

**Original Research Article****Investigating the Role of the Biological Component of Wombphilia in the Formation of Architectural Organs\***Massud Wahdattalab<sup>1\*\*</sup>, Zeinab Hayati<sup>2</sup>

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**Abstract**

Some concepts have deep roots in human psychosomatic heritage and are transcendental and supraspatial features. The spaces and architectural works that emerge from these concepts tend to be more enduring. One of these concepts is “womb philia”, which is linked to biological and maternal values. Therefore, this research has examined how the component of “wombphilia” affects architectural organs and seeks to answer the question of what forms the architectural manifestation and expression of the characteristic of wombphilia has taken and what is its objective evidence. This research, while introducing the component of wombphilia as one of the oldest biological and psychological desires of man, aims to explain its impact on the formation and permanence of architectural heritage and its effectiveness in the selection and establishment of womb-like architectural organs. The research method was based on logical reasoning and library data analysis; based on the research objective, concepts from theoretical fields are transferred to architecture in a logical system. The results show that the preference for cavity spaces, with the existence and abundance of handmade works in rocks and underground shelters of various countries, goes beyond residential considerations and may arise from a biological desire called wombphilia. The desire for cavity spaces is a kind of biological destiny for humans. A trait to which they have become accustomed and comfortable. Even today, when technological advances have made it possible to build spacious spaces, the desire for spaces that embrace them as their biological past persists.

**Keywords:** *Wombphilia, Cavity Architecture, Biological Preference, Psychosomatic Heritage, Architectural Organs.*

**Introduction**

Some aspects of architecture have broad and deep roots in the senses, mind, and history of human evolution, and seem to be the product of factors beyond environment and acquisition. These factors are deeply connected to human life and basic needs and have always reflected human biological and

psychological components. However, many contemporary schools of thought seek to reduce architecture to para-architectural aspects such as function and ignore genuine human desires. This is while architectural forms and spaces gain meaning when they are shaped in relation to real life (Gojnik & Gojnik, 2019).

Recent studies in phenomenology have demonstrated a close relationship between architectural spaces and evolutionary psychology, human instincts, and human

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biological history (Tidwell, 2020, 12). According to Huskinson (2018, 121), buildings have the capacity to influence self-concept, reflecting both conscious and unconscious human desires. These theories do not perceive architecture merely as a physical structure, but rather as an extension of the human body, influenced significantly by instinctual drives and psychological states.

One of the instinctive concepts that can be identified due to the abundance of evidence in this context is the concept of “Wombphilia.” This tendency, which is linked to maternal characteristics, explains the position of the mother based on an unconscious psychological and biological event that has been projected onto the human being. According to psychoanalysts, this projection occurs unconsciously. The significance of the maternal archetype in human thought is exemplified by the concept of the “mother” archetype, as proposed by Jung. The concept of the “mother” archetype is intricately tied to the notion of history, signifying that it is a repository of continuous and repeated human experiences. These experiences, engraved on the psychological structure of humankind over millennia of survival and adaptation to the environment, have become forms. Consequently, the mother’s personality can be regarded as a historical backdrop of the human psyche, a comprehensive repository of all the imprints and evidence that have shaped the psyche since time immemorial and that now serves as the inheritor of the brain’s structural characteristics (Moreno, 1997, 24).

The present research, by integrating studies in the fields of biology, psychology, and even mythology with architecture, seeks to ascertain the morphological origins of certain architectural forms and the reasons for human reactions and preferences towards them. Given the interdisciplinary nature of this research, establishing suitable criteria for inferring and analyzing human tendencies and foundations in architecture and adapting them to the research findings necessitates delineating a clear path from meta-architectural theoretical discussions and their reading and interpretation in the field of architecture. This research employs a meticulous and systematic use of language and terminology to facilitate a more precise and objective transfer of concepts, thereby enhancing their intelligibility. The process of logical reasoning

involves a systematic progression from initial premises to a conclusion, necessitating uninterrupted continuity to ensure the attainment of the desired outcome (Mirjani, 2011). The establishment of a connection between components serves as the foundation for this movement in logical reasoning.

The present article is organized into three sections. The initial section delineates the term Wombphilia and its underlying biological implications. The subsequent section examines its dimensionality and psychological ramifications. The final section analyzes the correlation between the “womb” of the mother in architecture and its embodiment in architectural creations. This article endeavors to explore the biological lineage of certain architectural works and to discuss the nature of Wombphilia as a biological desire and a branch of the desire for self in the context of architectural spaces.

## Research Background

The review of previous literature focuses on two general areas: The first area encompasses studies conducted on the significance of paying attention to humans and their existential dimensions in the emergence and formation of architecture. The second area specifically deals with the expression of the characteristics of the mother.

In some studies of the first area, the understanding of architecture has been related to the existential dimensions of man based on the narrations and verses of the Quran (Sameh & Sedaqat, 2013), and in others, it has been based on the interpretation of the position of the body in architecture (Monshizadeh, 2022; Noormohammadi, 2012). Some studies include anthropomorphic approaches (Taheri Ghomi & Bolkhari Ghehi, 2019). With the emergence of phenomenological approaches and greater attention to the biological and psychological aspects of humans, research has also been conducted in this field. Among them, we can mention thinkers in this field such as Merleau-Ponty & Smith (2015) and the research of architects influenced by the phenomenological perspective such as Pallasmaa (2014; 2015; 2016), Pallasmaa et al. (2021) and Robinson & Pallasmaa (2015).

In the second area, the expression of maternal traits and values encompasses a considerable range of sources. In this way, it

has linked the discussions of biologists and phenomenologists such as Merleau-Ponty and Pallasmaa with the thoughts of psychoanalysts such as Jung and Lacan (Beaucorps, 1997; Jung, 2011; Moreno, 1997; Rennie, 2020; Feldman et al., 2010; Yoshida & Funato, 2021; Pekarek et al., 2020; Movalleli, 2012). “Wombphilia has generally been studied in the form of themes under the concept of the “mother” in architecture. Barrie (2013) and Samuel (1999), in the field of Jungian psychoanalysis, have examined the importance of the collective unconscious, the mother, and the symbols of its reading in architecture. Heravi et al. (2019) have examined the appearance of the archetype of the exemplary mother in historical Iranian architecture in one article, and the feminine code in mandala patterns in architecture in another. These studies have mainly addressed the appearance of the maternal codes in historical Iranian architecture.

Despite the large number of studies in the field of architecture, attention and the concept of wombphilia in the form of the archetype of “mother” have also been studied as a Bio-psychological tendency, there are several important gaps in this field. Among these gaps is the interpretation of this concept in architecture. In addition, studies that have dealt with the existential foundations of human beings and their impact on spatial design have followed a different perspective than this research, because in this research, by describing wombphilia, a kind of environmental genealogy of architectural works is carried out. Finally, these studies respond to the gaps in existing knowledge and examine the role of the desire for wombphilia as one of the best biological tendencies of human beings in the design of architectural spaces.

#### • Concept of wombphilia

Based on the list of human instincts and desires provided by instinctual psychologists and biologists, we can point to such instincts as the desire to live and survive, the desire to eat, sexual desire, childphilia, compassion, wealth accumulation, secrecy, aggression, and militancy (Spurzheim, 1832). By reflecting on the origin of various human desires, we can say that “selfishness” is the essence of all human desires, and it plays an effective and undeniable role in distorting other human desires at all stages of life.

It is as if a force has formed in the organism to ensure the survival of its species. To achieve this, even the control of some of the activities of the organism has been placed beyond its control (Jahanbagloo, 2000, 117). Sexual desire, childphilia, parentphilia, and various manifestations of altruism are considered subcategories of “selfishness” (Wahdattalab, 2014); among these desires, paternalism is considered the most primitive biological desire of man.

The relationship between a mother and a developing fetus is known to be one of the most primitive and ancient relationships in nature, and this bond continues even after birth because the developmental process that begins in the mother’s body continues near her after birth (Tidwell, 2020, 49). The human desire to be “protected” and “sheltered” in early life is part of the survival philosophy that humans are born with, and if infants are to survive, they need their parents to protect and care for them (Ruggles, 2022, 122). Such a desire and need on the part of the infant is called parentphilia, which is based on the sub-branches of “selfishness”. In the present study, this psychosomatic desire arising from the fetal state and continuing into adulthood has been expressed with the term wombphilia. In other words, the word wombphilia is a compound word that is intended in this article to refer to a kind of human desire to return to the pre-birth (fetal) period. The bond formed between mother and baby is mainly based on sensory and physical functions, through touching and hugging, and remains stable throughout life (Tidwell, 2020, 65). This bond plays an important role in the formation of the individual’s psyche in the future (Kesheshe, 2017). Even after birth and the physical umbilical cord is cut, a bond called the “psychological umbilical cord” continues to exist between the mother and the baby, indicating their emotional and social bond (Levin, 1994). In Fig. 1, we can see the continuity of wombphilia throughout human life. By examining the physiological and neurological responses of newborns, biology has enumerated many biological reasons for the importance of emotional bonding and maternal embrace and considers this connection necessary for human survival (Yoshida & Funato, 2021; Kandel, 2016, 288). The mother’s embrace plays a fundamental role in creating a sense of security and comfort for the newborn in the first moments

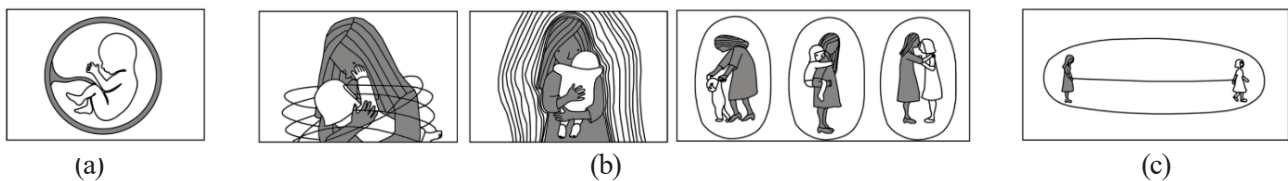


Fig. 1. Continuity of wombphilia throughout life. a) The fetus in the mother's womb, skin-to-skin contact between the fetus and the mother's womb, b) The formation of the emotional bond between the mother and the child from infancy to old age, c) The continuation of the emotional bond between the mother and the child (the psychological umbilical cord). Source: Authors.

after birth. Hugging a newborn is always accompanied by sensory-physical perceptions and complex emotions. Research has shown that skin-to-skin contact, especially in the first moments after birth, can reduce stress levels and increase the newborn's sense of comfort (Yoshida & Funato, 2021). Perhaps the most important discussion in this regard is the secretion of the hormone oxytocin, which increases the pleasantness of tactile stimuli (Pekarek et al., 2020; Feldman et al., 2010).

The mother-infant bond provides broader social connections for the individual. The role of motherhood in anthropological discourse has also been explored as a multifaceted issue involving complex interactions between biological imperatives, cultural interpretations, and social dynamics (Hrdy, 2000; Gafari Sirizi et al., 2023). Anthropological and sociological studies show that motherhood not only has positive cognitive and emotional outcomes for children, but also has broad positive effects on social and economic stability (Gheisar et al., 2024; Walks & McPherson, 2011). These studies also explore the symbolic and political dimensions of motherhood, demonstrating that supportive communities can improve maternal bonding outcomes. Ultimately, the intersection of evolutionary biology with cultural and social interpretations highlights the fundamental importance of the mother's role in ensuring the survival of her offspring and promoting social cohesion.

#### • **Wombphilia; Biological and psychological traits**

##### - **Wombphilia; The primacy of touch**

From a biological perspective, humans transition from the safe and protected space of the womb to the outside world, and the skin plays an important role in this process in the first lived experience. The sense of touch, through the skin, provides the closest form of human connection to the world, and its importance is such that from the first moments of birth

to adulthood, touching and being touched are considered basic human emotional needs (Mallgrave, 2016, 273). The fact that the neural development of the body also begins with the ectodermal cells that make up the skin indicates the importance of touch as the mother of the senses. Theorists such as Anzio believe that the skin has a psychological and organic basis as well as a physical sense, and for this reason, other human experiences with architecture and surrounding spaces also come from this source (Tidwell, 2020, 64-50).

On the other hand, philosophers such as Merleau-Ponty point out that the sense of touch is not limited to the skin; rather, other body parts in a complete system shape emotional experiences, and these experiences are linked to the structure of the body and human existence (Robinson & Pallasmaa, 2015, 53). Freudian psychoanalysis introduced the theory of "body image" in this regard. "Body image... is essentially formed from early experiences with the body and the initial positioning of life in childhood, nurtured by visual images and, depending on their meaning, perceived from early experiences with the sense of touch" (Pallasmaa, 2005, 53). From this perspective, it seems that humans possess, occupy, and live in whatever the mental structure of corporeality offers.

##### - **Wombphilia; A desire to enclosure**

The emphasis on integrated sensory experiences through the organs of the body and the influence of early tactile experiences on the formation of the mental image of the body shows that tactile and haptic experiences in childhood play an effective role in the formation of the mental and physical structure of humans. Through these concepts, humans approach nature and the world around them and establish a strong link between early experiences and their mental structure. Mallgrave (2016, 243) believes that early physical reactions precede rational and conscious experiences and that the body feels its presence in space unconsciously and

without the need to think. These feelings include a sense of comfort and safety in the environment (*ibid.*, 171). In this way, the repetition of early bodily experiences and early bodily responses can be seen as a way of achieving some feelings.

Damasio points out that early experiences in human life reinforce the need for boundaries and limits, and these limits are perceived through physical experiences. From the first days of life, humans move in and out of boxes, baskets, closets, blankets, cars, and other confining objects (Robinson & Pallasmaa, 2015, 41). Thus, the experience of being confined in the mother's womb is repeated within the framework of restrictions and boundaries, such as the cradle or the close embrace of parents, and in adulthood this need is reproduced in some ways in the desire for enclosed and small spaces, and the sense of belonging and security experienced in small settings is sought in similar settings.

Bowlby (1978), Montessori & Carter (1936), Piaget & Inhelder (1997) and Winnicott (2017) are among the most prominent psychologists and theorists in the field of developmental and child psychology whose research has confirmed children's interest in small, cozy, semi-enclosed spaces. They have found that children feel calm, in control of the space, and safe when they settle down and even crawl into nesting spaces such as small tents, tree houses, and quilted chairs that are open on only one side. In this regard, Freud (1996) stated that the satisfaction and sense of security in enclosed spaces can be traced back to prenatal experiences in the womb. This belief is consistent with the concept of "primal emotions," in which the earliest stages of life influence the emotional responses of individuals throughout their lives (*ibid.*). This basic idea has been expanded by theorists such as Ludwig Janus, who emphasized the long-term effects of prenatal experiences on later emotional responses (Gouni et al., 2018). Perspective-shelter theory emphasizes how the balance of open and closed spaces can influence an audience's likes and preferences, suggesting that environments that resemble early life environments may evoke feelings of security (Appleton, 1975). Based on these theories, it can be said that feelings of security are closely related to the environment experienced during fetal life.

Bachelard and Pallasmaa have taken a phenomenological approach to the human tendency to gravitate toward corners and enclosed spaces. From Bachelard (2017, 185)'s perspective, children's interest in corners, holes, small and enclosed spaces, and boxed objects is a reflection of the need for shelter and security; in such a way that he describes corners as the most important shelters worth experiencing. Pallasmaa believes that these tendencies are related to the biological memory of the body and that bodily memory plays a fundamental role in remembering places (Pallasmaa, 2015, 51). "My body remembers who I am and where I am in the world" (Pallasmaa, 2014, 21) also indicates the human tendency to recreate basic existential experiences, which refers to the most basic experiences before birth, such as a sense of enclosure, security, intimacy, and satisfaction.

In summary, the interaction between prenatal experience and emotional security is evident from a variety of theoretical frameworks. Freud's early ideas about the womb experience have been confirmed and expanded by contemporary research in various fields, including psychology and phenomenology, which suggest that a sense of security rooted in prenatal experiences is manifested throughout life through the human tendency toward closed and enclosed spaces.

#### **- Wombphilia; the structure of the psyche**

The belief that humans are always trying to recreate their embryonic experiences and make the world tangible by limiting the boundaries of their bodies through the environment suggests that "we still carry remnants of our aquatic life in our bodies" (Pallasmaa, 2016, 166). The body has always acted as a mediator between humans and the surrounding world, revealing the nature of human presence in the world and their spatial perceptions (Yorgancıoğlu, 2004, 54). Meanwhile, the psyche, as part of the human physical memory, holds past experiences and memories. These two elements are so intertwined that it is difficult to separate them. The psyche actually keeps part of the body's memory alive and gives meaning to what the body has experienced.

Architects influenced by phenomenological perspectives use terms such as fantasy, imagination, mental image, and archetype to refer to psychological structure (Pallasmaa, 2016, 44). From a psychoanalytic perspective, the human psyche in its

real structure is directly related to the concept of “archetype” introduced by Jung and Freud’s idea of “ancient remains”. Psychoanalytic theories study this phenomenon as an interaction between the conscious and unconscious forces of man. In such a way that unconscious experiences and memories directly influence the creation of works of art and architecture and become part of the vital themes of man.

H. Modell sees the unconscious as a neurological process and speaks of the “biology of meaning,” while Bachelard speaks of “Primitive mentality” instead of archetypes. According to Bachelard, primitive fantasies bring out the primitive in man (Pallasmaa, 2016, 142-166). The concept of Wombphilia and the desire to return to the fetal state and the mother’s embrace have deep roots in psychology. Philosophers such as Freud, Lacan, and Jung have alluded to this theme. Freud believes that the newborn is dependent on the care of the mother in a state of helplessness and powerlessness (Movalleli, 2021, 34-37). Lacan also believes that the first loss of a child is the separation from the mother’s body, and he attempts to fill this void throughout his life (Farshid & Darabi, 2013, 139). Jung presents the concept of the “mother archetype” as a manifestation of the desire for the mother in various forms. The mother archetype can appear in the form of various people, places, and objects that symbolize abundance and birth. Various containers, hollow objects such as cauldrons and cooking utensils, and, of course, the womb and anything like it evoke the mother (Jung, 2011, 22-24). The association of this archetype with the earth and symbols such as mountains, caves, and plants is also evident in mythological beliefs (Chevalier & Gheerbrant, 2009, 461). The concept of wombphilia and attention to maternal values can be traced in the statues that took the place of the gods in mythology and primitive rituals. The purpose of the construction of “Mother Goddess” was to represent “fertility and birth” and were made in the form of statues and figures of women, often made of clay, stone, and bone. The best known of these statues is the “Venus”, which is 27-30 thousand years old (Jensen, 2009, 10). In addition, a similar concept of “sacred femininity” a term used to describe various elaborations of female divinity and the embodiment of female social and cultural power, can be observed in many Neolithic

cave paintings and rock art found throughout Europe, the Mediterranean, Australia, and Africa (Razak, 2016).

#### • Showing wombphilia in architecture

Wombphilia as a psychobiological trait is a fundamental experience of human existence. Humans unconsciously tend to associate various manifestations of this trait with their bodies. Considering the concepts of corporeality, body image, and biological memory, it can be argued that human beings, due to early tactile and haptic experiences, tend to be confined and enclosed spaces. These spaces not only provide them with an initial sense of security and peace but also allow them to perceive their presence more continuously and tangibly.

The simultaneous experience and understanding of the psychological and intangible dimensions of Wombphilia- the archetypal aspect- and its tangible and physical dimensions- such as touchability and enclosure - emphasize the flow of human biological evolution and its impact on its physical memory. Architecture and art are also tools to respond to this evolutionary flow and the human condition. Pallasmaa believes that architecture not only has the task of making life beautiful but should also help to reinforce and reveal the essence and mystery of human existence (Pallasmaa, 2016, 150). In summary, it can be said that “ Wombphilia “ as a biological desire is associated with characteristics such as enclosure, security, protection, and intimacy, and as mentioned, these characteristics are due to its enclosure, touchability, and skin-to-skin contact. Such characteristics can manifest themselves in the form of different symbols, spaces, and architectural organs (Fig. 2). Among these, the hollow organs of architectural works are the organs most similar to the womb of the mother, in which the characteristics of Wombphilia can be traced. The meaning of hollow organs is hollow, hollow, or recessed spaces within the structure of the building that can be adapted for living or other uses with minimal changes.

#### • Cavity architecture

Cavity organs can be found in various forms of architecture. Before referring to architectural works, it should be said that caves are a clear demonstration of cavity organs. Examples of such an experience are the natural dwellings of primitive

man, which were formed by digging into the earth; and over time they have included ancient rock temples to rock and rock-cut structures (Fig. 3).

Given the abundance of evidence in the physical form with the characteristics of the womb, architectural works with a hollow structure can generally be divided into two categories: religious and residential:

Studies of religious architectural works indicate that in many works the connection with the earth and the soil bed was of great importance. It should be said that the belief in the motherhood of the earth and the use of the combination of the “belly of the earth”, which can be seen in many mystical and religious works, made people sink into the womb of the earth, which is the grandmother, just as people are born from the womb of their mother after death (Kalantar et al., 2023). There are many references to the sacredness of the earth and its role in birth and immortality in Iranian mythological literature (Kalantar et al., 2023; Rouhani Seraji et al., 2018; Fazlinejad, 2002). The earth is the first feminine because it has characteristics similar to feminine behavior. “Woman is the wheel of life; she is the giver of life and nurturer, and in power, she is equal to the Goddess of the Earth” (Campbell, 2015, 133). The sacred aspect of the earth corresponds to the ideology and sacred nature of architectural works such as tombs, graves, temples, and shrines hidden in rocks, and is a manifestation of the mother archetype.

Architecture with a hollow organ is not limited to mountainous and rocky areas, and in non-mountainous areas, caves and crypts have also been built in a similar way (Javadi, 2015). In general, such spaces evoke the “mother’s womb” by having the characteristics of a cavity, namely limited space,

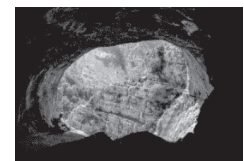
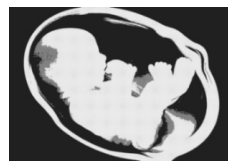


Fig. 3. The similarity of the cave to the mother's womb.

Source: www.alamy.com† <https://www.volusonclub.net/emea/home>

tangible walls, concave and round space, darkness and absence of light, and finally humidity in the space. Perhaps today, the darkening of the room during prayers and religious ceremonies can be considered in this regard. This is because the other aspect of the mother refers to all that is secret, hidden, and dark, such as the world of the dead (Jung, 2011, 22-24).

In this category of architectural works, we can mention the rock tombs in Egypt and Iran, rock temples, and temples of Mehri in different religions such as Buddhism, Hinduism, and Mehri. In Table 1, some religious architectural works with hollow organs are presented. It should be noted that the evidence presented is part of the hollow architecture, which due to limitations in the article, other examples have been avoided. Also, in Figs. 4 & 6, the circular and concave form of the hollow spaces, the enclosure, and the smallness of the hollow organs have been considered.

A wide range of cavity structures belong to residential architecture. This part of cavity architecture includes houses and small holes in rocks or underground. From a purely functionalist perspective, it may seem that defensive needs and climatic conditions are the only reasons for building this type of architecture. However, taking a bio-psychological approach, this type of settlement and dwelling method can be seen as the result of an unconscious desire to return to a safe haven, similar to the womb and the mother’s embrace,

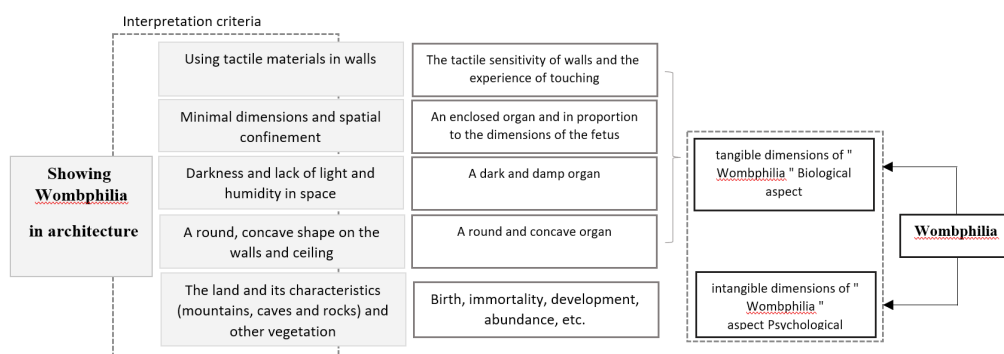


Fig. 2. Criteria for interpreting the concept of Wombphilia in architecture. Source: Authors.

which is more primitive than a response to defensive needs and energy storage; especially since this type of structure has been observed in different geographical conditions and cultures. Villages such as Kandovan and Meymand in Iran, the rock dwellings of Cappadocia in Turkey, and Bandiagara in China are among the examples of cavity architecture in which similarities can be found between the internal structure of the architecture and the womb of the mother (Table 2). In addition, we can mention the cellars and underground chambers, as well as the vestibules in traditional Iranian architecture, which are included in the category of hollow organs in architectural works.

In the other cases mentioned, shapes that are free from conventional geometry and tend towards circular and concave forms with minimal dimensions, as well as a dark space and the absence of light, are comparable to the space of the mother's womb. In Figs. 7 & 8, the space is surrounded by walls and spatial confinement, the creation of dimensions appropriate to the intended use, and the lack of light penetration are evident.

## Discussion

Throughout the history of architecture, there are countless examples of the human desire for cavity-like spaces. From prehistoric caves, natural fiber shelters, and hand-hewn stone houses such as those found in Cappadocia, Turkey, and the village of Kandovan, to rock-cut temples, tombs, and temples of the dead in various parts of the world, all serve as evidence of the deep human desire for the concept of Wombphilia.

The mother's womb in the works of religious architecture with a cavity, as an archetype, has been symbolically manifested in the center and inside of these spaces. This concept is consistent with the spatial structure as well as the ideology and religious function of these buildings. The mother's womb in these architectural works is not limited to the physical space but is also a symbol of an inner journey to the depth and center of the individual. In these architectures, entering the interior space, which is often dark, humid, concave, and enclosed, is interpreted as entering the womb of the mother. These features, like the environment of the mother's "womb," inspire security and confinement and, according to psychoanalysts, evoke in the mind of

the individual a sense of return to origin and connection to birth and eternity (Kalantar et al., 2023). Many of these buildings were gradually accompanied by geometric order, in accordance with the importance and sacredness of the excavated space. For example, in Hindu cave temples (Table 1), the entrance suggests an open and geometric space, while the space inside is a dark and mysterious space and a shape free from conventional geometry, comparable to the womb and the embrace of a mother.

In the case of religious works, the center of the building, where the peak of connection with the sacred and connection with one's true and spiritual self is, is of particular importance. In fact, moving towards the center is a kind of inner movement to achieve balance, peace, and understanding, which has also been mentioned in mystical and religious works (Nadimi et al., 2022). The manifestation of Wombphilia in religious works shows that sacred spaces are not only a place for worship and prayer, but also a tool for experiencing rebirth, returning to one's roots, and finding a deeper meaning in human experiences.

The architectural works of cave dwellings are no exception to this rule. These works provide humans not only with physical protection but also with a sense of psychological security similar to that experienced in the womb at any time. Based on evidence found in various climates, it seems that the choice of cave-like spaces for residence indicates an unconscious preference for psychological comfort over climatic comfort. This type of living in cave-like spaces refers to the unconscious

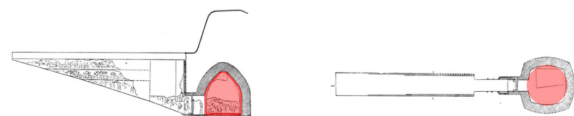


Fig. 4. Chinese rock tomb. Source: Lingley, 2014.



Fig. 5. Saduk tomb in Urmia. Source: Shojadel & Khanmohammadi, 2014.

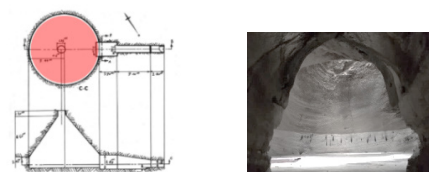








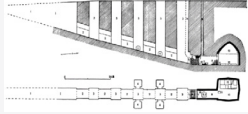

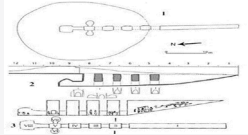


Fig. 6. Mehr temple of Azarshahr. Source: Sattarnezhad, 2020.

Table 1. Example of religious cavity architecture. Source: Authors.

Example of religious cavity architecture	Figure	Refrence
Rock carved church in Türkiye		<a href="https://www.alamy.com">https://www.alamy.com</a>
Beni Hassan rock tomb		<a href="https://www.alamy.com">https://www.alamy.com</a>
Fakhrika Rock Tomb		-
Rock temple in Petra, Jordan		<a href="https://www.alamy.com">https://www.alamy.com</a>
Underground church in Colombia		-
Mehr Temple in Azarshahr		-
Abazar Nir Temple in Ardabil		-
Buddhist cave temples in Bamiyan, Afghanistan		<a href="https://www.alamy.com">https://www.alamy.com</a>
Zhang Shigui's tomb in China		Fong, 1991
Elephanta caves in Hinduism		asi.nic.in
Shoroon Bumbagor Temple in Central Mongolia		Yatsenko, 2014

Rest of Table 1.

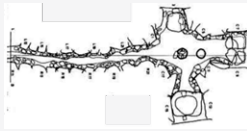








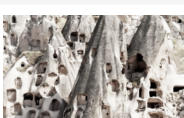
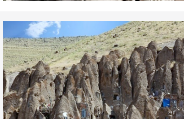



Example of religious cavity architecture	Figure	Reference
tomb of Mme Yi In China		O'Kelly, 1982
Buddhist rock temples (Ellora cave) in India		<a href="https://www.alamy.com">https://www.alamy.com</a>

Table 2. Cavity architecture, settlement example Source: Authors.

Dwelling example	Figure	Reference
The houses in "Sassi di Matera" in Italy		<a href="https://www.alamy.com">https://www.alamy.com</a>
The houses in Yaodong in China		<a href="https://www.alamy.com">https://www.alamy.com</a>
Cave Houses in Granada		<a href="https://www.alamy.com">https://www.alamy.com</a>
Cappadocia cave houses		<a href="https://www.alamy.com">https://www.alamy.com</a>
Rock houses in Petra, Jordan		<a href="https://www.alamy.com">https://www.alamy.com</a>
The cunning underground village in Tabriz		-
Hole houses in Meymand		-
Cappadocia cave houses		<a href="https://www.alamy.com">https://www.alamy.com</a>
Rock houses in Kandovan village		-

Rest of Table 2.

Dwelling example	Figure	Reference
Cave houses of Santorini in Greece		<a href="https://www.alamy.com">https://www.alamy.com</a>
Bandiagara Cliff dwelling in Mali, China		<a href="https://www.alamy.com">https://www.alamy.com</a>
Cave shelters along the Dez River in Khuzestan		-

desire of humans to return to their mother’s embrace and seek a sense of security. This pattern is especially true since it exists in different cultures and climates, and there are reports of hardship due to unfavorable humidity conditions and lack of adequate light. To confirm this interpretation, it should be said that such a form and structure have been seen in different climates and cultures with different geographical conditions where it is possible to dig the earth or create cave-like spaces in the heart of the mountain. The village of Kandovan is a clear example of such a residence where life continues. Moreover, defensive needs cannot be the only reason for the choice of this type of habitat, because the residence in these places was not limited to the periods of historical crisis, and even safe periods were used. The Shavaddan in Dezful, as underground, hand-made spaces with a long history, were used as shelters during the war, but it should be noted that they were also used before and were considered living spaces, and after the war, due to the destruction of many cellars and houses, as well as the influence of new urbanization, their use decreased. Nevertheless, many houses still have cellars and night chambers. Therefore, it seems that strategic security cannot be considered as a justification for their use in the past. Dwelling hollow spaces that are created hand-made on the earth or in rocks are often more compatible and sustainable with nature. The construction of this type of architecture, which does not require extensive changes in the environment, naturally harmonizes with the surrounding environment. This harmony with nature is a kind of respect for the source of life and a return to natural roots. This is why people in these spaces consider themselves a part of them and feel

closer to such spaces. In addition, dwelling buildings with hollow organs are very simple and limited in size with their natural and organic forms. The created space is shaped in proportion to human needs and sizes, without the slightest consideration of the conditions of residence, and is concave and concentrated. In Schultz’s belief, the limited size of known places and their concentrated form are necessary and interdependent (Norberg-Shulz, 2012, 23). The circular and concentrated nature of the hollow spaces is reminiscent of the circular and concave form of the mother’s “womb.”



Fig. 7. Sample plan and section of one of the houses in Kandovan - a demonstration of confinement in concave spaces and stone walls. Source: Homayun, 1977.



Fig. 8. House plan in Maymand. Source: Homayun, 1972.

Finally, the hollow organs in religious and residential architecture are organs that surround the individual like a womb. Moreover, their proportion to the size and strength of a human being is such that they have a greater ability to dominate a human being than other organs. This category of works, due to its protective structure and sense of enclosure and tactile experience, is reminiscent of the unconscious human experience of the mother's womb. Today, the human tendency to Wombphilia can be traced to biophilic architecture. Heerwagen & Hase (2001) considers the feeling of being in an enclosed and enclosed space to be a feature of biophilic design. Therefore, the conscious or unconscious use of the biophilic approach by designers, soft furnishings, and the use of fluid and organic lines along with warm light and natural materials such as wood, can increase the tactile quality of surfaces and be considered an attempt to provide cozy, intimate and generative spaces like the mother's womb. Interpretation criteria and examples related to the concepts mentioned are presented in Fig. 9.

## Conclusion

The evidence and arguments of this study showed that the desire for Wombphilia plays an active role among human instinctive desires, considering its antiquity and biological origin. It has also shown how this biological desire has influenced the fate of architectural preferences and human settlement choices throughout history. The desire for boundaries, safe, and enclosed spaces, along with the

desire to touch walls, is in line with the satisfaction of this biological desire and recreates for humans the initial state of the relationship between the fetus and the mother. Historical evidence and architectural examples in different parts of the world show that hollow forms such as caves and primitive shelters are a response to the desire for Wombphilia and the habit of being surrounded by the womb and its biological habits. By taking refuge and building concave, enclosing forms with materials that are isothermal to the skin, man attempts to recapture, associate, and manifest this ancient image. From this perspective, some features of contemporary architecture, such as the spaciousness of space, which is now considered a technological achievement, are not necessarily considered superior and life-enhancing. Ultimately, a correct understanding of the basic desires of life and an appropriate response to them can improve the quality of life and related actions, such as architecture.

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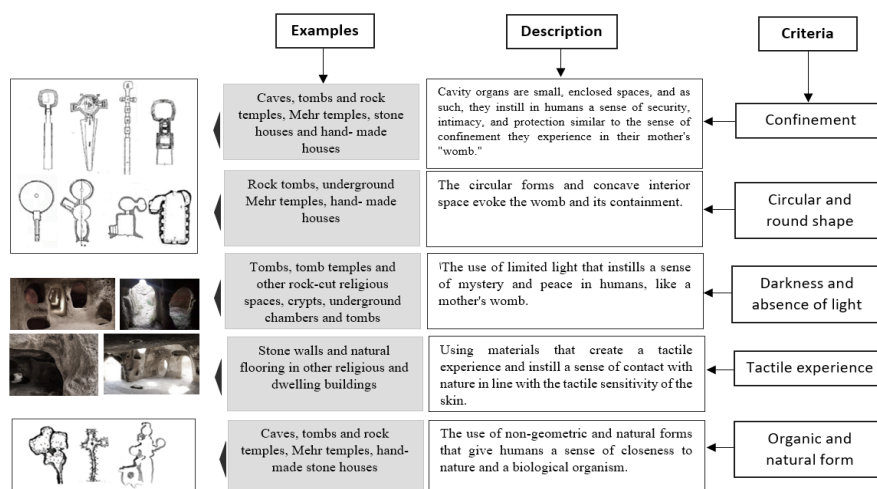


Fig. 9. Examples of cavity architecture appropriate to wombphilia characteristics. Source: Authors.

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