

BUILDING SPACE WITH CERAMICS TWO EXPERIENCES: PIETILÄ AND UTZON

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1. THE PHENOMENOLOGY OF SPACE

"Phenomenology is the study of essences; architecture has the ability to achieve the resurgence of essences. By combining form, space and light, architecture elevates the way we experience everyday life through the mediation of the many phenomena which emerge from specific environments, construction programmes and buildings. On the one hand, there is an idea/force which drives architecture; on the other, there is structure, material, space, colour, light and the shadows that intervene in its gestation." [1]

It is through matter that ideas are constructed. The creation of space from an architectural idea or concept occurs through the mediation of phenomena, such as place, light, gravity and material.

The perception of architectural space is directly linked to these phenomena, which exist in the real world: light, shadows and reflections, sounds and smells, textures and sensations are manipulated and acquire value through matter and its properties in space.

Ceramics is the final result of a physical process in which primeval matter, earth, is transformed by geometrical abstraction into material which can be used for the construction of space.

Ceramics as material exhibit properties which can modify our perception of space, depending on their form, colour or surface treatments.

Ceramics and glazes contain light and reflections. They are luminous material vehicles of the phenomenological properties of space. Depending on their properties, they are capable of transmitting depth or smoothness, containing shadows, reflections, light and colour, and producing a latent vibration in our perception of space.

It is a material which can vibrate in response to a place and its phenomena. It coexists in a state of tension with light, temperature or sound, creating an atmosphere of matter suspended in space.

2. TWO EXPERIENCES: PIETILÄ AND UTZON

We are going to explore the concepts of space, gravity, material, light and colour by looking at two architectural works: the Kaleva Church by Reima Pietilä in Tampere and the Silkeborg Museum by Jorn Utzon.

In these two works the use of similar ceramic pieces [2] applied in different ways produces different effects on our perception of space and on the tension between the latter and place.



Figure 1. Conceptual Sketch of the Kaleva Church.

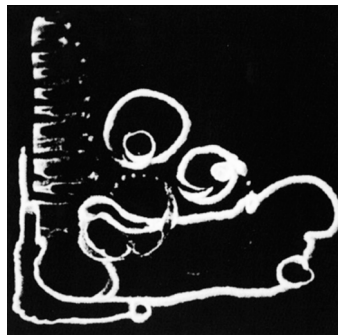


Figure 2. Conceptual Sketch of the Silkeborg Museum.

The Kaleva church in the Finnish locality of Tampere is the result of a competition, which the Finnish expressionist architect Reima Pietilä (1923-1993) won in 1959.

From its beginnings to its completion in 1965, the project clearly pursues the architect's desire to create a monument. It is a free-standing building, on a raised plateau-like area in a central position, so that it acts as a social venue in the city.

Pietilä fulfils his religious agenda by designing a unitary space, which is 50m long at its longest point and 30m high, and surrounded by a vertical structure consisting of broken walls made of concrete and panes of glass.

It was in this project that his research into architectural form, which the architect had developed over a period of years, would begin to materialize.

In the 1960s, in Finnish architecture, ceramics was used systematically on the outside of institutional buildings, so Pietilä, like Alvar Aalto, would use ceramics in other projects, such as the Seinajoki auditorium. He uses ceramic tiles to clad the outer surfaces of concrete walls and to give a certain unity to the monumental image of the building. [3].

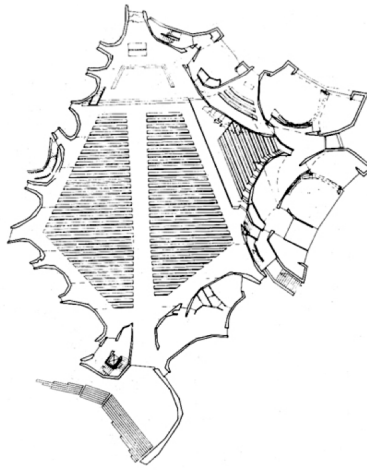


Figure 3. General ground plan of the Kaleva Church.

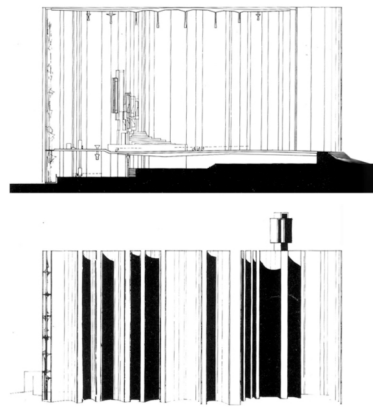


Figure 4. Elevation and cross section of the Kaleva Church.

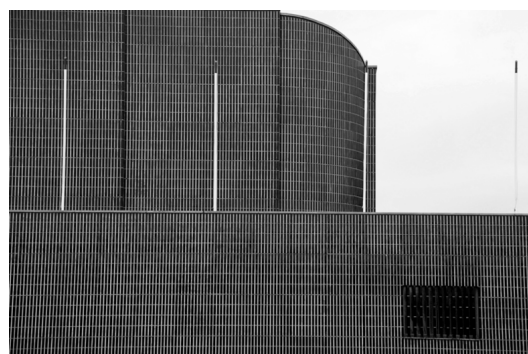


Figure 5. Seinajoki auditorium by Alvar Aalto.

In 1963 the Danish architect Jorn Utzon (1918-2008) was asked to design a project for a museum in Silkeborg in Denmark.

The new building, which was to be a larger version of the small existing museum, would house a small collection of contemporary art, as well as the works of the Danish artist Asger Jorn.

Utzon's project was conceived as a series of buried spaces which come to the surface in search of light and in order to receive visitors. The museum is housed on the underground floors, inside large three-level vessels, which are accessed from an enormous space into which one descends by means of a system of intertwined ramps.

At the time Utzon was immersed in the process of building the Sydney Opera House, after winning with his competition entry in 1957, and the research into ceramic materials and glazes which he conducted for the roofs of the Opera House demonstrate his interest in the properties of this material.

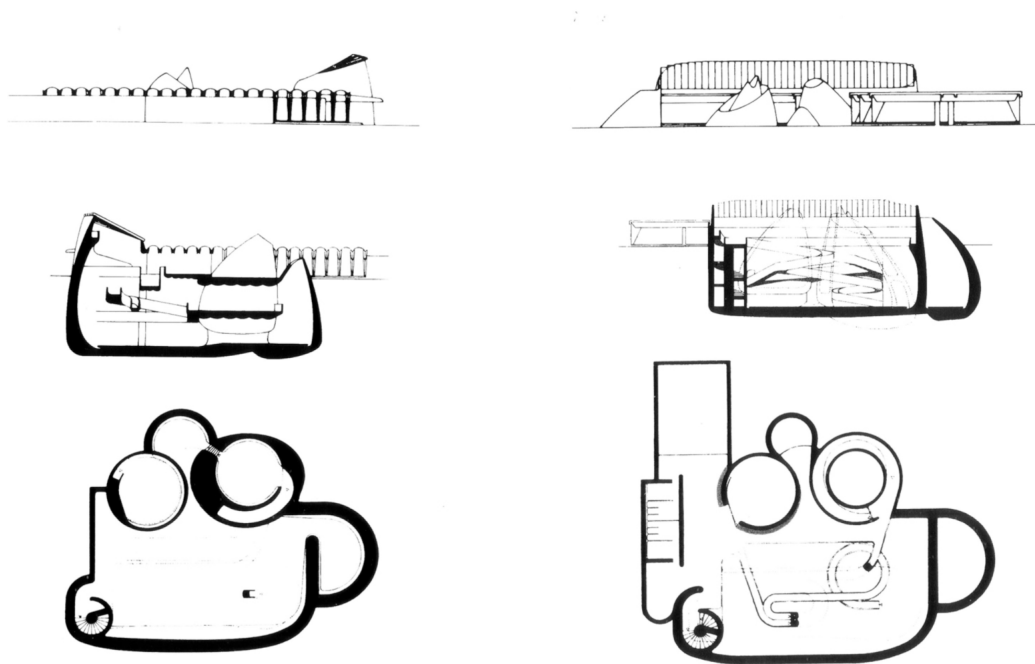


Figure 6. Floor plans and sections of the Silkeborg museum.

The glazed colours that Asger Jorn used in his works were to influence Utzon's decision to incorporate ceramics and their properties of radiance, light and colour into the museum project.

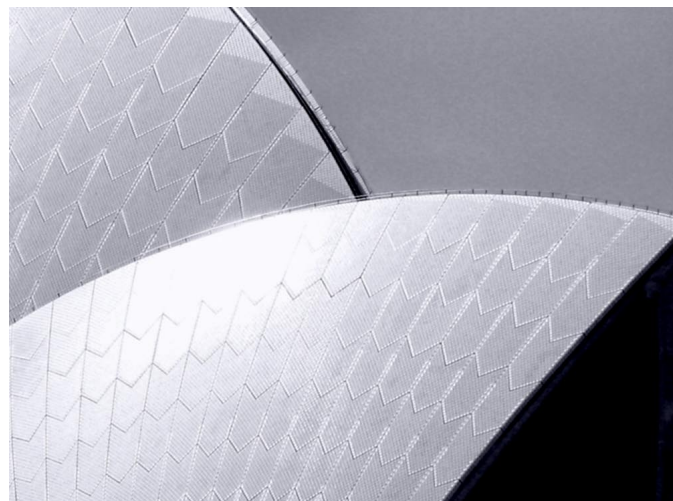


Figure 7. Roofs of the Sydney Opera House.



Figure 8. Painting by Asger Jorn.

2. THE FOREST AND THE CAVE

In a sense these two projects represent the architectural archetypes of the hut and the cave, of tectonic and stereotomic space. ⁴ They both involve the abstraction of nature by means of architectural art.

The Church is built as a continuation of the earth and extends from the ground to the sky, creating an artificial boundary which delimits an enclosure and controlling the light, and our visual relationship with the exterior and physical contact with nature.

"A clearing in a forest is a momentary pause, the identification of a space perceived through the rhythm of the forest [...]. The Kaleva church is natural and ceremonial, as majestic and ordinary as one would like a forest to be." [5]

The museum has been excavated in the ground, from the sky to the earth, allowing the light to penetrate from above and work its way down, sculpting matter during its descent and letting the air inside.

"In many of the structures created by man there is a reference to the myth of Plato's cave. Be it the clothes we wear or the buildings we shelter in, we are always under cover. I peel open these layers to let the light penetrate within, so that the outside can get inside. As Meister Eckhart said: so that everything stays inside, everything has to be taken out." [6]

In his church Pietilä builds the space of a forest, a space encircled by horizontal light, which, by means of a sequence of vertical elements, creates an atmosphere of lightness. The density of the forest is enhanced as we move further inside, as a result of the convexity of the walls which compress the space and over which the light slowly glides.

From the outside the rhythm of the many-faceted vertical elements interweaves

the materiality of the ceramics and the immateriality of the reflections, which are trapped on the surface by the panes of glass. This interlacing of lights, shadows, reflections and colours, like Magritte's painting "Carte Blanche", furnishes the façade with vibration and complexity.

"I try to achieve a visual lightness by using a light and rhythmic kinetics of broken lines linked together in constant and enveloping series. It is similar to the rapid sequences of organ music. The Kaleva church contradicts the traditional idea of heavy walls."

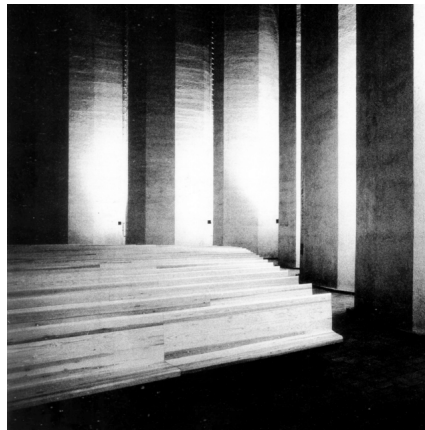


Figure 9. Interior of the Kaleva Church.



Figure 10. Carte Blanche by Renee Magritte.

In his museum Utzon depicts the space inside a cave, an introverted and central space consisting of vertical light surrounded by a wall which envelops it in continuity with the earth. The sun and the sky penetrate the space like an abstraction of nature, introducing time and light and creating tension between matter and space, as occurs in the Pantheon in Rome. [8]

"Owing to its natural shape with no right angles, the cave has a distinctly enveloping feel about it, unlike an orthogonal space. Continuous forms, like those we encounter in the museum, reveal and emphasize the rectangular walls and other exhibits." [9].

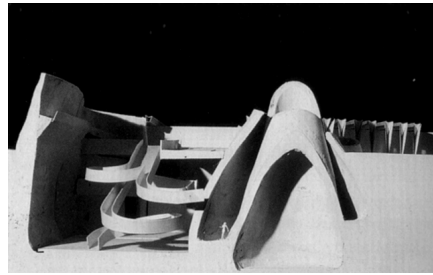


Figure 11. Model of the interior of the Museum.

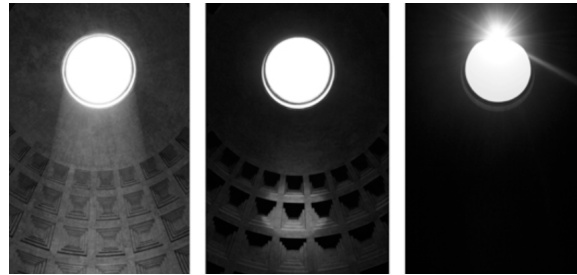


Figure 12. Oculus of the Pantheon in Rome.

3. MATTER, LIGHT AND COLOUR

In both projects we may take a closer look at the relationships between the material which is used, in this case, ceramics, and the light, colour and phenomena which are produced within the space, as well as our perception of the space, as it is mediated by our senses and influenced by the way we move around it.

"All our senses, including our sight, are prolongations of our sense of touch; our senses are specializations of our skin and all sensory experiences are forms of touching [...]" [10]

"[...] we move within architecture. Undoubtedly, architecture is a spatial art, as we call it, but it is also a temporal art. It is not experienced in a single second. On this point I agree with Wolfgang Rihm: architecture, like music, is a temporal art." [11]

The association between structure and ceramic cladding is established in order to create the phenomena which are desired in our perception of space.

The Kaleva church polarizes the space around it radially. Our perception, as we move in relation to its architecture, depends on the material of which it is built. In this way, apart from the continuity it confers, which we have already mentioned, the use of ceramics produces other effects which resonate with its location.

The use of ceramics creates a conceptual continuity with respect to the landscape, and its gold-tinged white colour contrasts with and adapts to the tenuous Nordic light. The reflections produced by the glass glide over the ceramic pieces, creating a material vibration in the smooth surface of the walls.

"From a distance, as we climb Vapaudenkatu we can only see the bells of the church and the cross. A silhouette gradually begins to appear until eventually the entire outline of the building is visible [...] The elevation of a church is neither static nor dynamic, it is the choreography of a symbolic event." [12].



Figure 13. View of the outside of the Church.

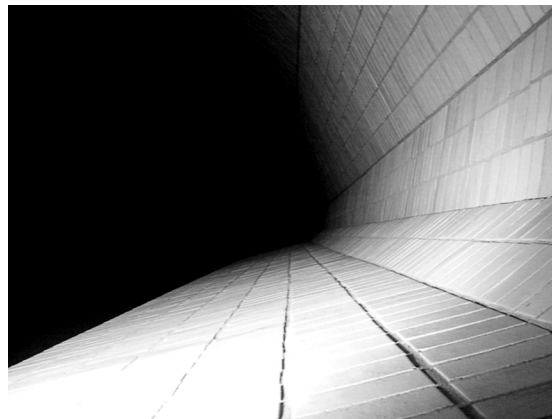


Figure 14. Close-up of the ceramic tiles.

In the exhibition rooms of the museum and the central space into which the ramps descend, the white panes allow the light to slide across, inviting descent and movement and, by the use of glazes, permitting the light to intensify and revive in the material on its journey towards the bottom.

The use of white creates a neutral atmosphere, which highlights the works which are exhibited and the movements of visitors.

"The curved surfaces, which are visible from the outside, will be clad in brightly coloured ceramic materials so that the different parts of the building will look like gleaming ceramic sculptures, while the inside of the museum will be finished in white." [13].

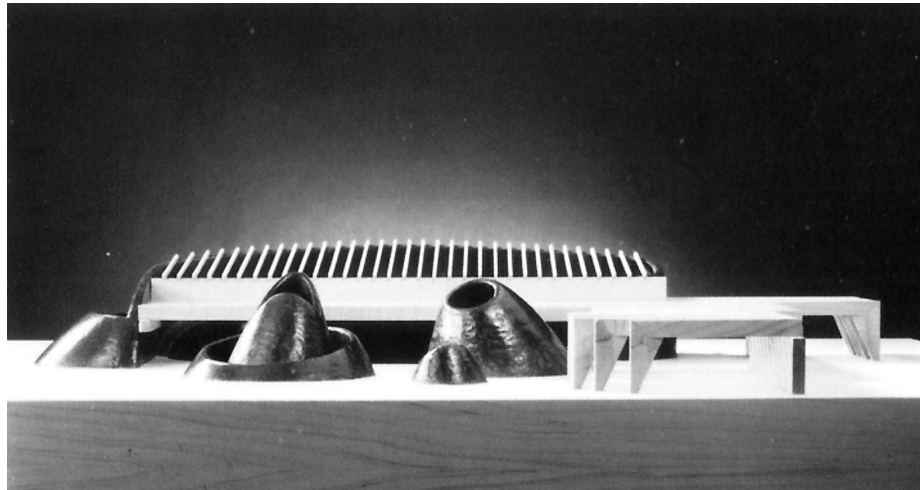


Figure 15. Model of the outside of the Silkeborg museum.

In short, amongst other things, we can learn from these examples how the use of ceramics transcends mere functionality and decoration, highlighting the value of the phenomenological properties of space and the materialization of ideas.

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- [2] The Kaleva church is a building and, as such, there are records of the materials which were used to build it, but records were never kept during the construction of the Silkeborg museum. For the purposes of this essay, we will take as our hypothesis that Utzon planned to use ceramic materials to clad the interior walls of the vessels, which he defines in the project report as "white", just as he intended to do with coloured tiles on the outside.
- [3] The uniformity achieved by the use of the ceramics makes it the white monument the architect intended but, to use his own words: "The scale of the material was wrong and, consequently, it weakens the sculptural form of the building."
- [4] See APARICIO, JESÚS. El muro. Materialización de la idea e idealización de la materia, [2000]. Editorial Nobuko, 2006
- [5] CONNAH, ROGER. Writing architecture. Phantoms Fragments Fictions - An Architectural Journey through the 20th Century. MIT Press, 1990.
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