

MUZEOLÓGIA 1

MUSEOLOGY



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Museum as technology

Serhii Rudenko

Serhii Rudenko
Kyiv National University of Culture and Arts
Department of Museum Management
Ukraine
e-mail: rudenkosb@ukr.net
<https://orcid.org/0000-0002-2319-1845>

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Museum as technology

There are no complex studies in the field of cultural theory on the effectiveness of the museum. It is not clear what are the main versions of the sociocultural purpose of the museum. It has not been revealed which sociocultural applications of the museum are harmful to the institution and society as a whole, and which are not. The meta-problem of research is caused by the fact that the empirical question of choosing the best strategy for the functioning of the museum has not been brought to the theoretical level. There are only particular scientific discourses that have not passed the procedure of scientific criticism and logical-deductive testing. Thus, the scientific problem of the sociocultural purpose of the museum in view of its institutional specifics can be solved by formulating scientific theories that correspond to the particular directions of empirical use of the museum.

Keywords: museum as a sociocultural institution, the sociocultural purpose of the museum, the institutional specifics of the museum, curatorship, culturological museum, sociocultural technology.

Introduction

Contemporary museums are caught in a paradoxical situation today. On the one hand, they are viewed as something outdated and unnecessary under new circumstances given the Internet and global access to cultural heritage and knowledge on the whole. In this view, museums are left with the not very attractive role to serve as storage places for extinct culture which would only draw curiosity as an amusement but never be relevant again. On the other hand, the number of museums in the world is growing, and they are often at the forefront of social discourses. Moreover, museums are referred to both when considering the use of civilisational heritage and in the context of quite futuristic projects. It is impossible to ignore the theme of museums and monuments because of the destruction of identities which characterises the present. It is customary to soothe the phantom pains of a lost place in the world with the help of the past, specifically as represented through expositions. It is not the least part either that museums are playing in the context of informational confrontation, which has a distinct historical front. After all, we are coming to the main practical problem associated with museums: should we place our hopes on them in the future or, on the contrary, is it useless to actualise their work – and should one just let them pass away into eternity? According to museologist Tomislav Šola,¹ it is quite possible that the place of museums should be taken by other cultural heritage

¹ ŠOLA, Tomislav. *Eternity Does Not Live Here Any More: A Glossary of Museum Sins*. Zagreb: Hitra produkcija knjiga, 2012.

institutions which still have to be constructed. Unfortunately, there is not even a vague idea of what they should be.

Museum institutions are responding differently to the challenges of time. Some are trying to keep up with the times or even get ahead, actively using multimedia technologies wherever possible. Such institutions are willingly uploading their digitalised collections to the global network and implementing fashionable practices in their research and educational activities. Other museums are behaving in a more conservative way, believing that it is by resisting digitisation that they will be able to maintain their social significance and utility. Some museums are maintaining confidence, relying on their powerful collections and taking advantage of the widespread interest of tourists in them. For others, it is becoming harder to attract visitors. Some museums are engaged in active promotional activities to increase their attractiveness, while others believe that they should adhere to conservative academism. Some institutions are extroverts, and others are completely locked within themselves and determined upon self-isolation, as if they were trying to wait out the bad weather of social challenges. Many museums, like several centuries ago, are focused on patriotic education. Others are trying to present identities that have been neglected for a long time. Usually, museums are proud of their political mission, even if increasingly difficult to implement: the political climate is becoming too changeable and museums do not have time to re-adjust. Some institutions have fallen behind the political context so much that they are faced with social resentments, and it is not so important whether such feelings are in connection with decolonisation or, for instance, decommunisation. Many institutions are sure they have no other chance but to step into market relations and finally obtain profits. Others are appealing to their cultural uniqueness and trying to prove their right to receive state or communal funding, while, at the same time, expanding their sources of income.

As we can see, it is fruitless to search for a universal purpose applicable to any museum to make it useful and important for society at all times. However, it is in our hands to institutionally readjust museums so as to maximise their efficiency. Yet, empirical observations alone are not enough to clarify the direction to take. It is unclear which of the above-mentioned museum strategies will eventually be successful and which of them will have devastating effects on institutions without the possibility of redress. Therefore, it is necessary to consider the issues raised at the theoretical level, by transforming everyday problems into scientific ones.

In general, museum studies are popular in humanities. This is due to the fact that this area of research, as a matter of fact, focuses on studying social institutions, traditions and technologies. Yet, the findings proposed by researchers typically do not go beyond the existing modus operandi in museum studies. There are relatively few researchers engaged in the utilitarian branch of museology. Perhaps the already-mentioned T. Šola is the world leading museologist today. On the basis of the empirically oriented works of K. Hudson² and ecomuseology researchers, Šola believes that the most productive is a consolidated approach to the entire diversity of cultural heritage: movable and immovable monuments, and material and non-material cultural values. If museums cannot ensure such consolidation, they will have to be seriously reformatted. At the same time, Šola emphasises that museums may not turn away from urgent social problems, be shelters for academism and elitism or service the ruling classes. They must integrate all

² WAGENSBERG, Jorge. The “total” museum, a tool for social change. In: *História Ciências Saúde-Manguinhos* 12(Suppl), 2005, pp. 309–321.

the wisdom of the world to overcome the most outstanding problems of humankind, and in particular, environmental challenges.

It should be said that museologists tend to be tolerant scientists, largely refraining from criticism of each other's works. As a rule, they target the museum as such, which seems to be guilty because of its shortcomings, or dedicated museum practitioners who do not have reliable theoretical tools. Thus, Šola targets his critical arrows at the museum as an institute. The latter, after all, withstands the criticism (in practice, the museum holds firm enough). Still, there are researchers who tend to value museums highly. For example, M. Castells³ is convinced that it is museums which will be able to resolve the main problem of our time – the lack of mutual understanding. M. Henning⁴ views museums as one of the key institutions by which to comprehend the trends in the media field. Many researchers believe that museology will be more effective if included in major philosophical discourses, with M. Foucault's and B. Latour's works being the most popular among them. E. Hooper-Greenhill⁵ has made an especially thorough contribution to this direction of research. However, the museum agenda evades such studies, and it appears that a museum is an epiphenomenon of more significant sociocultural processes. The same can be said about the inclusion of a museum in the discourse of historical memory, which remains no less popular.

Particular attention should be paid to theoretical museum studies which are supposed to explain what the best way is to use museums for the benefit of society. Yet, many researchers think that theory is, first of all, an unnecessary descriptive complication with the help of additional abstractions that leads to rather trivial conclusions that a museum needs to be rebuilt in accordance with the changes that modern society is undergoing. The highest level of abstract thinking was demonstrated by M. Fehr,⁶ a German researcher and curator. The scientist noted that Germans are expected to provide the most outstanding examples of theorisation, but that, in fact, the museum theory in his country is very far from the desired level. Fehr believes that a better situation regarding theorisation can be observed in the United Kingdom. However, for the most part, Great Britain relies on the works of French intellectuals, who have been less interested in museums.

Important are the works of J. Wagensberg Lubinski⁷ and T. Bennett,⁸ who consider the museum as a workshop or laboratory for transforming the surrounding reality (environment). According to Wagensberg, the museum creates a new type of person with a scientific worldview through appropriate educational programmes. Bennett is convinced that a museum exposition matters a lot for transforming entire communities of people by changing their identities. However, the researchers do not pay attention to the technological side of these processes.

G. Bazin⁹ ends his historical research from the mid-point of the 1960s with a prediction for the museum. And it should be said that, in general, it is confirmed. The organisational culture of museums is becoming more and more like a corporate one. PR and marketing

³ BENNETT, Tony. Civic laboratories: Museums, cultural objecthood and the governance of the social. In: *Cultural Studies*, 19(5), 2005, pp. 521–547.

⁴ BAZIN, Germain. *The Museum Age*. New York: Universe Books, 1968.

⁵ POPPER, Karl. *Conjectures and Refutations: The Growth of Scientific Knowledge*. London: Routledge, 2002.

⁶ POPPER, Karl. Three Worlds. 1978, https://tannerlectures.utah.edu/_resources/documents/a-to-z/p/popper80.pdf

⁷ BOURDIEU, Pierre. Cultural Reproduction and Social Reproduction. In: R. Brown (ed.), *Knowledge, Education, and Cultural Change*. London: Tavistock Publications, 1973, pp. 71–84.

⁸ LATOUR, Bruno. Give Me a Laboratory and I will Raise the World. In: *Science Observed* 141, 1983, pp. 140–169.

⁹ DAWKINS, Richard. *The Selfish Gene*. Oxford: OUP, 2016.

departments are becoming more important than, for example, research units. Bazin assumes that the museum network will finally switch to market relations, and that, as a result, only the strongest institutions will survive. One should note that such a pessimistic forecast is built on the historicist methodology. And even if the forecast is true, it should be clarified whether such a prospect is, indeed, so threatening and whether museum activities should be restructured to avoid such adverse circumstances instead of regretfully counting one's losses.

The *main research problem* is raised by the fact that none of the researchers has aimed to test the effectiveness of each of the possible directions for the social and cultural use of a museum. Based on this, we can propose, justify, test (logically, theoretically and empirically) and, following successful verification, reinforce such a theory that would solve all the problems that were not and could not be resolved with previous theories – in other words, the problem of how and under what conditions a museum can be useful to society.

Thus, the *goal of the research* is to formulate an optimal theory and, as a result, a technology for the utilitarian social and cultural use of a museum.

Method

To successfully achieve the goal, it was decided to use the most universal research methods. In general, this research is based on K. Popper's¹⁰ concept stating that there is no special method in the natural sciences or in the humanities. The scientific approach is even less useful because it shifts the inductive method (supposedly key to the natural sciences) onto research in humanities. According to Popper's approach, the inductive method is deceptive, since observation itself does not automatically lead to scientific discoveries. This study is built in a deductive way, as it starts from a problem to be solved, in particular, during targeted observations.

In general, this study is based on a *problematic and hypothetical approach*, where the problem is the starting point of the study. As its trial solution, a certain hypothesis is proposed, which in turn generates new problems. The next hypothesis is supposed to resolve all the problems of the previous hypotheses, but, again, it will face new problems. However, with each subsequent solution, a new hypothesis offers a better approximation to the truth.

The *falsificationism* theory of K. Popper is also fundamental for this study. It helped to structure a considerable number of works on museum studies according to the ways how the scientific problem of social and cultural purpose of a museum is settled. The method of scientific criticism (trial and error method) set the basis for formulating the relevant museum theories, identifying the degree of their argumentation and falsification, and measuring how close the theories have got to the truth. At the same time, Popper's scientific criticism has allowed the avoidance of essentialism, dogmatism and historicism. It helped to discard the methodological approaches, which are immunised against falsificationism.

The application of K. Popper's *demarcation criterion* (science is essentially characterised by the existence of a research problem and the possibility to refute any hypotheses) has allowed the rejection of pseudo-scientific museum studies and the inclusion of non-orthodox works in the scientific discourse. In the course of criticism, such works, although containing a metaphysical element, may bring valuable information to resolve the identified research problem.

¹⁰ TALEB, Nassim. *Antifragile: Things That Gain from Disorder*. London: Penguin, 2013.

The “*Three worlds*” theory of Popper¹¹ is essential for this research. If a problem is not resolved, one should rise to the next level. Popper’s worlds play the role of these levels: from a first level where the museum appears as a warehouse-exposition of artifacts, through a second world of communication up to a third level where the institution of a museum uses cultural capital to address urgent problems. In the process of this research, Popper’s ideas were somewhat adjusted: it turned out necessary to implement a fourth world of empirics to show the complex interaction among the worlds and the role of empirics in social engineering, aimed at transforming the museum and the society.

In addition, when exploring the market and laboratory theory of the museum, the concept of “*cultural capital*” of P. Bourdieu¹² was used for this research. B. Latur’s theory,¹³ associated with the prominent role of laboratories for the transformation of society, has also been useful for understanding the museum as a laboratory. When studying the museum as an integral part of social communications, it was important to apply “the medium is the message” theory of M. McLuhan, as it clearly states that communication is indifferent to meanings, whereas museums are, in fact, meaning-making institutions. When addressing the problem of a breach between a meaning and its vehicle, the concept of “meme” of R. Dawkins¹⁴ was helpful, particularly important in refuting the media and communicative theory of the museum.

Especially important for the methodology of the research have been the concepts of “*antifragility*” and “*skeptical empiricism*” of N. Taleb,¹⁵ who is a leading theoretician in applied research. These concepts, accordingly, can be combined well with Popper’s theory of theoretical knowledge. Finally, the above-mentioned methodological framework was instrumental for clarifying the role of the museum in element-by-element social engineering within the technological approach to museums.

In this research, *B. Mandelbrot’s theory of fractality*¹⁶ was also used, however, without its mathematical foundation. This theory helped to clarify the interaction of the museum with other social institutions, which is characterised by mutual exchange. This was necessary to establish the institutional uniqueness of a museum, which, in turn, is an essential precondition for identifying an optimal social and cultural use of a museum.

When exploring the subjectivity of a museum and its ability to act as a factor of socio-cultural transformations, and not only a reflection of the prevailing socio-cultural relations, the concept of *rhizome developed by Jo. Deleuze and F. Guattari*¹⁷ proved to be effective. This theory describes the relations in a de-hierarchised sociocultural environment, which is modern society characterised by hyper-communication and hyper-innovation, as well as its closely intertwined heterogeneous elements. Accordingly, changes in any part of the rhizome (society) can have consequences for another part, although, at first glance, they may seem completely unrelated. This feature explains the socio-engineering efficacy of the museum and imposes high social

¹¹ MANDELNBROT, Benoit. Fractals and the art of roughness. 2010, <https://www.youtube.com/watch?v=ay8OMOs6AAQ>

¹² DELEUZE, Gilles., GUATTARI, Felix. *A Thousand Plateaus: Capitalism and Schizophrenia*. Minneapolis: University of Minnesota Press, 1987.

¹³ MALRAUX, Andre. Museum without walls. In: *Voices of Silence*. St Albans: Paladin, 1974.

¹⁴ RUDENKO, Serhii. Borysovyh. *Muzei yak tekhnolohiia* [Museum as technology]. Kyiv: Lira-K, 2021 [in Ukrainian].

¹⁵ HENNING, Michelle. *Museums, Media and Cultural Theory*. New York: Open University Press, 2005.

¹⁶ HOOPER-GREENHILL, Eilean. *Museums and the Shaping of Knowledge*. London and New York: Routledge, 1992.

¹⁷ WAGENSBERG, Jorge. The “total” museum, a tool for social change. In: *História Ciências Saúde-Manguinhos* 12(Suppl), 2005, pp. 309–321.

responsibility on such an institute. The theory of the social rhizome complements Mandelbrot's fractality theory and Taleb's theory of anti-fragility .

Conclusions

We managed to formulate the main theories of the museum: *kunstkammer*, political, media-communicative, market and laboratory. *Kunstkammer* theory was heavily influenced by the scholastic theory of museality. The problem of authenticity was one of the key ones in *Kunstkammer* theory. Ecomuseology (ecomuseum studies) was an interesting spin-off of the *Kunstkammer* approach. The political theory, in fact, is not represented by solid works. Its frame is made up of relevant practical museum strategies. It was found that media and communicative theory was one of the most developed ones, mainly owing to Western researchers' works. Market theory is represented in various pieces of applied research of museum marketing, management, PR etc. Yet, its theoretic basis, was in fact too unstable and relied mostly on research and concepts from other fields of knowledge, for example, cultural (creative) industries and social enterprise. Streamlining separate research works into theoretical units made it possible to identify the level of their falsification and argumentation.

So, the refutation started with *Kunstkammer* theory, which is foundational for museology. This theory is based on the following postulates. The material substrate defines the informational field of an artifact. Authenticity is inextricably linked with the specific state of its material carrier. A museum is just an imperfect form of the discovery, preservation, research and presentation of monuments. Forms will be changing, but the cultural heritage is eternal. It results in the following conclusions. The semantic content of an artifact is, actually, confined in the artifact itself, and the museum worker just reveals it. Authenticity identification can be reduced to physical and chemical analysis of the material substrate of the artifact. To some extent, museums even have a harmful effect on artifacts because representations potentially threaten material carriers.

In the process of refutation, it was found that the symbolic and source-based use of artifacts extends far beyond the characteristics of their material carrier. A vulgar, things-based understanding of authenticity leads to a paradox: the more efforts are made to preserve the carrier, the more the approach contributes to simulations of historical reality. In general, authenticity is a conditional and hypothetical category. One can be sure in deconstructable authenticity only.

Ecomuseology, also known as "new museology", was supposed to overcome the *Kunstkammer* theory limitations caused by an excessive concentration of attention on things. Ecomuseology has placed the human, not artefacts, at the centre of museum activities. In the end, "new museology" took the central idea of *Kunstkammer* theory to its peak: a human was museumised as an artefact. To preserve authenticity, entire regions had to be conserved. Supposedly, it was to help revitalise them. In the course of refutation, it was shown that: firstly, eco-museums need special conditions connected with the modernisational difference inside the country; secondly, artificially conserved communities will not continue developing; to turn a community into a museum relict and deprive it of its future is not humanistic; thirdly, communities are increasingly virtualised, and there is a trend towards an "abstract society"; and, fourthly, as an interesting institutional spin-off, eco-communities are unable to replace traditional institutions.

The consequences of the latent implementation of the archaic *Kunstkammer* theory and its derivatives can be observed within decommunisation in Ukraine and similar processes. Calls for the reinterpretation, museumification etc. of monuments encounter a primitive identification of matter with the meaning invested in this matter. In fact, such a view differs little from the original fetishism. Yet, one should not accuse decommunisers of low culture or barbarity. Relevant social technologies for symbolic space transformation had not been developed, and decommunisation providers had to rely on ancient and time-tested methods of ritual vandalism for the cleaning of symbolic space.

Therefore, it is necessary to propose another theory that will, on the one hand, be more focused on the semantic load of artifacts, and on the other hand, will allow the re-interpretation of artifacts according to a specific situation. For example, in the context of decommunisation, artifacts could be moved to museums with a political profile. On the other hand, from a broader point of view, all museums, regardless of their profile, are political (as well as historical). So, a political theory, which is more developed than *Kunstkammer* theory, comes to the foreground.

The institutional experience of the National Museum of the History of Ukraine in World War II demonstrates that the same collection can be used both for the bashing of “Bandera movement participants” and the glorification of the Ukrainian nationalist underground, and what is more, within the same representation. That is, auxiliary tools can help generate antinomial interpretations around a single collection. This is put into play in the creation of hybrids which are used in informational war. A hybrid state causes a relativist attitude towards the truth. And if a museum is not to abandon its scientific function, it should continue to presume that truth is not absent, but that there are simply better or worse approximations of the truth. However, critical thinking does not mean that both of two controversial statements are correct (in fact, only one of them may be correct or they may even both be wrong). That is, facts which cannot be verified should not be placed in the same category as verifiable facts. Here, it should also be remembered that the absence of proof is not proof of its absence in the future.

The main problem of informational war is that to win such a war requires the transition to the state of permanent confrontation, manipulation and confusion in the understanding of reality. Instead, a museum can throw the information war off its agenda, creating conditions for the clash of various conceptual frameworks, spreading a culture of scientific criticism, and creating an environment intolerant of manipulation. Better than narratives, a museum can unite the society around creating new social development projects. So, after discarding the political function, a museum can do much more for politics by building a proper political culture.

Political theory can be replaced with a media and communicative theory. This is far enough away from fetishism, and the messages broadcast by a museum can have any meaning, not only a political one. Thus, in order to unite people, a museum needs to resolve the key problem of communication – the absence of mutual understanding. For this purpose, something like a special museum type of communication, language or communication protocols have to appear. In other words, it is necessary to create a medium for the interaction of various conceptual frameworks, i.e., the creation of a common ground for them. In the end, this will lead to attempts at creating a new consolidating conceptual framework. The advantage of a museum is not in uniting, but in providing a collision of such frameworks. Therefore, museum communication, language and communicative protocol are metaphors which are dangerous if perceived too literally.

What is special about the museum's media nature is that the institution of the museum acts as an alien element in the body of communication, although it does correct the deformations caused by communication. In this sense, it is important to take into consideration the interaction among Popper's three worlds. The second world (communication) is prone to expansion. It creates simulations of the first world (physical objects). On the one hand, it is necessary, but on the other hand, the virtual starts to replace the real. In addition, the second world is a recipient of the third world, the institutional use of cultural capital to address urgent problems: from there it draws meanings which are packed into memes in the framework of communication. For more effective distribution, preservation and copying, memes should be as little overloaded with meanings as possible. The field of memes is constantly expanding, and the third world is becoming more and more isolated. An outcome of this trend may be that there will be many information exchange acts, but less and less new knowledge will be generated. Moreover, if the non-return valve between the third and the second worlds is damaged, memes will penetrate into the third world, squeezing the meaning out of there, too.

A museum has a special ability to fill memes penetrating from the second world with meanings. A museum can resolve the problem of the splitting of Popper's worlds. Also, museums provide for interaction between the third and the fourth worlds (combined theory and experience-based acting), ensuring the use of humanitarian knowledge for improving social institutions, traditions and technologies. If we follow the logic of the second world's expansion, whose main facilitator is presently the Internet, then the fourth world can be completely virtualised.

As we can see, the media and communicative theory is unable to fully describe and unleash the potential of a museum. However, it can be assumed that just as communicative companies are, first of all, successful businesses exploiting the second world, so the market theory will fit a museum as well. This theory can resolve the issues of all its predecessors. Artefacts have value in terms of both material and meaning implementation. It is the interpretation of artefacts that creates the added value of artefacts. The political situation significantly weakens the position of the museum. Yet, if market-oriented, a museum can become financially independent and create informational products according to public needs. If necessary, these may also be propagandistic products. The market theory clearly points to the rootedness of a museum in the fourth and the third worlds. This institution can sell meanings in a world where their number is getting smaller and smaller. However, if there is no demand, the usual communicative experience based on observing ancient artefacts without getting too deep into their content can be offered.

Still, the explanatory power of the market theory is misleading. The theory disguises an applied area which can be used in relation to the *Kunstkammer* (attractions, museum experience and tourism), political (execution of a propagandistic assignment or a political technology) and media-communicative (production of memes which later await serialisation within cultural industries) theories. On the whole, the conversion of cultural capital into economic capital is the key problem of the market concept of a museum (which is true for many other institutions in the cultural and creative sector). So far, it can be achieved only by delving into the second world, which is now being actively exploited. However, it can be expected that the applied direction of the market theory of a museum can also acquire the status of theory when the mechanisms for exploiting the third world in order to influence the fourth world are gradually revealed – when social technologies are capitalised like natural technologies. But to achieve this, it is necessary to find an optimal theory of a museum as an object emerging from the interaction of the third and the fourth worlds. In that case, the market theory, although being

dependent on a corresponding museum theory, will not be an applied theory as it will resolve quite a new problem. As we can see, a museum can be the first institution to form the basis for testing the use of the Popper's third world.

So, all the previous theories are, overall, refutable. Thus, it is necessary to formulate a new theory which comes closer to the truth. Two problems are to be addressed within this theory. The first problem is that, in terms of the conceptual comprehension of the technological aspects of the museum's functioning, research has not advanced further than the formalised practice of working with collections and expositions. The second problem is caused by the fact that in addition to settling certain political tasks, as well as functions related to education, science and sources, no hypotheses exist on other possible directions of the social and cultural use of a museum. In short, it is not known for sure how this institution works and how it can be used. The available knowledge is enough to use the existing museum institutes, but there is little to raise their social and cultural usability.

To solve the first problem, it is necessary to conceptualise curatorship activities, which was preliminarily done in the framework of avant-garde museology and A. Malraux's¹⁸ thoughts about an imaginary museum. First of all, curatorial technologies concern a collision of science and art, which results in their unique museum symbiosis. Secondly, they concern the multimedia nature of museum activities. Thirdly, they focus on overcoming the limitations caused by objects and collections, competing scientific programmes, ideological and propaganda manipulations, curatorial concepts etc. In general, the field deals with the limitations caused by the features of each of the four worlds.

As a result, each conceptual framework corrects the shortcomings of the other. It is especially important that textual limitations of the humanities are taken on by visual media. The role of text in the museum setting as compared to in purely textual media is reduced due to changes in its status – in the museum representation text only illustrates the artefacts. Museum curatorship is a unique fusion of art and science. Like a theory, an art work demonstrates a virtual shell in order to offer a designing of reality (rather than to reflect it in a trivial way, as is sometimes thought). On the contrary, an imitation of reality takes the viewer's mind farther from reality. At the same time, social technologies materialised in art works may lack the scientific criticism which afford a gradual movement towards the truth. On the whole, science and art share a methodological element: they are based on the trial and error method and objectified in the process of public criticism. Acquiring forms of representation, the science of humanities in a museum, in some ways, becomes similar to art, by offering society a variety of options for social development, which aim to prepare society for obvious and hidden challenges. In other words, representation takes upon itself the mistakes of society and demonstrates the probable consequences provoked by them. A museum enables society to gain experience, including pain, without living through it in real life – and thus to intensify empirics.

Switching to the second problem, related to seeking ways of using a museum optimally, it should be noted, that an important turn in the understanding of museums took place due to avant-garde museology, which originated from representatives of the historical avant-garde and continues to evolve up to this day. This direction is not recognised as scientific by everyone. Yet, a scientific approach is not born simply from the scientific style of writing. It emerges when brave and interesting solutions to existing social problems are proposed. And this is exactly how

¹⁸ BENNETT, Tony. Civic laboratories: Museums, cultural objecthood and the governance of the social. In: *Cultural Studies*, 19(5), 2005, pp. 521–547.

avant-gardists posed the question – in a direct way – about the future of the museum. Their considerations suggest that a museum has to make a turn from history to reality. The institution does not have to be a temple of scientific history cherishing its narratives. On the contrary, it should instrumentalise history, using the latter as an empirical basis for overcoming acute social and cultural problems. Here, it means much more than just the propagandistic support of a specific political regime. According to the avant-garde approach, a museum is supposed to become a social engineering laboratory that can apply to all spheres of life. It should be noticed that avant-garde museum studies included and sometimes still include some concepts which are incompatible with science and which lead to utopian engineering in one way or another. It should be stressed that element-by-element social engineering rejecting holism and sensitive to practical feedback is more inherent for a museum, in accordance with its technological features.

In the framework of avant-garde museum studies, it was not specified what social problems exactly can be resolved by a museum, but the main trend was for the institution to aim at societal modernisation. The key problem of a modernisation discourse is to identify which changes benefit society and which do not. In this regard, a number of competing concepts of modernisation are circulating in scientific discourse. Based on the element-by-element socio-engineering approach, they all need empirical testing. Yet, a mechanism for such testing does not exist. So, each theory of modernisation relies mainly on supporting examples.

The attempts to adapt modernisation theories to museum activities have not been fruitful because the discussion was evolving around the definition of modernisation. It is important to note that, to promote modernisation, a museum should not unconditionally follow any of the modernisation theories. The museum has reliable instruments for the empirical testing of modernisation theories. In the end, museum laboratory technologies can be used to verify any innovations in public life. The verification of innovations in the museum takes several stages: reconciliation with the historical empirical basis, work on a curatorship project based on internal criticism caused by the collision of heterogeneous conceptual frameworks, and release of the results of this work in the form of museum representation for public review. And again, after releasing the representation, critical comments will be expressed. In this case, the public acts as a sort of focus-group. Finally, based on the results of museum work, a verdict can be reached on an innovation: whether it should be implemented or, on the contrary, whether a slowdown of progress in this area should be favoured. After that, one can proceed to a careful social approbation. However, museum work does not end there. It is necessary to take into consideration the innovation's implementation effects, helping to specify the innovation concept through retesting it with museum tools.

The results of the study¹⁹ have shown that the optimal utilitarian use of a museum is realised in a laboratory theory, according to which a museum will develop, verify through social experience and conduct testing of social technologies. An element-by-element (piecemeal) approach is at the heart of museum work as a laboratory. This theory is important given that natural sciences and engineering have laboratories operating as tools to intensify the production of empirical data to reinforce or refute theoretical knowledge. It is only in socio-humanistic studies that an experiment takes place in real-life conditions.

On the basis of the laboratory theory of a museum, it is possible to express some views on the *prospects* of further research. Certainly, comprehensive empirical testing of the laboratory theory would be desirable. As for today, some elements of the laboratory approach can be

¹⁹ BAZIN, Germain. *The Museum Age*. New York: Universe Books, 1968.

observed in the activities of many museums, which have mostly hybrid strategies. Some institutions even declare such an approach, for example, Mystetskyi Arsenal in Kyiv. Yet, empirical data about the implementation of laboratory theory in museum strategies is very scarce. Moreover, museum workers have previously had no solid theoretical foundations for their work, except for fruitless discussions around the concept of “modernisation”. Now, the situation, using a laboratory strategy, will improve.

It should be noted from a theoretical point of view that a museum can be a factor of the harmonious interaction of the four worlds. This research has shown that the third world (science and art) is threatened by simulation. The main criterion for detecting pseudo-science and pseudo-art is in their seeking to avoid or falsify a problem (theoretical or practical) at the basis of both research hypotheses and social technologies embedded in artworks. Yet, it is not enough just to define such criteria. It is necessary to elaborate mechanisms for overcoming the negative phenomena. Thus, a hypothesis has been proposed that a museum can become a reliable filter against the third world simulations, since a museum representation is resistant to imitations.

Some problems are related to the second and first worlds. In particular, the second world entirely replaces the first world. In addition, the second world is becoming increasingly manipulative, which is specifically due to creating simulations of the first world. It is quite obvious that a museum should always support the provisions of its representations with first world artefacts. This is not anything special. At the same time, based on this feature, museum anti-simulation technologies can be developed. However, for that to happen, scientific provisions have to survive in the second world, which hollows out meanings and uses criticism not for refutation, but, on the contrary, for apologetics. Finally, the research has found that it is art, first of all, in the form of museum representations, that can provide a protective shell for scientific representations.

Art itself is exploited by such super-institutes as politics, business and religion. Each of these can utilise violence for its purposes. If we consider its social and transformational potential, art can also be viewed as a super-institute. However, each of the previously-mentioned super-institutes can rely upon violence. Yet, having no solid institutional subbase, art becomes scattered among other social institutions. Considering the above-stated, it is the museum that can create such a subbase. After all, thanks to this, art can become the most powerful and most productive super-institute, making changes towards a better social reality, including to other super-institutes, while taking an independent position towards them. Moreover, scientific provisions acquire an additional protective shell which is created by the institution of the museum. As a result, the museum can become an important instrument in making the social life of humankind more rational in general. Many believe that there is too much rationality, and that this is even harmful to social life. But real social life is more irrational, it seems. And it is rationality that has caused such a considerable shift in natural technologies. So, it can be expected that improved rationality, provided by museums as laboratories of piecemeal social engineering, will have a positive impact on social technologies and institutions too.

This rather abstract picture, projected into the future, certainly requires empirical testing as well. To do that, museums need to base work upon the laboratory theory. In that case, after taking into account the empirical data, follow-up research could advance far beyond the proposed ideas.

One of the advantages of exploring museums as a technology is that for the first time a single research work has actually modelled the process which is to take place in cultural studies and museum studies in general. It would be helpful if the research vectors of museum utilitarian usage took shape by themselves and researchers grouped around research problems, raising hypotheses, refuting them and raising new ones again. That not being the case, the author has engaged in something like the re-assembling of museum studies and part of the cultural studies field. Hopefully, it is a theoretical contribution that will aid museum studies going forward in something more like constructing a cathedral than putting up picket fences.

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Generation Z perspectives on museum sustainability using Q methodology

Katalin Ásványi – Zsuzsanna Fehér

Katalin Ásványi, PhD.
Department of Sustainable Development and Environmental Economics
Corvinus University of Budapest
8 Fővám Square
1093 Budapest
Hungary
e-mail: katalin.asvanyi@uni-corvinus.hu
<https://orcid.org/0000-0002-1594-8879>

Zsuzsanna Fehér
Ludwig Museum
1 Komora Marcell Street
1095 Budapest
Hungary
&
Tourism Department
Corvinus University of Budapest
8 Fővám Square
1093 Budapest
Hungary
e-mail: feher.zsuzsanna@ludwigmuseum.hu
<https://orcid.org/0000-0002-7700-2966>

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Generation Z perspectives on museum sustainability using Q methodology

Museums and researchers require knowledge of how museums think about and practice sustainability to understand how sustainability considerations can further be incorporated and institutionalised into museum practice on four pillars: environmental, social, economic and cultural. A systematic literature review was carried out to explore the theoretical background of sustainable museums. This study, which used Q methodology, was designed to determine museum visitors' preferences related to the most important sustainability elements of museums. The participants in the study were 24 museum visitors from Generation Z in Hungary. Data were collected through 37 Q statements. According to the findings of the research, young museum visitors can be distinguished into three groups (factors): Conscious, Experience-seeking, and Enthusiastic-to-learn visitors.

Keywords: sustainable museum, Q methodology, Generation Z

Introduction

Museums play a unique role in cultural sustainability in preserving the heritage of their communities and ensuring the accumulation and transfer of cultural capital from current generations to future generations. However, in addition to these basic tasks of museums, some have additional functionality. From a modern approach, education is an essential function of

a museum. The post-modern perspective even emphasises the role of museums in sustainable development.¹

Museums and researchers require knowledge of how museums think about and practice sustainability to understand how they stand in relation to this issue, and how sustainability considerations can further be incorporated and institutionalised into museum practice. The principles of sustainability associated with museums are related to two main aspects: (i) building deep, long-term relationships with a range of audiences; and (ii) responding to changing political, social, environmental and economic contexts, and having a clear long-term purpose that reflects society's expectations.²

The study examines the sustainability of museums in four dimensions: cultural, social, economic and environmental. In connection with the concept of sustainability, museums generally aim to achieve the greatest possible cultural, social and economic impact while having a minimal impact on the environment.³

Multidimensional diagnostic approaches in museum sustainability studies are required to detect problems and identify solutions. In the current literature, problems are identified using conventional qualitative and quantitative methods. However, problem details are ambiguous, and methodologies may presently be inadequate for their solution. Therefore, it is important to use different methods to identify issues in more detail before tackling them. For this reason, in this study we attempt to reveal museum-related challenges of previously unknown dimensions using Q methodology.

In our research, we focus on the preferences of museum visitors, as these individuals are some of the main stakeholders of museums. Among them, our special interest is in Generation Z, as it is this group that will comprise future museum visitors. To explore the problem, we identify the following research question:

RQ: What are the elements of museum sustainability that Generation Z prefers?

The remainder of this paper is organised as follows. First, we discuss the literature and relevant research background, followed by the proposed theoretical framework. Next, we present an overview of our empirical studies, followed by the details and results of the study. The paper concludes with a discussion of the theoretical and managerial implications as well as limitations and avenues for future research.

Sustainability in museums

The turbulent economic, social and political changes of the twenty-first century are also encouraging museums to rethink their roles and develop sustainable strategies for their operations. Museums have become public forums, shifting their primary mission from art collecting to mediation, addressing societal issues and strengthening their educational role.⁴ In a sustainable society, culture is important from a social, economic and environmental perspective, which is why it is of increasing relevance to museum professionals and academic researchers how museums practice sustainability. Researchers are seeking to explore how sustainability

¹ POP, Izabela Luiza and BORZA, Anca. Factors influencing museum sustainability and indicators for museum sustainability measurement. In: *Sustainability*, 8(1), 2016, 101.

² VIRTO, Nuria Recuero, LÓPEZ, María Francisca Blasco and SAN-MARTIN, Sonia. How can European museums reach sustainability? In: *Tourism Review*, 72(3), 2017, pp. 303–318.

³ POP and BORZA, Factors influencing..., 101.

⁴ HEDGES, Emily. Actions for the future: determining sustainability efforts in practice in Arizona museums. In: *Museum Management and Curatorship*, 36(1), 2021, pp. 82–103.

can be integrated into museum practice.⁵ Museums collect, preserve and present tangible and intangible heritage and pass on knowledge and skills to future generations. Therefore, they can be considered essential components of cultural sustainability. Cultural sustainability is a transdisciplinary, constantly evolving term that can be organised around seven narratives: heritage, cultural vitality, economic viability, diversity, locality, ecocultural resilience and ecocultural civilisation.⁶ According to the authors, while many of these “stories” are linked to economic, social and environmental sustainability, narratives of heritage and cultural vitality can be seen as forming the fourth (cultural) pillar of sustainable development. These two narratives, which focus on promoting and preserving cultural capital for future generations, are essential for museums and can thus be seen as essential tools for maintaining and building cultural sustainability. The principles of the sustainability of museums are related to two main aspects:⁷

- Building a deep, long-term relationship with the widest possible audience;
- Responding to changing political, social, environmental, and economic contexts and developing a clear, long-term set of goals that reflect society’s expectations.

In many ways, the crucial question here is how museums need to change in order to play a catalytic role in promoting human culture. A more precise and comprehensive definition of cultural sustainability is needed to improve the contribution of museums to cultural sustainability, and there is a need to recognise and value the contribution of these institutions to a sustainable future.⁸

Institutional survival alone is important, but ultimately not a sufficient goal for public and non-profit organisations.⁹ Moldavonova’s study approaches institutional sustainability as a two-tier concept that encompasses both institutional survival and the fundamental objective of sustainability in relation to ensuring intergenerational access to cultural values. By this, she means the ability of public institutions to persevere and fulfil their mission in the long run.

Museums could become valuable and exemplary actors in sustainable development.¹⁰ In most of the studies sustainability is based on three pillars: the economy, society and the

⁵ CAMPOLMI, Irene. What is Sustainability in Modern Art Museums? Archétype Art Museums and Shifting Paradigms of Knowledge. In: *The International Journal of the Inclusive Museum*, 6(1), 2013, pp. 13–24.; WORTS, Douglas. Museums: Fostering a culture of “flourishing”. In: *Curator: The Museum Journal*, 59(3), 2016, pp. 209–218.; PENCARELLI, Tonino, CERQUETTI, Mara and SPLENDIANI, Simone. The sustainable management of museums: An Italian perspective. In: *Tourism and hospitality management*, 22(1), 2016, pp. 29–46.; LOACH, Kirsten, ROWLEY, Jennifer and GRIFFITHS, Jillian. Cultural sustainability as a strategy for the survival of museums and libraries. In: *International journal of cultural policy*, 23(2), 2017, pp. 186–198.; HEDGES, Actions for the future..., pp. 82–103.; JAGADZISNKA, Katarzyna. Museums as Landscape Activists. In: *Muzeológia a kultúrne dedičstvo*, 9(2), 2021, pp. 5–26.

⁶ SOINI, Katriina and BIRKELAND, Inger. Exploring the scientific discourse on cultural sustainability. In: *Geoforum*, 51, 2014, pp. 213–223.

⁷ VIRTO, LÓPEZ and SAN-MARTIN, How can European museums..., pp. 303–318.

⁸ LOACH, ROWLEY and GRIFFITHS, Cultural sustainability..., pp. 186–198

⁹ MOLDAVANOVA, Alisa. Two narratives of intergenerational sustainability: A framework for sustainable thinking. In: *The American Review of Public Administration*, 46(5), 2016, pp. 526–545.

¹⁰ GUSTAFSSON, Christer, and IJLA, Akram. Museums: A catalyst for sustainable economic development in Sweden. In: *International Journal of Innovative Development & Policy Studies*, 5(2), 2017, pp. 1–14.

environment,¹¹ although in the case of museums more and more studies point to the importance of a fourth pillar: cultural sustainability.¹² In connection with the concept of sustainability, the general aim of museums is to achieve the greatest possible cultural, social and economic impact, while having a minimal impact on the environment.¹³

- Environmental sustainability: the efficient use of resources.
- Social sustainability: community involvement.
- Cultural sustainability: preserving collections and maintaining their quality.
- Economic sustainability: maintaining a balanced and diverse budget.

Systematic literature review

A systematic literature review was carried out to explore the theoretical background of sustainable museums. The process of literature review was conducted in four steps: The first, conceptualisation, involves the selection of the database, the definition of search terms and the definition of selection criteria (S1). The second and third steps constitute the two-phase review process, which involves selection based on the titles of studies and the abstracts (S2), followed by selection based on reading the full content of the articles (S3). The fourth step is the analysis and processing of the articles (S4).

S1. Conceptualisation – research design and criteria

The search was carried out in the Scopus database using the keywords “museum” and “sustainability”. The search was carried out with the following criteria: keywords searched in the title, abstract and keywords of articles published in scientific journals on the subject of museum and sustainability.

The relevant articles had to meet the following criteria:

- Should focus on sustainability, including different aspects: environmental, social, economic and cultural.
- Must be a published journal article from the period 2000–2020 to identify recent sustainability trends in the museum field.
- Must be published in English in an international peer-reviewed journal.
- Must have a SCImago journal rank of Q1–Q3.

S2–S3. Two-stage review process

The search run with keywords resulted in 245 records. A two-phase review process was used to select the articles.

¹¹ WICKHAM, Mark and LEHMAN, Kim. Communicating sustainability priorities in the museum sector. In: *Journal of Sustainable Tourism*, 23(7), 2015, pp. 1011–1028.; MERRIMAN, Nick. Museum collections and sustainability. In: *Cultural trends*, 17(1), 2008, pp. 3–21.

¹² STYLIANOU-LAMBERT, Theopisti, BOUKAS, Nikolaos and CHRISTODOULOU-YERALI, Marina. Museums and cultural sustainability: Stakeholders, forces, and cultural policies. In: *International Journal of Cultural Policy*, 20(5), 2014, pp. 566–587.

¹³ POP and BORZA, Factors influencing..., 101.

S2. The number of relevant studies included in the sample based on the title and abstract of the articles was reduced from $n = 245$ to $n = 79$. The reasons for exclusion were as follows:

- Articles that were related to open-air museums or libraries in addition to museums were not included, and research where the context was archaeological sites or museums dealing with the presentation of intangible intellectual heritage were excluded.
- From the geographical aspects of the research, we excluded regions that are considered to be very different from the European cultural area and irrelevant in this sense (different cultural background, indigenous).
- Based on the focus of the research, we excluded articles that dealt with sustainability issues with a strong engineering focus (e.g. building solutions, climate control, energy management, humidity measurement, restoration techniques, information technology issues).
- We excluded articles where abstracts were not available.

S3. After reading the full content of the articles to ensure compliance definition, the number of studies was reduced from $n = 79$ to $n = 64$. Articles were excluded at this stage if only the abstract was available and the full article was not available online or only for a fee, or if the topic was not focused on museum sustainability.

S4. Analysis

The qualitative analysis was based on the identification of the theoretical underpinnings of our research, the main contributions to the topic, research questions, new insights, empirical methods and data sets for sustainability models.

The time period was defined as 2000–2020. In the early 2000s, very few articles were published on the subject, the number increasing from 2011, the most important research being published in 2016–2018, and then the number decreasing again in the 2020s.

The published articles appeared in a very wide range of journals ($n = 64$). The journal with the highest number of relevant studies was *Sustainability* (Q1). The other major publication was the journal *Museum Management and Curatorship* (Q1), which also focuses on sustainability issues in museums. From a thematic point of view, we also consider the tourism-related journals to be important, but there are only a few articles in these. Within tourism, the problem of sustainable museums is an under-researched topic, and museums are not a focus of tourism research, which is also mentioned in the literature as a shortcoming.

Studies that take a theoretical approach see museums as social institutions whose focus is on fulfilling their cultural role and function and communicating this to society.¹⁴ Eleven articles were found that discuss the context relevant to the theoretical grounding and focus not only on one pillar of sustainability, but address the issue of museum sustainability in a complex way. The research pair Pop and Borza, who wrote several papers between 2015 and 2019, are the most prominent researchers on the topic and have examined museum sustainability upon 4 pillars, a complex approach that is unique in the literature. However, the majority of studies typically approach sustainability on just 1 pillar of sustainability. Of the selected journals, studies related to museum social sustainability were the most numerous ($n = 23$) followed by economic ($n = 13$), cultural ($n = 10$) and environmental ($n = 7$). A complex approach to sustainability fills the gap in the literature.

¹⁴ CAMPOLMI, What is Sustainability..., pp. 13–24.; HEDGES, Actions for the future..., pp. 82–103.

Articles were typically published in Europe (n = 24) and the United States (n = 14). Within Europe, a larger number of studies have been published in Italy, the United Kingdom and Romania. No such research published in an international journal has yet been conducted in Hungary.

Research has examined less the preferences of major stakeholder groups about sustainability in museums, so it is worthwhile to study the perceptions of museum visitors about sustainability.

Qualitative methods were mainly used in the articles (case study, in-depth interview, observation, etc.), much less research being done with the quantitative method (n = 7), the mixed methodology being used in 2 pieces of research. The use of the Q method is also novel in terms of methodology.

Environmental sustainability

In the case of environmental sustainability, we can interpret the role of museums on two levels: on the one hand, related to their function as organisations (e.g. how much museums pay attention to their environment in terms of the museum building(s) and operation), and on the other hand as cultural institutions.¹⁵ Reducing the energy demand¹⁶ and minimising the carbon footprint of museum buildings is part of environmental sustainability,¹⁷ which can be enhanced by the environmental benefits of technological improvements,¹⁸ while at the same time promoting environmental awareness among visitors¹⁹ through education²⁰ and activities,²¹ and involving communities and volunteers in their conservation activities.²²

Social sustainability

The museum is a holistic and ecological institution in society,²³ with a responsibility to promote a more sustainable society,²⁴ which can be achieved by reaching out to the widest possible

¹⁵ ÁSVÁNYI, Katalin, FEHÉR, Zsuzsanna and JÁSZBERÉNYI, Melinda. The criteria framework for sustainable museum development. In: *Tourism in South East Europe*, Opatija, 6, 2021, pp. 39–51.

¹⁶ SILVA, Hugo Entradas, HENRIQUES, Fernando MA, HENRIQUES, Telma AS and COELHO, Guilherme. A sequential process to assess and optimize the indoor climate in museums. In: *Building and Environment*, 104, 2016, pp. 21–34.

¹⁷ STERRETT, Jill, and PANTAVIGNA, Roberta. Building an Environmentally Sustainable San Francisco Museum of Modern Art. In: *Studies in Conservation*, 63(sup1), 2018, pp. 242–250.

¹⁸ CHUNG, Namho, TYAN, Inessa and LEE, Seung Jae. Eco-Innovative Museums and Visitors' Perceptions of Corporate Social Responsibility. In: *Sustainability*, 11(20), 2019, 5744.

¹⁹ BÄTTIG-FREY, Petra, JÄGER, Monica Ursina and TREICHLER BRATSCHI, Regula. Combining art with science to go beyond scientific facts in a narrative environment. In: *Journal of Museum Education*, 43(4), 2018, pp. 316–324.; HAN, Wei, MCCABE, Scott, WANG, Yi and CHONG, Alain Yee Loong. Evaluating user-generated content in social media: An effective approach to encourage greater pro-environmental behavior in tourism? In: *Journal of Sustainable Tourism*, 26(4), 2018, pp. 600–614.

²⁰ AGUAYO, Claudio, EAMES, Chris, and COCHRANE, Thomas. A Framework for Mixed Reality Free-Choice, Self-Determined Learning. In: *Research in Learning Technology*, 28, 2020, p. 2347.

²¹ ARANEO, Phyllis. Re-imagining Cultural Heritage Archetypes Towards Sustainable Futures. In: *Journal of Futures Studies*, 21(4), 2017, pp. 37–50.

²² STANFORTH, Sarah. Slow conservation. In: *Studies in Conservation*, 55(2), 2010, pp. 74–80.

²³ JUNG, Yuha. The art museum ecosystem: A new alternative model. In: *Museum Management and Curatorship*, 26(4), 2011, pp. 321–338.

²⁴ CLARK, Barbara and BUTTON, Charles. Sustainability transdisciplinary education model: Interface of arts, science, and community (STEM). In: *International Journal of Sustainability in Higher Education*, 12(1), 2011, pp. 41–54.

audience²⁵ and by sensitising society.²⁶ Distance learning and technological developments are also helping to widen the range of visitors.²⁷ Showing socially sensitive themes,²⁸ engaging visitors through the use of technology²⁹ and museum education³⁰ are shaping a sustainable approach to society.³¹

Economic sustainability

The economic sustainability of museums is understood in the literature from the perspective of financial sustainability,³² which is influenced by the market, innovation and technology. Advances in technology enable museums to achieve greater outreach, which increases their revenues.³³ Quality, prestige, innovation, value for money and reputation have a positive and significant impact on the economic sustainability of museums.³⁴ There is a positive and significant relationship between market orientation and the economic and social performance of museums, but the greatest performance-enhancing impact is due to technological and organisational innovation.³⁵ However, there is often a trade-off between an artefact-based and visitor- and market-oriented approach.³⁶ Museums can also contribute to sustainable development by adding economic value to creative industries in the economy: by contributing to wealth creation, job creation and employment for regional and local economies and tourism through innovation, creativity and problem solving.³⁷

²⁵ LOACH, ROWLEY and GRIFFITHS, Cultural sustainability..., pp. 186–198.; ARANEO, Re-imagining Cultural Heritage..., pp. 37–50.

²⁶ KRAYBILL, Anne and DIN, Herminia. Building capacity and sustaining endeavors. In: *Journal of Museum Education*, 40(2), 2015, pp. 171–179.

²⁷ AGUAYO, EAMES and COCHRANE, A Framework for Mixed..., 2347.

²⁸ GHEORGHILAS, Aurel, DUMBRĂVEANU, Daniela, TUDORICU, Anca and CRĂCIUN, Ana. The challenges of the 21st-century museum: Dealing with sophisticated visitors in a sophisticated world. In: *International Journal of Scientific Management and Tourism*, 3-4, 2017, pp. 61–73.

²⁹ JAMALUDIN, Azilawati, and HUNG. David Wei Loong. Digital learning trails: Scaling technology-facilitated curricular innovation in schools with a rhizomatic lens. In: *Journal of Educational Change*, 17(3), 2016, pp. 355–377.; ROWE, Jonathan P., LOBENE, Eleni V. BRADFORD, Mott, W. and LESTER, James C. Play in the museum: Design and development of a game-based learning exhibit for informal science education. In: *International Journal of Gaming and Computer-Mediated Simulations (IJGCMs)*, 9(3), 2017, pp. 96–113.

³⁰ COLLINS, Trevor. Enhancing outdoor learning through participatory design and development: A case study of embedding mobile learning at a field study centre. In: *International Journal of Mobile Human Computer Interaction (IJMHCI)*, 7(1), 2015, pp. 42–58.

³¹ BEFIORE, Eleonora and BENNETT, Oliver. Rethinking the social impacts of the arts. In: *International Journal of Cultural Policy*, 13, 2007, pp. 135–151.

³² EPPICH, Rand, and GRINDA, José Luis García. Sustainable financial management of tangible cultural heritage sites. In: *Journal of Cultural Heritage Management and Sustainable Development*, 9(3), 2019, pp. 282–299.

³³ KRAYBILL and DIN, Building capacity..., pp. 171–179.

³⁴ VIRTÓ, LÓPEZ and SAN-MARTÍN, How can European museums..., pp. 303–318.

³⁵ CAMARERO, Carmen and JOSÉ, Garrido María. The role of technological and organizational innovation in the relation between market orientation and performance in cultural organizations. In: *European Journal of Innovation Management*, 11(3), 2008, pp. 413–434.

³⁶ ERRICHELLO, Luisa, and MICERA, Roberto. Leveraging smart open innovation for achieving cultural sustainability: Learning from a new city museum project. In: *Sustainability*, 10(6), 2018, 1964.

³⁷ LINDQVIST, Katja. Museum finances: Challenges beyond economic crises. In: *Museum Management and Curatorship*, 27(1), 2012, pp. 1–15.; KRISKOVÁ, Zdena. Specific Forms of the Safeguarding and Showcasing of Cultural Heritage as Part of Tourism in the High Tatras. In: *Muzeológia a kultúrne dedičstvo*, 9(2), 2021, pp. 61–77.

Cultural sustainability

Cultural sustainability was first defined by the World Commission on Culture and Development as ensuring intergenerational and transgenerational access to culture.³⁸ Cultural sustainability also implies that development takes place in a way that respects the cultural capital and values of society.³⁹ Cultural sustainability is based on the principle that present generations can only use and adapt cultural heritage to the extent that it does not limit future generations in their access, understanding and ability to live.⁴⁰ Thus, this dimension of sustainability is primarily concerned with ensuring the continuity of cultural values that link the past, present and future. Cultural sustainability has been differentiated according to two functions: on the one hand, the sustainable management of collections;⁴¹ and on the other hand, the preservation of the quality of and responsibility for the content of art. In terms of the content of the collection, the museum is responsible for stimulating the interest of visitors in its different themes and for educating them about the issues related to sustainability,⁴² thereby shaping the public's tastes.⁴³

Research methodology

For our research we chose Q-methodology, which appeared to be appropriate for an exploratory analysis. With the help of the method, we could classify into groups the opinions of the sample (15–50 respondents). The method shows which of a set of statements are typical or representative ones, and thus which ones characterise each group – that is, which statements differ among opinion groups (“compromise statements”) and which ones cannot be used to distinguish one factor from any other (“consensus statements”). With the Q-method, the selection of statements related to the topic of research is of central importance. We examined the criteria for sustainable museums in line with the four pillars explored in the literature based on the results of earlier empirical research, in-depth interviews with museum professionals related to the topic, and sustainability concepts.

From the selected statements, a Q-sample can be constructed that participants are typically given in printed form and asked to arrange using a scale of (dis)agreement ranging from -3 to +3, but we conducted the present research online because of the pandemic situation, replacing the set of cards with an Excel table. Preliminary pilot studies have demonstrated that such online research can be conducted that is of the same quality as that which uses physical materials.⁴⁴ When formulating statements, care should be taken to ensure that they are comparable, as subjects are asked to classify them in pairs according to the different values of the classification scale. Factor analysis was undertaken on the completed Q sample using the computer program PQMethod to reveal typical opinion groups.

³⁸ JÄRVELÄ, Marja. Social and cultural sustainability. In: KOHL, Johanna. *Dialogues on sustainable paths for the future: Ethics, welfare and responsibility*, 2008, pp. 46–65.

³⁹ MPOFU, Phillip. The dearth of culture in sustainable development: The impact of NGOs' agenda and conditionalities on cultural sustainability in Zimbabwe. In: *Journal of Sustainable Development in Africa*, 14(4), 2012, pp. 191–205.

⁴⁰ PEREIRA, Honório Nicholls. Contemporary trends in conservation: Culturalization, significance and sustainability. In: *City & Time*, 3(2), 2007, pp. 15–25.

⁴¹ MERRIMAN, Museum collections..., pp. 3–21.; STERRETT and PIANTAVIGNA, Building an Environmentally..., pp. 242–250.

⁴² BÄTTIG-FREY, JÄGER and TREICHLER BRATSCHEI, Combining art with science..., pp. 316–324.

⁴³ GUSTAFSSON and IJLA, Museums—A catalyst..., pp. 1–14.

⁴⁴ DAVIS, Charles H., and CAROLYN, Michelle. Q methodology in audience research: Bridging the qualitative/quantitative “divide”. In: *Participations: Journal of Audience and Reception Studies*, 8(2), 2011, pp. 559–593.

Targeted and theoretical sampling was used. One condition was that respondents should be active museum visitors. A total of 28 responses were received, of which 24 were evaluable. Participants received written explanations and instructions about how to complete the task, according to which we asked them to first arrange statements into three groups based on whether they agreed with them, disagreed, or were uncertain/neutral.⁴⁵ After the statements were sorted, they were placed on the Q-sample grid according to values ranging between -3 and 3. As is common in Q-sample studies, the grid was forced, and quasi-normally distributed. The placement of each statement creates a custom sorting pattern, which can then be examined in relation to the sorting patterns of other participants. The opinions of adult members of Generation Z (typically born between 2004 and 2010) were examined, as it is this group that will comprise future museum visitors. Born in the late 1990s or later, they have grown up in a world of digital technologies in which it is no longer possible to live without the use of Web 2.0, mobile phones or other digital and communication tools.⁴⁶ Sustainability is important to them, as is the need for change towards sustainable development.⁴⁷All participants were university students undertaking a BA or MA in different fields.

Findings and interpretation

To analyse the data, we used PQMethod 2.35 software. First, a correlation matrix between the Q-sorts was produced. The intuition behind Q methodology is that if Q-sorts are correlated between respondents, there is a degree of congruence in their opinions about a subject. Such clusters of respondents with shared viewpoints can be identified using factor extraction. When determining the four dimensions of sustainability preferences, we first examined whether there is any shared understanding of the latter between respondents. For this purpose, basic component analysis and varimax rotations were conducted. The distribution of the scores is shown in Table 1.

Tab. 1: Q-sort template

-3	-2	-1	0	+1	+2	+3

Source: Authors' compilation

With the Q method, factor analysis is used to assign each respondent to each factor. Respondents with a high factor weight for a given factor can be said to have a similar Q-order (or a different Q-order from respondents assigned to other factors) – i.e. they have roughly

⁴⁵ DAVIS and CAROLYN, Q methodology ..., pp. 559–593.

⁴⁶ DABIJA, Dan-Cristian, BEJAN, Brândsua Mariana and DINU, Vasile. How sustainability oriented is Generation Z in retail? A literature review. In: *Transformations in Business & Economics*, 18(2), 2019, pp. 140–155.

⁴⁷ SU, Ching Hui, TSAI, Chin Hsun, CHEN, Ming Hsiang and LV, Wan Qing. US sustainable food market generation Z consumer segments. In: *Sustainability*, 11(13), 2019. 3607.

similar opinions about a given statement and thus they have the same “group of opinions”. Individuals who belong to different factors thus tend to have different (groups of) opinions. Statements for which the absolute value of Z is greater than “1” are generally considered to be characteristic of a given factor.⁴⁸ Based on the individual preference sequences, the method generated eight factors, of which three were left after Varimax rotation (these factors explained 62% of the variance, which satisfies the condition of a minimum 60% variance level). Of the 24 participants, 21 were automatically assigned to a group through this factoring process. Using manual factor rotation, the remaining three participants were categorised to one of the three factors according to the largest value. The distribution of respondents in each factor was not uniform (12-8-4).

Characteristics of the factors

Factor 1. Conscious visitors

Regarding the preferences of visitors associated with this factor, all dimensions of sustainability are considered important, and the four preferences rated most strongly are related to one of these four dimensions (environmental, social, economic and cultural). The statements considered most valid were that a museum should be environmentally conscious, and that the economic dimension of museum sustainability is important. According to respondents’ opinions, museums are important actors in cultural tourism, indicating that the respondents believe that this element can be one of the cornerstones of museum sustainability, as social institutions play an important role in shaping society, should not be afraid of taboo topics, and must react boldly to social phenomena. For the members of the factor, innovation is of paramount importance, and in this context knowledge transfer in a fun way is also expected, as individuals in this group consider museums to be places of entertainment. In terms of the cultural dimension, sustainable collection management related to the core activity of the museum was identified as important. Also important is that museums are comprehensively and physically accessible. In terms of the environmental dimension, activities related to environmental protection are considered important, as is the fact that a museum uses renewable energy sources.

The opinions of members of the factor differ most in relation to the role of museums’ use of digital information materials, and whether it is important to adapt to new technological expectations. There is also uncertainty about whether museums should be “understandable” to everyone, while the claim that museums should not be required to maintain themselves from income from visitors was also a divisive issue.

Factor 2. Experience-seekers

Members of this factor most strongly agreed that the education-related element of the social dimension of sustainability is important. According to these individuals, it is important for museums to be a place for enjoyable learning – and in connection with this they expect museums to be innovative, and to keep up with the times, but they do not think that this only involves the use of digital information materials. A museum is basically considered a social institution, and is expected to be barrier-free in terms of both physical access and comprehensibility.

⁴⁸ VAN EXEL, Job and GRAAF, Gjalte De. Q methodology: A sneak preview 2005. 2005, accessed January 14th, 2022, <http://qmethod.org/articles/vanExel.pdf>

In terms of the economic dimension, similarly to respondents of the previous factor, the role of museums in cultural tourism is preferred, but respondents classified into this factor do not think that a museum should be profit-oriented or market-oriented. Among a museum's cultural responsibilities, the maintenance of collections in a sustainable way is highlighted. Environmental issues were not particularly valued. The views of members of this factor differed most about the issue of cooperation with sponsors (in relation to the economic dimension), and regarding which goals a museum should strive for most: to represent professional quality, or to be more comprehensible to visitors. Related to this dilemma is another divisive issue: should a museum only be for those who want to learn? Respondents were also divided about whether a museum should respond to the social phenomena of our time. Members of this factor did not from the outset favour awarding museums a prominent role in environmental issues, so it is not surprising that one of the most divisive issues was whether museums should have environment-related exhibitions.

Factor 3. Enthusiastic-to-learn visitors

For the members of this factor the most important function and task of a museum is to be barrier-free in physical terms and regarding comprehensibility. In their view, museums are for those who want to learn, yet they do not think that museums cannot play an important role in providing experience, entertainment and recreation. It is more important for respondents classified into this factor that museums organise professional and high-quality exhibitions and programmes, even if these are not understandable to everyone. Members of this group believe that museums still have the task of sensitising visitors to social issues. In terms of the management of collections (an issue belonging to the cultural dimension), respondents also consider it to be important that museums manage their collections in a sustainable way.

From the point of view of economic sustainability, like the members of the other two factors, enthusiastic-to-learn visitors consider this important and agree that museums should not be profit-oriented. This may be related to the fact that the latter believe that museums should play a role in the acquisition of knowledge and the transfer of knowledge, rather than seeking to strengthen their market-based position. As with members of the second factor, they do not prioritise environmental issues, and believe that there is no significant relationship between visitor expectations and museums' environmental awareness.

The most divisive issue for this group, as well as for members of the second factor, was whether a museum should collaborate with sponsors, and whether the museum should be free. Opinions are also divided as to whether museums have a role to play in helping solve problems that affect society.

Distinguishing and consensus statements

One of the more interesting uses of Q is that it can help clarify what groups of individuals agree or disagree about. Such results can be very helpful for building consensus or overcoming conflict. Toward this end, it is helpful here to present results from three categories:

- Points of agreement across dimensions (consensus points).
- Points of disagreement across dimensions (compromise points).
- Non-consensual and non-confrontational points regarding each dimension.

The first item highlights the areas which are mutually agreed on. The second identifies points of disagreement where compromise may be possible. The third looks at each dimension independently and highlights areas that were not consensual, but also not subject to strong disagreement (i.e. “non-confrontational” issues).

Similarities among factors

Based on the typical Q-ordering created using Z values we can determine those statements about which there were similarities among the factors. Members of all three factors think very similarly about two issues: they agree and consider important that museums should manage their collections in a sustainable way and preserve them for future generations, and they also agree that museums need active communities. Members of the factors awarded similarly low importance values to some issues: for example, with regard to museums being free of charge, there is a slight agreement that museums should be free, and there was also a consensus that museums can hardly keep up with the times. The role of museums in solving social problems and cooperating with sponsors is also uniformly considered of little importance.

Differences among factors

The differences between the factors point out which elements are most divisive. The contrast between the first and second factors is sharpest along the environmental dimension: members of the first factor agree that museums should have environmental activities, whether these involve eco-buildings and the use of renewable energy, or the use of only digital information sources, while members of the second factor consider this to be less important. Members of the first and third factors also think completely differently about many things. The sharpest contrast between them is perceived in relation to the educational function of museums. Members of the third factor say that museums do not have to reach out to all social groups, as museums and their contents are not understood by everyone. Also, they believe that artefacts themselves are more important than visitors, and consider it important that museum staff continue to maintain their training. In these matters, the members of the first factor have completely contrasting views. The contrast between the second and third factors becomes obvious in relation to the social dimension: members of the third factor value the professional and educational functions of museums more, claim that museums are for those who want to learn, that quality is more important than comprehensibility, and that a museum’s role is to sensitise. In contrast, the second group believes that museums should not be afraid of addressing taboo subjects and reacting to social phenomena, and that comprehensibility is more important to them than quality. Another important difference is that members of the second factor believe that museums should not be sustained by visitor-related income alone, while the members of the third factor are in favour of museums generating their revenue this way.

Non-consensual and non-confrontational points from each perspective

Among the factors, it is worth examining those statements for which there is no consensus, yet no major dissensus. These are the areas where mutual agreement may be reached. Examples include the opinion (social dimension) that museums are not understood by everyone, and that a museum’s task is to engage visitors. In terms of claims about the environmental dimension

of museums, the importance of a museum's environmental awareness and whether museums should organise exhibitions related to environmental protection are evaluated similarly.

Discussion

This study, which used Q methodology, was designed to determine museum visitors' preferences related to the most important sustainability elements of museums. The participants of the study were 24 young museum visitors in Hungary. Data were collected through 37 Q sentences. The main research question was the following: What are the sustainability elements of museums that Generation Z prefers?

Regarding the findings derived from the young museum visitors' opinions about sustainable museums, in general it can be concluded that members of Generation Z agree that it is important that museums manage their collections in a sustainable way and preserve them for future generations, and they also agree that museums need active communities. The results clearly agree with those of earlier research about the sustainability of museums, according to which the main task of the latter was found to be caring for and preserving their collections and establishing an active relationship with communities, as this is the only way to maintain their importance and value in the long run, and gain the support of society. These aspects were also identified in previous research.⁴⁹ Cultural sustainability is seen as the fourth pillar of sustainable development, and can be defined as taking into account the need for the preservation and presentation of tangible and intangible heritage, artistic production and the knowledge and skills of different social groups, communities and nations. Previous research linked the sustainability of museums to whether the latter meet the cultural needs of the community.⁵⁰

According to the findings of the research, young museum lovers can be distinguished into three groups (factors): Conscious-, Experience-seeking-, and Enthusiastic-to-learn visitors. The opinion preferences of Conscious visitors show that a sustainable museum is envisioned according to the four dimensions of sustainability, and the economic, environmental, social and cultural dimensions of museums are considered equally important. Regarding Experience-seeking visitors, we can say that museums are basically considered social institutions and expected to be accessible both physically and comprehensively, and they are primarily seen as places for fun learning. In connection with this, museums are expected to be innovative and keep up with the times. The difference between the members of the Enthusiastic-to-learn factor and the other two factors is that the former think that museums are for those who want to learn, that professionalism is much more important than comprehensibility, that museums should cater to all social groups and that artefacts are more important than visitors.

Considering the proportion of respondents of the three factors, the majority of the members of Generation Z (12) consider that twenty-first-century museums should operate responsibly in line with the principles of sustainability, the most important issue among members of the second factor (8) being that museums should be places of knowledge transfer through fun, while according to the most held view of the third factor (4) museums should strengthen their professionalism, even if this runs counter to the clarity of their presentations. In terms of examining preferences for the three factors, it is also worthwhile dealing with statements for which there is neither consensus nor contradiction. These are the areas that are easiest to

⁴⁹ STYLIANOU-LAMBERT, BOUKAS and CHRISTODOULOU-YERALI, *Museums and cultural...*, pp. 566–587.

⁵⁰ GUSTAFSSON and IJLA, *Museums: A catalyst...*, pp. 1–14.

approach, and those for which we can make further suggestions for museums. The research pointed to two important areas. One is the social dimension, and within this, to two statements: that “museums are not understood by everyone”, and that “museums play an important role in engaging visitors”. These two statements are very closely related, and the second can be interpreted as a response and a solution to the first suggestion. The more a museum strives to engage its visitors, the more it can expand the range of people for whom the museum will be understandable and enjoyable. The other such area was identified from statements about the environmental dimension. The importance of museums’ environmental awareness and the question whether museums should host environment-related exhibitions represents an opportunity for museums to rethink how they can influence visitors’ attitudes toward the environment. Visitors are unlikely to expect museums to host outreach environmental exhibitions, but if they can approach the topic within their own field with a sensitivity that visitors find authentic, they can also influence the latter’s attitudes. For example, a museum of contemporary art may host an exhibition that showcases artistic reflections and practices that strongly influence visitors’ emotions and make them think, thus perhaps influencing the way their attitudes evolve. The other issue is the importance of the environmentally conscious operation of museums, in relation to which museums can do most by setting a good example and introducing as many such practices as possible.

Our research makes four main contributions to the research on the sustainability of museums. First, the research systematically examines criteria and requirements associated with sustainable museums. It points out that the primary task of museums is to preserve collections, so they should strive for cultural sustainability as a priority. Second, the research provides insight into the differences and similarities between Generation Z opinion preferences and thus contributes to a deeper understanding of the sustainability of museums from the perspective of future museum visitors. It should also be supplemented with demand-side research that investigates the expectations of museum visitors. Museums should strive to serve the communities around them effectively, and to do this, they need to explore their needs. By this we mean that they should recognise those expectations and also those visitors that they have not yet reached for different reasons, but whose quality of life could be significantly affected by them doing so. Museum management should support and encourage research that helps them learn more about pre-existing and potential visitors. Third, the research complements the empirical literature on sustainable museums and contributes to broadening the theoretical background with regard to sustainable museums. Fourth, the Q-method is used to explore the trends that characterise the engagement and mechanism of action of opinion groups. Research illustrates the current conditions, but also outlines desirable and possible future alternatives.

Conclusion

Museums play a unique role in cultural sustainability by preserving the heritage of their communities and ensuring the accumulation and transfer of cultural capital from current generations to future generations. However, in addition to these basic functions, they increasingly have additional ones, including the essential role of education. The post-modern perspective emphasises the role of museums in sustainable development. To date, little empirical research has been published on this topic.

In order to define the criteria for sustainable museums the preferences that affect museum visitors have with regard toward this topic should be identified, and solutions found. This

study was designed to reveal the most important elements for sustainable museums from the perspective of members of Generation Z. The variety of results revealed through this study indicate that the Q methodology is a functional approach to diagnosing problems. Therefore, the findings may shed light on other studies related to the field. To sum up, the areas in which young museum visitors expressed a strong or moderate level of need reflect the idea that museums should manage their collections in a sustainable way and preserve them for future generations. These visitors also agree that museums need active communities. It is important for museums to pay attention to the needs of visitors who are increasingly aware, and to take into account that some visitors like to go to museums for leisure and entertainment purposes. Respondents desire that museums be accessible to everyone, while others mainly want to learn and expand their professional knowledge. In order to increase the range of knowledgeable audiences, museums need to involve their visitors. It is necessary to take into account the changing roles and professional skill-related needs of museum experts. Further studies may concentrate on understanding the more specific needs of young museum visitors in the context of these issues. Further qualitative research is advisable in relation to visitor opinions/needs regarding elements of sustainability (e.g. to identify similarities and differences). We conducted our research online, although it would be worthwhile replicating the research through face-to-face interaction with even a small sample, and exploring the reasons for each preference.

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From Biography to a Net of Interpretations: The Plurality of Approaches to Vladimír Karfík's work¹

Nina Bartošová

doc. Ing. arch. Nina Bartošová, PhD.
Slovak University of Technology in Bratislava
Faculty of Architecture and Design
Institute of History and Theory of Architecture and Monument Restoration
Námestie slobody 19
812 45 Bratislava
Slovakia
e-mail: nina.bartosova@stuba.sk
<https://orcid.org/0000-0003-1903-1045>

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From Biography to a Net of Interpretations: The Plurality of Approaches to Vladimír Karfík's work

The aim of this study is to justify a partial shift from the biographical approach in the author's ongoing research into the work of architect Vladimír Karfík's, especially if that research is directed towards raising present-day appreciation of his output. The inspiration comes from pragmatic aesthetics, as understood by philosopher Richard Shusterman, which considers the possibility of appreciating a work of art and architecture without the premise of one universal truth. The "net of interpretations" metaphor suggests that different interpretative lines can be perceived as equivalent in all their diversity, and there is no single "true" image of the work that lies underneath. The proposition of the study is argued both on a theoretical level and through the analysis of existing publications devoted to Karfík's work and personality.

Keywords: interpretation, Vladimír Karfík, biography, cultural turn, architectural historical research

Introduction

The need for this study arose from doubts concerning the analysis of a biography as a prevailing method in ongoing research into the work of leading twentieth-century Czech and Slovak architect Vladimír Karfík – research which is expected to culminate in a monograph. While the choice of biographical method may seem rational in Karfík's case, it is questionable to what extent the biographical approach can elevate understanding and appreciation of the architect's work. Karfík's significance has to date been largely centred on the fact that he was a part of the interwar Czechoslovak architectural avant-garde – though not its initiator – and that it was the experience gained by working for Le Corbusier and Frank Lloyd Wright that secured him a place at Baťa's company in the Czech town of Zlín, visions of which he has seemingly fully identified with. After the Second World War, Karfík became one of the founders of Slovak architectural education while continuing to work as a practicing architect in Bratislava, and at a later age his reputation as a respected pedagogue brought him an unexpected four-year teaching opportunity at the University of Malta. All of this – along with the recognition and a number of awards accorded to Karfík in the Czech and Slovak environments, and his

¹ The text was created within the project KEGA 022STU-4/2021 "The Discourse on modernity in the shadow of an era: architects A. Píffl – V. Karfík – J. E. Koula and their founding work" realised at the Faculty of Architecture and Design STU in Bratislava.

honorary membership of the American Institute of Architects, which he was awarded as the only Czech or Slovak architect – could suffice to defend the choice of the biographical method in the approach to his work, as his life has many interesting moments in possible relation to it.

The reasons this study questions the prevailing use of the biographical method stem not only from the fact that Karfík already published an autobiography himself,² but also from the observation that, to date, too much emphasis has been placed on Karfík's personality – as a man, an architect or a pedagogue – without subjecting similar attention to analysing his work and his architectural thinking. This is perhaps one of the reasons why architecture historian Matúš Dulla assumes that “Karfík's central legacy is not directly in the realm of its architecture”³ – because that is how his story has been structured and narrated. My ongoing research does not aim to confirm or refute the “myth” of Karfík as an important figure of modern international architecture, but to explore his work and architectural thinking more thoroughly, and to present a range of possible interpretations of his work to enhance its value and appreciation, and to possibly identify ways in which it can be beneficial to the contemporary architectural discourse.

This effort is inspired by the primary goal of contemporary pragmatist aesthetic theory, as formulated by the philosopher Richard Shusterman, according to which the task “is not to capture the truth of our current understanding of art, but rather to reconceive art so as to enhance its role and appreciation”.⁴ This approach just as applicable to architecture as to art. The reference to the philosophy of pragmatism – to Shusterman but also Richard Rorty – in no way tries to support those views with ones that connect Karfík with pragmatism in the line of his life; similarly, the notion of aesthetics does not indicate that the aesthetic aspects of Karfík's project should be particularly considered. It is based on an assumption that the philosophy of pragmatism is relevant in the contemporary realm of thinking about architecture for as it offers a plurality of interpretations.

Subsequently, in the case of Karfík, it is possible to recognize the issue of understanding art, aesthetics and their values in the context of societal and social action – and it is the identification of suitable ways of interpreting his work that can broaden its perception, and can also help to change its current comprehension and lead to a new appreciation. This research goal is further supported by the assumption expressed by the not particularly pragmatic but conservative philosopher Roger Scruton: that aesthetic architectural experience is dependent on one's ability to “imaginatively” perceive and conceptualise a perceived object, and not on a separation between thought/conception and ordinary perception.⁵ Therefore, it is expected that a plurality of interpretations of Karfík's work can also enhance the experience of it. The proposition of this study – that a net of interpretations should be preferred to a predominantly biographical approach when the main research goal is strengthening the understanding of Karfík's work, its values and its appreciation – is argued both on a theoretical level (through the research turn of recent decades and reservations towards the biographical method) and also by analysing already published writings devoted to the personality and work of Vladimír Karfík.

² KARFÍK, Vladimír. *Architekt si spomína*. Bratislava: Spolok architektov Slovenska, 1993.

³ DULLA, Matúš. Vladimír Karfík – iný pragmatizmus. In: *Architektúra & urbanizmus*, 35(3–4), 2001, p. 62.

⁴ SHUSTERMAN, Richard. On Pragmatist Aesthetics. In: OCKMAN, Joan (ed.) *The Pragmatist Imagination: Thinking About Things in the Making*. New York, N.Y.: Princeton Architectural Press, 2002, p. 118.

⁵ SCRUTON, Roger. *The Aesthetics of Architecture*. Princeton, New Jersey: Princeton University Press, 2013, pp. 68–69.

Research turn and reservations towards biography

The twentieth century brought acceptance of the fact that research does not reveal the “truth”, but represents various models of reality through individual theories, which appear to be most beneficial for thinking and understanding the studied subject according to a particular scientist. If this premise is accepted within natural sciences today, it is all the truer for the historical sciences – as a separate category between the humanities and social sciences – which tend to be underestimated by the representatives of the natural sciences as inexact. One of the bolder critics of the privileged position of science, the philosopher and historian of science Paul Feyerabend, was convinced that “rationalists and scientists cannot rationally (scientifically) argue for the unique position of their favourite ideology”.⁶ It is also important to stress that the researcher is never disinterested or impartial. As the political philosopher Hannah Arendt concluded, the issue of “objectivity” created confusion that “there could be answers without questions and results independent of a question-asking being.”⁷

Similarly, the cultural society equally perceives the limits of science and its “monopoly” on knowledge and its exactness. Nevertheless, or perhaps precisely because historical interpretation – including the history of architecture – is not based on quantifiable experiments and predictions, historical research still largely relies on the positivist approach of the nineteenth century, giving the impression that the historian presents the only true picture of the past that “results” from historical facts. However, this hesitation to turn away from positivist models of interpretation on the part of many historians is being gradually overcome, and in recent decades it has become more common for researchers – including historians or architectural theorists – to reveal their theoretical framework or “schools of thought”.⁸ This tendency emerged as a consequence of the so-called “cultural turn” around the 1980s.

Though one might question the importance of the cultural turn in architectural historical research – since, as stated by the cultural historian Peter Burke, cultural historians devote “less attention to material culture than to ideas”⁹ – some of its aspects are also important to reflect upon in the context of architectural research, such as the notion of the “schools of thought”, as they influence the choice of research approach and will determine its results. For this reason, it is quite appropriate to acknowledge that the bases for the current research are influenced by the philosophy of pragmatism, since there is no interest in whether a certain hypothesis concerning Karfik or his work is true or false, but rather in the question that Rorty asks: “For what purposes would it be useful to hold that belief?”¹⁰ This makes the quest for one “true” narrative irrelevant and rather encourages a net of interpretations as a way to support the aim to value and appreciate Karfik’s work more. It is also worth mentioning that a theorising historical approach – i.e., qualitative research – does not need to be considered as less exact than quantitative research, because the philosophy of pragmatism does not see a fundamental difference between social and natural sciences: it includes theory as practice.¹¹

Certainly, the inclination to the school of thought of pragmatism does not need to entail a complete rejection of the biographical method. Given that architecture itself contains “biographical traces in its spaces, taxonomies and histories” that steer to the use of the

⁶ FEYERABEND, Paul Karl. *Science in a Free Society*. London: NLB, 1978, p. 79.

⁷ ARENDT, Hannah. The Modern Concept of History. In: *The Review of Politics* 20(4), 1958, p. 577.

⁸ GROAT, Linda N., WANG, David. *Architectural Research Methods*. Amsterdam; Boston: Wiley, 2013, pp. 174–175.

⁹ BURKE, Peter. *What is Cultural History?* Cambridge, UK: Polity, 2008, p. 69.

¹⁰ RORTY, Richard. *Philosophy and Social Hope*. London: Penguin Books, 1999, p. xxiv.

¹¹ *Ibidem*, p. xxix.

biographical genre,¹² it has a staple place in architectural research, and biographical monographs continue to be a choice of many architectural historians. In the twentieth century, a more comprehensive image of a researched personality is strengthened by its psychologisation, under the influence of Freud's psychoanalytic theories, but also by connecting the individual's life and work with a social context, for example, in response to Marx.¹³ Biographical research – which considers the life and personality of an architect as crucial for understanding their work, but also general architectural tendencies – is not only well established, but current science accepts biography itself as a method, without the need to specify other methods.¹⁴

In spite of the overall popularity of the biographic genre, opposition towards it is growing. One of the most prominent critics was clearly the sociologist and anthropologist Pierre Bourdieu, who showed, in his well-known text *L'illusion biographique* (1986), that “life history” presumes that “life is a history” and a narrative of this history.¹⁵ Life is understood as a road, a route, a track with junctions (Hercules), traps and ambushes leading to a certain goal. Inconsistent individual historical events are then unified with a historical narrative. Such a narrative – especially in case of biography or autobiography – is not substantially different from the narrative of a traditional novelist. The life is in it understood as a “unity”, ordered as a line of history: chronologically with a beginning (starting point) and an end (goal). The meaning of life (and work) is postulated in such a “singleness”. But this, according to Bourdieu, is a “rhetorical illusion”.¹⁶ Neither do all historical or modern novels work with it, many of them pointing rather to the discontinuous, haphazard and unpredictable character of life and reality. In addition, Bourdieu points to the plurality of social and societal roles and forces involved in the co-constitution of the subject, her life and work. But biographical trajectories have a tendency refer to a single consistent and constant subject. That is why a large proportion of the current academic community considers the biographical genre to be a dead end.¹⁷

We could argue that more attention is nevertheless given to the author's work in architectural research, which is seemingly interpreted a little more independently of the architect's personality and life than biographies of writers or artists, if only for the reason that an architect has to take the social, sociological aspects and needs of each individual client into account; but even here the life story of the creator becomes the central rationale. Within my ongoing research, there are two aspects that question this approach's suitability in relation to Vladimír Karfík as a basis. The first is that an effort to create one predominant interpretation of “life and work” largely eliminates other interpretations, which can reduce the potential for full appreciation of Karfík's relatively heterogeneous work (Figure 1), precisely because some of its characteristics might be ignored on account of not being suitable for the chosen biographical narrative. The second is that biographical writing on artists can be seen as an instrument for promoting their position and influencing the social consciousness.¹⁸ With Karfík, the significance attached to

¹² ARNOLD, Dana, SOFAER, Joanna (eds). *Biographies & Space: Placing the Subject in Art and Architecture*. London: Routledge, 2008, p. 1.

¹³ GITTINGS, Robert. *The Nature of Biography*. Seattle, WA: University of Washington Press, 1978, p. 54.

¹⁴ RENDERS, Hans. The Biographical Method. In: RENDERS, Hans, DE HAAN, Binne (eds) *Theoretical Discussions of Biography: Approaches from History, Microhistory, and Life Writing*. Leiden: Brill, 2014, p. 223.

¹⁵ BOURDIEU, Pierre. The Biographical Illusion (1986). In: HEMECKER, Wilhelm, SAUNDERS, Edward (eds) *Biography in Theory: Key Texts with Commentaries*. Berlin: De Gruyter, 2017, p. 210.

¹⁶ *Ibidem*, pp. 210–211.

¹⁷ SKILLEÅS, Ole Martin. *Philosophy and Literature: An Introduction*. Edinburgh: Edinburgh University Press, 2001, p. 75.

¹⁸ BAKOŠ, Ján. O monografií. In: *Romboid: časopis pre literatúru a umeleckú komunikáciu*, 16(12), 1981, p. 68.

his personality is already quite considerable; this, on the other hand, supersedes a deeper, more thorough awareness of his work, as well as of the awareness of his way of thinking about architecture.



Figure 1: Selection of projects by Vladimír Karfík that show a certain heterogeneity which cannot be unified or subordinated to a single justification based on some prevailing period, chronological or stylistic sequence. From the top left: Baťa department store in Liberec, 1931; Administrative Building No. 21 in Zlín, 1937–1938; Baťa department store in Amsterdam, 1938; church in Partizánske (with F. Fackenberg and K. Auermüller), 1943; Josef Hlavnička Villa in Zlín 1939–1941; competition proposal for a Roman Catholic church with a memorial to Tomáš Baťa in Baťov, 1940; housing colony Biely Križ in Bratislava, 1948; University of Economics and Faculty of Pharmacy in Bratislava (with A. Rokošný), 1953–1955; Institute of Applied Cybernetics in Bratislava (with J. Komrska), 1971–1978; Extension of the Museum of Fine Arts, La Valleta, 1981. Images source: Brno City Museum, History of Architecture and Town Planning unit (personal fund of the architect Vladimír Karfík).

Analysis of published texts

An analysis of published texts focused on the personality and/or work of Vladimír Karfík was carried out, with the intention to determine more clearly what has already been said and how it was researched and presented. The texts were evaluated with regard to supporting the research aim, i.e., to raise awareness of the value and increase appreciation of Karfík's work. The author's own experience with a biographically set chapter dedicated to Karfík led to the decision to subject the published texts to a more thorough analysis,¹⁹ as there was an

¹⁹ BARTOŠOVÁ, Nina. Architekt dvadsiateho storočia Vladimír Karfík. In: DULLA, Matúš et al. (eds) *Zapomenutá generace: čeští architekti na Slovensku*. Praha: České vysoké učení technické v Praze, 2019, pp. 216–257.

assumption that the biographical method, as a main research method, would lead primarily to the correction and supplementation of existing knowledge, and would offer less opportunity for a more inspiring view on Karfík's work. Due to the fact that the indicated analysis was also concerned with distinguishing possibilities for lines of interpretation of Karfík's work, it was desirable to include texts that offered different views. The choice of specific parameters for assessing the texts arose from several attempts, as not all approaches demonstrably proved or refuted the research aim.

For example, the initial effort aimed to find out whether the authors specified their starting point and formulated motives or procedures, but in most cases these facts were presented implicitly rather than explicitly, if at all. Therefore, this did not serve as a suitable parameter for assessing the writings and selecting those worth studying further. Similarly, sorting the texts into specific categories did not directly convey knowledge of whether a given text would relate to the current research aim, although it was still a useful step in assessing the proportion and nature of existing writings and selecting texts for further scrutiny. Therefore, in the first phase, all of the 29 texts identified were analysed and sorted into following five categories: scientific study/conference papers; final academic theses; chapters in monographs; interviews with Karfík; and brief informative contributions, such as popularisation texts, portraits, memories of Karfík and so on (Figure 2). The majority of texts (up to 45%) fall under the category of brief informative contributions that convey already-known facts. The remaining categories – scientific study/conference papers (28%), academic theses (10%), chapters in monographs (10%), and two interviews with Karfík (7%) – had the potential to bring new perspectives and increase knowledge of Karfík's work and his architectural thinking, therefore the 16 texts that fell into these four latter categories were subjected to the next phase of analysis.

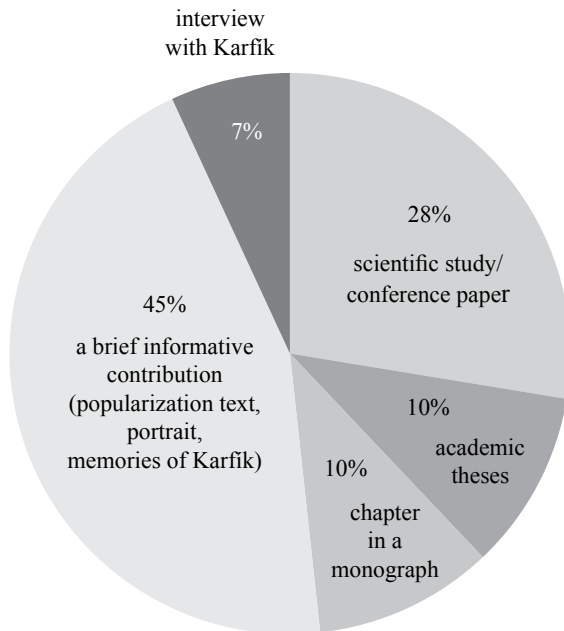


Figure 2: *Categorisation of the 29 of published texts devoted to work and/or personality of Vladimír Karfík.*

In this phase, two pairs of criteria were decisive in a relation of the study aim: i) whether a particular text paid more attention to Karfík's work and his way of architectural thinking, or rather dealt with his life, personality, and historical context, and ii) whether the text offered new levels of interpretation or, on the contrary, presented more traditional architectural–historical or biographical research (Figure 3). Also, it was assumed that if the publication focused on biographical aspects and historical context, it would likely use the methods of traditional architectural–historical research or the method of biography, while research

focused on his works and architectural thinking would lead to a more open choice of methods (Figure 4). As the intention was to focus mainly on publications that dealt with Karfík's work

and his way of architectural thinking and, at the same time, those that offered new levels of interpretation and subject them to a deeper content analysis, these aspects were higher rated, as depicted in Figure 5. This method enabled the selection of four texts that met both criteria sufficiently. It was found that all of them were published in *Architektúra & urbanizmus* journal.²⁰



Figure 3: Pairs of criteria for further analysis of texts.

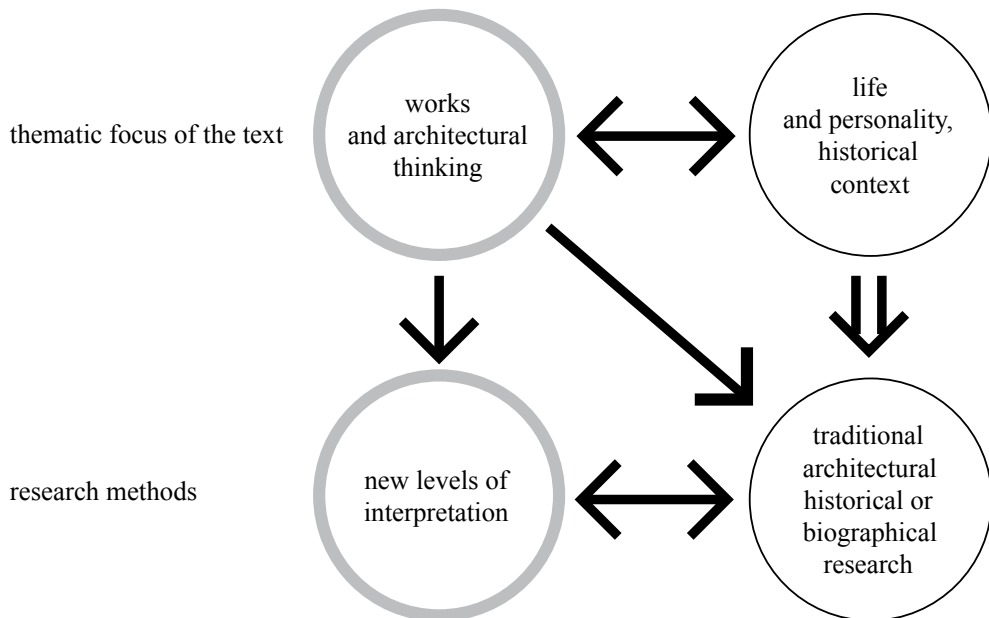


Figure 4: Diagram representing the assumption that a focus on works and architectural thinking leads to a more open choice of methods than a focus on biographical aspects and historical context.

²⁰ BENCOVÁ, Jarmila. Vladimír Karfík & mrakodrapy [Vladimír Karfík & Skyscrapers]. In: *Architektúra & urbanizmus*, 35(3–4), 2001, pp. 76–93.; MITÁŠOVÁ, Monika. Čítanie prvého denníka a posledného rodinného domu Vladimíra Karfíka [Reading of Vladimír Karfík's First Diary and The Last Family House of His Own]. In: *Architektúra & urbanizmus*, 35(3–4), 2001, pp. 94–108.; ZERVAN, Marián. Model architektúry v Karfíkových textoch a rozhovoroch [The Model of Architecture in Karfík's Texts and Interviews]. In: *Architektúra & urbanizmus*, 35(3–4), 2001, pp. 109–118.; BENCOVÁ, Jarmila. Interpretačné nánosy architektúry a Dom služby Baťa v Bratislave [Interpretive residues in architecture and the Baťa House of Services in Bratislava]. In: *Architektúra & urbanizmus*, 49(1–2), 2015, pp. 65–81.

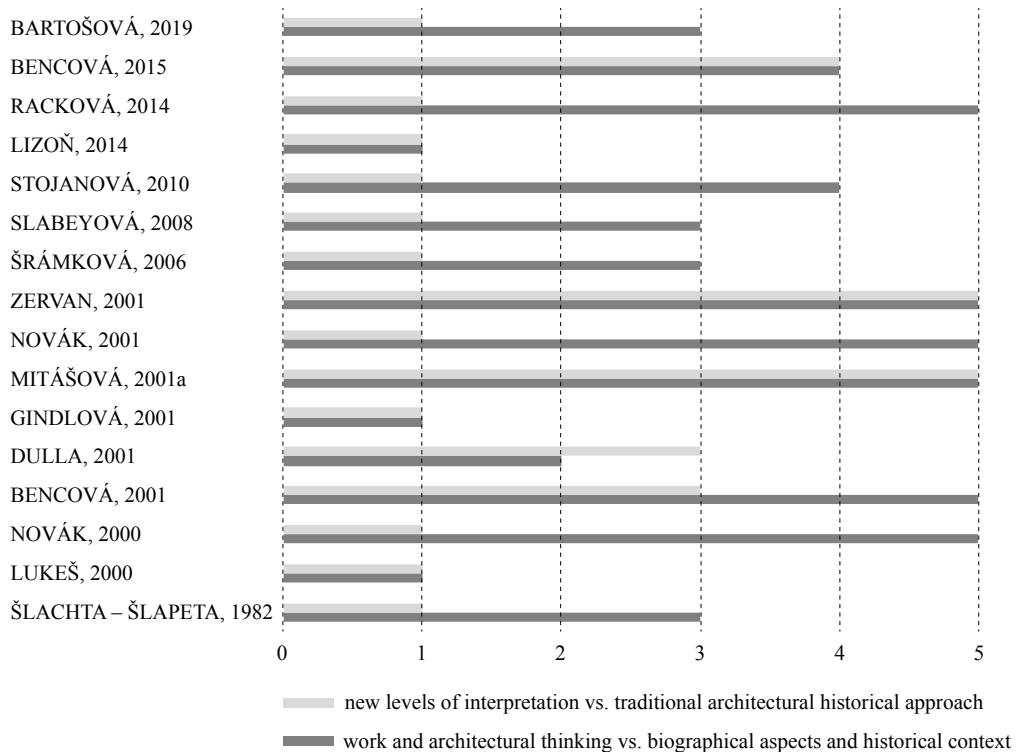


Figure 5: Bar graph representing the narrowed selection of 16 texts that was analysed in order to specify a) the predominant method, i.e., to what extent did the authors follow traditional architectural historical approach or pursue new levels of interpretation (light grey bar), and b) their thematic orientation, i.e., whether the authors focused on biographical aspects and historical context or created a more autonomous approach with new levels of interpretation (dark grey bar). The highest value (5 points) is represented by preferred aspects and the lowest (1 point) by biographical aspects and historical context through traditional architectural–historical research or the method of biography.

Two of the texts – by art and architecture theorist Jarmila Bencová (2001) and architectural theorist Marian Zervan (2001) – tried to capture characteristic features of Karfík's work, aiming to highlight some unifying aspect, something that describes the architect, although each did so at a different level of generality. While the former dealt with Karfík's project work in the context of the specific theme of high-rise buildings in the “new world”, the latter focused on Karfík's texts with the intention of reconstructing a paradigm of architecture. Bencová's text raises at least two sets of questions that may be useful to focus on in the future: i) is it possible when researching an architect to talk about their inclination towards a certain type of architecture? Can we consider the inclination to a certain type to be something on which the architect's unique style is based, as Bencová thinks? If not, how could that style be better identified? ii) is it really possible to talk about the inclination towards skyscrapers in Karfík's case? Did he favour them more than other types of buildings? Or is it precisely because the inclination towards skyscrapers in Slovakia – at time the study was written – was particularly “exotic” that it was attractive for a historian or architectural theorist to highlight this aspect in the context of Karfík's period living and working in the USA?

Zervan's study provides the most comprehensive grasp of Karfík's thinking so far, and he was the first to subject this topic to more thorough research. By focusing exclusively on Karfík's

published texts, Zervan tried to answer the question of whether Karfík himself formulated a paradigm of architecture. It is not necessary, in the context of my research, to fully identify with the paradigm established by Zervan under the term “anti-architecture”, which was used by Karfík in one of his first published texts, an article with Frank Lloyd Wright for *Styl* magazine.²¹ Neither it is necessary to completely separate Karfík’s architectural designs from his texts, as Zervan did in his study, as he was interested in Karfík’s reasoning. But it is worth testing Karfík’s ideas as they evolved over time – Zervan points out many of them – and confront them with the architect’s designed and built work in order to look for connections, but also for possible contradictions that may have occurred.

In her study, architecture theorist Monika Mitášová was inspired by philosopher Gaston Bachelard’s book, *The Poetics of Space*. She bases her interpretation on a pair of “sources”: Karfík’s first diary, which he kept while at secondary school, and the last house he inhabited (which he designed himself), on Barvičova Street in Brno. Mitášová clearly states that her “Bachelardian” reading of Karfík’s house and diary does not indicate that Karfík himself was a phenomenologist, and precisely because she explicitly expresses the intention of his “etude” it allows the reader to open up to the presented ideas without prejudice. The reader is encouraged to pay attention to certain contexts in Karfík’s work. As Bachelard himself writes in the introduction to his book, “the poetic image is independent of causality” (Bachelard, 1994, p. xvii). Diary entries, without being directly attributed to the architect’s thinking at a later stage in the design of the house, bring Karfík’s dream and thinking of the home closer to literary and poetic associations. Mitášová’s contribution created a contrast to Karfík’s scientific and technical approach in design which is usually highlighted, without appropriating a more universal validity in grasping his work. At the same time, however, she highlights the relatively neglected features of his approach to architecture, i.e., his “confidential relationship to housing architecture”,²² and enables the reader to perceive emotional nuances of experiencing architecture, aspects that have no place in the usual architectural–historical description.

This “Bachelardian” reading amplifies these aspects and supports them through a vivid selection of pictorial material, including several of the author’s own drawings, which deepen the experience with architecture and stimulate the reader’s imagination. The significance of Mitášová’s text is precisely that it does not seek direct causality in the diary–house pair, but supports the ability to perceive and experience architecture more fully, paying attention to details such as window openings and their composition, or the way in which Karfík designed a meandering path through the garden – in the house on Barvičova Street, the path approaches then veers away again from the house, rather than the utilitarian approach of offering the shortest and most direct possible access to the house’s garage. It could be said that it dynamises Karfík’s architecture, which is usually perceived as static.

Bencová’s second study (2015) deals specifically with the concept of interpretation. She points towards the idea of the philosopher Hans-Georg Gadamer – namely, that the architectural work, as an aspect of art, “imposes its own temporality upon us [...] When considering the static arts, we should remember that we also construct and read pictures, that we also have to enter into and explore the forms of architecture.”²³ Although she does not build her study around this

²¹ KARFÍK, Vladimír. S Frank Lloyd Wrightem [I.]. In: *Styl. Časopis pro architekturu, stavbu měst a umělecký průmysl*, 10(15), No. 1, 1929, p. 11.

²² MITÁŠOVÁ, Čítanie..., p. 107.

²³ GADAMER, Hans-Georg. *The relevance of the beautiful and other essays*. New York: Cambridge University Press, 1986. p. 45

core idea, it may be a stimulus for further research into Karfík's work. As Gadamer writes, "We have to go up to the building and wander around it, both inside and out. Only in this way can we acquire a sense of what the work holds in store for us and allow it to enhance our feeling for life." According to Gadamer "we must learn to dwell upon the work in a specific way. When we dwell upon the work, there is no tedium involved, for the longer we allow ourselves, the more it displays its manifold riches to us."²⁴ In connection to current research, we do not have to limit ourselves to the experience of physically realised constructions only: models, drawings and other visual interpretation can be used to enhance the architectural experience and thus deepen our ability to conceptualise it.

Further interpretation of Karfík's work can also be inspired by the interpretation model *intentio operis* – interpretation by the work itself – proposed by the art theorist and semiotician Umberto Eco, to whom Bencová also refers.²⁵ Again, it does not need to follow the way presented in the analysed text. It can be accepted that the *intentio operis* model can also bring other possibilities than to hear the building and its original realities, especially contemporary projects, revealing other ideological statements than those attributed to them in the past by historiography.²⁶

The fact that Bencová's text tries in several places to figure out what Karfík himself thought is not exclusively about applying the *intentio operis* model because, according to Eco, "it is not necessary to know the intention of the empirical author" while justifying the search for author's intention only if we try to understand the creative process itself.²⁷

Upon considering the character all the four texts that were analysed in the last step, it became clear that none of them were significantly based on the biographic method in its aim to offer new understanding, although, in a different way, each of them succeeded in pointing out a different perspective on Karfík's work that could be further developed or serve as an inspiration. The pursuit of a shift of focus from the biographical method to other interpretive models does not mean that the interest in the creator and the possible connection of his work with life events should be completely eliminated. By no means is this an absolute rejection of the approach chosen by the most important architectural historians in monographs published in Slovakia with the aim of "removing the vast white spaces of our factual knowledge", as Dulla writes. What it does mean is an alignment of the research method with its aim, and rather than following the most-trodden path.²⁸

Nets of interpretations

The reason behind the several important biographies of architects created in the past 15 years – many of which refer to two studies by Matúš Dulla (2008, 2015) – has to do with the change in atmosphere after 1989 that made it possible to interpret architectural figures in a more diverse context, without the authoritarian narrative that had to submit to an undemocratic regime until then. While Dulla repeatedly – and rightfully – stresses the importance of

²⁴ Ibidem, p. 45.

²⁵ BENCOVÁ, Interpretáčn..., p. 69.

²⁶ Ibidem.

²⁷ ECO, Umberto. Medzi autorom a textom. In: COLLINI, Stefan (ed). *Interpretácia a nadinterpretácia*. Bratislava: Archa, 1995, pp. 69–88.

²⁸ DULLA, Matúš. Interpretácia monografiou: Biografický žáner v nových veľkých publikáciách o významných slovenských architektoch [Interpretation by monograph: The Biographical Genre in New Scholarly Publications on Important Slovak Architects]. In: *Architektúra & urbanizmus*. 49(1–2), 2015, p. 54.

biographical writings, he understates other possibilities for monographic writing on architects and their work, and considers the tendencies coming mostly from literary theory around the last third of the twentieth century that question the weight of the author's intention or the author's life for interpretation of her work – also as a reaction to the essay *The Death of the author* (1967) by Roland Barthes and others – as less significant. He holds a similar stance to less traditional approaches to the interpretation of architects and considers them to be overinterpretations, as a reference to Eco. Though he acknowledges the plurality of interpretations, those he highlights are still developed around a biographic structure, as with the monograph on Friedrich Weinwurm by architectural historian Henrieta Moravčíková, where a visual interpretation captured via contemporary photographs by Olja Triaška Stefanović complements the biographic line.²⁹

At the time when Dulla wrote his studies, a pair of books dedicated to the architect Vladimír Dedeček had not yet been published.³⁰ In particular, the second, more extensive book of interpretations points to the non-traditional possibilities of a monograph. Its authors consciously transform the “genre of the monograph into a book of interpretations”, deliberately deviating from the way the history of architecture is written, i.e., “biographies against socio-political events styles, partly based on research in the archives, partly a heroic storytelling, a mythicization”.³¹ The character of their interpretations reflects the goal of highlighting Dedeček's autonomous way of thinking and creating, pursued independently of the totalitarian regime – something that may not be obvious to many, as he participated in several significant government contracts. Again, ongoing research on Karfik does need to thoroughly follow the structure and content of Dedeček's monograph, but the individual ways of interpretation – through text, architecturally through diagrams of objects, or through photographs – can serve as a useful model alongside the openness of interpretation that the book offers, which can be understood as the knowledge that “every interpretation depends on a certain context”.³²

Digital models and graphic representations emphasising certain aspects of formal analysis or the analysis of possible architectural decisions can be complemented by the creation of physical models, not necessarily only by modelling the objects as seen from the exterior, but possibly through their interpretation. This is similar to the way in which the architects Yvonne Farrel and Shelley McNamara – as the curators of the Biennale Architettura 2018 exhibition *Close encounter: meetings with remarkable buildings* – invited the 16 presenting authors “to ‘take’ the work of another architect and help it to be remembered, understood, re-valued and appreciated for its own inherent worth”, as explained on the exhibition's introductory panel.

The possibility of several parallel interpretations is also supported by a more detailed look at Karfik's designs, which suggest that Karfik was not the type of architect who is primarily interested in the artistic side of design or buildings or their architectural expression, or a certain style – that is, those aspects on which architectural–historical research has thus far primarily

²⁹ DULLA, Interpretácia..., p. 56. MORAVČÍKOVÁ, H. *Friedrich Weinwurm Architekt / Architect*. Bratislava: Slovart, 2014.

³⁰ MITÁŠOVÁ, Monika. *Vladimír Dedeček. Stávanie sa architektom*. Bratislava: Slovenská národná galéria, 2017; MITÁŠOVÁ, Monika (ed). *Vladimír Dedeček: Interpretácie architektonického diela*. Bratislava: Slovenská národná galéria, 2017 (English language edition: MITÁŠOVÁ, Monika (ed). *Vladimír Dedeček – Interpretations of his Architecture: The Work of a Post War Slovak Architect*. Basel: Birkhäuser, 2018)

³¹ MITÁŠOVÁ, Monika, ZERVAN, Marián. O interpretaci architektury doby minulé i současné. Rozhovor Šárky Svobodové a Jaroslava Sedláka. In: *ER421*, 17(3), 2017, p. 22.

³² MICHALOVIČ, Peter. Fenomén Vladimír Dedeček [The Phenomenon of Vladimír Dedeček] [recenzia]. In: *Architektúra & urbanizmus*, 51(3–4), 2017, p. 230.

focused. Karfík himself emphasised that although he eventually acknowledged the importance of the artistic component of architecture, it did not become paramount in his work. He always based his design first on “functional–technical considerations” and only then devoted himself to artistic design.³³ Such an approach still resonates with many architects, for example, Pritzker laureates Lacaton and Vasall believe that “a house is not only a form that should be somehow filled in”, but should come out of the logic of the internal space.³⁴

Precisely because Karfík's reflections have not yet been subjected to a more thorough analysis in connection with his work, it is important to focus primarily on those of his works in which several types of interpretation are more prominently offered – works for which we can find, among other things, related statements by the architect which represent the context of the time, or tendencies in his architectural approach to the problem. The preference for several interpretations of a particular project presupposes that Karfík's work will also not be conceived exhaustively – such was the case with Dedeček, where the interpretation was limited to four of his most controversial works – but only assessed through a fraction of the works subject to certain selection criteria, which will strengthen the potential to intellectually conceptualise them.

Conclusion

The works and personality of architect Vladimír Karfík do not lead unequivocally to a specific choice of research method, as one might presume. The biographical method, preferred by many architectural historians, is not only questioned for the reason that Karfík has already written an autobiography, but also because it may not be the most appropriate genre to appreciate many aspects and many facets of his work. This belief has been strengthened by this author's previous experience, albeit only in the context of writing a book chapter dedicated to the architect. Only after the question of how Karfík's work should be approached in order to enhance its appreciation – and after abandoning the idea that seemingly “neutrally” pursued research is sufficient to contribute to deepening of a general knowledge – have new possible approaches to the ongoing research begun to emerge.

Nonetheless, the decision to shift the focus from the biographical method came mostly from the analysis of existing publications devoted to Karfík, many of which were also based on biographical aspects. To a large extent, their authors succeeded in consolidating the myth of the personality of Vladimír Karfík as an expert on the international environment, as a “Bat'a” architect and as professor of architecture, but without paying equal attention to his designs and the way of thinking that is echoed in them. The analysis of the texts revealed that their focus has an impact on the fact that – with all the recognition and extraordinary respect shown to Karfík, especially in Slovakia, where he spent almost 30 years of his life – several of his buildings remain almost unnoticed, mostly those from the second half of the twentieth century. Even if it can be argued laconically that his later work does not reach the quality of the interwar “Bat'a” period, such an evaluation is not entirely appropriate without a more detailed analysis of his work.

The study is based on the assumption that the ability to appreciate architecture is based on a plurality of interpretations, including aesthetic experience, and despite the many

³³ KARFÍK, Vladimír. *Vzpomínky*. Luhačovice: Nakladatelství Atelier IM, 2017, p. 215.

³⁴ LACATON, Anne. Lacaton & Vassal. Udržet si svobodu a úsudek. In: STEINBACHOVÁ, Marcela, MALOŠIKOVÁ, Šárka. *Kruh: texty o architektuře 2010–2013*. Praha: Kruh, 2014, p. 107.

utilitarian aspects of architecture, one can agree with the historian of architecture Geoffrey Scott that architecture “communicates its value [predominantly] as an art”.³⁵ As mentioned in the introduction, with reference to Scruton, aesthetic experience also lies in the ability to intellectually conceptualise the perceived object. Since the aim of the research discussed in this study is to appreciate the work of architect Vladimír Karfík, it is necessary to examine the plurality of interpretive possibilities and to support the intellectual conceptualisation of the pluralistic nature of the researched works.

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³⁵ SCOTT, Geoffrey. *The Architecture of Humanism. A Study in the History of Taste*. Gloucester, MA: Peter Smith, 1965, p. 156.

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Preparing for the post-war reconstruction of historical monuments in Ukraine: Considerations in regard of the ongoing Polish post-WWII experience and international law on the protection and conservation of historical monuments

Yulia Ivashko – Valerii Tovbych – Artem Hlushchenko – Sergii Belinskyi
– Justyna Kobylarczyk – Dominika Kuśnierz-Krupa – Andrii Dmytrenko

Doctor of Science, Professor Yulia Ivashko
Kyiv National University
of Construction and Architecture
Ukraine
e-mail: yulia-ivashko@ukr.net
<https://orcid.org/0000-0003-4525-9182>

Professor Justyna Kobylarczyk
Cracow University of Technology,
Faculty of Architecture
Poland
e-mail: justyna.kobylarczyk@pk.edu.pl
<https://orcid.org/0000-0002-3358-3762>

Doctor of Science, Professor Valerii Tovbych
Kyiv National University
of Construction and Architecture
Ukraine
e-mail: tovbych@gmail.com
<https://orcid.org/0000-0002-4794-4944>

Professor Dominika Kuśnierz-Krupa
Cracow University of Technology,
Faculty of Architecture
Poland
e-mail: dkusnierz-krupa@pk.edu.pl
<https://orcid.org/0000-0003-1678-4746>

Artem Hlushchenko
Head of the Department
of Urban Planning and Architecture
of the Chernihiv Regional State Administration
Ukraine
e-mail: gluschenko.art@gmail.com
<https://orcid.org/0000-0001-6186-0387>

Andrii Dmytrenko, PhD, Associate Professor,
National University
“Yuri Kondratyuk Poltava Polytechnic”
e-mail: metr5555@ukr.net
<https://orcid.org/0000-0003-4757-5218>

Sergii Belinskyi, pres-officer
Knights of the Winter Campaign
28th separate mechanised brigade
Ukraine
e-mail: serhii_belinskyi@meta.ua
<https://orcid.org/0000-0003-2359-2507>

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Preparing for the post-war reconstruction of historical monuments in Ukraine: Considerations in regard of the ongoing Polish post-WWII experience and international law on the protection and conservation of historical monuments

The article deals with three groups of issues, which are closely interrelated. The main problem discussed is the issue of the reconstruction, revalorisation and protection of Ukrainian monuments exposed to destruction as a result of warfare and Russia's invasion of Ukraine. The second issue presented is the experience of Polish conservators in the area of cities destroyed during World War II. The third issue is international legislation in the field of heritage protection, which was analysed for the planned activities in the area of reconstruction and revaluation of Ukrainian monuments after the end of the war. The above-mentioned research was carried out by a Polish-Ukrainian team of heritage conservators, which seeks to be involved in the process of saving Ukrainian cultural heritage.

Keywords: problems of destruction, experience of restoration, legislative bases, preservation, consequences of war, Ukraine.

Introduction

The brutal and unexpected war waged by the Russian Federation against independent Ukraine since February 24, 2022 has already led to the mass destruction of Ukrainian cities and villages. Infrastructure facilities, transport infrastructure, public and residential buildings and often very valuable cultural heritage sites have been affected.

The aim of this article is to present and analyse the destruction of selected Ukrainian monuments as a result of Russia's aggression against Ukraine, to present Polish experience in the reconstruction of city centres destroyed as a result of World War II and to present the results of analyses of international experience in the field of monument protection law. These analyses were conducted by a Ukrainian-Polish team of monument conservators. Their results are intended to assist in the process of the reconstruction, revalorisation and protection of Ukrainian monuments after the end of the war.

In order to solve the objectives of the study the following groups of specialized scientific sources were elaborated:

- 1) general aspects of monument protection and restoration activities;¹
- 2) research, re-creation and restoration of destroyed or damaged specific architectural objects;²

¹ ORLENKO, Mykola. The system approach as a means of restoration activity effectiveness. In: *Wiadomości Konserwatorskie – Journal of Heritage Conservation*, 57, 2019, pp. 96–105; ORLENKO, Mykola, IVASHKO, Yulia. The concept of art and works of art in the theory of art and in the restoration industry. In: *Art Inquiry. Recherches sur les arts*, XXI, 2019, pp. 171–190; ORLENKO, Mykola, IVASHKO, Yulia, KUŚNIERZ-KRUPA, Dominika, KOBYLARCZYK, Justyna, IVASHKO, Oleksandr. Conservation of the residential and public architecture of the 19th–early 20th centuries (on the examples of Kyiv and Cracow). In: *International Journal of conservation science*, 12 (2), 2021, pp. 507–528; SPIRIDON, Petronela, and SANDU, Ion. Muselife of the life of public. In: *International Journal of Conservation Science* 7 (1), 2016, pp. 87–92; PUJIA, Laura. Cultural heritage and territory: Architectural tools for a sustainable conservation of cultural landscape. In: *International Journal of Conservation Science*, 7 (S. Iss. 1), 2016, pp. 213–218.

² DYOMIN, Mykola, IVASHKO, Yulia. Stylistic Specifics of the Historical Development of the Secession Era (The Experience of Poltava). In: *Wiadomości Konserwatorskie – Journal of Heritage Conservation*, 62, 2020, pp. 79–84; IVASHKO, Yulia, DMYTRENKO, Andrii, PAPRZYCA, Krystyna, KRUPA, Michał, and KOZŁOWSKI, Tomasz. Problems of historical cities heritage preservation: Chernihiv Art Nouveau buildings. In: *International Journal of Conservation Science* 11 (4), 2020, pp. 953–964; ORLENKO, Mykola, IVASHKO, Yulia, KUŚNIERZ-KRUPA, Dominika, KOBYLARCZYK, Justyna, IVASHKO, Oleksandr. Conservation of the residential and public architecture of the 19th–early 20th centuries (on the examples of Kyiv and Cracow). In: *International Journal of conservation science*, 12 (2), 2021, pp. 507–528; ORLENKO, Mykola. *Mykhailivskiy Zolotoverkhyi monastyr: Metodichni zasady i khronolohiia vidvorennya* [St Michael's Golden-Domed Monastery: Methodological principles and chronology of reproduction]. Kyiv: Hopak, 2002. [In Ukrainian]; ORLENKO, Mykola. *Sviato-Volodymyrskiy sobor v Khersonesi: Metodichni zasady i khronolohiia vidvorennya* [St Volodymyr's Cathedral in Chersonesos: Methodological principles and chronology of reproduction]. Kyiv: Feniks, 2015. [In Ukrainian]; ORLENKO, Mykola. *Uspenskiy sobor Kyievo-Pecherskoi Lavry: Metodichni zasady i khronolohiia vidvorennya* [Assumption Cathedral of the Kyiv-Pechersk Lavra: methodological principles and chronology of reproduction]. Kyiv: Feniks, 2015. [In Ukrainian]; PETICHINSKIY, Vladimir, GOVDENKO, Georgiy, and GOVDENKO, Marionila. *Otchet o razborke ruin Uspenskogo sobora – pamjatnika arkhitektury XI–XVIII vekov v Kievo-Pecherskom gosudarstvennom istoriko-kulturnom zapovednike v 1962–1963 gg.* [Report on the dismantling of the ruins of the Assumption Cathedral – an architectural monument of the XI–XVIII centuries in the Kyiv-Pecherski State Historical and Cultural Reserve in 1962–1963]. Kyiv, 1964, pp. 10–16, conservation document [In Russian]; SITKARYOVA, Olga. *Uspenskiy sobor Kyievo-Pecherskoi Lavry: do istorii arkhitekturno-arkheoblichnykh doslidzhen i projektu vidnovlennia* [Assumption Cathedral of the Kyiv-Pechersk Lavra: To the history of the architectural and archeological researches of the renovation project]. Kyiv: Publication of the Holy Assumption Kyiv Pechersk Lavra, 2000. [In Ukrainian].

- 3) monument protection legislation;³
- 4) the aspect of art in restoration activities;⁴
- 5) impact of the environment on the perception of the architectural object;⁵
- 6) professional training of specialists-restorers.⁶

The elaboration of these six groups of scientific sources made it possible to analyse more broadly the current problems of Ukraine's cultural heritage related to the Russian invasion and to make proposals for their solution.



Figure 1: *Destroyed upper floor of the residential building in Kyiv.*
Photo by Yu. Ivashko, 2022

Materials and methods

In order to solve the problems, it was proposed to use the following generally accepted scientific methods: analytical method, method of comparative analysis, method of photofixation. The conclusions were confirmed by field surveys and photo-fixation performed by the authors of the article.

The destruction caused by Russia's war against Ukraine

Despite the fact that today the entire territory of Ukraine is under threat due to rocket and artillery shelling and a full-scale offensive by Russian troops, we will limit ourselves to analysing the destruction of individual territories surveyed directly by the authors – Kyiv, Chernihiv and Mykolaiv region. The local specifics of the destruction are that in Kyiv it has mostly affected objects of modern architecture (Fig. 1), in the Mykolaiv region – architecture of the Soviet period (Fig. 2), while

³ Закон України “Про охорону культурної спадщини” [Law of Ukraine “On Protection of Cultural Heritage”]. In: *Vidomosti Verkhovnoi Rady Ukrainy*, 39, 2000, p. 333. [In Ukrainian]; Закон України “Про охорону земель” [Law of Ukraine “On Land Protection”]. (2003). In: *Vidomosti Verkhovnoi Rady Ukrainy*, 39, p. 349. [In Ukrainian].

⁴ GRYGLEWSKI, Piotr, IVASHKO, Yulia, CHERNYSHEV, Denis, CHANG, Peng, DMYTRENKO, Andrii. Art as a message realized through various means of artistic expression. In: *Art Inquiry. Recherches sur les arts*, XXII, 2020, pp. 57–88; ORLENKO, Mykola, IVASHKO, Yulia. The concept of art and works of art in the theory of art and in the restoration industry. In: *Art Inquiry. Recherches sur les arts*, XXI, 2019, pp. 171–190.

⁵ IVASHKO, Yulia, KUZMENKO, Tetiana, SHUAN, Li, CHANG, Peng. The influence of the natural environment on the transformation of architectural style. In: *Landscape Architecture and Art*, 15 (15), 2020, pp. 101–108.

⁶ KUŚNIERZ-KRUPA, Dominika, KOBYLARCZYK, Justyna, MALCZEWSKA, Joanna, IVASHKO, Yulia, LISIŃSKA-KUŚNIERZ, Małgorzata. Analiza jakościowa edukacji architektonicznej w zakresie ochrony miasta za- bytkowego. In: *Wiadomości Konservatorskie – Journal of Heritage Conservation*, 65, 2021, pp. 20–25.

in Chernihiv there is large-scale destruction of both modern architecture and cultural heritage sites.⁷ Thus, we can talk about two fundamentally different approaches to the restoration of this architecture: if in the case of modern architecture which does not include objects of cultural heritage it is possible to restore works in their original form and partially or completely reconstruct, then in the case of cultural heritage sites, the basic principles of monument protection activities must be observed.⁸



Figure 2: *Destroyed public building in Mykolaiv region.* Photo by S. Belinskyi, 2022

Among the damaged and partially destroyed cultural heritage sites in Chernihiv region we should mention the former Museum of Antiquities (Tarnowski Mansion) – now a youth library – the former Noble and Peasant Bank – now the regional library – and the damaged outer walls of the Yeletskyi Monastery.

The Vasyl Tarnowski Museum of Antiquities was established in 1902 on the basis of the private collection of the Chernihiv patron. It is a one-storey brick building in the pseudo-Gothic style of the nineteenth century, the facades of which are divided by a system of vertical pylons in the interfenestrations between the pointed elongated windows. The window openings and niches of the side facade are topped with pointed arches. The walls are crowned with a strip of stucco decor and a patterned brick parapet atop that.

Recent inspections of the condition of the mansion have shown some changes to the original appearance, good technical condition and the value of the object in terms of its architecture.

⁷ IVASHKO et al., Problems of historical cities....

⁸ ORLENKO, The system approach...; ORLENKO et al., Conservation of....

Unfortunately, as a result of a missile hit in the first days of the war, the courtyard facade of the mansion was noticeably destroyed (Figs 3, 4, 5). It is significant that the building survived the shelling of Chernihiv by the Bolsheviks in 1918–1919 and during World War II but was ruined recently by Russian invaders on the night of March 11, 2022.

At the end of May 2022, a visual inspection of the building was carried out in order to preliminarily assess the damage caused to the cultural heritage site included in the monument protection register.



Figure 3: *A fragment of the ruined street facade of Tarnowski Mansion.* Photo by A. Hlushchenko, 2022



Figure 4: *A fragment of the ruined courtyard facade of Tarnowski Mansion.* Photo by A. Hlushchenko, 2022



Figure 5: *Destroyed window of the courtyard facade.* Photo by A. Glushchenko, 2022

Due to the falling of the bomb near the mansion's courtyard facade, the brick plinth of the facade with a concrete pavement near it was destroyed, which led to its being declared under a state of emergency. The condition of the gable rebate roof, the walls of the courtyard facade, the emergency exit door, the lancet windows with wooden frames and stained-glass windows were assessed as in critical state. Internal architectural and structural elements such as the ceiling, walls, floor and decor were also destroyed. The bombing has damaged the life support systems of the unique building, including fire and burglar alarms, heating, water, communications, internet and lighting.

A preliminary visual inspection proved the need for further more detailed inspections in order to establish the bearing capacity of parts of the building.

Next to Tarnowski Mansion is another historic building, which at the same time suffered from the bombing (Figs 6, 7). This is a unique example of the so-called “wooden Art Nouveau” of the early twentieth century, a very rare kind of Art Nouveau in Ukraine. This mansion is located at 54 Shevchenko Street and is an architectural monument of local significance.⁹

The facility, which houses the Regional Educational and Methodological Center for Culture and Arts, is also run by the Chernihiv Regional Library for Youth, so a preliminary visual inspection was conducted at the same time as the Tarnowski Mansion inspection.

It is a one-story mansion with a symmetrical composition of the main facade, the appearance of which combines features of eclecticism embodied in wood, Ukrainian national romanticism (in the decoration of the entrance with a folded roof) and Art Nouveau stylisations (in the outlines of window openings near the door).¹⁰ Although the destruction of the wooden mansion

⁹ IVASHKO et al., Problems of historical cities...

¹⁰ Ibidem.

was less significant than that of Tarnowski's, its condition was assessed as unsatisfactory. On the side of Shevchenko Street there was damage to the iron roof and double wooden window frames. The blast also damaged the interior of the mansion, destroyed the plaster over a large area of the walls and ceilings and shattered the glass of the interior doors, and some of the interior doors will need to be completely replaced. As in Tarnowski Mansion, the building's life support system failed – burglar alarm, heating, water supply, communications, internet, lighting. The condition of the monument was assessed as unsatisfactory and in need of restoration measures.



Figure 6: *Damage to the end facade of the “wooden Art Nouveau” style mansion.* Photo by A. Hlushchenko

In light of the above, it can be seen that the importance of restoring and preserving architectural monuments destroyed and damaged by the war with Russia is growing, which is especially important for the Chernihiv region, which is one of the first in Ukraine in the number of architectural monuments (135 architectural monuments of national and 175 of local significance). Some of them are grouped into three reserves: the “Hetman’s Capital” National Historical and Cultural Reserve, the “Ancient Chernihiv” National Architectural and Historical Reserve and the “Kachanivka” National Historical and Cultural Reserve.

The above-described examples of destroyed sites, just two of many that have suffered as a result of the war, have mobilised the Ukrainian conservation community into action. Monitoring of the monuments has begun and discussions have also been started in a wider circle, primarily with the Polish conservation community. Poles have a great deal of experience in this field, as many of their monuments were destroyed as a result of the Second World War.

As such they are well placed to help and point out directions for possible reconstruction and revalorisation activities.



Figure 7: *Damage to the corner fragment of the facade of the “wooden Art Nouveau” style mansion. Photo by A. Hlushchenko*

Polish experience in reconstruction and revalorisation of monuments destroyed during the Second World War

In the twentieth century Poland twice had to contend with war losses, which included unimaginable destruction of urban structures during the two world wars. World War II in particular, starting on 1 September 1939, i.e. the day on which the German aggression against Poland began, brought severe losses to the urban and building structure of Polish cities.¹¹

As a result of the fighting and bombing of World War II, the Polish capital Warsaw was destroyed, as well as Gdańsk, Gdynia, Elbląg, Malbork, Opole, Piła, Poznań, Racibórz, Szczecin, Wrocław, Wieluń and many others. The destruction of these cities in general ranged from 50 to even 90% of urban structure annihilation.¹²

In this context, it should be remembered that the reconstruction of cities and parts of cities is a long-term and complex process. It is not possible to restore in a short period of time urban structures which are in ruins. In addition to this, conservation guidelines, priority actions and analyses of preserved historical documentation allowing for faithful reconstruction need to be established.¹³

¹¹ GRZYBEK, Dariusz, MARCINEK, Roman, POLIT, Jakub. *Historia II wojny światowej*. Kraków 2012.

¹² RACON-LEJA, Kinga. Traces of the second world war in European cities. In: *Czasopismo Techniczne – Technical Transactions*, Iss. 1-A (3) 2013, pp. 101–118; RACON-LEJA, Kinga. *Miasto i Wojna*. Kraków 2019; RYMASZEWSKI, Bohdan. *Polska ochrona...*, pp. 102–125; CZUBA, Mariusz. Odbudowa zespołów staromiejskich w Polsce po II wojnie światowej w aspekcie przemian doktrynalnych i społecznych. In: *Renowacje i zabytki*, 2, 2019, pp. 112–129; Miasta historyczne, W. Kalinowski (ed.). In: *Zabytki urbanistyki i architektury w Polsce. Odbudowa i konserwacja*. vol. I. W. Zin (ed.). Warszawa 1986.

¹³ Miasta historyczne..., pp. 7–15.

The complexity of the above process results, inter alia, from the necessity to reconcile priority objectives. One of them is to strive to recreate an authentic architectural form shaping the cultural heritage, as well as to undertake actions allowing the function of the recreated form to fit in with modern times and the needs that this modernity dictates.¹⁴

One of the aims of the reconstruction of historic parts of towns and cities is to recreate as faithfully as possible the historic structures which have been destroyed. This was the aim in the reconstruction of Warsaw and many other of the Polish towns and cities that had suffered enormous destruction during World War II. The rebuilding of these centres involved citizens, architects, conservators and urban planners.

The desire to help rebuild cities took on particular significance in 1945. It was a priority pursued by the Polish school of conservatorship and Polish urban planning thought. The effects of this work went down in the history of the country as significant achievements appreciated around the world. They contributed to the creation of the principles of modern urban planning in Poland, for which a timeless value was to strive to preserve the historic character of urban centres.¹⁵

The history of cities proves that it was not always possible to reconstruct buildings faithfully, especially those whose archival plans had been completely destroyed during wars and fires. At that time, in order to preserve the style of architecture of a given region, it was decided that buildings located in important urban centres should be modelled on those representative of the area under consideration.¹⁶

The reconstruction of Warsaw itself was an almost universally accepted project, although it also had its opponents, who among other things believed that the ruins should be left as a trace of authenticity after the war. Despite their opinions, efforts were made to reconstruct the Old Town of the capital as well as other Polish cities, such as Wrocław, Gdańsk and Poznań. This brought additional benefits, such as recognition of the need to restore buildings which had managed to retain their authentic historic value.¹⁷

A special role in the conservation efforts undertaken in relation to Warsaw should be attributed to the Commission of Town Planning Experts, which was active during the war and included Jan Zachwatowicz. It formulated the conceptual programme for the reconstruction of Warsaw, on the basis of which the city was rebuilt after the war.¹⁸ The Society for the Protection of Monuments of the Past and the Commission – Old Warsaw, which takes care of the conservation of the Old Town district and its surroundings, should also be mentioned here. The study of the historical development of the city confirmed the previously proclaimed thesis that the most valuable attribute of the city centre is its character shaped by the historical layout of buildings and the system of streets. The architects, town planners and preservationists therefore had one objective – to preserve the character of the place as much as possible, which was achieved through the invaluable teamwork of the architects with, among others, art

¹⁴ Ibidem.

¹⁵ Ibidem, pp. 48–55.

¹⁶ Ibidem.

¹⁷ POPIOLEK, Małgorzata. Koncepcja odbudowy warszawskich zabytków w pierwszych latach po II wojnie światowej. In: *Biuletyn Polskiej Młodzi Historycznej*, 7, 2012, pp. 195–223; RYMASZEWSKI, Bohdan. *Polska ochrona...*, pp. 102–125; CZUBA, Mariusz. *Odbudowa zespołów...*, pp. 112–129; GAWLICKI, Marcin. *Zabytkowa architektura Gdańska w latach 1945–1951*, Gdańsk 2012.

¹⁸ POPIOLEK, Koncepcja..., pp. 195–223.

historians, which resulted in the preparation of cartographic documentation making it possible to rebuild the Old Town (Figs 8, 9).¹⁹



Figure 8: *View of Royal Castle in Warsaw rebuilt after World War II.* Photo by D. Kuśnierz-Krupa



Figure 9: *View of a fragment of Warsaw's Old Town rebuilt after World War II – market square.* Photo by D. Kuśnierz-Krupa

Other examples of the rebuilding of historic urban districts include the city centres of Białystok, Olsztyn and Opole, but also of smaller cities such as Kołobrzeg, Lwówek Śląski and Jawor.²⁰ Interestingly, these reconstructions and revaluations followed historical models to varying degrees.

¹⁹ *Miasta historyczne...*, pp. 48–60; pp. 539–582.

²⁰ CZUBA, *Odbudowa zespołów...*, pp. 112–129.

Very difficult and completely different from the previously discussed activities was the effort to introduce new architectural objects into the historical fabric. The Old Town in Szczecin can serve as an example, where new architectural objects and new urban assumptions were proposed in the historical surroundings. Importantly, the introduction of new values was always to respect the historical ones. Most often buildings were located with respect for the historical frontage lines; their scale did not exceed that of the past. Similarly, new urban assumptions were based on historical layouts, where efforts were made to preserve the systems of old street grids. In the case of Szczecin it should be noted that the old building line was not reproduced, but the former proportions of the buildings were recalled, adjusting their position to the existing transport system.²¹

The tendency towards promoting modern architecture even in historic surroundings is nowadays strongly present not only in Poland, but also in other European countries. Introducing new architectural objects into a historic environment is not an easy task. Most often architects deciding on such measures try to introduce these objects in such a way that they remain in contrast with the surroundings or clearly fit in with the existing tissue.²²

There have also been many unsuccessful projects, the consequences of which are visible even today. Some of the most painfully noticeable changes have taken place in the spaces of historic centres of Polish cities, where buildings with historical value have been supplemented with blocks of flats constituting new appearances of fragments of the frontages of historic squares. The square itself will often have been adapted for parking spaces, fully changing its character and posing a threat to the historical value of often the most valuable area of a city. Another unfavourable action in the past was the situation of typical point-block buildings in the central zones of historic urban centres, which unfortunately still constitute a permanent element of the contemporary landscape of these centres.²³

To sum up, the process of rebuilding a city after war damage is a long-term process which is influenced by a number of factors, including financial resources and the economic condition of a given society, as well as the awareness of identity and the need to cultivate and continue the traditions of a place and the history of a given country. In Poland, the reconstruction of some buildings and districts that were destroyed during warfare in the twentieth century continues to this day. One example of such activities is the reconstruction of the substance of Granary Island in Gdansk, which in 1945 was almost completely destroyed during the fighting between the Wehrmacht and the Red Army. It's the direction of this ongoing work is the subject of a number of discussions in the Polish conservation community.

²¹ Miasta historyczne..., pp. 439–462; GIERLASIŃSKI, Janusz. Reconstruction of the Szczecin Old Town after World War II: Evaluation of the solutions. In: *Acta Universitatis Nicolai Copernici. Zabytkoznawstwo i Konserwatorstwo*, XLII, 2011, pp. 566–600; FIUK, Piotr. Przywrócenie środowiska miejskiego w Szczecinie. Podzamcze – odbudowa nadwodnej „dzielnicy” staromiejskiej. In: *Przestrzeń - Urbanistyka - Architektura*, 1, 2017, pp. 43–55.

²² URBAŃSKA, Marta. Background architecture versus reconstruction of the old town quarter in Stargard: Conservation and new architecture in the cultural context of the town. In: *Wiadomości Konserwatorskie – Journal of Heritage Conservation*, 52, 2017, pp. 86–95; WĘCŁAWOWICZ-GYURKOVICH, Ewa. *Architektura najnowsza w historycznym środowisku miast europejskich*. Kraków 2013.

²³ KOBYLARCZYK, Justyna, KUŚNIERZ-KRUPA, Dominika. *Quality of the housing environment and the cultural heritage: On examples of selected towns in the Podkarpackie Voivodeship*, Kraków 2018, pp. 5–120; KUŚNIERZ-KRUPA, Dominika, KRUPA, Michał. Changes in arranging market squares of foundation towns in the south-eastern Poland after 1945 (selected examples). In: *Wiadomości Konserwatorskie – Journal of Heritage Conservation*, 41, 2015, pp. 49–58.



Figure 10 a, b: *View of the reconstruction of Granary Island in Gdansk.* Photo by D. Kuśnierz-Krupa

As shown above with regard to Poland, the process of rebuilding monuments after World War II is still ongoing. Ukraine can learn from the Polish experience in this respect. It can also make more conscious decisions, for example, about new architecture in the centres of historic cities. Two directions have been pursued in Poland: The introduction of modern architecture or the introduction of architecture referring to old styles. Realisations related to these directions exist and can be analysed. So does the question of new districts. They can be rebuilt as contemporary urban structures or drawn from the preserved inventories and reconstructed.

Fundamentals of monument protection activities and monument protection legislation

The problem of the destruction of Ukraine's historical monuments, their protection, restoration and revalorisation prompted a Polish-Ukrainian team of conservators to analyse possible actions in this field. The team also decided to analyse legislation in the field of monument protection in selected European countries, the USA, Canada and post-Soviet countries. This analysis is expected to make it possible to develop corrections in the legislation related to the protection of historical monuments in Ukraine, which will be very important for the whole process of reconstruction and revalorisation of cultural heritage destroyed during the war.

The solution to the problem of preserving the cultural heritage of cities is only possible with the implementation of a system of measures covering the city as a whole and in some cases also its surroundings; for example, landscape regulation is essential for the perception of particularly valuable urban panoramas.

Consideration should be given to the possibility of introducing a historic reserve into a city centre which, on the one hand, preserves the historic structure and, on the other hand, is a route to genuine revitalisation. The cultural and social centre of the Old Town Square in Warsaw, for example, is being developed in this way. This is an example of the careful "implantation" of a new context that combines old material forms.

The problem of preserving cultural values in a living and developing city cannot be solved once and for all. The question of aligning the changing functional system with the material and spatial environment must be constantly considered. It is a question of certain elements, the selection of means for their preservation and a choice between the conservation and change of the formed structures, as the problem concerns all complexes of the city environment,

including buildings of the past and those created recently. Problem solving is thus part of the process of managing the development of urban organisms.

Before the restoration and revitalisation of the historic environment can begin, it must be carefully analysed and studied. Consequently, a system of selection and valorisation of these monuments must be implemented.

The selection process should be guided by a fairly clear and stable system of criteria, created on the basis of a hierarchy of values that takes into account all aspects of the cultural and material significance of objects.

One of the criteria in such a system is the age of objects, taking into account not only the antiquity of objects, but also the belonging of buildings to epochs, especially significant for the historical process, or epochs whose heritage for one reason or another suffered great loss in the past.

The second criterion for an objective approach is the aesthetic and artistic value of individual objects. The assessment of the aesthetic norms and tastes of modernity is very unreliable, as evidenced by the change in attitudes toward Art Nouveau art and the reappraisal of the aesthetic significance of the legacy of Soviet constructivism in the 1950s and 1960s, or the style of socialist realism in recent times.

The third criterion, no less important, is the value of a particular work of architecture or complex as a “historical document”, associated with events that had important historical significance.

The fourth criterion how characteristic a building or complex is both of a certain stage of development of the principles of the formation of spatial structures and of a certain stage in the history of architecture as part of the history of culture.

The very concept of “conservation” is ambiguous. It implies not only the continuation of the physical existence of objects, but also the preservation of related values in the system of the environment. The latter implies a clear regulation of construction in the areas of cultural and especially architectural and urban heritage.

Retained forms of urban environment must be carefully classified. In some cases, the complete conservation and restoration of old forms, including the interiors of buildings, with the full preservation or restoration of all decorative and plastic elements is desirable; in other cases it is enough to preserve the appearance of buildings that form ensembles with the possible modernisation of internal neighbourhood spaces and interiors; in a third it is enough to preserve the system of the formation of space, scale and general characteristics of plastic three-dimensional shapes and colours.

Finally, it is possible to fragmentarily preserve old forms, fragments that are introduced into new contexts as “signs, reminders” – a symbolic expression of the fourth, temporal dimension of the existence of the urban environment. In all cases, the defining principle is the urban approach to solving problems, the revival of old values by introducing them into new systems. Such a value can be the spatial structure of the city as a whole; it can be associated with the historically originated parcelling of urban lands, which was expressed in the scale of construction, the width of buildings on the street front or the nature of divisions of inner-quarter territories. The preservation of cultural values is not conservative in spirit.

The experience of the past is the basis for building an image of the future, which determines the direction of action in the present. In controlling modern processes of environmental

development, we must take care of the image of history as well as not blocking opportunities that will become relevant in the future.

There are characteristic features of monument protection activities in matters of legislative and administrative regulation in Ukraine that differ from those elsewhere. Experience in the field of cultural heritage protection in European countries (such as the UK, France, Poland, Czech Republic, Serbia, Germany), as well as the United States, Canada and others shows that management in this area is possible with a single coordinating state protection body. In some countries, it operates in the system of humanitarian ministries of science, education, culture and tourism, this area being close to socio-cultural activities.

In Poland, the function of the protection of cultural heritage is entrusted to the State Service for the Protection of Monuments of the Ministry of Culture and Arts. The State Conservator (“monument guard”), who heads the Bureau for the Protection of Cultural Heritage, is directly subordinate to the Minister of Culture. The Bureau for the Protection of Cultural Heritage with Organisational and Legal Departments and the Territorial Inspectorate resolve all issues related to the protection of monuments. The structure of the bureau includes the Main and Special Monument Protection Commissions, the Centre for the Study and Protection of Monuments, which consists of specialised institutions: the centre of documentation of monuments, management of palace and park ensembles, interdepartmental expert commission on values cities and old town ensembles, the centre of museum objects, etc.

Another characteristic in the United States and Canada is that the number of cultural heritage sites is in the millions, and unique, especially complex natural and cultural sites are only a few hundred. In these countries, with a high level of self-awareness and sensitivity to their history, the National Cultural Heritage Service or the National Park Administration reports to the Ministry of the Interior and operates alongside the police.

Many problems are not solved due to the disproportion between the complexity and scale of tasks and the capabilities of the existing system. In particular, the Law of Ukraine “On Land Protection”²⁴ subject to special protection, as part of all lands within the territory of Ukraine, defines those lands of historical and cultural significance, responsibility for proper use, preservation and maintenance (“protection”) which are entrusted to the central executive body authorities on land resources and the central executive body on ecology and natural resources.

According to Article 35 of the Land Code of Ukraine,²⁵ such lands include a wide list of territories – from national reserves to the territories of individual architectural monuments and sites of ancient settlements.

At the same time, the Law of Ukraine “On Protection of Cultural Heritage”²⁶ gives another name for such territories – “lands of historical and cultural purpose” – but includes a much narrower list of territories and assigns responsibility for their protection (preservation) to the central executive body in the field of cultural heritage protection (Ministry of Culture of Ukraine). Thus, we have three central bodies responsible for the protection of immovable cultural heritage sites.

²⁴ Zakon Ukrainy “Pro okhoronu zemel”...

²⁵ Zemelnyi kodeks Ukrainy [Land Code of Ukraine]. In: *Vidomosti Verkhovnoi Rady Ukrainy*, 3-4, 2002, p. 27. [In Ukrainian].

²⁶ Zakon Ukrainy “Pro okhoronu kulturnoi spadshchyny”..., art.34.

Conclusions

The large-scale destruction caused by the war with Russia makes it possible to organise the process of protection and restoration of historical and cultural heritage at the appropriate level, using world experience in this field.

A feature of the Russian-Ukrainian war is that the main large-scale destruction is concentrated in the north-east, east and south of Ukraine, where the main construction of cities dates back to the nineteenth and twentieth centuries, and in industrial areas construction is exclusively from the Soviet period. From the examples given in the article, ancient Chernihiv is an exception, where there are monuments from the pre-Mongol period, as well as a large number of churches of the Ukrainian Baroque era and Art Nouveau objects.²⁷ Considering the fact that the Polish experience in the field of restoration of monuments destroyed by war (in particular, the restoration of the Old Town in Warsaw) is generally recognised, the authors analysed what exactly can be borrowed as a model, and what does not fit the conditions of the affected cities of Ukraine.

Aspect 1. Reproduction of the historical environment – an environmental approach. This aspect was the main one during the reconstruction of the Old Town in Warsaw, since the task was to reproduce not a specific object, but a complete historical environment with a collection of objects. In the case of most cities in the south and east of Ukraine, there is no such established historical environment with objects of the same style; most often there is an interspersion of individual historical buildings in the construction of Soviet times. That is, in our opinion, during the post-war reconstruction, individual objects that have historical and cultural value will be restored.

Aspect 2. The expediency of reproducing the destroyed object according to existing drawings and photo fixation. This aspect of the reconstruction of the Old Town has caused a lot of debate as to whether such reconstructed tenements can be considered historical objects. The same discussion took place during the rebuilding of the cathedral with a bell tower in St Michael's Golden-Domed Monastery in Kyiv, from which only the foundations remained.²⁸ The example of Old Town is appropriate here in the sense of arguing for the reconstruction of those objects that are symbolic for the culture of the people.

Aspect 3. Feasibility of repurposing reconstructed objects. As the experience of Old Town shows, despite the preservation of the “colour of the place”, the reconstructed tenement houses also perform a tourist function. Thus, in the case of the reconstruction or restoration of destroyed objects in the cities of Ukraine, a change of function is allowed.

Aspect 4. Application of new designs and technologies. Here, this aspect can be analysed much more broadly, not limited by the Polish experience. The latest materials and progressive modern construction technologies were used both during the reconstruction of the cathedral with the bell tower of St Michael's Golden-Domed Monastery²⁹ and the Assumption Cathedral of the Kyiv-Pechersk Lavra³⁰ in Kyiv, and during the revitalisation of the “Fabryka Norblina” and “Elektrownia Powiśle” in Warsaw, while maintaining stylistic conformity. Since industrial

²⁷ IVASHKO, DMYTRENKO, PAPRZYCA, KRUPA, KOZŁOWSKI, Problems of historical cities...; IVASHKO, Yulia, TOVBYCH, Valerii, DMYTRENKO, Andrii, USHAKOVA, Olga, KONDRATSKA, Olga, BIGAJ, Przemysław. Stylistic Features of Secession Décor in Ukraine as the Basis for Its Restoration. In: *Wiadomości Konserwatorskie – Journal of Heritage Conservation*, 68, 2021, pp. 117–127.

²⁸ ORLENKO, *St. Michael's Golden-Domed Monastery...*

²⁹ ORLENKO, *Mykhailivskiy Zolotoverkhiy monastyr...*

³⁰ ORLENKO, *Uspenskiy sobor...*

cities are located in the south and east of Ukraine, during their reconstruction, one should take into account not only the experience of Old Town, which was related to the restoration of medieval buildings, but also the Polish experience of revitalising monuments of industrial architecture, where greater modernisation of the applied technologies and materials is allowed.

In the event that a historic building is to be recreated or reconstructed, it is advisable to immediately address the issues of electromagnetic safety, noise protection and microclimatic indicators, using modern finishing and facing materials, which also reduce acoustic noise levels by 10–25 dBA, or in cases of complex surface configurations using liquid shielding compositions of small thickness.³¹

Unsurprisingly, the war accelerated the process of the European integration of Ukraine, one of the aspects of which is the unification of legislative and regulatory acts, including in the field of cultural heritage protection. There is a need to implement in Ukraine such characteristic features of the European practice of cultural heritage protection as: the separation of regulatory bodies – inspections being made by the body that provides general management of the use of heritage sites; comprehensive protection of all types of cultural heritage monuments – movable and immovable; organic unity of the heritage protection system with the sphere of tourism; and, finally, the policy of severe financial penalties for law violations and the encouragement (through tax benefits) of investors financing the restoration and maintenance of architectural monuments, including through cooperation with public organisations.

The creation of a single National Service for the Protection of Cultural and Natural Heritage in Ukraine is an urgent need.

Modern time requires a transition from the protection of individual objects – micro-objects – to integral natural and cultural complexes – macro-objects. The peculiarity of the latter is that these are large territorially allocated and architecturally-planned (urban planning) sites of representative objects of cultural and natural heritage with deep historical and spiritual potential.

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³¹ GLYVA, Valentyn, BAKHAREV, Volodymyr KASATKINA, Natalia, LEVCHENKO, Oleg, LEVCHENKO, Larysa, BURDEINA, Nataiia, GUZII, Sergii, PANOVA, Olena, TYKHENKO, Oksana, BIRUK, Yana. Design of Liquid Composite Materials for Shielding Electromagnetic Fields. In: *Eastern-European Journal of Enterprise Technologies*, 3(6-111), 2021, pp. 25–31.

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