

PRESERVING THE MATERIAL AUTHENTICITY: A METHOD OF PRESERVING THE TRUTH

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ABSTRACT

In heritage preservation projects, the main aim is to preserve the authenticity, and one of the most interesting and important elements of heritage is its materiality. The materiality of heritage, as such, combines its cultural, historical, artistic and architectural characteristics, and thus, materiality preservation affects its many values, but most of all - on its authenticity. Preservation of material authenticity by following "truth to materials" concept is a complex process, and it depends on many factors, such as conservation-science studies, interdisciplinary approach, architects ideology, technical solutions, etc. This paper discusses methods, technical solutions, as well as architectural approaches for different heritage preservation projects, intending to analyse preservation of the material authenticity critically. Different methods of "revealing" the truth of heritage could lead to different interpretations of "truth to materials" concept in preservation projects. For example, these architectural-conservation approaches could be a traditional one, like bringing the original appearance with the reconstruction of missing parts using original materials from authentic material sources and application techniques, or different and experimental approaches of creating new materials which will be incorporated in the (fragments of a) historical building. The hypothesis of the paper considers that preserving the truth imply to preserve properties and qualities of a material that are not primary, but its poetic, sensuous qualities, that could be felt by all senses. These qualities embed only in specific architectural contexts generated in special conditions. This also leads to proposal for new valorisation of materials, and it could be concluded that this is necessary for the preservation project to be successful, and for authenticity to be preserved.

KEYWORDS *_ materials, preservation, authenticity, method, truth, senses*

INTRODUCTION

The preservation of authenticity always remains an open issue in the preservation of architectural heritage, and one of the issues is preserving the material properties, qualities, appearance and material applying techniques. The main aim of the paper is to research what kind of methods of preserving material authenticity are the most compatible with international charters, documents, and declarations, as well as with theoretical interpretations of authenticity and truth. In the first part of the paper – "theoretical framework of research", the concept of authenticity is elaborated, along with the interpretations of truth in architecture and the concept of "truth to materials". The second part of the paper is dedicated to critical analysis of two opposite preservation projects: the first is a traditional one, and the second is a sort of an experimental approach to heritage, which changed preservation discourse to a certain extent. These approaches refer to the different practice of "truth to materials" concept, and process of "reviving the truth". The restoration project of Villa Tugendhat

and its adaptation to a house-museum is an example of bringing the original appearance with the reconstruction of authentic missing parts using original materials sources and application techniques. This restoration was an attempt to bring back the reflection of the truth into the Villa, contributing to the authenticity of material appearance through time. The second preservation project analysed in this paper is the renovation project of the Kolumba Museum by architect Peter Zumthor. This represents a different and experimental approach of preserving the authenticity by creating new material which is incorporated into the existing fragments of a historical building. This new material is in symbiosis with the remnants but, at the same time, it emphasises their appearance, by making a visual contrast, and illuminates them with its contemplating properties. Properties of new material are "poetic", and it creates meanings in object and reveals inherent sensuous qualities of new material as well as of the existing ones. These are two different examples of preserving the truth of heritage and making it "visible" again.

THE THEORETICAL FRAMEWORK OF RESEARCH

In historic preservation theory and practice, the most significant concept which affects the choice of preservation method and the way of developing the architectural approach is - the concept of *authenticity*. In which way, different concepts of authenticity affect the selection and application of materials in architectural preservation projects and how complex is the relationship between authenticity and architectural material? This complexity brings another notion that contributes to the creation of layered and profound connections among the concept of authenticity and architectural material. That is - the notion of truth. In preservation projects, it all began with John Ruskin's historical definition of truth, and it continues with contemporary charters and preservation doctrine, along with interpretations of truth by architects and their application in architectural concepts.

Concept of authenticity in architectural preservation

There are numerous concepts of authenticity which are discussed in several international charters, documents, and declarations, as well as through theoretical interpretations and applied in architectural approaches and practice. The term authenticity was first introduced in the preamble of the Venice Charter (1964) in which it says about the preservation of historical monuments, that "It is our duty to hand them on in the full richness of their authenticity" (Venice Charter, 1964). Thus, reconstruction was not permissible, but only anastylosis (the reassembly of the fragments left over from the original parts). According to Venice Charter, new interventions should happen only if it is completely necessary, and in such case, the choice of new materials that are used in preservation should be distinguishable from the original historic construction (Venice Charter, 1964). Later on, the concept of authenticity in preservation was expanded, and it gradually became more flexible in different contexts.

Although it is impossible to completely and finally determine the concept of authenticity, the largest contribution for defining various aspects and interpretations of authenticity is the Nara Document on Authenticity (1994). Nara has broadened the concept of authenticity within different cultural contexts and, at the same time, created a more flexible interpretation in terms of preservation practice. David Lowenthal gives a definition for this flexibility of authenticity in Nara conference paper: "Authenticity is never absolute, always relative." (Lowenthal 1994: 123). In Article 13 of the Nara Document on Authenticity it states that: "Depending on the nature of the cultural heritage, its cultural context, and its evolution through time, authenticity judgements may be linked to the worth of a great variety of sources of information. Aspects of the sources may include form and design, materials and substance, use and function, traditions and techniques, location and setting, and spirit and feeling, and other internal and external factors. The use of these sources permits elaboration of the specific artistic, historic, social, and scientific dimensions of the cultural heritage being examined." (Nara Document on Authenticity 1994: 47). From this statement, it could be concluded that material is a significant aspect from which sources of information that are necessary for the evaluation of

authenticity could be gathered. Unlike the Venice Charter, in which it states that reconstruction isn't permissible, at Nara Document on Authenticity (1994) the concept of "progressive authenticities" was reaffirmed. It means that the layered character of authenticity is acknowledged, by evoking successive adaptations of historical places which have happened over time. Another extension of defining authenticity happened after a regional meeting in San Antonio (1996) encouraged by ICO-MOS, in the Declaration of San Antonio (1996), where it is written that "authenticity is a concept much larger than material integrity" (Declaration of San Antonio, 1996). Declaration of San Antonio tried to add new sources for authenticity evaluation with the aim to reflect their real value, context, identity, integrity, use, and function. However, it failed due to the lack of including the extension of evidence of authenticity.

Concept of truth: "truth to materials"

The concept of authenticity and the term truth are inextricably linked. But, how can the truth in architectural experience be revealed? Parallels can be made between the two opposite ways of discovering the truth: through senses and by reason. As Parmenides (the early Greek philosopher, was born in 520 BC) claimed, the real truth could be unveiled only to gods by pure reason (logos), and never to humans through their senses. On the contrary, according to Martin Heidegger, the choice of information sources for reaching the truth significantly affect the results, and that process requires systematic and detailed research (Jokilehto 2008: 24). It could be concluded that these sources of information also includes the ones that are perceived through senses. These sources could be taken into consideration for reaching the truth and preserving the authenticity, because the fact is that contemporary preservation doctrine does not exclude the role of the senses in the concept of authenticity, although it isn't explicitly included either. Perceiving through senses is a significant part of the material authenticity evaluation process, which will be further discussed through analyse of different material treatments in preservation projects.

The concept of truth in architectural preservation began with John Ruskin's theory which he developed in *The Seven Lamps of Architecture* (1849). In his second Lamp – "Lamp of truth" his attitude towards authenticity develops over "truth to materials" rule, which he claims to be achieved by avoiding "direct falsity of assertion respecting the nature of material" (Ruskin 1849: 28). He named these falsities "Architectural Deceits", and proclaimed that there are three of them: "1. The suggestion of a mode of structure or support other than the true one...; 2. The painting of surfaces represents some other material than that which they actually consist...; and 3. The use of a cast or machine-made ornaments of any kind." (Ruskin 1849: 29). All of these three "Architectural Deceits" refers to architectural material characteristics that could be perceived visually. But, what about the material appearance aspects and "truth to materials" which has to be experienced and discovered by senses? The fact is that the properties and qualities of materials affect the emotion of the spectator at the moment of experience. Ruskin also notes that "Architectural Deceits" affects bodily and emotional expectations (Ruskin, 1849).

Ruskin's theory of truth in architecture has influenced the international preservation doctrines and charters (the Venice Charter, the Nara Document on Authenticity). Thus, authenticity is defined through the term truthful in Article 9 of Nara Document on Authenticity (1994): "*Conservation of cultural heritage in all its forms and historical periods is rooted in the values attributed to the heritage. Our ability to understand these values depends, in part, on the degree to which information sources about these values may be understood as credible or truthful. Knowledge and understanding of these sources of information, in relation to original and subsequent characteristics of the cultural heritage, and their meaning is a requisite basis for assessing all aspects of authenticity.*" (Nara Document on Authenticity 1994: 46) As mentioned, one of these sources of information for the evaluation of authenticity is architectural material with its properties, and its interpretation of "truth to materials".

MATERIAL AUTHENTICITY: THEORY AND PRACTICE

Modern architects believed in "truth to materials" and developed their concepts and projects under the persuasion that achieving this kind of truth would produce a more authentic architecture. Also, for some contemporary architects, the most important architectural element is material, and they assigned them qualities which are beyond physical and which other architectural elements do not have. Critical analysis of the different architects' approaches to heritage preservation projects, at the same time, reveals various attitudes towards materials and perceptions about them. Consequently, there are different ways of "revealing the truth" through authenticity preservation projects and concepts of "truth to materials". Based on these case studies, the contribution of the paper is precisely in suggesting a new type of architectural material valorisation. New values lies in "poetic" qualities of a material, in its "secondary" properties, which are not strictly visible, at first sight, but which might be experienced by all senses.

Re-reflecting the truth: the restoration of Villa Tugendhat

Ludwig Mies van der Rohe once said about the materiality of a heritage: "Materiality incorporates the historical, artistic and cultural characteristics assigned to (architectural) monument" (Tostões, Hammer, & Ferreira 2017: 51), which was exactly the way in which he builds the authenticity of the modern architectural monuments which remained after him. One of the finest examples of Mies van der Rohe buildings, which embodies its authenticity through the material, is - Villa Tugendhat build in 1928 as a family house in Brno. Mies van der Rohe in collaboration with German designer Lilly Reich, made an innovative, original, modern, luxurious, and first of all, an authentic house which will be filled with historically and culturally significant moments. Villa Tugendhat was recognised by UNESCO as World Heritage in 2001, as "an outstanding example of the international style in the Modern Movement of architecture" (Tostões, Hammer, & Ferreira 2017: 48). Among many other architectural values and innovative solutions, the architectural value of Villa Tugendhat reflects in the application of valuable and rare materials. Material as such, was chosen by the architect to be the medium of the truth, and this was recognised by the owners of the house, Mies clients – Tugendhat family.



_ Figure 1: The onyx marble wall in the interior of Villa Tugendhat

Valuable materials which Mies used in Villa are: Italian travertine, onyx marble from Morocco, Macassar ebony wood, palisander, polished chrome, brass cladding with patina coating, etc. Besides

the belief of Mies about characteristics of architectural material and that material assign a new set of values to the architectural monument, one of the reasons why he chose these type of materials for this Modern villa structure is because they are fine and noble and do not contain decorations nor ornamentation. Italian travertine was employed in the interiors on the floors of the entrance hall and the staircases, and in the exteriors on the parapet and the bases of the upper terrace and the garden terrace (Tostões, Hammer, & Ferreira 2017: 46). Columns in the living room were clad with polished chromed brass cladding which seems to contribute to its crystalline atmosphere, while, on the contrary, the columns on the terraces have brass cladding with a patina coating to bronze in copper colour, contributing to the authenticity of material appearance through time. Besides the semi-circular wall consisting of Macassar ebony veneer of the dining area, the main light motif of the interior is a massive onyx marble wall separating the library from the living room as in Figure 1. In this picture of the living room, the onyx wall is seen as a main element, with reflections of the trees silhouettes, creating a unique ambience. Also, as part of the interior structure, the onyx wall contributes to the dialogue between nature and architecture, which is mostly present in the concept of this Villa. This onyx is honey-coloured, yellow rock with white veins, and it changes its appearance during the sunny winter days, by showing how unique and special it is: the stone has certain percent of transparency and lit up from the front by the sunset, certain veins on the back-side shone red (Tugendhat, 2020). The onyx marble wall has its own modus of living and "reflecting the truth". After numerous changes of usage and, consequently, of the house form and appearance, the restoration project of Villa Tugendhat aims to bring the original appearance of the Villa and the reconstruction of missing original parts. The restoration was based on the belief of Mies van der Rohe that "heritage conservation as a societal practice only makes sense...if the material authenticity is preserved" (Tostões, Hammer, & Ferreira 2017: 48). This preservation project was an attempt to bring back the reflection of the truth into the Villa, and make it visible to the visitors. So, the main aim was to create conditions in which the Villa will start re-reflecting the truth through its architectural elements, most of all, through the material. Which was the method of the restoration of the material, due to the fact that utilised materials have unique characteristics, appearance and behaviour under different external conditions? How the whole process of "reviving the truth" went? Where the authenticity of the Villa and material authenticity preserved through this process?

An interdisciplinary and careful conservation-science investigation which preceded the restoration project of Villa Tugendhat, and the beginning of its adaptation to a house-museum, occurred between 2003 and 2010. The main aim was to discover all the details about the original appearance of Villa, primarily through investigation and documentation of materials and surfaces by conservators/restorers (Tostões, Hammer, & Ferreira 2017: 48). In the purpose of making several appropriate proposals for the restoration project, all categories of materials in Villa on its different time layers were examined. Result of these studies was: identification of damage factors and development of methods for conservation and restoration.

For the purpose of bringing back the original appearance of the Villa, and preserve its authenticity, where necessary, the existing material was replaced for the original one. That was one of the most challenging parts of this restoration project. For example, the pavement of the floor and stairs, which in the 1980s' renovation was made of Slovakian travertine, was replaced with the original Italian Tivoli travertine (Tostões, Hammer, & Ferreira, 2017: 50). For the purpose of the restoration of all the structural steel components and bringing back their original appearance, the original technology of oil-based paints was applied to all metal coatings. Using almost identical material, the original stucco lustro of the interior wall was newly coated with a thin layer of a limestone and marble dust, linseed oil and cellulose-ether as the binding medium, and it was pigmented with fine silt size grains of Bratčice sand was finely sanded creating the illusion of a polished marble surface. In the restoration process of the interior, the restorers found a part of the original Macassar panels in the former headquarters of the Gestapo at the University of Law in Brno in 2011 (Tostões, Hammer, & Ferreira, 2017: 51).

The owner of the house, Fritz Tugendhat, claimed about the experience of living in this house: "... whenever I let these rooms and all they contain take their effect, I am overcome by the feeling that

this is beauty, this is the truth" (Hammer-Tugendhat, Hammer, & Tegethoff 2015: 77). Will visitors of the restored Villa Tugendhat into house-museum feel the same? Will they perceive the truth?

Fragments of truth: the renovation of Kolumba Museum

Through his ontological and phenomenological approach to architectural practice, Peter Zumthor deals with material as such, researching the connection between material and sensuality. His projects explore the tactile and sensory experiences and qualities of architectural space and materials. Similar as Mies van der Rohe position about the preservation of the material authenticity of architectural heritage, Peter Zumthor also believes that the most powerful memories can be found in materials, not in recognisable building forms (Self, 2002). He explains the importance of materials in the architectural expression: *"I believe that they can assume a poetic quality in the context of an architectural object, although only if the architect is able to generate a meaningful situation for them, since material in themselves are not poetic. ...we must constantly ask ourselves what the use of a particular material could mean in a specific architectural context. Good answers to these questions can throw new light onto both the way in which the material is generally used and its own inherent sensuous qualities"* (Zumthor 1998: 11).

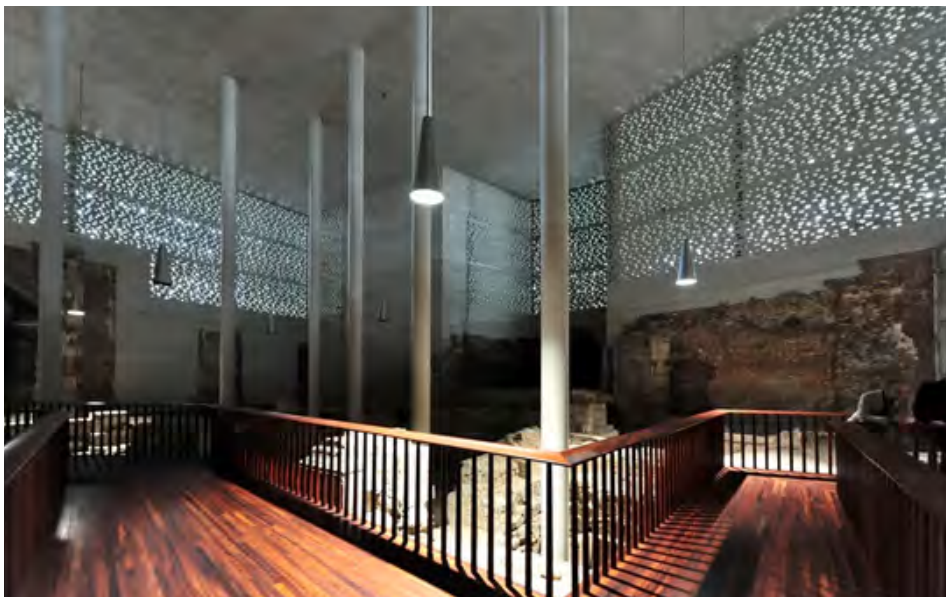


_ Figure 2: Ruins fragments integration in the exterior of the Kolumba museum

Peter Zumthor developed a profound and poetic connection with heritage, at first with years of experience as a conservation architect at the Institute for the Protection of Cultural Monuments in Graubunden, Switzerland. For Zumthor, patina has its own value, and in some projects, he implements it. In the essay *"A way of looking at things"*, Zumthor expresses an emotional attitude toward patina: *"Naturally, in this context I think of the patina of age on materials, of innumerable small scratches on surfaces, of varnish that has grown dull and brittle, and of edges polished by use. But when I close my eyes and try to forget both these physical traces and my own first associations, what remains is a different impression, a deeper feeling – a consciousness of time passing and an awareness of the human lives that have been acted out in these places and rooms and charged them with a special aura. At these moments, architecture's aesthetic and practical values, stylistic and historical significance are of secondary importance. What matters now is only this feeling of deep*

melancholy. Architecture is exposed to life" (Zumthor, 1998: 24). In this statement, there is implicit Zumthor's interpretation of "truth to materials". It means that truth must be revealed through senses, materials must reflect the time and life of the architectural object, and they must not be covered and beautified. When it comes to heritage preservation projects, as prescribed in Venice Charter, Zumthor makes a meaningful and visible difference between existed and new materials. He defines his attitude towards the relation of the new and the old in conversion projects with awe: "The new must develop a positive attitude towards the old, but it must not say that it is much better than the old. There must be some respect ... The new allows us to see the old better" (Zumthor 2012: 26).

Zumthor's preservation project in which material properties have a crucial role is the Kolumba Museum in Cologne, built between 2003 and 2007. This renovation project has a complex historical and spatial context, which brings historical, cultural and architectural values in the focus of the preservation process. Kolumba Museum arises on the ruins of the former late Gothic church St. Kolumba, destroyed by bombing in 1943 in Second World War. In 1947, the architect Gottfried Böhm was commissioned to build a chapel "Madonna in the Rubble", which was consecrated in 1950, as a war memorial. Ruins fragments of this chapel were integrated into Zumthor's Kolumba museum renovation, with contemporary continues on the historically, and by this, architectural continuum was achieved. That is the main museum exterior characteristic as in Figure 2, and this continuum is clearly visible. The preservation methods used in this renovation project were: the conservation and complete retention of existing wall fragments and unique archaeological excavations, and the addition of a contemporary layer to an existing, historical one.



_ Figure 3: Diffused light created by perforations

The remnants of the church facade are of a grey brick, damaged and altered, darkened, with metal remains on the windows of the former Gothic church. As Zumthor believes that the new must allow us to see the old better, the architect's goal was to achieve the symbiosis of the old and the new, and at the same time, to make the facade fragments of the Gothic church, as well as archaeological excavations on the inside, most visible, to emphasise their appearance. Thus, Zumthor created a new material, the "Kolumba brick", which was handcrafted by Petersen Tegl (ArchDaily, 2010). The bricks were fired with charcoal to imbue a warm hue, and to be in contrast with dark remnants of the existing church facade. The unique light grey brick of the dimensions and perforations on the

facade integrate the museum into the urban context as well as in the historic site. However, the more important is how these material properties highlighted historical values and contributed to the preservation of a site and the object's authenticity. These material properties are "poetic", a material property which is hard to achieve, but creates meanings in object and reveals inherent sensuous qualities of material as well as of the architectural object. Perforations allow diffused light to fill specific areas of the museum as in Figure 3, casting shadows of different intensity over the ruins, archaeological excavations and museum art installations, creating the illusion of movement and bringing them back to life in moments. This interplay of light and shadows of different intensity over the ruins and archaeological excavations as in Figure 4 could be felt and seen by walking on the bridges among the ruins.



_ Figure 4: Interplay of light and shadows over the ruins and archaeological excavations

The inside of the museum, with all of its remnants and installations, could only be comprehended as an internal reflection. In Kolumba museum, Zumthor's interpretation of "truth to materials" gets its physical form through light, softness, shadows, contrast, darkness, and all of the others poetic qualities that can be seen or felt. The truth of Kolumba museum lies in fragments, in ruins, in remnants and silence, and it can only be understood and revealed by contemplation. Zumthor made a material that allows and encourages this contemplation. As he said, that materials are not poetic by their nature, and that the architect must create a meaningful situation for them, this new material – "Kolumba-brick", has poetic qualities only because of the presence of old church fragments and ruins. The most important properties of a new material is in allowing the old material to be seen much better. This is why Kolumba Museum project is changing preservation discourse to a certain extent.

CONCLUSIONS

The concept of truth in architectural preservation began its theoretical framing with John Ruskin's theory, and continue to develop through the international preservation doctrines and charters (the Venice Charter, the Nara Document on Authenticity). However, architects ideologies have the most significant influence on different "truth to materials" concepts applied in preservation practice. As

a result of the aforementioned case studies, it can be concluded that these are examples of different methods of preservation, but with the same aim. In a broader context, the aim was to preserve authenticity through the application of the concept of "truth to materials". Nevertheless, the paper suggests a different kind of the authenticity reading, and thus a different approach of preserving the material authenticity. A detailed analysis of the historical and technical information on buildings and applied materials, as well as of user's experience, leads to characteristics of materials that are not obvious and easily noticeable, which are concerning the life of materials, as well as character and identity of the building. The "truth to materials" concept in this case is not reflected in its appearance, its primary characteristics (functional and aesthetical), but in the way in which the material interacts with the environment. This interaction of materials with phenomena in the environment, activates different meanings of materials that appear in specific architectural contexts. These meanings are manifested under specific conditions, and they represent "secondary" characteristics of material, which can be experienced by all senses (not primarily visually). This kind of experience awakes emotions which may identify with the experience of "truth".

Above analysed "truth to materials" ideologies are interloping, at some extent. For example, some of the materials which are used in Villa Tugendhat have poetic and sensuousness qualities, embodied like in Zumthor projects. In Villa Tugendhat restoration project, Mies intended to create the dialogue between nature and architecture, by opening the house towards nature with glass-curtains and porches. However, this dialogue could be felt the most through the life of materials - in patina coating of columns on the terraces, which contributes to the authenticity of material appearance through time, as well as in the changing appearance of the onyx marble wall exposed to different light intensity through seasons. These are examples of embodying poetic qualities of the material. But, the issue of bringing the original appearance of the Villa is that it erases the life of the material, by creating artificial and kind of a plastic conditions. For example, the creation of the illusion of a polished marble surface in the restoration process of the interior of the Villa, may be one of Ruskin's "Architectural Deceits", which affects bodily and emotional expectations, consequently changing the meanings of a material. As opposed concept and method of preservation, Zumthor's renovation of the former Gothic church into the Kolumba Museum, consists of a creation of a new material which embodies its meaning and sensuous qualities, by reflecting in the old one.

The contribution of this paper is suggestion of a new way of reading the truth, and at the same time, a proposal for a new material valorisation, in order to preserve the authenticity. This new type of valorisation might include "secondary" properties of material, which can be experienced by all senses, by awaking the emotions and creating a unique ambience and character of the building. Case studies prove that the truth in architectural preservation could be comprehended by all senses, and that this must be further developed in preservation discourse, in theory, as well as in architectural preservation practice.

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