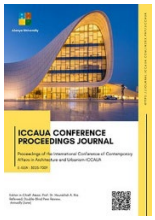

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A Phenomenological Dialogue Between Nature and Humanity: Traces of Local Knowledge in Marco Casagrande's Architecture

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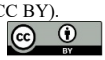

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A b s t r a c t

Architectural phenomenology focuses on the perceptual-sensory and bodily experiences of humans, examining the human-space relationship and the concept of 'place.' 'Place' is not merely a physical setting but a lived experience shaped by human interaction with the environment. This study investigates the relationship between nature and humanity phenomenologically and analyzing Marco Casagrande's Bug Dome, Cicada, and Sandworm projects to explore the concept of 'place' and the role of local knowledge. Casagrande integrates local knowledge, materials, techniques, and community participation for an architecture that evolves with nature and society. The related projects are not only aesthetic and functional structures but also experiential tools that transcend stylistic boundaries and present a design philosophy that deepens the meaningful relationship between nature and humanity. 'Place-making' serves as a critique of urbanization disconnected from nature and as a participatory process and transformative mechanism that strengthens the human-nature relationship.

K e y w o r d s : Architectural Phenomenology; Concept of Place; Marco Casagrande; Local Knowledge; Nature and Humanity.

1. Introduction

While the natural sciences provide effective tools for explaining the anatomical structure of the human body, they lack the capacity to answer fundamental ontological questions about human existence, identity, and the meaning of life. The human body can be examined on a biological level with the natural sciences, yet its essential nature and the meaning of life encompass deeper, philosophical, and ontological dimensions of human experience. Similarly, spaces cannot be defined solely by their physical qualities; their meaning, value, and existence must be examined on ontological and epistemological levels, extending beyond their physical qualities to encompass human experience Aziz Amen 2017; Aziz Amen and Ahmad NIA 2021; Aziz Amen and Nia 2018 . In this context, approaches and methods for understanding spaces from a philosophical perspective have become a significant area of research, particularly in architectural theory and design (Aydınlı, 1999). Architecture emerges not only as an aesthetic and functional discipline but as a domain that analyzes human experience and the meanings attributed to space. In this regard, phenomenology, as a methodological approach in architecture, provides essential tools for understanding the multidimensional relationships between humans and environment (Pallasmaa, 1996).

Casagrande views architecture as an extension of nature, advocating for designs that evolve and transform over time through natural processes. Unlike modernist approaches, he defines architecture as a dynamic and participatory process deeply integrated with nature. For him, architecture is not about creating an object but about constructing an environment that strengthens the connection between humans and nature by incorporating local elements and knowledge into the process (Casagrande, 2023).

This study investigates the relationship between nature and humanity phenomenologically, analyzing Marco Casagrande's *Bug Dome, Cicada,* and *Sandworm* projects to explore the concept of place and the role of local knowledge in architectural design. The aim of the study is threefold: (1) to understand the relationship between nature and humanity through a phenomenological approach, (2) to examine the concept of place, and (3) to investigate the role of local knowledge in architectural design. By focusing on Casagrande's works, this research seeks to contribute to the discourse on how architecture can mediate the interaction between humans, nature, and the built environment. Figure 1 presents the structure of the study.

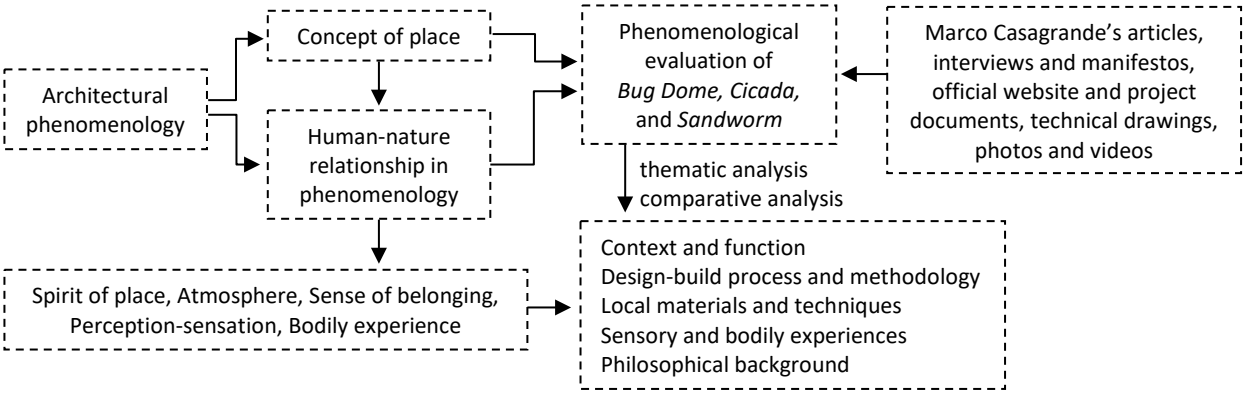


Figure 1. Structure of the Study (Developed by Author).

2. Materials and Methods

The study employs a qualitative research methodology, combining content analysis of literature and critical theoretical interpretation of case studies. The research is structured in three main phases: (1) theoretical framework development, (2) case study analysis, and (3) thematic and comparative analysis.

The first phase establishes the theoretical background of the study. The characteristics and principles of architectural phenomenology are explored, with a focus on key concepts such as the 'spirit of place', 'atmosphere', 'sense of belonging', 'perception-sensation' and 'bodily experiences'. These concepts are critically examined to elucidate the relationship between space and human experience. Additionally, the study investigates the interplay between nature and humanity through a phenomenological approach, emphasizing how architecture mediates this relationship.

The second phase involves the selection and analysis of a sample set of architectural works by Marco Casagrande, the *Bug Dome, Cicada,* and *Sandworm* structures. These projects were chosen because they engage with phenomenological principles and serve as tools for exploring the relationship between nature, humans, and the urban environment. Produced in diverse geographical and cultural contexts, they not only reflect Casagrande's architectural philosophy but also provide a rich basis for discussing architecture as an experiential and meaningful phenomenon.

The analysis of these case studies is conducted through a phenomenological approach, focusing on how the place and local knowledge is interpreted in each project. Data sources include Casagrande's articles, interviews, manifestos, and project documentation from his official website, as well as technical drawings, photographs, and videos of the structures. These materials provide a comprehensive understanding of the design intent, construction processes, and experiential qualities of the projects.

The final phase involves thematic analysis and comparative analysis of the selected case studies. To guide the evaluation of each structure, five key themes that describe Marco Casagrande's architectural approach are identified.

• Context and Function: The relationship of the structure to its surroundings and its intended purpose.
• Design-Build Process and Methodology: The approach to design and construction, including participatory or collaborative methods.
• Local Materials and Techniques: The use of local materials and construction methods.
• Sensory and Bodily Experiences: The ways in which the structures engage the senses and foster bodily interaction.
• Philosophical Background: The underlying ideas and principles that inform the design.

Through these themes, the distinctive qualities of each structure are highlighted. Their similarities and differences are critically discussed with detailed sub-themes that reference the concepts of 'spirit of place', 'atmosphere', 'sense of belonging', 'perception-sensation' and 'bodily experiences'. The analysis focuses on their contribution to place-making and their role in enhancing the relationship between humans and nature. This comparative approach provides a deeper understanding of how phenomenological principles are applied in contemporary architectural practice.

3. Theoretical Background: Architectural Phenomenology

Phenomenology, which emerged in 20th-century thought, developed in an environment where the scientific foundations of natural sciences such as physics and mathematics were questioned, alongside the sociological and psychological expectations of the world (Bubner, 1993). Phenomenology, particularly in the social sciences, opposes the positivist, rationalist, and objectivist methods used by the natural sciences that attempt to explain everything within their theories, excluding the spiritual world and the world of meanings (West, 1998).

According to Heidegger (2004), phenomenology does not name the research object or define the scope of the subject. Instead, it provides a method for how the focus of phenomenology will be presented and examined. In this context, phenomenology refers to the specific separation of scientific objects related to phenomena, so that any discussion of these objects should be addressed through direct presentation and direct proof.

According to Husserl (1997), phenomenology is an approach that progresses through seeing, illuminating, determining meaning, and making distinctions. In this context, phenomenology adopts methods such as comparison, differentiation, association, deconstruction, and analysis into components; all of which are carried out through ‘’pure seeing’’. It does not aim to theorize or construct a mathematical model, as it does not provide explanations within a deductive framework. By addressing the fundamental concepts and principles of objectifying science, phenomenology makes clear the conditions of possibility for that science, and it ends at the point where objectifying science begins.

Merleau-Ponty (1994), argues that phenomenology does not diminish the necessity of scientific inquiry, but it proves that science cannot describe a world that is complete, self-sufficient, and leaves no room for questions. In this context, phenomenology, which refutes the dogmatism of science by rejecting the idea of science as absolute and complete

knowledge, opens up space in the scientific world for the direct engagement with human daily life, all elements of human experience, and especially our sensory perception.

Phenomenology calls for a constant re-learning of the world we are part of, through direct, unmediated experiences and dissolved relationships, expecting us to grasp its meaning with our awareness and existence. In this context, phenomenology proposes the story of all the relationships and experiences we encounter in the perceived world, rather than theoretical research and focuses unique perception and lived experience of human (Bognar, 1985).

The spread of phenomenology in architecture began in the 1960s and 1970s, prompted by the criticism of the failure of both formalism and functionalism—highlighted during the rise of modernism in the 20th century—to create vibrant, dynamic, and humane environments. It was emphasized that the methods borrowed from natural sciences and the research conducted did not represent user responses or the meaning values of those environments (Aydınlı, 1999).

Phenomenology in architecture is not seen as a philosophical discipline but as a method for questioning the meaning of architectural form and understanding human-environment relationships. In line with the phenomenological approach's treatment of subject and object within their interconnectedness, the natural and built environmental reality demands our gaze and the functions of our mind, while simultaneously requiring an understanding of the human body's capacities through a multidimensional orientation (Bognar, 1985). In this context, phenomenology focuses on human experiences and discusses the relationships between humans and space as subject-object.

3.1. Concept of Place

From phenomenological perspective, modernism is not only shapes the construction and perception of physical space but also influences everyday habits and practices. In this context, the spatial conception introduced by modernism brings about various issues. Criticisms primarily focus on the abstract, three-dimensional, and rational perception of space, as well as on phenomena such as spatial homogenization and uniformity. Furthermore, the lack of emphasis on the human element as a central factor in the design process constitutes a significant point of critique. The spatial understanding that neglects human experiences and the dimension of meaning leads to a reevaluation of the concept, thereby increasing interest in the notion of ‘place,’ which is discussed within the phenomenological approach that prioritizes meaning and human experience.

Heidegger (1971) discusses three distinct concepts: ‘’location, place, and space.’’ According to Heidegger (1971), location does not emerge through mathematically conceived space but rather through ‘place,’ which is understood via human experience. Heidegger (1971) approaches being as the primary issue and explains that the fundamental condition of existence consists of what he calls the “Fourfold”: ‘’earth, sky, divinities, and mortals.’’ He argues that the fundamental concern of architecture is human experience and illustrates this idea through the myth of the bridge. Heidegger (1971) explains the act of a bridge forming a ‘place’ when it connects two shores as follows: “A bridge is a thing, and it is only that. Only? As a thing, it gathers the Fourfold.”

Sharr (2013) emphasizes that in Heidegger’s intellectual universe, the construction of a bridge not only transforms possibilities within lived experience but also establishes a reconciliation between people and their surrounding world. He explains that Heidegger’s question, “Only?” suggests that before the bridge’s existence, ‘place’ did not yet exist. Through the bridge, a previously occupied point along the river transforms into a ‘place’; the ‘place’ comes into being through the presence of the bridge. In other words, the ‘place’ where the bridge stands is perceived differently after its construction, and in people's minds, the bridge itself becomes the ‘place’. The most critical moment in the bridge myth is when the bridge builder selects the ‘place’ where it will be constructed. According to Heidegger (1971), this moment signifies the inscription of dwelling into ‘place’ through construction. A building is not merely an object of admiration or a product of construction management processes; rather, it is, above all, a part of humanity’s ongoing experience of building and dwelling.

According to Nalbantoğlu (2005), Heidegger does not disregard ‘space’ as a modern concept; however, he prioritizes ‘’time and place.’’. Nalbantoğlu (2005) states that ‘space’ is a conceptual framework unique to modern times—an empty and abstract category/concept. In pre-modern history, particularly in the earliest periods of humanity, there was no need for such an abstraction. Even in Aristotle’s philosophy, there is no conception of an ‘’empty place or an abstract space’’ devoid of anything within it.

According to Norberg-Schulz (1971), who follows Heidegger’s line of thought, ‘place’ cannot be explained through analytical and scientific frameworks. He argues that a ‘’place-centered approach’’ represents another tradition within modern architecture and offers a ‘’humanistic modernism.’’ Norberg-Schulz (1980) reinterprets the ancient Roman belief: the essence and guardian spirit of all existances —the genius loci—through a phenomenological lens. ‘’The spirit’’ animates ‘places,’ accompanies individuals from birth to death, and defines the unique and intrinsic qualities of a ‘place.’ ‘Place’ is inherently an inseparable part of existence; an event that does not reference ‘place’ is inconceivable. According to Norberg-Schulz (1980), the existential purpose of an architectural work is to transform a piece of land, ‘’a space, into a place’’ while revealing the latent meanings embedded within it. Architecture is the act of making the ‘’genius loci’’ visible, and the ‘’architect’s role is to create meaningful places.’’ ‘’Meaning, identity, and history’’ are the three fundamental values that facilitate the comprehension of the ‘’genius loci.’’ This approach not only provides a comprehensive definition of the nature of ‘place’ but also emphasizes that every ‘place’ possesses a ‘’atmosphere,’’ which qualities its essence and uniqueness.

Unlike ‘space,’ ‘place’ is unique and possesses an identity. Beyond form, perceptual-sensory and bodily qualities, as well as human experiences, constitute the focal points of the concept of ‘place.’ Moreover, the notion of ‘place’ is inherently intertwined with locality, environmental relationships, and context. In this sense, it represents not merely a physical formation but also a ‘’sense of belonging.’’ A space attains the quality of ‘place’ when it becomes imbued with

a ‘’sense of belonging,’’ integrating with human presence. Consequently, memories and social relationships gain increasing significance in the formation of ‘place’ (Kahvecioğlu, 1998).

The identity of a ‘place‘ is shaped not only by physical features but also by the meanings that people attribute to this ‘place.‘ Places that support people’s social interactions, host their memories and strengthen their emotional bonds have a unique identity. This identity determines the meaning of the ‘place‘ and people’s attachment to the ‘place‘ (Joshi & Nagarsheth, 2024).

The distinction between ‘place‘ and ‘space‘ can be fundamentally explained as the transformation of ‘’space into place’’ through the incorporation of various social factors and human existence. Rather than being an outcome of an analytical process, a methodological sequence, the production of a physical environment, or the stylistic and proportional characteristics of a structure, ‘place’ is human-centered and finds meaning through human experience (Pallasmaa, 1996). In this context Gadamer (2009) argues that method is not a pathway to truth; rather, truth distances itself from the method-oriented individual. According to him, the process of understanding should not be perceived as a subjective approach toward an object but as a way of ‘’becoming oneself.’’

On the other hand, ‘sense of place‘ refers to the meaning, emotion and behavioral bonds that people establish with a particular ‘place.‘ ‘Sense of place‘ is based not only on the characteristics of the physical environment but also on the meanings and emotional bonds attributed to the ‘place.‘ Natural elements in particular play a critical role in the formation of ‘sense of place;‘ the emotional and existential bonds that people establish with nature deepen the meaning of the ‘place.‘ It also encourages positive behaviors towards the environment and shapes the perception of the human-nature relationship. In this context, ‘sense of place‘ is an important factor that supports a sustainable lifestyle by strengthening the bond that people establish with nature (Al-azzawi, İnalhan & Al-azzawi, 2024).

3.2. Dialogue Between Nature and Humanity

In phenomenology, the relationship between nature and human beings is addressed within an existential context, aiming to understand how humans experience the world and their surroundings. This approach emphasizes that humans interact with nature and their environment not only intellectually but also on bodily and emotional levels. Nature, beyond being merely a physical environment, comes to exist as a context that shapes human experience and gives it meaning.

According to Heidegger (2004), human beings, as ‘’Dasein’’ (being-there), exist in the world, and this world is deeply intertwined with nature and the environment. Nature is fundamental to human existence because it is through the relationship with one’s environment that humans make sense of themselves. This phenomenological approach, based on the naked truth of human existence, argues that the world has always been there, even before being conceptualized through an subject’s perspective. It suggests that direct contact with existence has become ambiguous in contemporary society, requiring effort to reconnect with it, and that this reconnection has philosophical implications (Sharr, 2013).

Merleau-Ponty’s thougts on the interaction between the body and the world further deepens this relationship. According to him, the body is not a tool for understanding nature but an entity that exists together with nature. Humans are bodily beings; it is impossible for them to exist without their bodies. Consciousness, experience, and identity exist within the human body; they exist through the body. Without a bodily subject, human experience, life, knowledge, and meaning cannot exist. The perceptual world is a far more complex and synthetic one. The mind and body are intricately intertwined; they are inseparable together (Merleau-Ponty, 1994).

Merleau-Ponty’s phenomenological approach emphasizes that humans make sense of the world not only through reason but also through sensory experiences. He argues that the perception of colors or objects is a result of sensory data. This reveals that the interaction between humans and the world, or nature, is shaped not as a mental process but as a combination of the body and senses. Rather than viewing the world from the outside, humans are immersed in it, experiencing and understanding it through their awareness of this relationship. In this context, the relationship between nature and humans is both a subjective and bodily experience. By referencing conscious experiences and direct first-person experiences, Merleau-Ponty (1994) explains that phenomenology strives to bring a new stage to philosophy by rediscovering the ‘’direct, primitive and naive contact’’ between the world and humanity. Phenomenology is a summary of the 'lived space, time, and world.’’

Buckley (2013) emphasizes that the relationship between nature and humans is strengthened through bodily participation and sensory experiences. According to her, human interactions with nature are not only shaped by observation but also by physical presence within nature. These actions allow humans to understand their place in the world more deeply and to experience the cultural and existential dimensions of this relationship. Buckley (2013) highlights examples such as "smelling of the forest after a rain, feeling the earth beneath our feet as we walk across the ground, holding our noses as we lift the lid to the trashcan" noting that these interactions with nature are bodily experiences that reinforce meaning in human existence (p. 20).

These relationships with nature are not just physical interactions; they also emerge as processes laden with meaning and value. The human connection with nature is not merely external observation. Instead, humans directly engage with their environment, experiencing and internalizing these moments bodily (Softaoğlu, 2019). This process deepens the understanding of the world and surroundings and integrates individuals into a way of life, a culture. The relationship between humans and nature serves as a fundamental interaction that shapes one's understanding of lifestyle and the world around them (Buckley, 2013).

4. Marco Casagrande's Architecture: Bug Dome, Cicada, and Sandworm

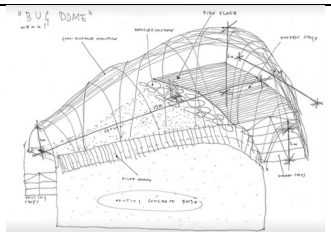
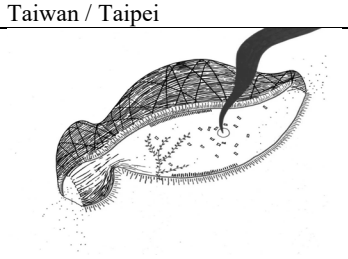
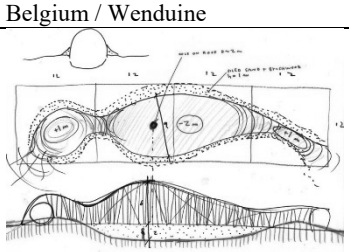
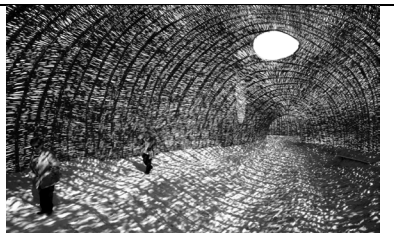
Marco Casagrande (b. 1971) is a Finnish architect, artist, and urban theorist whose architectural practice is rooted in ecological and organic processes. Casagrande (2023) explores the dynamic interactions between humans, nature, and the built environment. He assertes that architecture not just as a design and construction process but as an organic, transformative process that builds a connection between nature and humanity; architecture should not compete with

nature but integrate with it. In this context, his architecture intersects with disciplines such as art, ecology, and community participation (Casagrande, 2023).

Casagrande (2023) defines his architecture by the concepts of "Guerilla Architecture" and "Third Generation City." He critiques traditional architectural practices and institutionalization, advocating for architecture that develops spontaneously, freely, and in harmony with nature. "Guerilla Architecture" represents a flexible, non-intrusive approach that uses local materials, involves community participation, and aligns with nature. According to Casagrande (2023), architecture is not a planned and fixed system but a living organism that engages with natural processes. He believes that modern cities, in their first generation, had an organic structure before industrialization. The second generation of cities, shaped by industrialization, disconnected from nature, creating artificial and planned urban spaces. According to Casagrande (2023), "Third Generation Cities" should be cities that reconnect with nature, featuring ecological and sustainable structures.

Casagrande uses local materials, recyclable elements, and nature-integrating forms in his projects, aiming for buildings that evolve alongside their surroundings over time. He embraces the view that humans are part of nature, so architecture should not oppose nature but exist within and alongside it. Furthermore, he emphasizes that architecture is not merely an area shaped by an architect but a phenomenon actively involving society, local communities, and nature. With this perspective, he builts on various projects in collaboration with local communities, seeing the architect not only as a designer but as a facilitator who listens to the needs of both nature and society (Casagrande, 2023). Table 1 presents the *Bug Dome* (Casagrande, 2009), *Cicada* (Casagrande, 2012a), *Sandworm* (Casagrande, 2012b).

Table 1. *Bug Dome*, *Cicada*, and *Sandworm.*

Project	**Bug Dome**	**Cicada**	**Sandworm**
Year	2009	2011	2012
Country	China / Shenzhen	Taiwan / Taipei	Belgium / Wenduine
Sketch			
View			
Interior			

Marco Casagrande's *Bug Dome* project was built in 2009 in Shenzhen, China, in a densely urbanized area (Casagrande, 2009). It reflects the architect's deep thoughts on the relationship between nature, humans, and the city. Casagrande (2009) describes this structure as "a weak shelter for the modern human seeking refuge from the explosive force of urbanization." Casagrande (2009) explains that, "Shelter is the seed of architecture. *Bug Dome* is growing from this seed. It is looking around at the surrounding city. Maybe it grows bigger and eats the city. One of these days these streets are going to get organized." In this context, situated amidst high-rise buildings, *Bug Dome* serves as a sanctuary responding to Shenzhen's rapid urbanization. During the design process, Casagrande (2009) emphasizes that, accidental elements surpass human control, arguing that the designer must be physically present to understand these dynamics. He (2009) states that, "Accident is greater than human control. Designer must be present in order to understand the constructive dynamics of accident. To be present is the key of all art. Accident is calling the designer to get out of the office. Accident is beyond human control, and thus insulting to the industrial mind. Usually we call this a human error". Casagrande's *Cicada* project, built in 2011 in Taipei, Taiwan, is an organic void within the city's modern industrial fabric (Casagrande, 2012a). Constructed from bamboo, it is designed as a form of "urban acupuncture," piercing through what Casagrande (2012a) calls the "industrial laziness" of rigid urban surfaces to reconnect the city with its original ground and the collective Chi of the Taipei Basin. ‘’Functioning as a breathable, pulsating cocoon,’’ *Cicada* offers an escape from the surrounding metropolis. Upon entering, visitors experience a shift in perception—the city disappears, allowing them to feel as if they have traveled back a thousand years, realizing that nothing has truly changed. Casagrande

(2012a) refers to the structure as "insect architecture" and a public space that integrates local knowledge of flexible bamboo construction with high levels of improvisation. He (2012a) asserts that "Modern man in a box is doomed to dementia." *Cicada* serves as a mediator, restoring the lost connection between humans and nature while providing an escape from the industrial city.

The *Sandworm* project, built in 2012 on the dunes of Wenduine, Belgium, embodies Casagrande's concept of "pliant and weak architecture" (Casagrande, 2012b). Casagrande (2012b) describes it as an expression of a man-made structure's desire to become a part of nature through flexibility and organic presence. He (2012b) explains that, "The visitors are describing the *Sandworm* as a willow cathedral finely tuned to celebrate the site specific conditions of the Wenduine tidal beaches. The space is used for picnics, relaxation and post industrial meditation.", "... like they would use the beach anyhow. It was not an interior or exterior space, but just a space. It was still a beach." Inside, visitors encounter shifting patterns of natural light and shadow, emphasizing the diverse sensory experiences offered by its simple and natural materials. Casagrande (2012b) argues that architectural control contradicts both nature and architecture itself. According to Casagrande (2012b), "the built environment should act as a mediator between human nature and nature itself, and to achieve this, one must embrace a form of weakness." He (2012b) asserts that design is not enough and should not replace reality; rather, architecture should emerge from its site, respond to its surroundings, reflect life, and, like all living things, simply "be itself."

5. Discussions

Bug Dome, Cicada, and *Sandworm* reflect Casagrande's inquiry into how architecture functions within social and cultural contexts. His projects, conceived as responses to observed issues, go beyond aesthetics and functionality; they also carry a distinct mission, shaping local communities' perception of architecture. In each project, Casagrande deepens the dialogue between architecture, its environment, and society.

A defining characteristic of Casagrande's architectural approach is his unique design-build process, which is crucial in shaping his practice. By integrating local communities and environmental factors into both the planning and construction phases, he actively reconfigures the relationship between humans and nature. This participatory and adaptable methodology challenges conventional design paradigms, fostering a deeper interaction between humanity and the natural world.

In *Bug Dome, Cicada,* and *Sandworm,* Casagrande employs local materials and techniques, emphasizing their ecological contributions and the role of sustainable architectural experiences in shaping social consciousness. His preference for materials such as bamboo and willow branches aligns with his architectural philosophy, which prioritizes flexibility and natural integration. These materials enable structures to merge with their surroundings over time and ultimately return to nature.

Casagrande's projects create immersive experiences that reconnect people with nature. Each structure fosters unique interactions with its surroundings, heightening awareness of nature's presence. Informed by the sounds and textures of the environment, these projects encourage a sense of detachment from urban life. By integrating sensory experiences, emotions, and physical participation into both the design and construction processes, Casagrande fosters repeated encounters with nature, even in dense urban settings. His work promotes the rediscovery of nature, guiding a non-mechanistic design approach.

Bug Dome, Cicada, and *Sandworm* also embody Casagrande's architectural manifestos, such as ''Guerilla Architecture'' and ''Third Generation City.'' By utilizing local materials and adopting a participatory approach, he envisions architecture as a living organism that coexists with humans within a natural process. Through both his designs and theoretical contributions, he advocates for cities that integrate nature, social consciousness, sensory diversity, and bodily participation. Concepts such as insect architecture and weak architecture highlight the intellectual depth of Casagrande's philosophy and offer a framework for understanding his projects.

Marco Casagrande's architectural approach can be examined through five key themes, as exemplified by *Bug Dome, Cicada,* and *Sandworm*: context and function, design-build process and methodology, local materials and techniques, sensory and bodily experiences, and philosophical background. Table 2 presents the distinctive qualities of each project within these thematic categories.

Table 2. Distinctive qualities of *Bug Dome, Cicada,* and *Sandworm.*

Themes	Bug Dome	Cicada	Sandworm
Context and function	It serves as a shelter for modern humans in a rapidly urbanizing area.	It functions as an organic void within a modern industrial fabric, acting as a mediator.	It extends over coastal dunes, serving as a natural canopy that becomes part of the landscape.
Design-build process and methodology	In this process, where the designer is directly involved, the "constructive dynamics of accident" are emphasized.	It incorporates a high level of improvisation alongside local knowledge.	Architectural control is seen as contrary to nature and, by extension, to architecture itself; humans must act as part of the natural process.
Local materials and techniques	Built from bamboo, a local material in China, with wooden fibers and mud plaster for structural integrity and covering.	Built from bamboo in Taiwan, with wooden fibers, steel cables, and connectors for structural integr and framework.	Built from willow branches in Belgium using weaving techniques, with temporary wooden frames for construction and natural soil with natural binders for integration with the ground.
Sensory and bodily experiences	It offers an experience that consciously separates people from the dense urban fabric.	In contrast to industrialization, and mechanical thinking, it is a soft, safe cocoon, connecting	It awakens various senses on a beach covered with continuous sand by diversifying the textures of its

	This provides an opportunity to reconnect with nature.	people with nature through a shared belief in Chi (life energy).	location.
Philosophical background	"A weak shelter, a mediator, an architectural seed" designed to help modern humans reconnect with nature.	"An urban acupuncture, a public space, an insect architecture" that disrupts "industrial laziness."	"A weak architecture" symbolizing the desire for integration with nature through flexibility and organic form.

Considering the distinctive qualities of the Bug Dome, Cicada, and Sandworm examples based on the themes, it is observed that there are both similarities and differences in the context of being desgined with a specific architectural philosophy. Table 3 presents the similarities and differences between the examples. The detailed sub-themes in the table refer to the concepts of 'spirit of place', 'atmosphere', 'sense of belonging', 'perception-sensation' and 'bodily experiences'.

Table 3. Similarities and differences of *Bug Dome, Cicada,* and *Sandworm.*

Aspects of place		**Bug Dome**	**Cicada**	**Sandworm**
Meaning of place	The symbolic, emotional, or cultural meaning of place.	"a weak shelter" "a mediator" "an architectural seed"	"an urban acupuncture" "a public space" "an insect architecture"	"weak architecture" "willow cathedral"
Character of place	The distinctive and unique atmosphe of the place.	Dense urban fabric		A natural dune by the water
Contribution of place	The role and contribution of the place in its location.	Detaching people from the urban fabric		Integrating people with the place
Experience of place	The experience of place as perceived and lived by people.	Experience of natural light and shadows, natural materials such as bamboo and willow and natural ground		
Space-time relationship	The transformation of place over time, and the connection people establish with it through time.	Dissolving in nature over time, becoming a part of it Feeling like nature and humans being inseparably together		
Knowledge of place	The knowledge about the historical, cultural, or ecological characteristics of the place.	Using local materials, methods and experience		
Scale of place	The relationship between the scale of the place and the human scale.	Design on a human scale		
Design and construction of place	The design and construction process of the place, along with the methods used in this process.	Conducting construction as an improvisation with the designer involved in the process		

Although Marco Casagrande uses a similar architectural language and approach in his projects, it is seen that the symbolic, emotional or cultural meanings of Bug Dome, Cicada and Sandworm projects are different. In the context of being within the dense urban fabric of Bug Dome and Cicada, the unique atmosphere of the places where they are located is similar, this situation is different in Sandworm, which is located on a natural dune by the water. In this context, Bug Dome and Cicada are similar in their role of isolating people from the dense urban fabric, this situation is different in Sandworm, which integrates people with the place where it is located. All three projects are similar in terms of experiencing natural light and shadows and natural materials. On the other hand, in addition to the fact that the projects dissolve into nature over time and become a part of it, people feel like an inseparable part of nature, which makes the space-time relationships in the projects similar. All three projects have similarly benefited from the knowledge about the historical, cultural or ecological characteristics of the place using local materials, methods and experiences and have been designed on a human scale. Finally, the projects have a similar design and construction process in the context of being managed as an improvisation in which the designer is involved in the process. These evaluations are discussed in the conclusion section in terms of their effects on ‘place-making’ that deepens the human-nature relationship.

6. Conclusions

The critique of modernism’s abstract and uniform approach necessitates a re-evaluation of space as an entity perceived and experienced by humans. In this context, the distinction between ‘place’ and ‘space’ emphasizes not only the physical space but also an understanding centered around human-specific qualities. Phenomenology provides both a tool and a philosophical method in the fields of architecture and environmental design to deeply understand the relationships between human and space and the role of subject. In phenomenology, ‘place’ is an environment shaped by human existential experiences, identified with a sense of belonging, and imbued with meaning and emotion. In this context, architecture should be an experiential approach, focusing on human perceptions, senses, emotions, and bodily experiences, which reveals the meaningful relationships humans establish with their environment, going beyond merely constructing physical structures (Softaoglu, 2023).

Phenomenology depicts the relationship between nature and humanity not just as a physical connection or observation but as a coexistence shaped by existential, perceptual-sensory, and bodily experiences. Humans do not simply perceive nature as an external object but also recognize it as an environment they experience, exist within, and ascribe meaning to. This approach provides a methodology for understanding the relationship between nature and humanity, as well as how people experience their surroundings and the world in both concrete and abstract aspects. Human interaction with nature is not merely a mental process but a physical and sensory experience. It is an inherent and continuous interaction in which both entities shape and give meaning to each other. It is deeply rooted in experience and meaning-making, as beings mutually transform and sustain one another on both physical and ontological levels.

Marco Casagrande’s architectural approach exemplifies phenomenological principles by prioritizing human experiences, sensory engagement, and the integration of nature and culture. His work reflects a deep sensitivity to the

existential and perceptual dimensions of place. Through concepts such as "Guerilla Architecture" and "Third Generation Cities," architecture is no longer perceived merely as an aesthetic and functional practice but rather as a process that facilitates human reintegration with nature, fosters social interaction, and promotes environmental sustainability . In this regard, Casagrande's approach aligns with the phenomenological approach that emphasizes the existential presence of humans within place.

The prominence of sensory and bodily experiences in Casagrande's projects, which confront individuals with nature, suggests that architecture functions not merely as a visually aesthetic entity but as a medium that deepens the human relationship with space—thus demonstrating strong parallels with phenomenology. Some of the structures he built in various locations serve as an escape from the chaos of the city, detaching from the character of the place, while others provide immersion in the character of the place and complete integration with it. This does not mean that Casagrande's projects are disconnected from their specific places. On the contrary, by consistently referencing 'place' in each of his projects, Casagrande seeks to cultivate a collective consciousness in which nature and humanity are perceived as an integrated whole. He achieves this by creating an experience that enriches the human-nature relationship on perceptual, sensory, and bodily levels across different places.

Casagrande achieves his goal of creating a dialogue between nature and humanity by prioritizing not only the 'atmosphere of place' but also its knowledge and lived experience. He accomplishes this in two ways. The first is through the use of local materials and techniques, thereby constructing buildings that are both integrated with the ecosystem and inherently belong to their 'place.' The second, and more distinctive, approach is encouraging the participation of local communities, making them an integral part of the design and construction processes. In doing so, Casagrande presents a vision of how architecture can be integrated into local cultures, ecosystems, and communities, and how relationships between society and nature can be transformed. By transcending conventional architectural approaches, he shows that architecture can play a meaningful and functional role in environmental and social contexts. In this regard, it can be argued that Casagrande deepens the concept of 'place.' His projects do not merely serve as spaces for experience but also function as educational platforms that contribute to collective memory and a sense of belonging.

Bug Dome, Cicada, and Sandworm exemplify the idea that modern humans must reconnect with nature, offering insights into how architecture can evolve as a process, an experience, and a transformative practice. These projects demonstrate that it is possible for architecture to be intertwined with both nature and society. This possibility is realized through an approach that considers every local element, including people, materials, techniques, and methods, as integral parts of the process, thereby enriching perceptual, sensory, and bodily experiences at every stage from design to construction. Casagrande's projects describes a way of life that encourages dialogue between nature and humanity. This form of 'place-making' challenges the mechanistic understanding that separates humans from nature. His work stands as a testament to the transformative power of architecture in reconnecting humanity with the natural world.

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Conflict of Interests

The Authors declares that there is no conflict of interest.

References

Al-azzawi, S., İnalhan, G., & Al-azzawi, N. (2024). The relationship between sense of place and nature-based architectural beauty: A comparative case study. *Journal of Contemporary Urban Affairs, 8*(1), 102–119. https://doi.org/10.25034/ijcua.2024.v8n1-6

Aydınlı, S. (1999, October). Kentsel mekanı okumak, görüngü bilim açısı ile kentsel mekan [Reading urban space, urban space from a phenomenological perspective]. In *1. Ulusal Kentsel Tasarım Kongresi* [1st National Urban Design Congress], İstanbul, Türkiye (pp. 155–161).

Bognar, B. (1985). A phenomenological approach to architecture and its teaching in the design studio. In D. Seamon & R. Mugerauer (Eds.), *Dwelling, place and environment: Towards a phenomenology of person and world* (pp. 183–201). Springer.

Bubner, R. (1993). *Modern Alman felsefesi* [Modern German philosophy] (A. Yardımlı, Trans.). İstanbul: İdea Yayınevi.

Buckley, R. (2011). Re-storing the Earth: A phenomenological study of living sustainably. *Phenomenology & Practice, 7*(2), 19–40. https://doi.org/10.29173/pandpr21166

Casagrande, M. (2009). Bug Dome. Retrieved from https://casagrandetext.blogspot.com/search?q=bug+dome

Casagrande, M. (2012a). Cicada. Retrieved from https://casagrandetext.blogspot.com/search?q=cicada

Casagrande, M. (2012b). Sandworm. Retrieved from https://casagrandetext.blogspot.com/2012/03/sandworm-by-marco-casagrande-press.html

Casagrande, M. (2023). Third generation city. Ruin Academy / O.M. Beketov National University. Retrieved from https://casagrande.com/third-generation-city

Gadamer, H.-G. (2009). *Hakikat ve yöntem-2* [Truth and method-2] (H. Arslan & İ. Yavuzcan, Trans.). İstanbul: Paradigma Yayıncılık.

Heidegger, M. (1971). Building dwelling thinking. In *Poetry, language, thought* (A. Hofstadter, Trans., pp. 143–160). New York: Harper & Row.

Heidegger, M. (2004). *Varlık ve zaman* [Being and time] (A. Yardımlı, Trans.). İstanbul: İdea Yayınevi.

Husserl, E. (1997). *Fenomenoloji üzerine beş ders* [Five lectures on phenomenology] (H. Tepe, Trans.). Ankara: Bilim ve Sanat Yayınları.

Joshi, U. V., & Nagarsheth, S. (2024). People, places, and perceptions: Assessing spatial quality attributes of urban third-place with projective survey. *Journal of Contemporary Urban Affairs, 8*(2), 509–528. https://doi.org/10.25034/ijcua.2024.v8n2-13

Kahvecioğlu, H. L. (1998). *Mimarlıkta imaj: Mekansal imajın oluşumu ve yapısı üzerine bir model* [Image in architecture: A model on the formation and structure of spatial image] [Unpublished doctoral dissertation]. İstanbul Teknik Üniversitesi Fen Bilimleri Enstitüsü.

Merleau-Ponty, M. (1994). *Phenomenology of perception* (C. Smith, Trans.). Routledge. (Original work published 1945). https://doi.org/10.4324/9780203994610

Nalbantoğlu, H. Ü. (2005, November). Zaman-mekan, mekan-zaman. Nedir mekan dedikleri? [Time-space, space-time. What is space?]. In *III. Disiplinlerarası Mimarlık-Felsefe Toplantısı* [III. Interdisciplinary Architecture-Philosophy Meeting], İstanbul, Türkiye (pp. 88–105).

Norberg-Schulz, C. (1971). *Existence, space and architecture*. London: Studio Vista.

Norberg-Schulz, C. (1980). *Genius loci: Towards a phenomenology of architecture*. New York: Rizzoli International Publications.

Pallasmaa, J. (1996). The geometry of feeling: A look at the phenomenology of architecture. In K. Nesbitt (Ed.), *Theorizing a new agenda for architecture: An anthology of architectural theory* (pp. 447–453). Princeton Architectural Press.

Sharr, A. (2013). *Mimarlar için Heidegger* [Heidegger for architects] (V. Atmaca, Trans.). İstanbul: YEM Yayın.

Softaoğlu, H. (2019). Scrutinising the production of space on the example of Regent Street and painting a modern life by the agencies of Regency. *Journal of Contemporary Urban Affairs, 3*(3), 51–66. https://doi.org/10.25034/ijcua.2019.v3n3-5

Softaoğlu, H. (2023). Design as cultural reaction: Interpreting the ephemera documents as elements of social production during the Thames Frost Fairs. *International Journal of Eurasian Education and Culture, 21*, 926–942. https://doi.org/10.35826/ijoecc.694

West, D. (1998). *Kıta Avrupası felsefesine giriş, Husserl ve fenomenoloji* [Introduction to continental philosophy, Husserl and phenomenology] (A. Cevizci, Trans.). İstanbul: Paradigma Yayınları.