

Women's Embodiment as Semiotic Practice: A Multimodal Analysis of Spatial Meaning in Novi Kristinawati's Design

Senja Aprela Agustin

Bandung Institute of Technology
Institut Teknologi Sepuluh November
senja@kotasis.com / 0000-0002-4398-480X

Acep Iwan Saidi

Bandung Institute of Technology
acepiwan@itb.ac.id / 0000-0003-3413-7139

Irma Damajanti

Bandung Institute of Technology
irmadamajanti23@gmail.com / 0009-0007-3654-202X

Hafiz Aziz Ahmad

Bandung Institute of Technology
hafiz.a@itb.ac.id / 0009-0003-4187-8303

Abstract

Women's embodied experiences are shaped by both biological and socio-cultural dimensions of the body. In design studies, the work of women designers offers distinctive perspectives grounded in lived and bodily experience. This study examines how women's embodiment is reflected in the architectural works of Novi Kristinawati, positioning design as a site of embodied meaning-making and socio-cultural negotiation. Using a qualitative interpretative approach, the research applies multimodal analysis informed by social body theory. Design is

understood as an assemblage of interrelated semiotic modes operating through representational, interactive, and compositional metafunctions. In-depth interviews complement the visual analysis by situating the works within experiential and contextual frameworks. The findings reveal that Kristinawati's designs express embodiment as relational, caring, and functionally flexible, articulated through multisensory spatial strategies. These works challenge conventional notions of femininity as decorative or subordinate, demonstrating that design knowledge emerges from women's embodied experience, where biological and social bodies are inseparable.

Keywords: women's embodiment; multimodal design analysis; relational care in design, functional flexibility in design, woman designer.

Introduction

Design, as an extension of the human body, shapes how people perceive and interact with their surroundings. Women's experiences differ from men's, shaped by biological conditions and gendered socio-cultural structures. These differences are conceptualised as **embodiment**, a framework that reveals how bodies both engage with and are shaped by design. Women designers often articulate perspectives grounded in women's embodied experiences, making visible the socio-cultural relations embedded in design practice. Despite their significance, women's contributions have long been marginalised within canonical design histories. Lilly Reich's collaboration with Mies van der Rohe illustrates this structural erasure (Lizondo-Sevilla & Calabuig, 2022). Similar disparities persist in architecture more broadly: in 2014, women constituted only 39% of the European architectural workforce and continued to face gendered

pay gaps (Cardoso, 2017). Yet figures such as Zaha Hadid demonstrate that women have played a crucial role in shaping modern architecture through innovative formal experimentation (Rahayu, 2013).

These structural inequalities are closely intertwined with spatialised gender norms that associate women with domesticity. Interior design, historically framed as a woman's domain, emerged from concerns for comfort, care, and aesthetics (Gordon, 1996), as exemplified by Isabella d'Este's self-designed rooms (Pahlmann, 1976). Contemporary studies further reveal that women actively shape domestic spaces not only for functional purposes but also as sites of social, cultural, and economic negotiation, as observed in Kauman Village, Semarang (Harani, Woro, & Wardhani, 2022). Nevertheless, the persistent separation of home, workplace, and public facilities continues to reinforce gendered divisions of labour, positioning women within domestic responsibilities and limiting their spatial agency (Boys, 1984). These spatial arrangements highlight how embodiment is not merely bodily but deeply entangled with cultural norms, power relations, and everyday practices.

As Synnott (2007) argues, the body is not only a physical entity but also a social phenomenon whose meanings vary across cultures. In design discourse, women's bodies have often been regarded as less authoritative than men's, reinforced by stereotypes that frame women as intuitive and decorative while positioning men as rational and functional. Walker (1989) notes that this binary opposition marginalises women's design contributions by associating form with femininity and function with masculinity. Despite increasing attention to gender in design studies, the **embodiment of women designers as a formative force in design practice remains underexplored**, particularly in non-Western contexts.

In Indonesia, this gap is especially pronounced. As of 2016, women constituted only 30% of registered members of the Ikatan Arsitek Indonesia (IAI) or Indonesian Institute of Architects. Face out these tendencies, the work of **Novi Kristinawati**, a woman designer based in Yogyakarta, offers a critical site for examining women's embodiment in architectural design. Her work is characterised by the use of bamboo as a primary structural and expressive element, combined with curved decorative forms that challenge rigid modernist geometries. Novi Kristinawati was selected based on four criteria: (1) a sustained professional practice of more than ten years, indicating design as a long-term career; (2) the cultural impact of her work through collaborations with influential clients within specific socio-cultural contexts; (3) her relative independence as a woman designer, reflected in a distinctive aesthetic language and the presence of her own design studio as part of her professional identity; and (4) research accessibility supported by primary data, including site observations, design documentation, archives, and interviews.

This study focuses on the design of **Agung Kurniawan's art studio** in Sembungan Village, Yogyakarta, a project designed by Novi Kristinawati that integrates bamboo as a major window and façade element alongside square-formed concrete and steel masses. The selection of this project is theoretically significant for two reasons. The project juxtaposes a rectilinear concrete mass with a tactile bamboo façade. Commissioned by a male artist, it enables an analysis of design decisions as relational practices, through which embodiment is understood as emerging from social and material conditions rather than individual attributes.

This research approaches architectural design as a text and analyses it through multimodal text analysis. Design is understood not merely as a functional solution but as a cultural practice that

shapes lifestyles, values, and ways of thinking (Saidi, 2020). Employing a qualitative–interpretive methodology, the study seeks to generate knowledge about women's embodiment and its influence on design outcomes within specific socio-cultural contexts. In this framework, the woman designer is positioned as a sign-maker who selects and orchestrates semiotic resources such as material, form, texture, and spatial organisation to communicate meanings aligned with her ideology, experiences, and intentions. This process reflects the subjective transformation of the sign-maker described by Kress and van Leeuwen (2021). As Saunders et al. (2019) note, qualitative–interpretive research emphasizes narratives and interpretations, with researcher reflexivity integral to knowledge production.

To date, interpretive studies in architectural design have predominantly focused on public buildings, while private spaces remain underexamined, despite their role in reflecting social and cultural values (Handinoto, Purwestri, & Widyarta, 2002). Moreover, studies of embodiment in the works of Indonesian women designers remain limited. Existing research includes analyses of Novi Kristinawati's design for the Kampung Halaman Foundation, which foreground care, multisensory experience, flexibility, and gender equality through multimodal analysis (Agustin et al., 2024); studies of Eko Prawoto's architecture that articulate national identity through engagement with nature and community practices (Macrae, 2011); social semiotic analyses of museum architecture such as the Tianfu Art Museum in Chengdu (Ravelli & Wu, 2022); historical studies of Miho Hamaguchi's postwar domestic architecture in Japan (Lobo & Sánchez, 2022); phenomenological research on multisensory interior experience (Lee, 2022); and multimodal analyses of campus buildings using metafunctional frameworks (Ravelli, 2015). While these studies advance interpretive and multimodal approaches in architectural discourse,

they do not specifically interrogate how a woman designer's embodied subjectivity is materially negotiated and spatially articulated within a private professional context.

This study reconceptualizes women's embodiment as a spatial epistemology, one that shapes design decisions, material articulation, and relational configurations. By examining a private art studio designed by a woman architect for a male artist, it reveals how embodied subjectivity operates within client–designer negotiations and spatial production. In doing so, this research addresses a critical gap in Indonesian architectural scholarship, where women designers' embodied perspectives remain insufficiently theorized, and repositions private studio architecture as a significant site for examining gendered spatial practice. Building on this body of work, the present study addresses the following research question: **How is women's embodiment reflected in the work of a woman designer, how does it influence design outcomes, and how are these embodied expressions shaped by their social and cultural contexts?** By doing so, this study contributes to social semiotics by extending multimodal analysis into three-dimensional architectural space, theorising women's embodiment as a semiotic resource in spatial meaning-making, and, practically, increasing designers' awareness of the importance of inclusive, gender-responsive design practices that move beyond stereotypes and bias.

Case Study

The Agung Kurniawan Artist Studio, or Sembungan Studio, in Bantul, Yogyakarta, functions as both a studio and villa, intentionally blurring the boundary between private and public space. Designed as a “breathing space” without air conditioning, the building foregrounds embodied experience through natural ventilation, daylight, and engagement with surrounding vegetation (Kristinawati, 2022). The two-story cubic structure incorporates a bamboo window façade on the

upper floor, mediating sensory and visual exchange between interior and exterior. The ground floor arranges a sequence of spaces, a bedroom, a kitchen, a living room with an internal courtyard, and a rear studio, that encourages bodily movement and sensory awareness, while bamboo curtains replace solid walls to filter light and rain. Constructed from concrete, steel, and bamboo, the studio materially articulates socio-cultural meanings.



Figure 1. Front view of Agung Kurniawan's art studio, designed by Novi Kristinawati. Photograph by Budi N. D. Dharmawan, retrieved from *Budi N. D. Dharmawan Photography Blog*, accessed 10 April 2023.

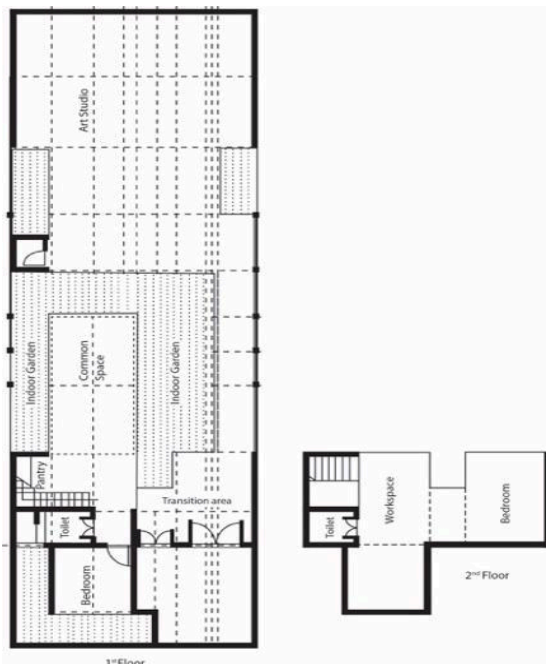


Figure 2. Floor plans of Agung Kurniawan's art studio (first and second floors). Drawing provided by Novi Kristinawati.

Research Methodology

This study adopts a semiotic and multimodal approach to examine architectural meaning as a three-dimensional text reflecting women's embodiment. Multimodality is understood as the interaction of socially and culturally shaped semiotic resources in the production of meaning. The initial analytical step involves identifying architectural modes as interconnected semiotic resources through which reflections of embodiment are expressed in Agung Kurniawan's art studio. Referring to Kress (2021), modes are not treated merely as representational elements but as material resources that interact with bodily perception and multisensory experience. Through this perspective, the study extends multimodal analysis beyond visual texts to architectural space grounded in women's embodied experience as shaped by social and cultural contexts.

Following Kress and van Leeuwen, the analysis is structured through three metafunctions: representational, interactive, and compositional meanings. Each semiotic mode is treated as an analytical unit and examined for its multisensory and body-centered qualities. Representational analysis focuses on how forms, spaces, and materials signify embodied experiences; interactive analysis examines relationships between users, space, and social distance; and compositional analysis explores the integration and hierarchy of modes within the architectural whole.

Data were collected through site visits, direct observation of spatial and material configurations, architectural drawings, photographic documentation, and interviews with Novi Kristinawati to contextualize design intentions. Coding categorized modes according to metafunctional roles, revealing patterns through which women's embodied perspectives are articulated in architectural design.

Results and Discussion

A. Representational Meanings of Agung Kurniawan Art Studio

From the perspective of Kress and van Leeuwen (2021), representational meaning in design operates through both narrative and conceptual structures, emerging from relationships among participants, processes, and circumstances. In the Agung Kurniawan art studio, these two dimensions are closely intertwined: spatial movement and sequencing construct a narrative of navigation, while material articulation and spatial hierarchy express conceptual meanings of openness and privacy shaped by socio-cultural context.

The unfenced studio foregrounds permeability rather than enclosure. The paved courtyard functions as a semi-public exterior that guides users toward interior or private zones through the main entrance (Figure 3). Upon entry, users encounter two paths: a direct route through the garden to the studio, or a left into the main bedroom, then a turn toward the living room. This spatial branching produces a narrative of negotiated access, in which patterned indigo-blue tiles act as semiotic cues that subtly direct movement without explicit physical barriers (Figure 3).

The living room operates as a transitional social node. Its openness allows light, air, and rain to enter, positioning the body in continuous sensory negotiation with the environment. Flanked by unfenced grass gardens, space encourages informal interaction while maintaining visual and spatial continuity with nature (Figure 4). Movement toward the second floor (accessed beside the kitchen and bathroom) marks a gradual narrative shift from shared to increasingly private domains. Here, privacy, interaction, and retreat are communicated through embodied movement, materiality, and sensory modulation rather than formal enclosure.



Figure 3. Unfenced paved courtyard and main entrance of the Agung Kurniawan Studio (left); interior featuring indigo-blue patterned tiles and an indoor garden (right). Photograph by Agung Kurniawan, retrieved from the photographer's public Instagram account (@agungleak), accessed 10 April 2023.



Figure 4. The living room interior functions as an open common space without enclosing walls, featuring indigo-blue floor tiles. Photograph by the author and Agung Kurniawan, with the latter retrieved from the photographer's public Instagram account (@agungleak), accessed 10 April 2023.

Beyond movement, conceptual meaning is articulated through spatial hierarchy and symbolic form. The studio clearly differentiates private and public zones, establishing a structured hierarchy among users. Residents occupy private areas (including the master bedroom with its private garden, the ground-floor artist's studio, and all upper-floor spaces), whereas visitors are primarily limited to shared zones such as the living room, kitchen, bathroom, and indoor garden (Figures 9 and 12).

Symbolic meaning is further reinforced through the studio's two-storey cubic mass. In Western cultural readings, angular forms are often associated with masculinity, while curved forms are associated with femininity (Stroessner et al., 2020; KBBI, 1999). In this project, the rigid concrete block aligns with masculine connotations, while the moon window introduces a contrasting feminine softness (Figure 14).

The staircase to the upper floor functions as a key transitional device between public and private realms. Its narrow, steep configuration signals greater privacy and operates as a conceptual "gateway" (Ching, 2007). Multimodal emphasis through material contrast, lighting, and colour further structures the upper floor as a contemplative domain. The bamboo windows combine pattern and material modes, while indigo-blue steel frames and adjustable natural lighting reinforce this reading (Figure 6).

At the experiential level, the studio emphasises a multisensory connection with nature. Upper-floor spaces open toward the garden through large bamboo windows, allowing light, wind, sound, and scent to permeate the interior (Figures 7 and 8). Occupants engage the environment in a manner analogous to natural organisms (trees, birds, and aromatic flows),

creating a spatial condition attuned to the senses. This resonates with Mangunwijaya's (1988) observation that natural stimuli influence emotional and mental states.

Through this integration of movement, hierarchy, and sensory permeability, the studio produces an "in-between" spatial condition. The design aligns with the *kyōshō jūtaku* concept (Klasto, 2019) and the *uchi-soto* boundary logic, balancing privacy and openness while realising a breathable domestic environment that maximises natural elements without reliance on mechanical air conditioning.

♂ □	laki-laki (jantan)
♀ ○	perempuan (betina)
♀	netral
♀ ♂	hermafrodit netral

Figure 5. The square symbol represents male (masculine), while the circle represents female (feminine). Reproduced from *Kamus Besar Bahasa Indonesia* (1999).

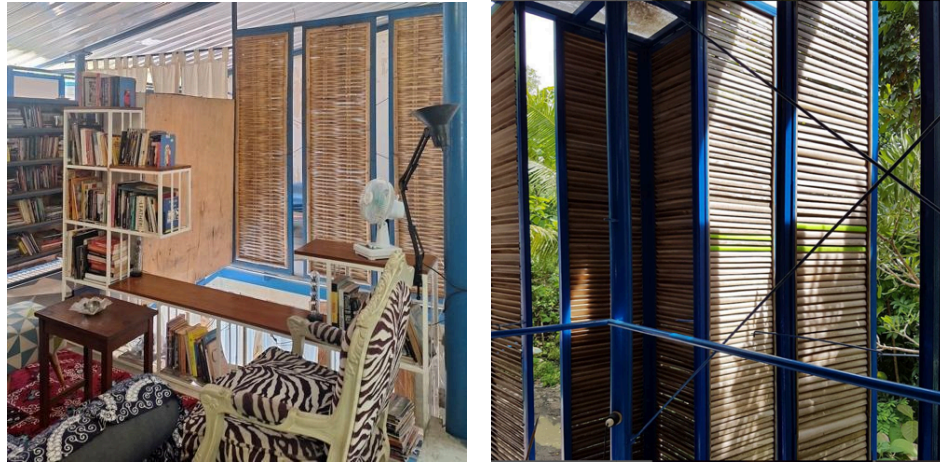


Figure 6. The window design functions simultaneously as a wall and a façade on the second floor. Photograph by the author and Agung Kurniawan, with the latter retrieved from the photographer's

public Instagram account (@agungleak), accessed 10 April 2023.

Figure 7. Agung Kurniawan working on the second floor, with an open bamboo window wall in the background allowing natural elements to enter the building. Screenshot retrieved from the YouTube channel SEAFocusSG, *Inspirations and Influences of Contemporary Art from Southeast Asia: Indonesia*, accessed 3 August 2024.



Figure 8. The workspace and reading area located on the second floor. Photograph by Agung Kurniawan, retrieved from the photographer's public Instagram account (@agungleak), accessed 10 April 2023.

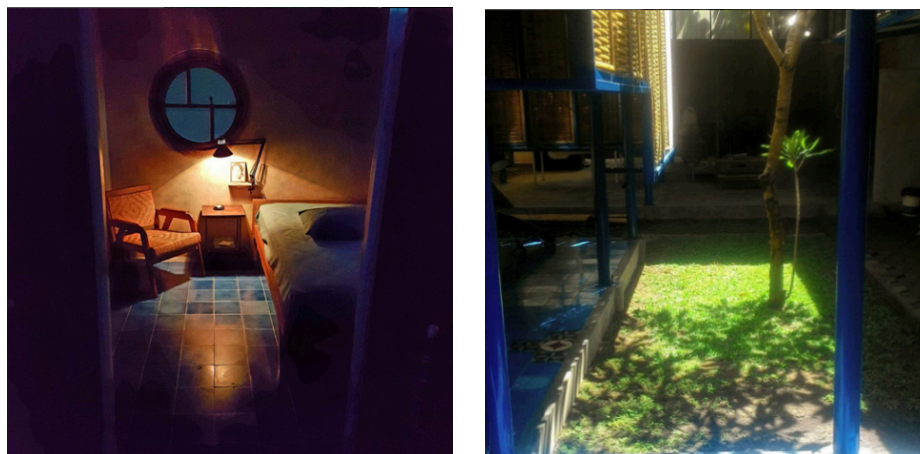


Figure 9. The bedroom on the first floor features a moon window (left), while the private space on the second floor and the garden adjacent to the living room (right) provide users with an experience of engaging with constructed natural spaces within the building. Photograph by Agung Kurniawan, retrieved from the photographer's public Instagram account (@agungleak), accessed 10 April 2023.

Table 1. Representational meanings emerging from the design modes of Agung Kurniawan's studio and their relationships with design users.

Representation Meanings		Modes of Architecture	Design User
Narrative Process	<i>Action Process</i>	Private spaces on first floor and second floor	Inhabitant
		Living room (<i>common space</i>) on first floor	Visitor and inhabitant
		Art studio and workshop	Inhabitant
Conceptual	<i>Structural</i>	Private space (superordinate). Common spaces (sub-ordinate).	Inhabitant Visitor
		The cube as the building's fundamental geometric form is interpreted as symbolizing the artist's masculinity.	all design user
	<i>Symbolic</i>	Common space: the living room and indoor garden (natural space) symbolize an 'in-between space,' offering an 'inside–outside' and multisensory experience.	Inhabitant and visitor
		The private spaces on the second floor (one workspace, one bedroom, and a bathroom) symbolize a domestic realm for rest and creative work that directly engages with nature.	Inhabitant (and permitted visitors)

B. Interactive Meanings of Agung Kurniawan Art Studio

Interactive meanings in design reflect the social relationships constructed between users, space, and other occupants, encompassing the dimensions of contact, social distance, and attitude (Kress & van Leeuwen, 2021). In the Agung Kurniawan art studio, these dimensions operate through spatial openness, vertical hierarchy, and controlled viewpoints. In terms of contact, the design demonstrates both “demand” and “offer” relations. “Demand” contact appears primarily in private zones that allow occupants to engage freely, while shared areas such as the living room, kitchen, and indoor garden support direct interaction between residents and guests (Figure 10). By contrast, “offer” contact is most evident in the artist's private studio.



Figure 10. Interactions between the design and users in the indoor garden adjacent to the living room. Photograph by Agung Kurniawan, retrieved from the photographer's public Instagram account (@agungleak), accessed 10 April 2023.

These contact relations are reinforced through calibrated social distances dimensions. Private areas generate intimate and personal distances for occupants and close relatives. Intimacy is evident in the ground-floor bedroom and private garden, as well as across the second floor, where interaction distances are approximately 0.5 m. In the living room, kitchen, and indoor garden, interactions typically range from intimate to personal (0.5–1.2 m), depending on user relationships (Figures 11 and 12). Broader social distances (1.2–4 m) occur in the studio, enabling visitors to observe the artist at work while maintaining separation. Similar ranges also structure encounters between residents and guests in the living room. The staircase functions as both a physical and social boundary between the communal ground floor and the private upper level. Beyond circulation, it encodes power relations: residents positioned above appear more superordinate when viewed from below, and access to the upper floor remains restricted. This configuration corresponds to Edward T. Hall's taxonomy of human distances (as cited in

Lawson, 2001), which organises interaction into intimate, personal, social, and public zones (Figure 13).

The attitude dimension further shapes these relationships through spatial perspective. Following Kress and van Leeuwen (2021), frontal orientations signal engagement, oblique views suggest detachment, high angles imply subordination, low angles indicate dominance, and eye-level views create parity. Approaching the studio along the single neighbourhood access route, users first encounter an oblique view that produces mild detachment (Figure 14). Inside the living room, interactions occur largely at eye level, establishing equality among users. In contrast, inhabitant power becomes pronounced when visitors on the ground floor look upward toward the second floor emphasising the prominence of the resident artist within the private domain (Figure 15).



Figure 11. Social distance constructed through interactive meanings among users within the shared living room space. Photograph by the author.



Figure 12. The social distance created encompasses intimate and personal distances within the shared space, particularly in relation to the arrangement of interior furniture. Photograph by Novi Kristinawati and author.

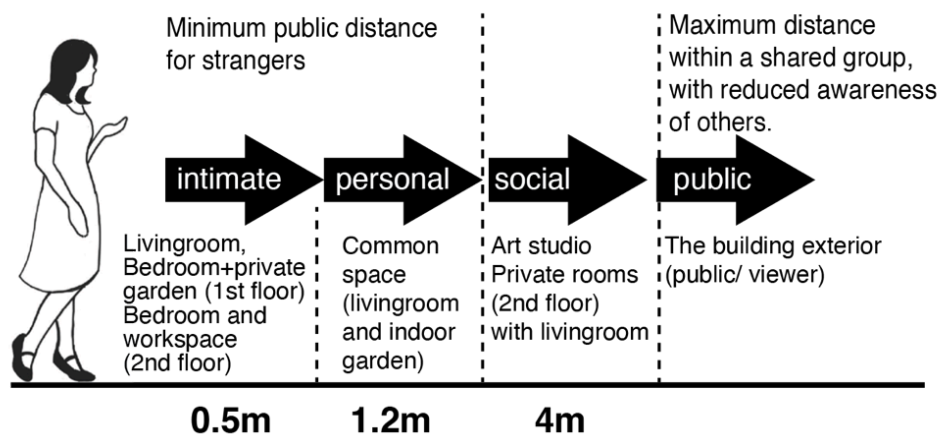


Figure 13. Illustration of the interactive meanings of Agung Kurniawan's studio design in terms of social distance, based on Edward T. Hall's taxonomy of human distances (as cited in Lawson, 2001). Adapted by the author.



Figure 14. Users experience an oblique viewpoint when approaching the building, which shifts to a perpendicular view upon entering. Photograph by Agung Kurniawan, retrieved from the photographer's public Instagram account (@agungleak), accessed 10 April 2023.

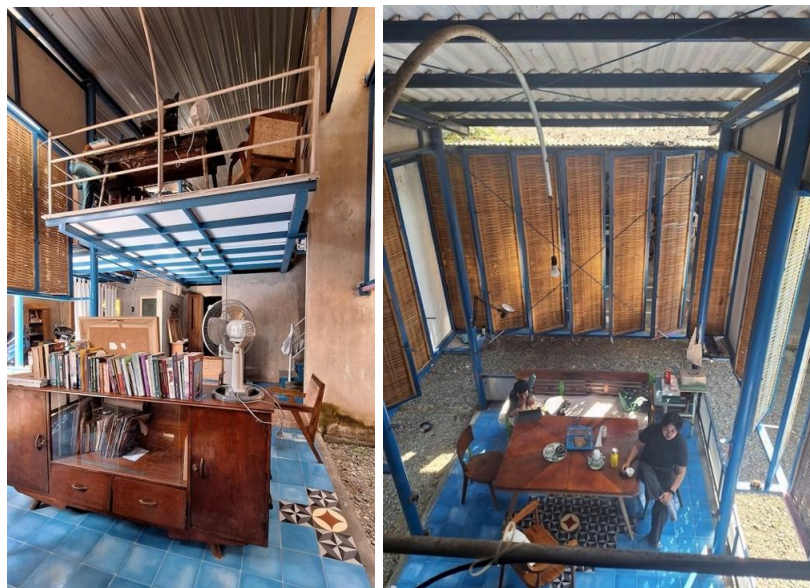


Figure 15. An attitudinal dimension emerges among users, producing inhabitant power as visitors in the ground-floor living room look toward the private space on the second floor. Photograph by author.

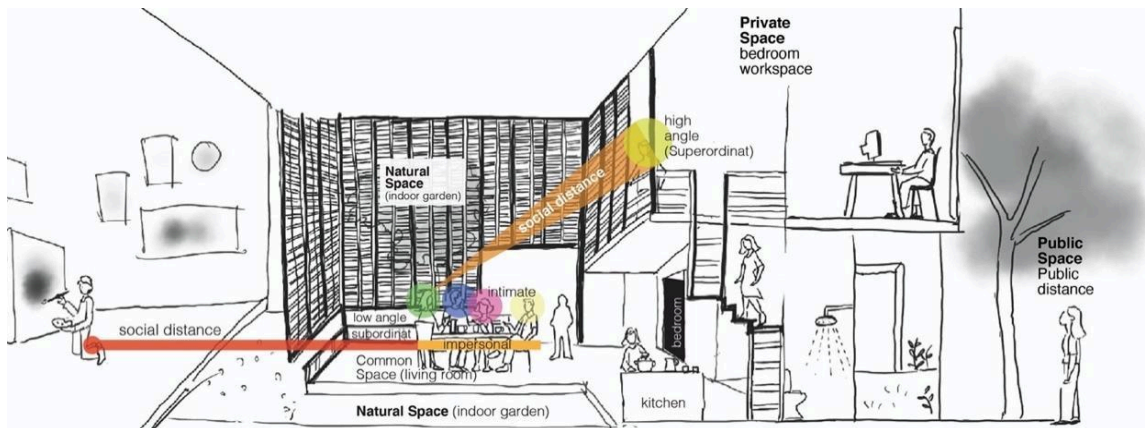


Figure 16. Infographic illustrating the interactive meanings among design users within the spatial context. Designed by the author.

Table 2. Interactive meanings emerging from the design modes of Agung Kurniawan's studio and their relationships with design users.

Interactive Meanings		Modes of Design Architecture	Design User
Contact	<i>Demand</i>	Private spaces include the bedroom with a private garden, the studio on the first floor, and all spaces on the second floor.	Inhabitant
		<i>Common space:</i> Livingroom, <i>indoor garden</i> , toilet.	Visitor
	<i>Offer</i>	Studio and kitchen	Visitor
Social Distance	<i>Intimate</i>	0.5m in private spaces	Inhabitant
	<i>Personal</i>	0.5m-1.2m in <i>common space</i> .	Visitor
	<i>Social</i>	A distance of 1.2–4 meters appears between private spaces on the first and second floors and the artist's studio.	Visitor
	<i>Public</i>	>4m-8m (distance between the building and the exterior/public space.).	Observer-public
Attitude	<i>Detachment</i>	<i>The building appears as a cubic form when viewed from an oblique angle.</i>	Public
	<i>Involvement</i>	Interior spaces are perceived from a frontal angle.	Public and visitor

Interactive Meanings		Modes of Design Architecture	Design User
	<i>Inhabitant power</i>	The first-floor common space is viewed from a higher angle relative to the second floor (high-angle view).	Inhabitant
	<i>Equality</i>	<i>The common space functions as an equal place for all design users when viewed from an eye-level angle.</i>	Public and visitor
	<i>Visitor power</i>	The private space on the second floor is perceived as more superordinate.	Visitor

C. Compositional Meanings of Agung Kurniawan Art Studio

Compositional meaning organises how spatial elements are arranged and perceived through information value and framing (Kress & van Leeuwen, 2021). In the Agung Kurniawan Studio, these principles structure the relationship between private and public domains through vertical hierarchy, lateral access, and material contrast. In terms of information value, spatial composition clearly distributes functions across top–bottom, left–right, centre–margin, and front–back relations. Vertically, the upper floor operates predominantly as private space, while the ground floor combines private zones (bedroom and studio) with the more public living room and indoor garden (Figure 17). Laterally, the left–right organisation is expressed through the dual access points—the main entrance and the garage—which structure movement into the house. At the centre–margin level, the living room forms the spatial core adjoining the open kitchen, while the indoor gardens act as peripheral margins that maintain environmental continuity (Figure 18). The front–back axis further reinforces hierarchy, with the bedroom positioned toward the front and the artist's studio located at the rear (Figures 19 and 20).



Figure 17. *Front view of the building, illustrating informational value through vertical and horizontal divisions. Screenshot retrieved from the YouTube channel SEAFocusSG, *Inspirations and Influences of Contemporary Art from Southeast Asia: Indonesia*, accessed 3 August 2024.*



Figure 18. The kitchen design without partitions beneath the staircase is positioned adjacent to the living room as a shared space, which is also located near the indoor garden. Photograph by author.



Figure 19. Upon entering the main entrance and moving to the left, users pass the master bedroom with a private garden (left) and the living room located in front of the bedroom (right).

Photograph by author.



Figure 20. The artist's studio is located at the rear, with an open-plan living room visible from the studio without partitions. Photograph by Agung Kurniawan, retrieved from the photographer's public Instagram account (@agungleak), accessed 10 April 2023.

Framing mechanisms strengthen these compositional relations through both disconnection and connection. Disconnection appears most clearly in the ground-floor master bedroom, where lockable doors establish a firm private boundary. By contrast, the upper-floor bedroom and workspace demonstrate a more permeable form of segregation, relying on open bamboo windows and low railings that allow visual oversight of activities below (Figure 21). Material and chromatic contrasts further articulate disconnection. The heavy concrete mass of the ground floor conveys a manufactured and enclosed character, whereas the upper bamboo façade reads as light, flexible, and natural. A similar contrast occurs in colour: cool indigo-blue tiles and steel elements visually recede, while the warmer bamboo tones advance, producing depth and differentiation (Lawson, 2001) (Figure 22).



Figure 21. Permeability-based disconnection is created through a lockable door in the first-floor main bedroom (left), while the second-floor bedroom uses a slatted bamboo window partition without a door, allowing visual permeability (right). Photograph by Agung Kurniawan, retrieved from the photographer's public Instagram account (@agungleak), accessed 10 April 2023.

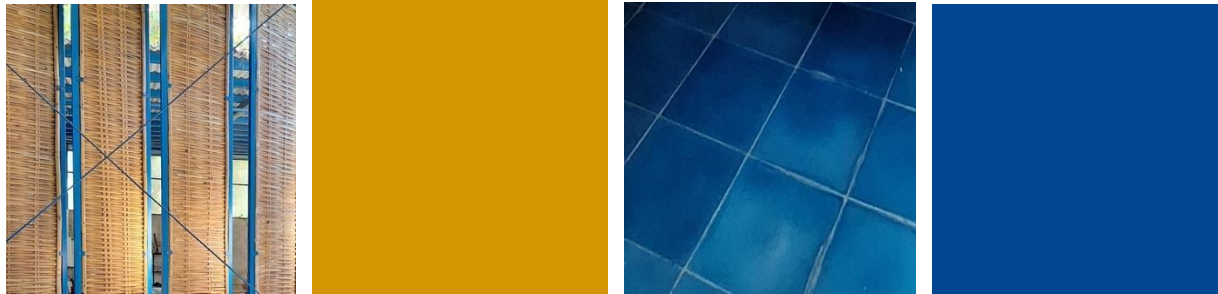


Figure 22. Woven bamboo windows and indigo-blue tiles can be perceived as warm and cool colours. This composition considers visual contrast across colour and material modes to create harmony in the design. Photograph by by author.

Alongside these separations, the design also cultivates connective framing. Overlapping spatial zones particularly the open living room bounded by hanging bamboo screens and low fences, maintain visual continuity across the interior. This connectivity is reinforced through visual rhyme, including the repeated indigo palette of tiles and window frames and the recurring bamboo weave textures across façades and paving. The woven pattern corresponds to *gedheg*, a traditional Javanese bamboo partition formed from interlaced strips that create a semi-open surface (Frick, 2008).

In Agung Kurniawan's studio design, salience is also evident in the contrast between the indigo blue color and the woven bamboo, as well as the cube shape of the building with its two striking floor masses. According to Samara (2007), symbolically, square shapes are associated with masculinity because they are analytical and limited, while circles symbolize femininity because they are organic, endless, and rotational. The analytical meaning of this box shape is also expressed by Novi Kristinawati (2023), who states that analytical thinking alone will result in

rigid, box-shaped designs. This view reflects the common knowledge in architecture that box shapes are synonymous with analytical thinking.

In addition to the large cube shape, there is a moon window shape in the ground floor bedroom. Although small in size, there is a visual contrast that can signify femininity in a masculine form. The circular shape, which is often associated with the female form, is found in the box shape of the concrete mass, which appears rigid. Novi Kristinawati chose a circular window that she found in an antique shop. She uses it to soften the building's sharp lines and disrupt the rigidity of the facade (Kristinawati, 2023), thereby presenting a flexibility that reflects the designer's femininity.

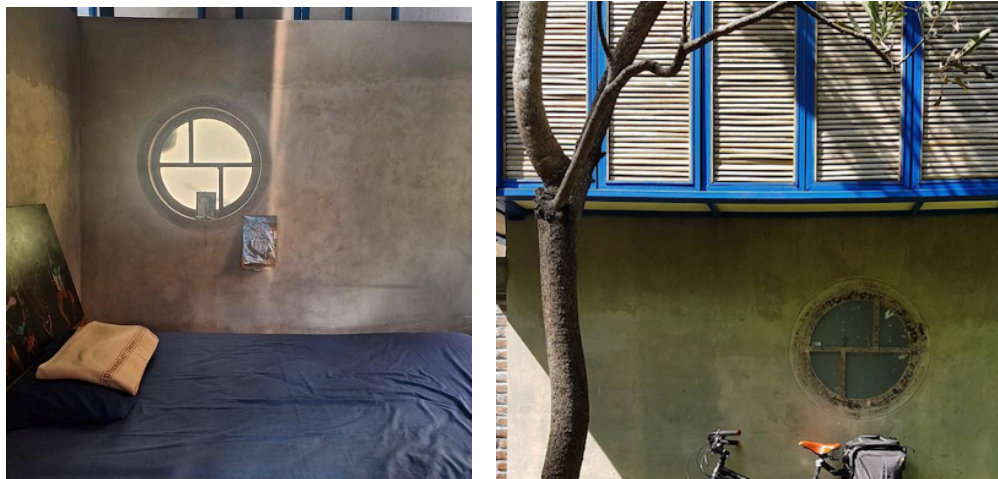


Figure 23. The moon window, which appears to “perforate” the rigid concrete mass of the building, represents Novi Kristinawati’s effort to soften and make the structure more flexible. Photograph by the author and Agung Kurniawan, with the latter retrieved from the photographer’s public Instagram account (@agungleak), accessed 10 April 2023.

The moon window design in Chinese architecture is used to view the full moon at predictable times. However, this design can also be found in most secular buildings (Papanek, 1995). Apart from being a marker of the full moon and a religious symbol, circular and hexagon windows are symbols of Chinese culture (Ichikawa, 2018). Unlike Western traditions that emphasize lighting and ventilation, circular windows in Chinese architecture are designed as picture frames to display garden views, with ventilation as a secondary priority. Wang's (2021) study shows that placing windows close to gardens allows residents to enjoy panoramic views of nature while creating an experience of unity with the outside environment.

Table 3. Compositional meanings emerging from the design modes of Agung Kurniawan's studio and their relationships with design users.

Compositional Meanings		Modes of Architecture	Design User
Informative	Horizontal	The building is divided into three zones from front to rear:	Inhabitant
		Front private zone: bedroom and private garden	Inhabitant and visitor
		Central common zone: living room, indoor garden, toilet, and kitchen	Inhabitant
	Vertical	Private space (upper floor): bedroom, workspace, and library	Inhabitant
Functional	Disconnection	Private space (ground floor): bedroom and private garden.	Inhabitant
		Private space (upper floor): the bedroom, workspace, and library remain visually connected to the first floor.	Inhabitant and visitor

Compositional Meanings			Modes of Architecture	Design User
	<i>e</i>	<i>Visual Contrast</i>	The building is a two-storey cube with a concrete ground floor and a bamboo-windowed upper façade. Its character is defined by unfinished concrete, a white uPVC roof (Alderon), blue steel framing, and bamboo tones.	Inhabitant and visitor
	<i>C</i>	<i>Overlap</i>	The common space features an overlapping composition between the living room, indoor garden, and kitchen, enabled by weak spatial boundaries.	Inhabitant and visitor
	<i>e</i>	<i>Visual Rhym</i>	A visual rhythm emerges from the blue tiles and steel window frames, upper-floor tile patterns, bamboo windows, and the paved area as an internal open space.	Inhabitant and visitor
S a l i e n c e	<i>Maximum</i>		A cubic form composed of two levels: a concrete-dominated ground floor and an upper floor defined by bamboo window-walls.	Inhabitant and visitor
			<i>Common space: Livingroom and indoor garden.</i>	Inhabitant and visitor
			Art Studio and workshop	Inhabitant
	<i>Minimum</i>		<i>Moon window</i>	Inhabitant

D. Women's Embodiment and Its Relationship with Social and Cultural Contexts in the Works of Novi Kristinawati as a Woman Designer

In the design of Studio Agung Kurniawan, the collaboration between a male client and a woman designer creates a space where two bodily perspectives intersect. Although the studio is widely recognised for its bamboo exploration, in this project the material is primarily limited to façades

and windows. For Novi Kristinawati, spatial fluidity is determined less by material choice than by spatial arrangement.

This position foregrounds vision as a means of monitoring interior activity while maintaining the body's continuous connection with nature and other occupants. Such an approach resonates with Papanek's (1995) view that human spatial experience is multisensory, involving *kinaesthetic* awareness, thermal perception, haptic muscular responses, and intuitive perception. Through the integration of these sensory modalities, users not only see space but also physically and emotionally experience it.

The openness of the design further enables spatial flexibility and adaptability. Kristinawati prioritises layouts that can be continuously reconfigured by occupants, reflecting Kennedy's (1981) observation that women designers often favour more flexible and functional solutions compared to the fixed and formal tendencies typically associated with male designers (Table 4).

Table 4. Female Principles Contrasted with Male Principles in Architecture. Source: Kennedy, 1981.

Female		Male
more user-oriented	Than	designer oriented
more ergonomic	Than	large scale/monumental
more functional	than	formal
more flexible	Than	formal
more organically ordered	Than	abstractly systematized
more holistic/complex	than	specialized/one-dimensional
more social	Than	profit-oriented

A comparable pattern appears in Harani et al.'s (2022) study of women's interiority in Kampung Kauman, Semarang, where domestic spaces are fluidly managed according to shifting social, cultural, and economic needs before returning to their original functions. Similarly, Kristinawati minimises partitions to produce spaces that are easily rearranged. In Studio Agung Kurniawan, the blurring of private–public boundaries—through the living room, indoor garden, and undivided art studio—encourages interaction while maintaining intimacy. This coexistence of solitude and sociability echoes early twentieth-century modernist domestic tendencies (Corn, 2005).

Architecturally, the studio expresses a gendered symbolic dialogue. The dominant cubic mass reflects masculine qualities aligned with the male artist's identity, as cubes are often associated with analytical boundedness, while circles signify organic femininity (Samara, 2007). Kristinawati mediates these polarities by inserting circular elements—such as the moon window—to soften the rigid geometry and produce a more balanced composition. Her embodied approach is also evident in the regulation of social distance: large openings connect occupants with nature, shared living spaces promote relational equality, and private zones support contemplation. The studio thus operates as a relational rather than isolated environment.

This embodied perspective becomes particularly visible in the kitchen design. The integration of the kitchen with the living area (without partitions) repositions domestic space as open and socially engaged. This contrasts with traditional Javanese houses, where kitchens are typically located outside or at the rear, reinforcing their marginal domestic status. In Javanese aristocratic spatial hierarchy, as described by Newberry (2013) drawing on Keeler, the *pendapa* (front open pavilion), *pringgitan* (open veranda), and inner house (*omah mburi*) form the main sequence,

while service functions including kitchens are relegated to side structures (*gandhok*) or detached areas.

By contrast, Kristinawati's strategy aligns with Miho Hamaguchi's approach, which situates kitchens adjacent to dining and living spaces to support domestic interaction and gender equality (Lobo & Sánchez, 2022). In several of her projects for artists—including the Wedhar Riyadi House, Hendra Harsono House, and Kusen Alipah Hadi House—the kitchen is deliberately positioned toward the front. For Kristinawati, the kitchen functions as the core of the house due to the time-intensive nature of cooking (Kristinawati, 2022). It becomes a site of negotiation, conversation, and shared activity, while the open layout also encourages occupants' responsibility for maintaining cleanliness (Kristinawati, 2023).

As she notes: *"Male architects may be less sensitive to houses because they rarely fully observe household activities...only women can perceive flows like cooking, washing, drying, opening the front door, and supervising children. Male architects likely only work outside."* (Interview, 25 August 2023)

Kristinawati's kitchen strategy reflects women's embodiment both biologically and socially. Biologically, women have historically been associated with caregiving and food provision (Diamond, 2019). Socially, Jung's (2020) mother archetype—nurturing, protecting, and caregiving—continues to shape domestic spatial organisation.

Finally, compositional meaning emerges through the interplay of material, colour, and pattern. Following Frick and Suskiyatno (1998), bamboo's yellow tone conveys activity and lightness, while blue tiles and metal frames suggest passivity and weight. The studio integrates industrial materials (concrete, alderon, iron) with natural elements (bamboo, handmade tiles), producing a

visual rhythm of connection and contrast. This material dialogue ultimately reflects the negotiated encounter between feminine and masculine characteristics embodied by the woman designer and the male artist client.

5. Conclusion

Novi Kristinawati's designs demonstrate how women's embodied experiences transform architectural meaning and spatial practice. Multimodal analysis shows that biological and social dimensions of the body function as central semiotic resources, guiding spatial organization, design strategies, and multisensory engagement. Woman designers express these experiences through visual, tactile, auditory, and olfactory modes, enabling users to inhabit space bodily as well as visually, producing immersive and relational experiences. Her works articulate women's equality, challenging patriarchal dualisms through semiotic and spatial strategies that question dominant ideologies. Their design practices demonstrate a liberation in deploying semiotic modes that move beyond traditional gender dualisms (masculine versus feminine). In this sense, design becomes a medium through which dominant gender ideologies are questioned and reconfigured.

The woman body is represented as connective, mediating individual and social distances, particularly in in-between spaces that blur boundaries between private and public realms and conventional domestic and social roles. Caregiving, while biologically grounded, is reframed as embodied knowledge informing attentiveness, relational sensitivity, and care-oriented design, rather than as domestic obligation. Functional flexibility is central to Kristinawati's practice. Like bamboo bending without breaking, she adapts to contextual constraints, listens attentively, negotiates challenges, and tailors solutions empathetically. Her work emphasizes responsiveness,

practicality, and relational engagement, showing how embodiment translates into adaptive and contextually meaningful design strategies.

Through these practices, woman designers emerge as empowered agents, positioning design as a site for negotiating gendered experiences and producing knowledge grounded in embodiment. This study advances design studies, women–design studies, and semiotics by providing an analytical framework focused on lived experience, spatial negotiation, and multisensory engagement. Kristinawati's designs reveal the transformative potential of feminist, flexible, and contextually responsive practices, reshaping aesthetics, functionality, and socio-cultural meanings of architectural space while contributing to inclusive and critical design discourse.

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Author Bio

Senja Aprela Agustin

Senja Aprela Agustin (born in Surabaya, 10 April 1983) has been a lecturer in Visual Communication Design at the Department of Visual Communication Design, Institut Teknologi Sepuluh Nopember (ITS), since 2006. She earned her Bachelor's degree in Graphic Design from the Department of Product Design, ITS (2005), a Master of Design degree (2009), and a Doctorate in Fine Art and Design from the Faculty of Art and Design, Institut Teknologi Bandung (ITB). Her research interests include design semiotics, design history, and women in design.

Acep Iwan Saidi

Acep Iwan Saidi is a Professor at FSRD ITB (Faculty of Art and Design) specializing in semiotics and visual culture. He earned his Bachelor's at Universitas Padjadjaran, Bandung, his Master's at Universitas Indonesia, and his PhD at Bandung Institute of Technology.

Irma Damajanti

Irma Damajanti is a senior lecturer at FSRD ITB (Faculty of Art and Design), focusing on aesthetics and art history. She finished her PhD at Bandung Institute of Technology in 2016. Her current research is about art therapy application and women empowerment in art world.

Hafiz Aziz Ahmad

Hafiz Aziz Ahmad is a lecturer at FSRD ITB (Faculty of Art and Design) with expertise in visual narrative and visual communication design. After graduating from Woosong University in South Korea, he completed his PhD at Chiba University in 2012. His current research focuses on motion capture system development, animation, and the use of interactive media in education.