





Re-thinking methods in vernacular architecture studies: From universal form to contextual meaning

Purnama Salura^{1*} , Ignatius Bambang Sugiharto¹ , Reginaldo Christophori Lake² , Stephanie Clarissa¹ 

¹Department of Architecture, Faculty of Engineering, Universitas Katolik Parahyangan
Jl. Ciumbuleuit No. 94, Bandung, Indonesia

²Department of Architecture, Faculty of Engineering, Universitas Katolik Widya Mandira,
Indonesia



ARTICLE INFO	ABSTRACT
<p><i>Article history:</i> Received September 27, 2025 Received in revised form Nov. 01, 2025 Accepted January 12, 2026 Available online March 01, 2026</p> <p><i>Keywords:</i> Architectural composition Architecture ethnosemantics Epistemology Sundanese settlements Vernacular architecture</p> <p>*Corresponding author: Purnama Salura Doctoral Program of Architecture, Faculty of Engineering, Universitas Katolik Parahyangan, Bandung, Indonesia Email: purnama.salura@unpar.ac.id ORCID: https://orcid.org/0000-0002-3652-7192</p>	<p><i>This study critiques two prevailing epistemological tendencies in the study of vernacular architecture in Indonesia: the universalism of form, which relies on Western formal theories, and cultural relativism, which romanticizes the uniqueness of local traditions. Both tendencies are considered to offer limited contributions to the vernacular communities under study, as they often result merely in formal descriptions or cultural idealizations without addressing the transformative potential of architectural design. This study aims to formulate a new interpretive tool for identifying the local values of Indonesian vernacular architecture while simultaneously exploring its transformative potential. The study employs a three-step analytical phases: Firstly, tracing the development of theoretical studies on vernacular architecture in Indonesia to map their epistemological limitations. Secondly, elaborating the theory of architectural ethnosemantic with the concept of architectural property–composition, in order to generate an analytical framework that bridges formal and semantic aspects. Thirdly, applying the results of this elaboration to identify local values and transformative potential in vernacular settlements in Indonesia. The focus of inquiry is directed toward Sundanese villages in West Java that have already undergone transformations, taken as a representation of the vernacular traditions of the Indonesian archipelago. The findings of this study are an interpretive model for examining the local values of Sundanese architecture, together with the potential transformations in housing and settlement design. This formulation serves a dual function: as an academic contribution to the advancement of vernacular theory, and as a practical contribution to improving the quality of life of the vernacular communities themselves.</i></p>

Introduction

The term *vernacular* derives from the Latin *vernaculus*, itself originating from *verna*, which denoted a household slave born within the master's household ([merriam-webster, n.d.](#)). The

word *verna* was used to distinguish such individuals from slaves acquired externally. Thus, the original meaning of *vernacular* is associated with what arises from within (the local), rather than from without (the foreign). By the seventeenth century, the English term *vernacular* was employed to designate everyday local



languages, as opposed to official, classical, or liturgical ones. From this linguistic foundation, the concept subsequently expanded into other domains, including culture, art, and architecture.

One of the most widely circulated interpretations in architectural discourse is the notion of “*architecture without architects*.” This definition was popularized by Rudofsky (1970), who drew upon the idea that the vernacular, like a dialect, is informal and neither formally taught nor explicitly codified. A third common interpretation of vernacular architecture is that of “*folk architecture*” (Oliver 1998; 2007). This perspective emphasizes the everyday and ordinary character of the vernacular, as well as the implicit social distinctions embedded in the concept. More recently, the term has also been attached to architectural styles, such as Neo-Vernacular, which refers to contemporary architecture that consciously adopts or reinterprets vernacular elements within modern design (Heriyanto, Hardiman, and Rukayah 2025). Unlike architecture that emerges organically from communities, Neo-Vernacular styles are generally designed by modern architects who reinterpret tradition.

This study departs from the understanding that vernacular architecture is intrinsically embedded with local values, which emerge from the triad of 3P (Salura 2007; Salura and Fauzy 2013; Salura 2018a; Salura and Clarissa 2018): People (particular social groups), Period (particular time), and Place (particular location). This implies that vernacular architecture arises from the everyday needs of communities, is contextually adapted to the local climate, and is not necessarily codified in formal regulations or customary symbols, but rather evolves from the lived practices of the community. Consequently, vernacular architecture may undergo more rapid change as it adjusts to new conditions.

This understanding distinguishes vernacular architecture from traditional architecture. While vernacular architecture develops through pragmatic adaptation, traditional architecture is rooted in inherited customs and traditions, transmitted across generations, and regulated by explicit symbolic, cosmological, and normative codes. Traditional architecture therefore tends to be more conservative, constrained by customary norms, whereas vernacular architecture is primarily shaped by functional demands and contextual responsiveness.

At present, there are two prevailing tendencies in the study of vernacular architecture. The first is dominated by the universalism of form. Many scholars continue to employ universal theories of form, such as D.K. Ching’s *Ordering Principles*, to interpret vernacular architecture (Ching 2014). Although systematic, this approach is often regarded as reductive, as it overlooks the symbolic, social, and ecological dimensions that are deeply embedded in vernacular architecture. Criticism of this universalist orientation has given rise to a second tendency, namely cultural relativism. Cultural relativism posits that each culture possesses its own architectural logic and values, which cannot be evaluated through external standards (Hahn 2023).

This epistemological tension reflects a methodological paradox: on the one hand, researchers attempt to conform to global standards grounded in universal theories; on the other hand, the empirical reality demands interpretive approaches that are sensitive to local contexts, customary cosmologies, and community value systems. The positive implication of such interpretive approaches lies in their capacity to acknowledge diversity and to open pathways toward epistemological pluralism. However, interpretive approaches rooted in cultural relativism are not without limitations. A key shortcoming of relativism is that it frequently reduces itself to mere description or the uncritical glorification of tradition, without allowing room for critical examination. Ultimately, both tendencies yield similar outcomes: research that primarily produces formal descriptions essentially inventories of typologies without probing into the ontological or epistemic conditions that give rise to those forms.

Given that Indonesia is recognized as one of the countries with the richest and most diverse vernacular architecture in the world, it is regrettable that scholarship on vernacular architecture in Indonesia has not yet critically responded to this discourse. A significant gap remains in explaining how epistemic misalignments between the universalism of form and cultural relativism have constrained both the analysis and the transformation of vernacular architecture. Addressing this gap is crucial not only for enriching the theoretical and methodological frameworks for studying vernacular architecture in Indonesia, but also for contributing to the global dialogue on how architecture is understood across cultures.

This article aims to develop a new interpretive framework for vernacular architecture, in order to critique the epistemological ambiguities that arise when universal formal principles are imposed on Indonesian vernacular architecture, or conversely, when cultural relativism is naively embraced. Through a critical examination of the epistemic limitations of both formalist theories and cultural relativism, this study argues for the necessity of an alternative conceptual framework that is more contextual and plural, yet remains aligned with the essential nature of architectural discipline. Accordingly, this study seeks to open up a more holistic and meaningful horizon of analysis one that does not remain confined to formal description, nor uncritically defer to inherited customs codified as normative rules across generations. Such a reorientation allows for a deeper understanding of vernacular architecture, one that extends beyond the description of forms to encompass local values that enable the transformation of vernacular design and the improvement of the quality of life of its communities.

The formulation of this new interpretive framework is applied to the study of one Sundanese settlement in West Java-Indonesia, namely Kampung Dukuh Luar. Geographically, Kampung Dukuh Luar is adjacent to Kampung Adat Dukuh (*Dukuh Dalam*), which is recognized as the oldest traditional Sundanese settlement in West Java and is renowned for its strong adherence to customary law. Unlike Kampung Adat Dukuh Dalam, however, Kampung Dukuh Luar, while still maintaining close kinship ties with the traditional community, has experienced significant demographic growth, with a population that is more diverse in terms of lifestyle, livelihoods, and dwelling traditions. Hence, this vernacular settlement represents the dynamics of Sundanese society in the context of transformation, in contrast to the traditional settlement that tends to preserve its original form.

Methods

This study is theoretical in nature, employing literature as the primary material, which is treated as the case study. In line with the research objectives, all reviewed literature consists of studies on vernacular architecture that emerge from diverse epistemological positions. These

epistemological orientations in vernacular architectural research can generally be classified into three: structuralism, semiotics, and phenomenology. The focus of this study is on recent research (within the last five years), specifically articles published in reputable international journals between 2020 and 2025.

The analytical steps are formulated as follows:

Firstly, tracing the epistemological foundations underlying previous studies on vernacular architecture. This tracing emphasizes the positioning of each study in relation to the tendencies of universalism of form and cultural relativism, as well as examining the extent to which such studies provide a basis for evaluation and transformation, or remain confined to descriptive accounts.

Secondly, elaborating the theory of architectural ethnosemantic in conjunction with the concept of architectural property–composition, thereby producing a new interpretive tool for the analysis of vernacular architecture.

Thirdly, formulating the steps for identifying local aspects in one vernacular settlement in Indonesia, namely *Kampung Dukuh Luar* in West Java. This identification involves delineating the activities, spatial elements, forms, and meanings embedded within vernacular architecture, and then evaluating them through the architectural ethnosemantic–property composition framework. Each finding does not end with description but is followed by a critical reflection on its transformative potential: whether the aspect should be preserved as an essential value, modified to suit new needs, or transformed into a contemporary form.

Results and discussion

Epistemological review of studies on Indonesian vernacular architecture

a. Structuralism

The study by [Lake, Antariksa, and Salura \(2021\)](#) focuses on examining the vernacular architecture of the Tamkesi community in West Timor, East Nusa Tenggara, through an adaptation of Claude Lévi-Strauss's structuralist approach. Lévi-Strauss's structural analysis is employed to investigate the role of myths lived by the Tamkesi people, and is combined with Salura's theory of architectural function form

meaning and Alexander's pattern language. The study formulates a set of structuralist-inductive steps for interpreting Tamkese vernacular architecture by uncovering the surface structures and deep structures of the interrelations among myth, activity, and architectural form. This approach is particularly appropriate for identifying spatial cosmologies and the connections between myth and architectural order in vernacular contexts that are relatively homogeneous and lack written sources on cultural traditions (Lake, Antariksa, and Salura 2021).

Nevertheless, the structuralist approach of Lévi-Strauss remains abstract and reductive (Sturrock 2002; Chandler 2022). The so-called "deep structures" of architecture do not sufficiently distinguish between activities that are rooted in existential human needs and those that are merely perpetuated because custom dictates their repetition. This limitation is to be expected, since Lévi-Strauss was primarily concerned with uncovering enduring structures rather than tracing the historical dynamics of society (Levi-Strauss 1963; Levi-Strauss 1966; Moustakas 1994; Leach 1989). As a consequence, communities are portrayed as static objects, fixed in time. Lévi-Strauss also implicitly declared his focus on uncovering the logic of the "primitive" (Strauss the Savage Mind). By examining the myths of so-called primitive societies worldwide, he sought to demonstrate that their logic is as complex as that of modern societies, differing only in its mode of expression (Levi-Strauss 1995; Ahimsa-Putra 2006; Holmes 2015). However, such a claim does little to improve the lived realities of those communities. Instead, the outcome tends to reinforce cultural relativism rather than promote forms of emancipation that could enhance the quality of life of the indigenous communities under study. In the end, Lévi-Strauss's structuralism is limited to mapping cultural patterns, without creating space for either social or architectural critique (Clarke 1981).

To provide a basis for the evaluation and transformation of vernacular architecture, an approach is required that affirms structure not merely as a fixed binary opposition, but as a causal mechanism operating within specific contexts. The understanding of the duality of structure thus becomes crucial: while social structures constrain human action, they are also reproduced and transformed through human agency. Accordingly, scholarship should not only aim to explain, but also to uncover and dismantle

mechanisms of oppression so that they may be transformed. For example, the spatial segregation between male and female domains in certain vernacular houses is not merely a symbolic structure, but can be analyzed as a historical power relation that shapes access, visibility, and authority within the built environment, and therefore requires critical transformation (Bhaskar 2008). In this way, analysis does not remain at the level of abstract symbolic binaries, but advances toward identifying the conditions that sustain such spatial divisions and exploring how they might be reconfigured for the sake of social and architectural emancipation.

b. Semiotics

Rahmawati, Arifin, and Dwisusanto (2022) investigated the Karo architecture in North Sumatra using a mimetic-semiotic approach. The study employed Tchertov's framework of spatial codes architectonic, functional, and socio-symbolic which are conceived as cross-cultural and universal (Tchertov 2019). The authors explicitly emphasized that mimesis in this context does not simply mean the replication of past forms, but rather the reinterpretation of cultural meanings embedded in architectural codes, thereby positioning conservation as a dynamic process relevant to contemporary life (Rahmawati, Arifin, and Dwisusanto 2022). In other words, the study already acknowledges the importance of transformation within vernacular architecture.

The research highlights local wisdom and customary symbols as integral components of dynamic conservation. However, if conservation overly emphasizes symbolic and local meanings without opening space for critique, it risks lapsing into cultural relativism where everything is deemed "valid" merely because it conforms to tradition. For example, the maintenance of the eight *jabu* divisions within Karo houses is preserved as a symbolic marker of identity, but not evaluated in terms of comfort, the needs of modern families, or spatial efficiency.

Furthermore, by employing the Subject-Model-Object framework, the study endeavors to create space for dynamic, rather than static, conservation. Unfortunately, transformation is primarily framed in terms of material and functional flexibility, while insufficient attention is given to evaluative criteria: which elements must be preserved, which may be modified, and which can be fully transformed. Nor does the

study provide operational tools for distinguishing between existential needs and symbolic desires. In the absence of such evaluative instruments, the notion of transformation risks remaining a slogan “change is permissible insofar as the underlying meaning is retained”, without clarifying how such boundaries should be determined in practice.

c. Phenomenology

Manurung, Sastrosasmito, and Pramitasari (2022) adopted the phenomenological method in social sciences as advanced by Moustakas (1994). This method, known as transcendental phenomenology, consists of several stages of analysis: horizontalizing, thematizing, textural description, structural description, and finally the integration of these descriptions to uncover meaning and essence of particular social phenomenon. In studying the vernacular architecture of the Batak Toba in North Sumatra, these steps were translated into the following: determining units of information; reducing and categorizing interview transcripts by eliminating irrelevant information, while grouping relevant and meaningful portions into units that were then induced to form themes (thematizing); and subsequently integrating and inducing the textures and structures within those themes in order to derive meanings from Batak Toba architectural and settlement spaces. From these steps, it is apparent that transcendental phenomenology, as employed in this research, is essentially similar to inductive reduction in general qualitative research, although each step is given a different label.

This study produced a comprehensive description, beginning with three types of vernacular architecture Bolon as the king’s house, Sibaba ni Amporik as the house of warriors or royal assistants, and Sopo as the rice barn followed by descriptions of new houses that no longer share the formal features of traditional dwellings, and culminating in the recognition of open spaces as essential elements within the Huta (settlement). Nevertheless, within these descriptions, the essence of Batak space was treated as static, despite the fact that everyday practices and social transformations suggest the possibility of varied interpretations. The research also underscored the role of customary law, for example noting that the legitimacy of a *huta* is valid only when sanctioned by customary legitimating ritual (*horja*). Such a strong

emphasis on custom risks falling into cultural relativism, where all spatial meanings are accepted at face value simply because they are considered “authentic” by tradition. There was little evaluation of whether these meanings remain functional in the context of modernization (e.g., needs for sanitation, privacy, or the economic demands of contemporary households).

The study further noted that architectural transformations did not erase the core meaning of *jabu bona* (the back-right room of the house that considered the most sacred space). It acknowledged that meaning could persist even as form changes. However, transformation was largely understood as a stylistic shift (traditional architecture being replaced by modern forms) without clear criteria for how local values could serve as a foundation for innovative design. Nor were there evaluative instruments to distinguish which aspects should be preserved, modified, or transformed. This is perhaps unsurprising, given that the aim of transcendental phenomenology in this study was to depict customary symbolism rather than to critique the extent to which such symbolism remains meaningful or useful to present-day society.

Despite the ontological differences underlying structuralism and phenomenology in philosophy, the foundation of all the studies on vernacular architecture discussed above is, in fact, inductive research. From empirical evidence, researchers construct the essential meaning of vernacular architecture, albeit with different terminologies. For example, in structuralist studies this meaning is referred to as the deep structure, while in phenomenological studies it is called the essence. Such studies indeed provide rich descriptions of specific vernacular architectures and are valuable as documentation and catalogues of empirical facts. However, several critiques can be raised against these studies:

1. Relativism without critique

These studies often take all community data and narratives at face value. The risk of this approach is that it lapses into cultural relativism, which rejects critical evaluation. For instance, if an architectural practice is detrimental to safety and health (e.g., low roofs, poor ventilation, fire hazards), such studies may still regard it as “valid” simply because it is a “cultural choice,” thereby leaving no room for critique. Without critique, no transformation is possible.

2. Potential researcher and informant bias

In the absence of a guiding theoretical framework, interpretation becomes highly vulnerable to personal bias; whether from the researcher or the informants. What is taken as the essence of “local values” can be distorted into subjective opinions or romanticized accounts.

3. Lack of analytical tools for transformation; disconnection between theory and design

Vernacular communities face increasing pressures of change (modernization, urbanization, climate). These studies merely capture existing conditions without providing a framework for transformation. As a result, their findings offer limited benefits to local communities under study, as they end with mere formal and cultural documentation rather than evaluation and solution.

These limitations underscore the urgency of developing an alternative conceptual framework one that not only documents but also critically evaluates vernacular architecture, distinguishing existential needs from symbolic desires, and thereby opening pathways for meaningful transformation. In this context, the integration of architectural ethnosemantic theory with the concept of property–composition offers a more robust foundation for bridging empirical description, critical interpretation, and transformative design.

Beyond universalism and relativism: architectural Ethnosemantic and the concept of architectural property–composition as a critical response

Architectural ethnosemantic approach emerged out of concerns regarding the cultural relativism inherent in contemporary social and anthropological research. In brief, cultural relativism is the view that no culture can serve as a standard by which to judge another. Individuals from different communities necessarily hold different conceptions of the world around them. On the one hand, cultural relativism represents a noble stance toward cultures foreign to our own: rather than “judging” them as good or bad, it seeks to understand them deeply from within their own worldview. On the other hand, however, the ethical implications of cultural relativism have also been called into question. For instance, the refusal to judge other cultures may be interpreted as legitimizing violent practices that are considered customary within certain groups (Hahn 2023). The social anthropologist Robert Edgerton likewise argued that the ethnographer’s belief that “other cultures” are inherently good

and possess their own truths is a deeply problematic and even dangerous (Edgerton 1992).

One of the methods in social and anthropological research that holds significant potential for adaptation in architecture is ethnography. Literally translated, ethnography means “a written account of a people” (Skinner 2016; Vermeulen 2015). In more recent developments, ethnography has evolved into ethnosemantics a method not only concerned with description but also with classifying, categorizing, and abstracting the worldview of particular communities (Spradley 1979; Spradley 1980; Spradley 2006). Nevertheless, this method still requires further elaboration in order to be aligned with the essence of architecture, namely the fundamental fulfillment of human needs for spaces that allow people to carry out activities safely, healthily, comfortably, and efficiently.

A comprehensive elaboration of Architectural Ethnosemantics is provided in an earlier publication (Salura and Clarissa 2025). In essence, this approach distinguishes the role of architecture as the fulfillment of fundamental human needs from the desire to express traditional–cultural symbols, social class, or ideology dimensions that remain largely speculative. To operationalize this distinction, the evaluative capacity of architectural form is articulated through three interrelated aspects: (1) the ability of the building to accommodate activities (purpose); (2) the ability of the building to organize activities (function); and (3) the ability of the building to integrate overall patterns of activity with the patterns of enclosing elements and interior spaces (integration).

For application in interpretation as well as design, architectural ethnosemantics requires the support of a more detailed analytical tool: the concept of property–composition in architecture. The concept of architectural property–composition is grounded in two basic theoretical processes that always underlie how people interpret buildings, whether consciously or unconsciously: identification and orientation (Salura 2018c). To gain an existential foothold, human beings must be able to orient themselves; they must know where they are. Yet the process of orientation depends on the process of identification of elements - whether it is nature-made or man-made elements. It is widely recognized that all cultures have developed a system of orientation and identification; e.g., a spatial structure that facilitates the formation of a

coherent environmental image. In everyday practice, these two processes are inseparable, but for analytical purposes they can be distinguished to sharpen understanding. The first process, identification, allows people to recognize an object by identifying its properties whether these relate to an activity or to an architectural form. The second process, orientation, enables people to perceive and interpret the directional aspect of an activity as well as the spatial arrangement of architectural form. Within this framework, the process of identification corresponds to the concept of property, while the process of orientation corresponds to the concept of composition.

In the process of architecture, the concepts of property and composition can be approached from two perspectives: the process of designing (creating meaning through new forms) and the process of interpreting (tracing or uncovering meaning from existing forms). Designing is a creative activity aimed at generating meaning through the creation of new forms, whereas interpreting is an analytical activity that seeks to reveal meaning from forms that already exist (Salura 2001).

In the process of interpreting an architectural work, the building is already present in a form that can be empirically apprehended through its overall three-dimensional configuration, enclosing elements, and compositional arrangement. Interpretation is thus retrospective: tracing back the meanings that have become embedded in the existing architectural form. Accordingly, the application of the property–composition concept in interpretation involves three steps:

1. Description of properties, namely the identification of types (line–plane–volume), characteristics (barrier–filter–connector–switch), and surface qualities (chromatic–textural) of enclosing elements upper, middle, and lower in relation to their performative capacity to accommodate particular activities.
2. Description of composition, namely the analysis of positional relationships (front–back, top–bottom, left–right) within the whole, and of how elements are arranged to produce certain tendencies of movement (linear–central–grid).
3. Elucidation of meaning through evaluation and interpretation. Based on these descriptions, architectural meaning is not only apprehended symbolically but also tested

functionally. For example, a door can only fulfill its function as an access point if its width and height correspond to human bodily standards. Likewise, it can be assessed whether the movement generated by the composition of enclosing elements aligns with the movement required by the activity. Furthermore, the hierarchy created by the placement of elements may be interpreted: whether the spatial hierarchy corresponds to the hierarchy demanded by the activity, or whether it stands in contradiction.

By contrast, in the process of design, the building does not yet exist as an empirical form but rather as a concept to be materialized. In this regard, design is prospective: creating new forms that both represent and guide the activities and values to be realized. The application of the property–composition concept in design thus consists of:

1. Uncovering the foundational value from which the activity arises. For instance, ritual worship (such as Islamic prayer or Catholic liturgy) is fundamentally grounded in the value of sacredness. Sacred value refers to the attribution of special status to spaces, objects, or practices because they are believed to have connections with the transcendent, with ancestors, or with cosmological forces. As such values are assumed to possess normative power in regulating life, activities imbued with sacredness are understood to occupy a different hierarchy from everyday human activities such as gathering, eating, or working.
2. Formulating movement, position, and the overall form of enclosing elements in accordance with the fundamental nature of the activity. For example, Islamic prayer requires a linear orientation toward the qibla.
3. After establishing the overall composition, arranging the properties of enclosing elements so that they align with the fundamental requirements of the activity. For example, ritual worship demands silence so that the voice of the prayer leader can be heard clearly and worshippers may concentrate. Thus, the enclosing elements of the central space in a worship building function as barriers that prevent external noise from penetrating the interior. These elements can also serve as filters for instance, moderating air and light so that the illumination entering the space does not merely brighten the interior but also sustains an atmosphere that encourages

worshippers to perceive the sacredness of the space.

This sequence of steps demonstrates that the property–composition concept functions not only as a descriptive device but also as an instrument capable of translating the fundamental values of activities into the concrete form of architectural elements. In this way, the framework can be applied both to the design of new spaces and to the interpretation of existing ones, while simultaneously affirming the distinction between the fulfillment of existential needs and symbolic desires. This approach thus provides the foundation for integrating architectural ethnosemantics with the property–composition concept as an operational step for identifying local values and exploring the transformative potential of vernacular settlements.

Based on the argumentation, the application of architectural ethnosemantics combined with the concept of architectural property–composition as an operational step for interpreting local values in vernacular settlements offers several advantages:

Firstly, the ethnosemantic approach enables architectural research to move beyond formal description by uncovering the structures of meaning embedded in the spatial practices of communities. Using Spradley's categories of domain, taxonomy, and component analysis, researchers can systematically trace how communities ascribe meaning to their activities, forms, and architectural symbols. However, unlike ethnosemantics in anthropology, which is often rooted in cultural relativism, architectural ethnosemantics is positioned as a method of architectural evaluation. As an evaluative method, it remains grounded in the existential purpose of architecture: to provide adequate spaces and enclosures for human activity.

Secondly, the concept of architectural property–composition offers greater analytical precision by providing tools for deconstructing the formal aspects of architecture: the types and boundaries of properties, and the placement and movement of compositions. These principles allow researchers to assess whether a building is able to accommodate, organize, and integrate activities optimally. In this way, the formal framework is retained, but without detachment from the cultural meanings examined through architectural ethnosemantics.

Thirdly, the integration of these two approaches provides a basis for the critical evaluation of vernacular architecture: whether it

continues to be grounded in existential needs or is dominated by speculative desires (tradition - social class - ideology) that may no longer be relevant in contemporary conditions. Such evaluation produces a new interpretive tool that not only documents local values but also considers their potential for transformation.

To summarize, the architectural ethnosemantic and the concept of property–composition contributes on two levels: academically, by enriching the methodology of vernacular architectural research; and by providing operational guidance for developing settlement designs that are rooted in local values yet open to transformation, thereby offering greater benefits to the vernacular communities under study.

Framework for identifying local aspects and transformative potential in vernacular settlements

Kampung Dukuh is one of the oldest Sundanese settlements, located in Cikelet Village, Pameungpeuk District, Garut Regency, West Java, Indonesia. The settlement lies approximately 150 kilometers south of the city of Bandung, at an elevation of about 390 meters above sea level. Its physical boundaries are marked by a sacred cemetery surrounded by dense forest to the north, the relatively new settlement of Kampung Dukuh Luar to the south, and agricultural fields to the east and west. The total area of Kampung Dukuh, recognized as customary land, is approximately 18 hectares, comprising around 4 hectares of the sanctioned land (*tanah karomah*), the settlement area, and cultivated fields (*huma*). *Karomah* refers to the sacred area that contains the ancestral tomb of the founder of Kampung Dukuh, the sacred forest (*hutan larangan*), and natural spring (*cai nyusu*) (Salura 2005).

Kampung Dukuh is divided into two parts: Dukuh Dalam, also known as Dukuh Customary Settlement, and Dukuh Luar. The inhabitants of Dukuh Luar are descendants of Dukuh Dalam residents who decided to move outside the original settlement. The fundamental distinction between the two communities lies in their adherence to customary law: the people of Dukuh Dalam remain bound by specific traditional regulations, whereas the people of Dukuh Luar are permitted not to follow these customary rules. This distinction becomes significant when considered in light of the literature on Sundanese villages, which generally identifies four primary

categories of activity (Salura 2007; Salura 2018b): (1) activities related to God and ancestors; (2) activities related to natural environment; (3) everyday individual activities; and (4) social activities between individuals. Thus, the social structure and varying degrees of attachment to customary law in Dukuh Dalam and Dukuh Luar can be understood through the ways in which communities organize and attribute meaning to these four types of activities within the spatial fabric of the settlement.

Although there are differences in the binding customary regulations, observations indicate that these differences are primarily reflected in the physical form of individual houses and in livelihoods, while customary rituals centered in Dukuh Dalam are, in fact, still carried out by the people of Dukuh Luar. For example, rituals include the offering of a portion of agricultural produce to the customary leader (*Kuncen*) for blessing (*Nyanggakeun*), the giving of food when one has specific wishes such as success in business or marriage (*Ngahaturan tuang*), and the presentation of produce to the *kuncen* for blessing during the Islamic feasts of Eid al-Fitr and Eid al-Adha (*Manuja*). Similarly, rituals performed exclusively by the *kuncen*, such as bringing food offerings into the Bumi Alit or Bumi Lebet for tawasul (*Tilu Waktos*), and grave pilgrimage (*Jaroh*); are also conducted using resources provided by the people of Dukuh Luar. All of these activities take place within the physical elements located in Dukuh Dalam, such as the sacred forest, cemetery, mosque, *Bumi Kuncen*, *Bumi Alit*, and the madrasa.

These findings provide a foundation for applying the property–composition framework in the interpretation of Kampung Dukuh. Through the description of properties, the specific architectural elements and their performative capacities (e.g., barriers, filters, connectors) can be identified in relation to ritual and everyday activities. The description of composition then allows for an analysis of how these elements are arranged spatially: front–back, top–bottom, left right; and how such arrangements generate tendencies of movement and establish hierarchies that structure communal life. Finally, through the elucidation of meaning, the framework enables a critical evaluation of whether existing spatial arrangements serve existential needs (such as safety, health, and collective identity) or are maintained primarily as symbolic conventions. In this way, the property–composition framework

not only interprets the embedded cultural meanings of Kampung Dukuh but also reveals pathways for transformation, particularly in Dukuh Luar, where adaptation to contemporary needs can occur without severing ties to local values.

In detail, the application of the operational steps for evaluating, interpreting, and elucidating the transformative potential of Kampung Dukuh is outlined as follows:

1. Description of property–composition of architectural form and settlement, and its relationship to the activity

In the context of Kampung Dukuh, the analysis begins with empirical facts: houses, spatial patterns, and settlement elements already exist. The aim of interpretation, therefore, is to evaluate whether these physical forms are consistent with the activities they are meant to accommodate. Description of properties consist of:

- Observation of the physical aspect of basic settlement-house elements: roof (form, slope, material), walls, floor, understructure, ventilation, and overall scale; shared spaces (courtyards and circulation paths); physical characteristics: materials (bamboo, wood, clay tiles), size, position, and orientation to the natural environment.
- Observation of everyday and ritual activities in relation to spatial settings.

Description of composition consist of:

- Tracing how houses are arranged: orientation (typically toward the natural environment e.g. mountain slopes, or based on inherited and collectively acknowledged cultural myths), spatial relationships between houses (clustered, axial), and the hierarchical pattern between Dukuh Dalam and Dukuh Luar.
- Identifying axes (the relationship between Dukuh Dalam as the center and Dukuh Luar as its expansion), rhythm (the repetition of houses with minor variations), and symmetry (if spatial balance is present within the settlement layout).
- Relating composition to activities: examining how the spatial arrangement of houses, communal spaces, and circulation paths supports or constrains everyday and ritual activities, for example, whether ritual processions are directed toward sacred sites, whether production and household activities are clustered or segregated, and how patterns of movement reflect the hierarchy of social and ritual functions.

2. Evaluation of Basic-Existential Needs and Symbolic Values

Following description, the results of the property–composition analysis are tested against two evaluative questions:

- Does this element fulfill basic human needs, such as health, safety, comfort, privacy, and sustainability?
- Or does it function primarily as a symbolic tradition, related to identity, cosmology, or social status; which, in some cases, may even pose risks (e.g., highly flammable roofs, poor ventilation leading to respiratory illness)?

3. Elucidating Transformative Potential

The results of this evaluation form the basis for design decisions:

- To be preserved and elaborated: if the element and its underlying symbolic values correspond to basic existential needs (e.g., communal spaces, orientation toward water sources, natural ventilation and circulation)
- To be further transformed: if the element and its underlying symbolic–speculative values directly endanger basic needs (e.g., replacing highly flammable roofs with more durable, fire-resistant materials that preserve the visual and cultural expression of the original form); replacing undersized ventilation openings with adequately dimensioned cross-ventilation systems that ensure healthy airflow and thermal comfort).

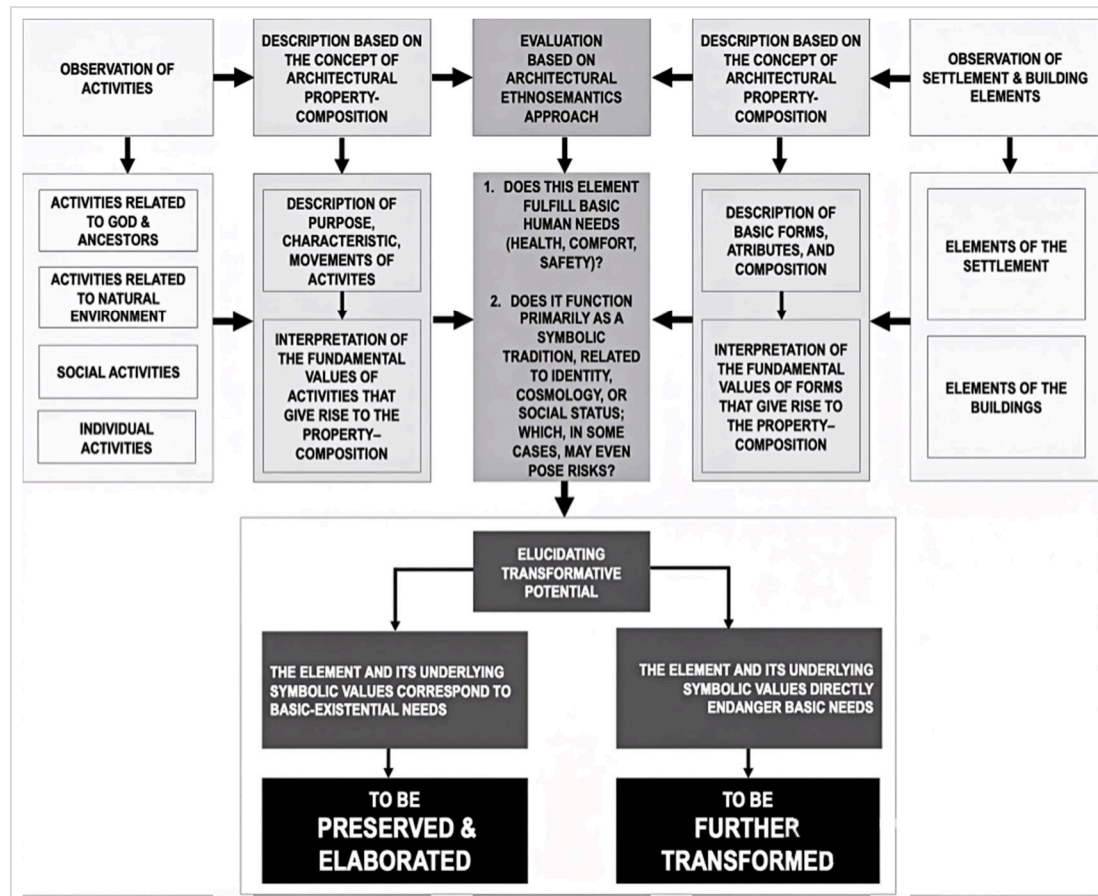


Figure 1. Framework for Identifying local aspects and transformative potential in vernacular settlements

Conclusions

Based on the analysis, several points can be concluded.

Firstly, this study highlights the limitations of two dominant epistemological tendencies in vernacular architectural research in Indonesia: the universalism of form, which tends to be reductive,

and cultural relativism, which tends to be merely descriptive without transformative orientation. A review of the application of such epistemological view in vernacular architectural studies further reveals that most research remains at the level of description and disclosure of local values, without critically examining whether those values are truly existential related to the fulfilment of fundamental human needs or merely symbolic inheritances passed down through tradition. Consequently, previous studies on vernacular architecture can be said to have provided little significant contribution either to the development of architecture or to the improvement of local communities' quality of life.

Secondly, as an alternative, this study integrates the theory of architectural ethnosemantics with the concept of architectural property–composition, resulting in a new interpretive tool capable of bridging formal and semantic dimensions. Application of this framework to the case of Kampung Dukuh Luar in West Java demonstrates that each identified local value must be critically evaluated: whether it should be preserved, partially modified, or transformed.

Thirdly, this study contributes both academically and practically. Academically, it enriches methodologies for vernacular architectural research through a more critical, contextual, and transformative approach. Practically, it offers an evaluative framework that can guide the formulation of contemporary design strategies grounded in local values, thereby providing greater benefits for the sustainability of vernacular communities themselves.

Acknowledgments

The authors would like to express their sincere gratitude to the Directorate of Research and Community Service, Directorate General of Research and Development, Ministry of Higher Education, Science, and Technology, for providing funding support under the 2025 Research Grant Scheme. The content of this article is solely the responsibility of the authors and does not necessarily represent the views of the institution or the funding agency.

References

- Ahimsa-Putra, Heddy Shri. 2006. *Strukturalisme Levi-Strauss Mitos Dan Karya Sastra*. Yogyakarta: Kepel Press.
- Bhaskar, Roy. 2008. *A Realist Theory of Science*. 2 Park Square, Milton Park, Abingdon, Oxon: Routledge.
chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://uberty.org/wp-content/uploads/2015/09/Roy_Bhaskar_A_Realist_Theory_of_Science.pdf.
- Chandler, Daniel. 2022. *Semiotics: The Basics*. 4th ed. London: Routledge.
<https://doi.org/https://doi.org/10.4324/9781003155744>.
- Ching, Francis D. K. 2014. *Architecture: Form, Space, and Order*. 4th ed. Hoboken, New Jersey: John Wiley and Sons.
<https://archive.org/details/architecture-form-space-and-order-4th-edition-pdfdrive/page/n5/mode/2up>.
- Clarke, Simon. 1981. *The Foundations of Structuralism: A Critique of Levi-Strauss and the Structuralist*. Hassocks, Sussex, England: The Harvester Press.
- Edgerton, Robert B. 1992. *Sick Societies: Challenging the Myth of Primitive Harmony*. New York City: Free Press.
- Hahn, Hans Peter. 2023. 'On the Changeful History of Franz Boas's Concept of Cultural Relativism'. *EAZ – Ethnographische-Archaeologische Zeitschrift* 57 (1): 1–12.
<https://doi.org/https://doi.org/10.54799/ISBF2790>.
- Heriyanto, Adi, Gagoek Hardiman, and R. Siti Rukayah. 2025. 'Expression of Neo-Vernacular Architectural Concept in Recreational Commercial Building'. *Eduvest - Journal of Universal Studies* 5 (3).
<https://doi.org/https://doi.org/10.59188/eduvest.v5i3.33263>.
- Holmes, Roger. 2015. *Levi-Strauss: Structuralism and Sociological Theory*. England, UK: Routledge.
- Lake, Reginaldo Christophori, Antariksa, and Purnama Salura. 2021. 'Revisiting Architectural Structuralism: Archi-Cultural Pattern as a Method to Read the Meaning of Tamkesi Vernacular Architecture'. *Journal of Design and Built Environment* 21 (2): 1–9.

- <https://ejournal.um.edu.my/index.php/jdbe/article/view/31391>.
- Leach, Edmund. 1989. *Claude Levi-Strauss*. Chicago, United States: University of Chicago Press.
- Levi-Strauss, Claude. 1963. *Structural Anthropology*. New York: Basic Books.
- . 1966. *The Savage Mind (The Nature of Human Society Series)*. United States of America: The University of Chicago Press.
- . 1995. *Myth and Meaning: Cracking the Code of Culture*. New York City: Schocken.
- Manurung, Parmonangan, Sudaryono Sastrosasmito, and Diananta Pramitasari. 2022. 'The Meanings of Architectural Spaces in Vernacular Settlements: The Batak Toba Tribe in the Meat Village, Toba, Indonesia'. *International Society for the Study of Vernacular Settlements* 9 (2): 23–40.
- merriam-webster. n.d. 'Vernacular'. Merriam-Webster.Com. <https://www.merriam-webster.com/dictionary/vernacular>.
- Moustakas, Clark. 1994. *Phenomenological Research Methods*. 2455 Teller Road, Thousand Oaks California 91320 United States of America: SAGE Publications, Inc. <https://doi.org/10.4135/9781412995658>.
- . 1994b. *Phenomenological Research*
- Oliver, Paul. 1998. *Encyclopedia of Vernacular Architecture of the World*. London, England: Cambridge University Press.
- . 2007. *Built to Meet Needs: Cultural Issues in Vernacular Architecture. Built to Meet Needs: Cultural Issues in Vernacular Architecture*. <https://doi.org/10.4324/9780080476308>.
- Rahmawati, A. L., L. S. Arifin, and Y. B. Dwisusanto. 2022. 'Mimesis-Semiotics Method as an Alternative to Dynamic Vernacular Heritage Conservation: An Application on The Karo Traditional House in Dokan Cultural Village, Indonesia'. *ISVS E-Journal* 9 (4): 110–27.
- Rudofsky, Bernard. 1970. 'Architecture without Architects: A Short Introduction to Non-Pedigreed Architecture'. *Art Education*. <https://doi.org/10.2307/3191516>.
- Salura, Purnama. 2001. *Ber-Arsitektur; Membuat, Menggunakan, Mengalami, Memahami*. Bandung: Architecture & Communication.
- . 2005. 'Dinamika Perubahan Konsep Bentuk Dan Makna Arsitektur Pada Masyarakat Sunda Di Kampung Dukuh, Kampung Ciherang, Kampung Palasah'. Bandung Institute of Teknologi.
- . 2007. *Menelusuri Arsitektur Masyarakat Sunda*. Bandung: Cipta Sastra Salura.
- . 2018a. 'Anatomy of Architecture Based on the Creation of Space for Activity'. *International Journal of Engineering & Technology* 7 (2.14): 205–7.
- . 2018b. 'Siniger Tengah and Kaca-Kaca as The Deep-Structure of Sundanese Architecture in Pasundan Land, West Java, Indonesia'. *International Journal of Engineering & Technology* 7 (2. 14): 314–17.
- . 2018c. 'The Philosophy of Architectural Ordering Principles'. *International Journal of Engineering and Technology (UAE)* 7 (2.9): 52–55. <https://doi.org/10.14419/ijet.v7i2.9.13346>.
- Salura, Purnama, and Stephanie Clarissa. 2018. 'Interpreting Architectural Expression of House of Representative Building, Case Study: East Java Provincial House of Representative Building in Surabaya, East Java, Indonesia'. *Journal of Advanced Research in Dynamical and Control Systems*, no. 02-Special Issue: 1543–52. <https://www.jardcs.org/backissues/abstract.php?archiveid=4664>.
- . 2025. 'Formulating Architectural Ethnosemantics as a New Research Method'. *ARTEKS: Jurnal Teknik Arsitektur* 9 (3): 477–90. <https://doi.org/10.30822/arteks.v9i3.3809>.
- Salura, Purnama, and Bachtiar Fauzy. 2013. 'Sintesis Elemen Arsitektur Lokal Dengan Non Lokal'. Bandung.
- Skinner, Joseph E. 2016. *The Invention of Greek Ethnography: From Homer to Herodotus*. Oxford: Oxford University Press.
- Spradley, James P. 1979. *The Ethnographic Interview*. Long Grove: Waveland Press, Inc.
- . 1980. *Participant Observation*. New York: Holt, Rinehart and Winston.
- . 2006. *Metode Etnografi*. Yogyakarta: Tiara Wacana.
- Sturrock, John. 2002. *Structuralism*. 2nd ed. Hoboken, New Jersey, USA: Wiley-Blackwell.
- Tchertov, Leonid. 2019. *Signs, Codes, Spaces, and Arts*. London: Cambridge Scholars Publishing.
- Vermeulen, Han F. 2015. *Before Boas: The Genesis of Ethnography and Ethnology in the German Enlightenment*. Nebraska: University

of Nebraska Press.
<https://doi.org/https://doi.org/10.2307/j.ctt1d98c8k>.

Author(s) contribution

Purnama Salura contributed to the research concepts preparation, methodologies, investigations, data analysis, visualization, articles drafting and revisions.

Ignatius Bambang Sugiharto contribute to the research concepts preparation and literature reviews, data analysis, of article drafts preparation and validation.

Reginaldo Christophori Lake contribute to methodology, supervision, and validation.

Stephanie Clarissa contribute to methodology, supervision, and validation.

This page is intentionally left blank