societies continue to evolve under conditions of mobility, digital mediation, and cultural hybridity, architecture must move beyond rigid formalism. Liquid architecture provides a language for spaces that adapt, listen, and transform alongside their users. In embracing fluidity, architecture regains its capacity to reflect human existence not as fixed and certain, but as dynamic, emotional, and continually unfolding.

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