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CREATION PROCESS AS A FACTOR CONNECTING THE PAST WITH THE PRESENT – ARCHETYPE OF ARCHITECTURE IN CONTEMPORARY WAY

PROCES TWÓRCZY JAKO CZYNNIK SPAJAJĄCY PRZESZŁOŚĆ Z TERAŹNIEJSZOŚCIĄ – ARCHETYP ARCHITEKTURY WE WSPÓŁCZESNEJ ODSŁONIE

Abstract

Architecture has not always been associated with creativity. Initially, it served to realise the basic human needs associated with a sense of security or isolation from adverse weather conditions. Over time, when the human consciousness increased, architecture has become the result of individual creation. From a product made with the physical strength of human hands, it evolved into a work of art created in the mind and visualized by means of an artistic gesture. The article is an attempt to dialogue between the original spatial forms of human habitats and their contemporary interpretation. The work used a method of analysis and comparison of selected buildings and architectural designs.

Keywords: dialogue of architecture with tradition, dialogue of architecture with history, original forms of buildings in a modern version

Streszczenie

Nie od zawsze architektura wiązała się z twórczością. Początkowo służyła do zaspokojenia podstawowych potrzeb człowieka związanych z poczuciem bezpieczeństwa czy odizolowaniem od niesprzyjających czynników atmosferycznych. Wraz z upływem czasu i zwiększeniem ludzkiej świadomości, architektura stała się efektem indywidualnej kreacji. Z produktu wytwarzanego za pomocą fizycznej siły ludzkich rąk ewoluowała do dzieła sztuki stworzonego w umyśle i zobrazowanego za pomocą artystycznego gestu. Artykuł stanowi próbę dialogu pomiędzy pierwotnymi formami przestrzennymi ludzkich habitatów a współczesną ich interpretacją. W pracy zastosowano metodę analizy i porównań wybranych budowli i projektów architektonicznych.

Słowa kluczowe: dialog architektury z tradycją, dialog architektury z historią, pierwotne formy budowli w nowoczesnej odsłonie

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1. ARCHITECTURE – THE DEFINITION OF THE PHENOMENON

Currently, architecture is usually described as the art of shaping space[2]. This definition is very wide and goes beyond understanding architecture only as a building art. In contrast to the skills associated with the creation of buildings, it also includes art and design technique[3]. For centuries, architecture has been treated as a skill, but it has tried to be an art. As the Brittanica encyclopedia states, architectural practice includes both usable and aesthetic values.

The problem of classifying human activities related to architecture is not obvious. If we understand as an architecture only what is build (architecture as the art of building), then the expression of creativity associated with, among of other, natural areas adapted to human needs (for example, large architectural works sculpted in the rock, underground burrow or altars made of stones) will be missed. Therefore, Marta Tobalczyk proposed understanding the building process as a various form of erection and drilling techniques, as well as complementing the existing natural structures[4]. The architecture according to her is the effect of spatial shaping of the environment for human needs. This definition presents concisely the main idea of architectural activity.

Even though, in the age of rational enlightenment and modernism, architecture has been considered only real built structure, but now (just like in the postmodernist era), the project itself is considered as an architectural creation.

2. ARCHITECTURE – EVOLUTION

In architecture, not only manufacturing techniques, but also ways to solve design problems have evolved. In the past, the art of building was treated as a collective work for the transmission of socially accepted values. It was a cultural creative process. It differed from contemporary individual process of creation. However, in both cases, the result of this process was the creation of the work.

There is an analogy between the collective creative process and individual creation. In the first one, the function of an architect's mind takes over the evolution[5]. Both the natural world and the human mind are characterized by diversity and constantly changing to improvement (function, proportion, size, construction). In architecture, as in the world of living organisms, gradual transition to more complex forms is visible. An example of such an evolution of shaping a form is the canon of an ancient temple, which was created as a derivative of a residential house. New buildings created by human corrected the imperfections of the previous ones – on the principle of communing with a real object and experiencing its space. For the existence of such a creative method, feedback between the environment and the creative thought of man was needed. Thanks to this, the collective process can be treated as more objectified, lasting much longer than individual creation, which is a short-lived and subjective phenomenon.

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[2] Definition created by A. Schmarsov at the end of the 19th century; M. Leśniakowska, *Co to jest architektura?*, Kanon, Warszawa 1996, p. 39.

[3] *The Brittanica* Encyclopedia defines architecture as the art and technique of designing and building (…) in order to meet both practical and expressive requirements; source: https://www.britannica.com/topic/architecture (access: 27.06.2019).

[4] M. Tobolczyk, *Narodziny architektury*, PWN, Warszawa 2000, p. 17.

[5] *Ibidem*, p. 34.

3. HOUSES IN THE ROCKS

The interaction into the interiors of the caves constituting the original human habitat has created the habit of using closed spaces. The most common types of dwelling were rocks with the phenomenon of water dissolution of them (limestone, dolomite, chalk or gypsum). Water-hollowed places connected by winding corridors were a place of refuge. The safety of habitats ensured not only good conditions for defense but also the control of the surrounding valleys as well as ways leading to the interiors. Entrances from above or from the side – available from rock shelves hindered access to wild animals and uninvited guests.

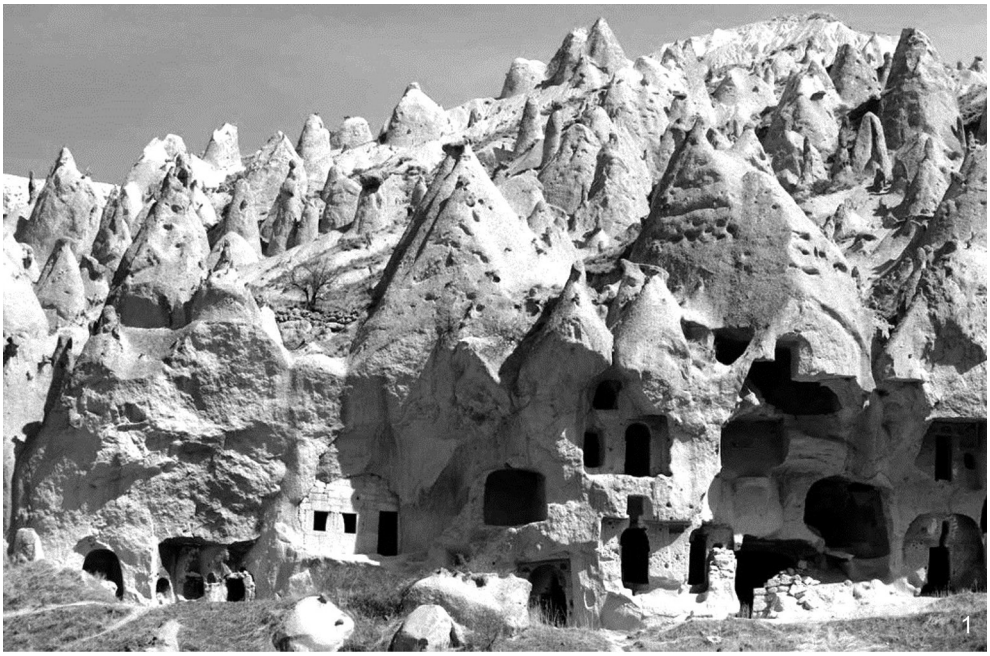
The form of the first man-made residences most likely was influenced by forms known from nature. The archetype of the interior space was a cave grotto or cavity hollow in the ground, covered with vegetation. Although at this stage in the development of civilization, people were guided by instincts rather than knowledge, the environment closest human has shaped certain patterns in it. The sense of the aesthetics of the cave era survived until the times of permanent settlement and farming.

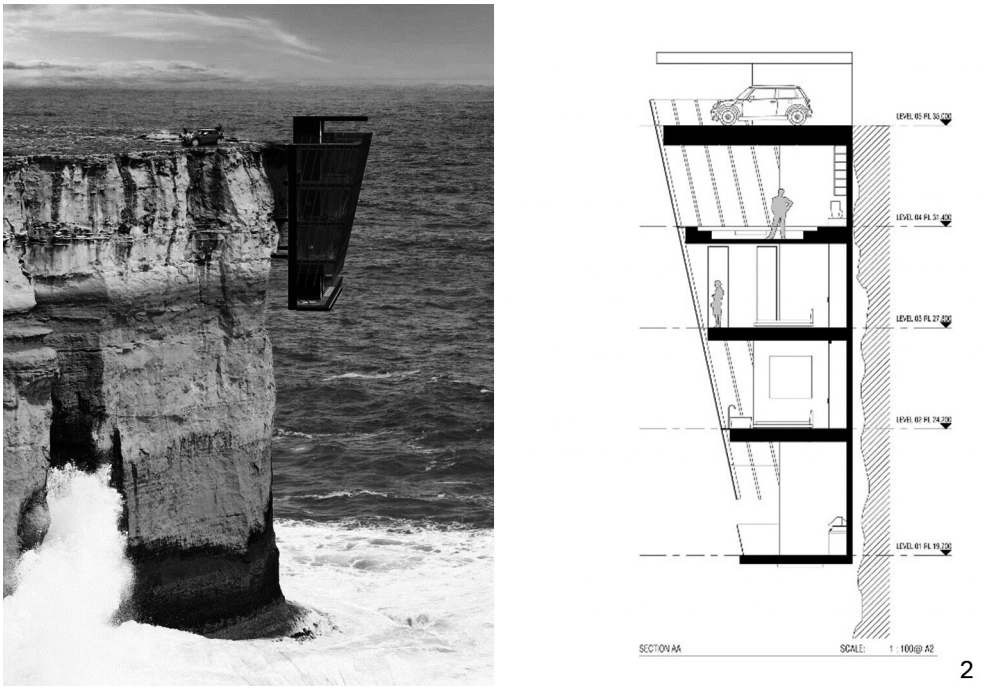
The first built houses reflected the shape of space of the cave or bunker – they had a round shape, gave shelter from unfavorable weather conditions and attackers (Ill. 1). They did not necessarily have to be light. The same was with access to them – the entry to the first houses was more like a hatches than a door. The interior space was not supposed to be conveniently accessible. Entrances to buildings situated from above were just as obvious as located from the side. A prehistoric man built oval-shaped houses not because he could not make them differently but the reason why he considered them beautiful. Owal-shaped forms were well known to him, he has seen them a daily basis. The human's habitat in an organic way was becoming an element of nature and the layout of the created buildings was shaped not in a planned but spontaneous way.

Architecture has always used the potential of the place. All the most important objects were created in hard to reach places, giving a sense of security and domination over the environment. In this way, the location of castles, fortresses or monasteries was chosen. Over the centuries human desires have remained the same – we still want to control over what is around us and enjoy the beautiful view by observing the surroundings from above.

The concept of a cliff-house created by the Australian office *Modscape* is a modern answer to the prehistoric assumption of the rock-excavated houses. It is a theoretical project for extremely located land plots. The proposed solution presents a natural extension of the landscape, giving a direct relationship with the sea for residents. The main entrance to the modular, five-story house is accessible from above on a roof top floor. Communication with the right residential area is possible by the elevator. The entrance to the object available from above makes associations with the accessibility to habitats from rock caves (Ill. 2).

The second example with a visible analogy to the layout of human habitats in moutain rocks is the *Villa Vals* in Switzerland. In this concept, the solving the main entrance to the object imitate the corridors from the old-time flats in rocks. Although the guesthouse there is not in a rock, access to the house is effectively masked – as in underground rock-cities of Cappadocia. It leads through an underground, broken-shaped tunnel. There is an entrance to it in a nearby-located, small, wooden building (shed). The project is a harmonious connection between living space and nature. That is the reason why makes a perfect combination with the alpine surroundings, almost in imperceptible way (Ill. 3).





Ill. 1. Flats and monastery carved in the rock, Cappadocia, Turkey, 9th-13th centuries; source: http://cudaprzyrody.pl/kapadocja/

Ill. 2. Concept of home on the rock – Cliff House, Modscape Concept, 2014; source: https://www.modscape.com.au/blog/cliff-house-by-modscape-concept/

4. HOMES UNDER THE GROUND

The most primary forms of permanent residential buildings is the pit-house. The simplest form is a pit dug into the ground with an oval or rectangular form, from above covered with branches. Hollowed in the ground houses have already been created about 9,000 years BC. among others in Syria or Iraq, and the habit of living in traditional pit-house has survived in some areas of Africa or Asia to these days. The solution to creating of pit-houses guaranteed keeping the heat inside during cold and cold in a hot climate. Nowadays, objects plunged underground are also not uncommon. Their external character differs from traditional objects of this type. Currently, the main motivation for choosing this form of building is primarily the visual coherence of architecture with the natural landscape in which they are located.

A modern example of spatial interference in the landscape to a minimum extent is *Earth House* – a summer house of the Korean architect Byoung Soo Cho. It was designed as a summer meeting place and a kind of cultural center on a small scale. The object is cuboidal-shape form measuring 14 x 17 m, located entirely below the ground level. More than half of the house's area is a patio where the social life of the residents takes place. Similarly to a typical pit-house, lighting the object with natural light is limited.

There is only one window and an entrance door from the side of the courtyard and there is an indirect, small-sized, upper illumination from the opposite side (Ill. 3).

An interesting form of a modern pit-house is also a residence which is built on an escarpment of a forested mountain. Its named is *Tolo House*. It consists of independent rooms in the form of falling terraced, connected by concrete stairs. The unusual shape of the building is as a result of the location conditions. The terrain instability and its large slope caused the division of the house into smaller, separate spaces. Such the solution result constant moving on the external and internal stairs. At the first sight, the form of the building looks inconspicuous. There are stairs down which lead to the main entrance to the residence. Only the concrete surface of the roof of the top is visible from the street side – as a kind of a minimalistic viewing platform (Ill. 5, 6).

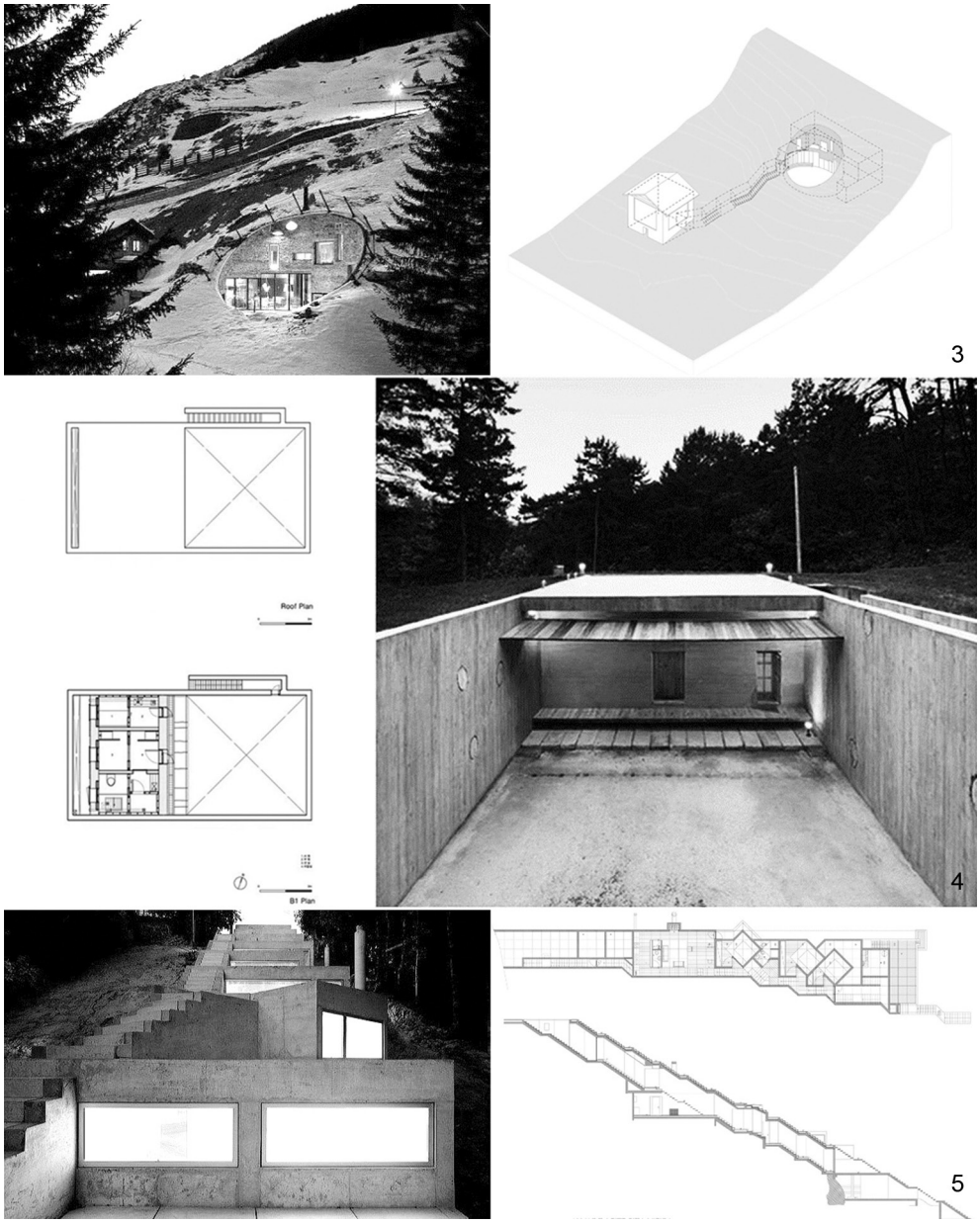
5. DOME-SHAPED HOUSES

In the past, the form of architectural objects resulted from the observation of the natural environment and the methods of using the materials of their construction. In this way dome-shaped roofs of stone buildings were made without the use of mortar (Ill. 7).

The owal-shaped layout of a building caused walls and the roof construction very durable and gave the possibility of safe drainage of rainwater (in contrast to the original pit-houses covered them with vegetation).

The reasons for using this type of architectural forms to guarantee the stability of the structure are still valid. Prefabricated and modular houses – *Japan Dome Houses* – popular in Japan are resistant to natural disasters such as earthquakes or typhoons[6].

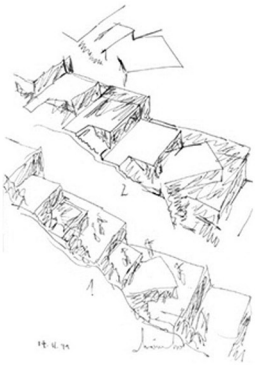
[6] *Japan Dome Houses* – building in a prefabricated system from extruded polystyrene, with wood strength; source: http://okraglemiasteczko.net/okragle-domy/metody-budowy-kopul/kopuly-ze-styropianu/prefabrykaty-styropianowe-japonskie/



Ill. 3. Example of home hidden with a natural landscape, Villa Vals, Switzerland, SeARCH and CMA Architects, 2011; source: http://www.studio3design.pl/wp-content/uploads/2012/01/VillaVals3.jpg

Ill. 4. Architect's house in the form of a modern pit-house – Earth House, around Seoul, BCHO Architects, 2009; source: http://www.bchoarchitects.com/main/earthhouse.htm

Ill. 5. Example of earth-sheltered house – Tolo House, Ribeira de Pena, Portugal, designer Álvaro Leite Siza, 2005; source: https://www.archdaily.com/893/tolo-house-alvaro-leite-siza



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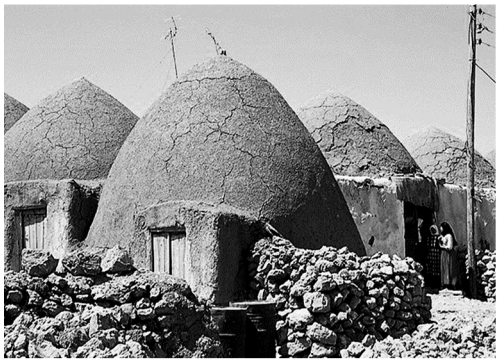

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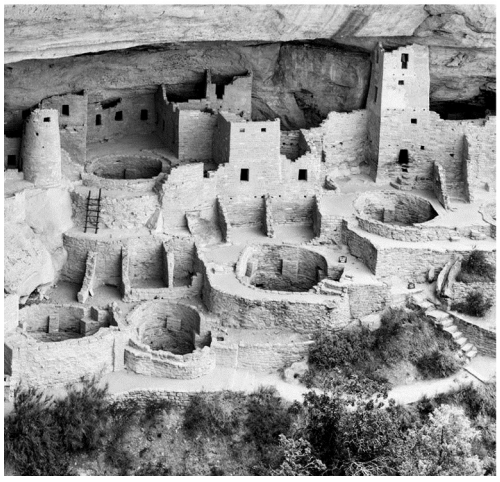

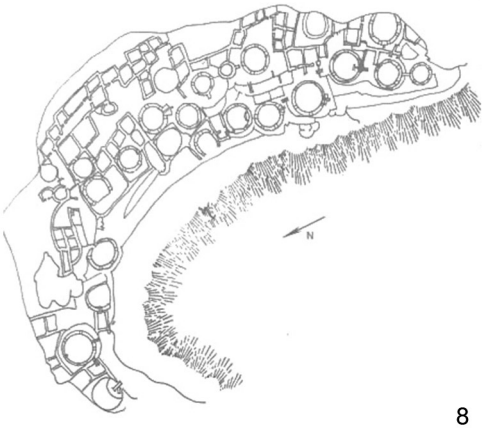

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Ill. 6. Example of earth-sheltered house – Tolo House, Ribeira de Pena, Portugal, designer Álvaro Leite Siza, 2005; source: https://www.archdaily.com/893/tolo-house-alvaro-leite-siza

Ill. 7. Traditional dome-shaped houses, beginning of the II millennium BC, Aleppo, Syria; source: https://encyklopedia.pwn.pl/haslo/Halab;3909549.html#prettyPhoto

Ill. 8. Rock Palace – architecture blended into a natural landscape, created at the end of XII century in Colorado; source: https://en.wikipedia.org/wiki/Cliff_Palace, M. Tobolczyk, *op. cit.*, s. 50

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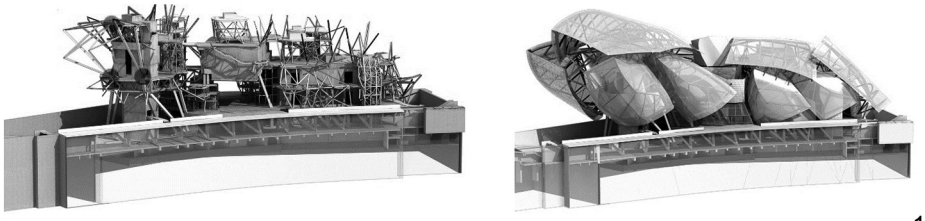

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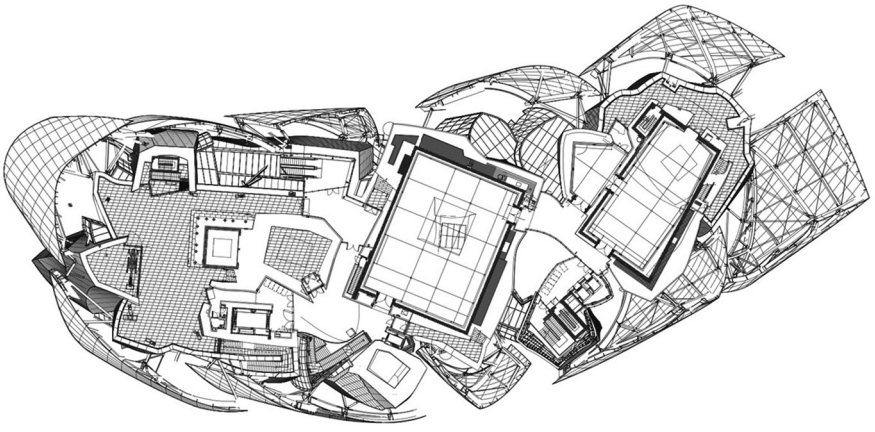

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Ill. 9. Contemporary version of the dome-shaped house – Bubble House, Théoule-sur-Mer, France, architect Antti Lovag, building 1975–1989; source: http://www.home-designing.com/tour-pierre-cardins-300-million-pound-bubble-mansion

Ill. 10. Louis Vuitton Foundation building – cross-section illustrating the method of creating an external "package" of the object, designer: Frank Gehry, Paris, France, 2014; source: https://www.archdaily.com/555694/fondation-louis-vuitton-gehry-partners

Ill. 11. Louis Vuitton Foundation building – plan, designer: Frank Gehry, Paris, France, 2014; source: https://www.architectural-review.com/essays/reputations-pen-portraits-/frank-gehry-1929-/10030660.article

Also, circular forms generate interesting spatial accents in confrontation with modern, cuboidal shaped buildings. These visual effects caused the designer Antti Lovaga to create an unusual residential structure in the south of France (Ill. 9). In the mind of the designer, the cosmic-shaped architecture imitates the earliest human habitats in the caves. Like in the prehistoric forms of habitats, rectangular shapes do not exist in the project. The individual rooms are connected by a structure of corridors – tunnels. The oval swiming-pools refer to the motifs from centuries. They resemble spaces known as *kiva*[7] in habitats erected on rock shelves in the Middle Ages (Ill. 8).

6. AGLUTYNATION OF HOUSES – RELATION BETWEEN INTERIOR AND EXTERIOR

The creation of more complexly structures, consisting of a few or more rooms, caused the creation of a combining method for them. The houses agglutination process consisted in connecting many similar shapes into one system.

The evolution of building plans involving the connecting of individual rooms into a larger whole showed the problem of the relationship between the external form of the building and its interior. This issue primarily concerned the combination of oval shapes of the internal structure into the one external contour. The wall became the element connecting the whole.

The building of a multi-room houses exposed the construction-spatial problem that was unknown during the construction of simple forms of the habitats. The combination of round shapes made it difficult to maintain a stable structure which drainages of rainwater and provide connections between particular chambers and natural lighting. One of the ways to join the mismatched round shapes of houses was creation a wall fills the free space between them. To make easier mutual adjacency different shapes of flats, new forms of houses have appeared.

The process of evolution from a circular layout to a rectangular one happened for two reasons – functional and spatial needs as well as construction and material requirements. The development of a house from one-room to multi-rooms has caused changes of forms to facilitate the creation of room divisions. Also, the development of wooden structures (including reed vaults) led to projects of a square-shaped plan.

The principle of independent formation of the interior and exterior of the building is also visible in many contemporary architectural realizations. The time of modernism with the idea of a free plan have contributed to the release of facade from its construction character. Curtain walls have become a very popular system. The independence of elevation from the character of plan is typical of large-space objects.

One of them is the project of the *Louis Vuitton Foundation* by Frank Gehry (Ill.10, 11). The building consists of a set of blocks (call "icebergs") covered with panels of reinforced concrete, surrounded by twelve huge "sails". The plan of the object exposes its internal structure – the irregularly arranged cubic elements forming the core of the building are surrounded by a glass facade with irregular shapes. The coordinator function of the whole is a transparent, curtain external wall, opening the object to the surroundings.

Rainer Mahlamäki used a similar solution to distinguish the facade from the interior of the building in the project of the *Museum of the History of Polish Jews*. Outside, covered with

[7] Kiva is usually a round room made of stone, serving men from North American tribes for ceremonial purposes

copper and glass, the form is regular, cuboid. Inside it surprises with dynamics and organic shapes. The simply, geometric "packaging" conceals an "wavy", form that cuts the building from the east to the west facade.

7. SUMMARY

Despite the huge changes brought by new design and building techniques, the creators are returning to the distant past to look for architectural inspirations in it. They reinterpret topics such as pit-houses, flats created in rocks or the phenomenon of agglutination in architecture. Projects created on this basis are not duplications of solutions used in old times but an approach looking for creative analogies. The dialogue with the past is not direct but each time it encourages reflection on the role of context and natural landscape in shaping the architectural space.

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