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IN THIS ISSUE

MUZEOLÓGIA a kultúrne dedičstvo

- 05 Veronika Kolaříková:
The museum exhibition in the context of dispositive analysis
- 33 Viktoriia Kuzma:
Establishment and development of the Zakarpattia Regional Art Museum during the Soviet and post-Soviet period
- 43 Andresa Richetti - Fabio Pinto da Silva - Liane Roldo:
*3D Scanning of Porto Alegre Museum Artifacts:
The Crocker of the Rocco Bakery*
- 61 Magdalena Szalbot:
*"Games" using old photographs in the time of the pandemic:
Archival photographs in museum education*

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CONTENTS

Articles

- Veronika Kolaříková:
The museum exhibition in the context of dispositive analysis 5
- Viktoriiia Kuzma:
Establishment and development of the Zakarpattia Regional Art Museum during the Soviet and post-Soviet period 33
- Andresa Richetti - Fabio Pinto da Silva - Liane Roldo:
*3D Scanning of Porto Alegre Museum Artifacts:
The Crockery of the Rocco Bakery* 43
- Magdalena Szalbot:
*“Games” using old photographs in the time of the pandemic:
Archival photographs in museum education* 61

The museum exhibition in the context of dispositive analysis

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The museum exhibition in the context of dispositive analysis

The aim of this study is to propose and present a suitable methodological framework based on the principle of discourse analysis, which would be suitable for the implementation of research on the museum environment, in particular museum exhibitions and their narratives. The potential of the dispositive analysis of the museum phenomenon is enormous, but the elaboration of this methodology in the context of museum research in our environment is lacking. This study aims to add to this underdeveloped area and provide readers and researchers with key information concerning the possibilities and uses of this methodology. As a suitable methodological tool, the study chooses dispositive analysis, which has the advantage of allowing the analysis of materializations in addition to the discourse plane, which is an advantage for the analysis of exhibitions and the exhibits housed therein. Dispositive analysis, which in the study is primarily based on S. Jäger's approach, enables the examination of materializations without overlooking the role of visitors and the broader context of the exhibition, which, by its very nature of membership of a cultural institution, is always discursively conditioned. The relationship between the museum and discursive reality is thus a thematic part of the study, as is the exploration of the topics of discourse (Foucault) and the dispositive.

Keywords: Museum exhibition, narrative, discourse, dispositive, dispositive analysis, Foucault, Jäger

Nowadays, museums are regarded as important cultural and educational institutions, which is one of the reasons why museum research is on the rise. However, it is not easy to investigate the social reality of museums, as they are complex institutions with many areas of interest, functions, roles and meanings in which various social actors are involved. In my sociological and museum research, I am primarily concerned with the analysis of museum exhibitions, which I see as places closely related to social discourse, on whose form they are based, yet the exhibitions themselves participate in some way in its construction and preservation. Given this fact and my research experience, I see methods from the field of discourse analysis as beneficial for museum research. However, their elaboration in the field of museum research is insufficient in the Czech Republic and in the Slovak Republic as well; one can say that they are almost absent. Therefore, the aim of this study is to propose, construct and present a methodological tool suitable for researching museum exhibitions, which would be anchored in a discursive analytical framework and would enable a comprehensive analysis of museum exhibitions.

As a suitable methodological tool I chose dispositive analysis, which falls within the field of discourse analysis. Dispositive analysis is a specific analytical method that enables the examination of a broad social reality, its phenomena and elements, by observing both the meaning of social

structures and the level of social actors and their actions. Herein lies dispositive analysis's great potential to contribute to the field of museum research. The issue of the influence of social structures and the role of social actors is closely related to the issue of museums and their exhibitions. Exhibitions, as an aspect of the museum institution, create a certain social structure in which visitors move. But it is important to realise that this structure has been created by the people – most often curators and other museum staff – who are involved in the process of creating the exhibition. Thus, to a large extent, the exhibition is the result of the actions of social actors (museum workers), even though they are influenced in their actions by a certain type of discursive knowledge that is typical of a given society, institution or research circle. In relation to other social actors (visitors), the exhibition subsequently acts as an external social structure, as an objectified reality. However, its meaning is not immune to the thinking of social actors; it is not firmly dictated to them. Rather, visitors themselves are involved in the process of creating the meaning of the exhibition, i.e. social actors themselves participate in the construction of the meaning of the exhibition. Dispositive analysis enables analytical attention to be paid to all aspects of this social (museum) reality.

The first and foremost benefit of dispositive analysis is that it enables a comprehensive analysis of the exhibition itself – its narrative and the exhibits and exhibition situations placed within it. The exhibits in the analysis represent materializations whose meaning, context, and other aspects the analysis focuses on. The possibility of analysing materialisations in their social and cultural context is crucial for research on exhibitions. Another important element to which dispositive analysis pays attention is the discursive dimension of the research, which represents the social dimension of the exhibition and the phenomenon presented and constructed by it. Being interested in the discursive dimension of research is important in dispositive analysis, as museum narratives and their form are strongly influenced by social discourses. The discursive anchoring of the research does not necessarily mean that the researcher is only interested in the power relations and effects of museums in the analysis, which are the topics that come to mind most often in the context of discourse analysis. Rather, in the context of dispositive analysis, it is an attempt to explore and understand the exhibition as a whole, without overlooking the individual parts of this whole, which is assumed to contain meaning that mirrors not only the thinking and research background of the museum in question, but also the cultural and social aspects of society, i.e. that dominant social discourses are involved in its form. At the same time, it is possible to observe, for example, to what extent the studied exhibition diverts from social discourse and subverts it, or to what extent it copies and deepens it, etc.

For the purpose of applying dispositive analysis to the museum environment (specifically the field of museum exhibition research), the study first introduces the phenomenon of museum exhibitions with regard to their narrative and meaning, which is constructed and interpreted within the communicative process taking place in a particular discursive reality. Next, the study will open up the issue of discourse (Foucault) and discourse analysis, in order to subsequently address the clarification of the notion of the dispositive and dispositive analysis (Jäger). In the final stage, the study will apply the given information to the field of museum research and present a possible procedure for the dispositive analysis of a museum exhibition.

1. THE MUSEUM PHENOMENON

1.1. The museum exhibition

The museum is a social space that conveys a variety of information to visitors through exhibitions and exhibits. These are mediated to visitors through the museum presentation, through which, according to Stránský,¹ the mission and meaning of the musealization of reality is fulfilled. It is through this presentation that the memory of musealized reality influences social consciousness. Stránský² understands musealization as a process of acquiring museality – a certain cultural and memory value, which is not only based on the knowledge of reality, but also on the adoption of a value relationship to it. The value relationship to reality then implies the need to preserve this cultural value, which is related to the need for its presentation. By means of this, the museum participates in the formation of cultural awareness of individuals and society, as well as in the formation of culture itself. For the purpose of the museum presentation, exhibitions and displays are created in the museum, in which museum objects are represented by exhibits.³

Experts across paradigms differ in their opinions on whether the individual exhibit or the exhibition as a whole is the carrier of information and meaning in a museum. Along with this, scholars also take a different stance on the exhibit itself and its position within the exhibition. Advocates of the previously predominant phenomenological approach perceive an exhibition as a collection of exhibits, whereby an exhibition comes into being by gathering in a particular place a number of exhibits, phenomena that tell us about themselves.⁴ From a phenomenological perspective, an exhibition is composed of unique exhibits endowed with certain attributes, associations or histories that cause them to bear a special meaning, significance or simply be charming in nature. The exhibit therefore stands at the centre of the exhibition and can constitute an exhibition in itself. The meaning of the exhibition is then determined by the correlation of the meanings of the exhibits presented within it. In practice, exhibitions situated in this way can be imagined as previously typical museum rooms full of showcases with exhibits representing outstanding and unique pieces perceived by curators as worthy of display. Often these are formalist displays that are non-contextual, offering no explanation or story, focusing only on the object itself⁵ and making no attempt to reinforce its narrative value. These are usually gallery-type exhibitions that aim to create a neutral environment in which the exhibits are to stand out undisturbed.⁶

A different approach to the issue is taken by structuralism, which began to assert itself in the exhibition industry in the middle of the twentieth century and today represents the dominant paradigm here. Structuralists are convinced that the exhibit has no content or meaning of its own, that it means nothing in itself, it is “just” a sign of the exhibition. Its meaning and significance are formed only in the context of the exhibition, by its inclusion among other exhibits and its distancing from them, while attention is paid not only to which exhibits are present in the exhibition, but also to which are absent. The emphasis in this approach is not on

¹ STRÁNSKÝ, Zbyněk Zbyslav. *Archeologie a muzeologie*. Brno: Masarykova univerzita, 2005, p. 129.

² STRÁNSKÝ, *Archeologie...*, pp. 111–113.

³ By an exhibit Stránský means a displayed (not just a thesaurised) museum piece.

⁴ WOLF, Jakub. Exponát a expozice, dekonstrukce. In: *Muzeum*, 48(1), 2010, p. 18.

⁵ ŠOBÁŇOVÁ, Petra. *Expozice jako místo pro vzdělávání Metodika ke tvorbě expozic zohledňujících vzdělávací potřeby návštěvníků*. Brno: Moravské zemské muzeum, Metodické centrum muzejní pedagogiky, 2017, p. 22.

⁶ ŠOBÁŇOVÁ, Petra. *Muzejní expozice jako edukační médium. 2. díl: Výtěžek současných českých expozic*. Olomouc: Univerzita Palackého v Olomouci, 2014, p. 398.

the exhibit itself and its uniqueness, but on the exhibition as a whole and its message, theme and statement. Researchers are aware that within another exhibition with a different theme, the exhibit might take on a different meaning. This is why structuralists are also concerned with the question of power and the problem that the exhibition and its theme exert a certain amount of power pressure on the exhibit, as they determine what the exhibit will become in a given exhibition, or what meaning it will take on with respect to the theme of the exhibition.⁷

In practice, this approach is reflected in the contextual exhibitions of contemporary modern museums, which are more oriented towards the viewer and their emotions, experiences and active stay in the museum. Therefore, these exhibitions

offer a description and explanation of a phenomenon in context; the exhibits presented have a connection of meaning and, together with numerous accessories, form a complex picture of the natural or cultural reality presented; various classical and contemporary means (dioramas, multimedia scenes) are used to create a period or natural atmosphere, and the wider phenomenon and context are conveyed through the exhibited object.⁸

For a researcher analysing museum exhibitions, it is important to find a balance between these approaches and to clarify how to approach individual exhibits. In this study, I take more of a structuralist approach. However, leaning towards a contextual view of the exhibit and the exhibition does not necessarily mean that the researcher does not give individual attention to the exhibit. This is still an important part of the analysis. However, despite examining the meaning, function and nature of a particular exhibit – which is certainly important – we cannot overlook its context as determined by the exhibition, by which the exhibit's meaning is modified, co-created and reinforced. Stránský already pointed this out when he said that the degree of impact of an exhibit

depends on its own communicativeness, i.e., what it is able to communicate. If we take two exhibits and situate them in space in a relationship of meaning, we multiply not only their own action, but we create a sign system that has a higher communicative significance than the individual components involved.⁹

In my view, this is precisely because the context of the exhibition and the exhibits within it ultimately produces a certain narrative through which the exhibition is interwoven, and which not only conveys certain information to the visitor, but also places that information in the context of the exhibition, to which it adds a certain narrative. The exhibition narrative can be more or less explicit and legible to the viewer. Narratives represent and unify the knowledge present in the exhibition and, together with the exhibits, create meaning. Through it, the exhibitions then communicate with the visitors.

1.2 The museum narrative

The term narration refers to oral or written narratives. A narrative is characterised by the presence of a story, a kind of action that is linked to the actions of the actors and therefore to the changes of events and a certain temporality – the change of the plot. It is true that all events in a narrative are causally connected, otherwise it is not a narrative. It is not necessary,

⁷ WOLF, Exponát a..., pp. 17–21.

⁸ ŠOBÁŇOVÁ, *Expozice jako...*, p. 22. This and other quotations are translated by the author.

⁹ STRÁNSKÝ, *Archeologie...*, p. 127.

however, that the causal relations be explicitly explained in the narrative. It is sufficient if they are immanently present or derive from commonly known facts that the recipient intuitively deduces and adds to the story.¹⁰

There is no doubt that this explanation of narrative applies to literary works and oral folklore. However, narrative is also found in museums and their exhibitions, as they also try to portray a certain story that can be grasped by the visitor through their exhibits and their specific arrangement and presentation methods. Narrative can take various forms. It can be a presentation of the life of a particular character or, conversely, the social life of a particular historical epoch or geographical location; it can be a demonstration of the development of an artistic style over the years, or it can be “storytelling” linked to the development of a particular culture or social group – for example, a nation or the inhabitants of a particular region. Therefore, for an exhibition to construct a narrative it does not have to use only contextually placed exhibits that create a series of continuous scenes or are part of temporal etudes. An exhibition, or a part of one, can present a narrative even if it explicitly depicts only a single event, provided that it is an event whose causation and context are common knowledge among visitors. Similarly, a single exhibit can take on meaning without being contextually anchored within the scene of a particular part of the exhibition, provided that the symbolism of the exhibit can be intuitively inferred by the viewer, perhaps because it is a commonly known symbol in a given nation state or other social group, handed down through generations, or because it references a narrative that is part of the collective memory. When analysing exhibitions, it is therefore appropriate to pay attention to the social discourse that influences not only the form of the exhibition itself, but also the knowledge frames of visitors. It is equally important to pay attention to the exhibits themselves and their meaning, not just in the given exhibition but in society as a whole. This process leads us not only to think about which objects are presented in the exhibition, but also to realise what is absent with regard to the presented topic.

This is all related to the fact that the narrative of the exhibition can be presented either as a given truth,¹¹ or the museum staff can seek to build a more open narrative that tries to include all levels (or at least more of them) in the presented story, thus taking into account multiple points of view on the topic presented by the exhibition. In a (post)modern exhibition, the idea is to avoid imposing a single truth and view of reality on visitors. An “open” museum narrative is one of the requirements for modern museums today, and the active participation of the visitor in creating the meaning of the exhibition is assumed. This draws our attention to the interconnection of the theme with constructivism,¹² a paradigm which sees the social actor as an active constructor of social reality and therefore as an agent actively participating in the construction of the meaning of the exhibition and its narrative.

1.3 The interpretation of the exhibition as a communication process

Visual methodology, along with semiotics, which forms a sub-part of it, are important disciplines for the analysis of museum exhibitions, although they are themselves more

¹⁰ Cf. RIMMON-KENAN, Shlomith. *Poetika vyprávění*. Brno: Host, 2001; CHATMAN, Seymour. *Příběh a diskurs: narativní struktura v literatuře a filmu*. Brno: Host, 2008.

¹¹ This approach was very common in history, and at the time when museums were being opened to the general public, society could predominantly encounter this way of creating exhibitions.

¹² For a more detailed discussion of the relationship of the museum exhibition to the constructivist paradigm, see KOLARÍKOVÁ, Veronika. Konstruktivistické teorie učení a jejich využití v edukační realitě muzea. In: *Pedagogická orientace*, 28(3), 2018, pp. 496–540.

concerned with the interpretation of artworks. However, the development of their analysis and interpretation is nevertheless inspiring, as their approach to the interpretation of paintings can be applied to other types of exhibit, as well as to the exhibition as a whole. Indeed, an exhibition is an act of visualization which is then subjected to the interpretation of the visitor. According to Schärer, the exhibition is a site of interpretive visualization of absent clusters of circumstances (facts and situations that form the context of the exhibition or display), objects (exhibits) and staging elements (display cases, lighting, colours, images, audiovisual materials, etc.), which all together function as signs referring to social reality (the outside world).¹³ These signs often function as visual means of acting on the human senses. In the process of construction and interpretation of meaning, signs and their meanings are also influenced by components related to the exhibition space (the appearance of the room, etc.)

According to Stránský as well, a specific feature of museum presentation, which he understands as a communication channel, is the use of visual language, which, alongside the “ordinary” language captured in text, forms the key means of communication of the exhibition. “The visual, museal-presentational language works with its own specific vocabulary (space, objects, forms, graphemes, texts, colours, sounds, lights, movements) and has different compositional principles and forms of its own.”¹⁴ Therefore, it is important to pay analytical attention to the visual language, or the form of the exhibition. A brief excursion into the historical development of the interpretation of artworks that are related to visibility and are also a specific type of exhibit can thus be a starting point for the following analytical considerations, as knowledge of the development of these analytical tools can be useful when thinking about the analysis of the exhibition.

Art historians, starting from the positivist paradigm, first perceived the artwork as an impartial and politically neutral representation. Later postmodernists, however, noticed that representation was an inseparable part of social processes, including the processes of domination and control, and began to examine systems of representation as instruments of power that served specific ends. Thus, over time, there has been a shift in scholarly interest from what an artwork signifies to what it does; we can clearly see here the influence of poststructuralism and a move towards poststructuralist critique. The work ceased to be seen as the product of a particular creative individual and began to be seen as the product of the specific social situation in which it was created and continued to function. Interest in the contextuality of the work came to the fore, and, due to the linguistic turn in the social sciences, the interpretation and analysis of visual objects began to draw heavily on linguistic paradigms and practices.¹⁵

Art, which is one type of museum object, is understood in this study as a sign system. This viewpoint is inspired by Černý and Holeš¹⁶ who consider the main characteristic of artworks to be their sign character and classify artworks as fuzzy polysemous signs, as a result of which no single universally correct interpretation of the work is possible. This is because interpretation depends on a whole range of circumstances, such as the characteristics, experience and knowledge of the interpreter. Art is not only created by the painter, but also by the one who

¹³ SCHÄRER, Martin R. The exhibition – a place of limited dialogue. In: *Museologica Brunensia*, 1(1), 2012, pp. 14–17.

¹⁴ STRÁNSKÝ, *Archeologie...*, p. 128.

¹⁵ OWENS, Craig. Reprezentace, přivlastnění a moc. In: KESNER, Ladislav (ed.), *Vizuální teorie: Současné anglo-americké myšlení o výtvarných dílech* (pp. 189–220). Jinočany: H & H, 2005.

¹⁶ ČERNÝ, Jiří – HOLEŠ, Jan. *Sémiotika*. Praha: Portál, 2004.

looks at the painting is how Mikš¹⁷ summarises one of the main ideas of the work of the eminent art historian Gombrich,¹⁸ who dealt with the psychology of pictorial representation and emphasised that the meaning of a work of art is not only based on the work itself and the goals intended by its author, but also on the recipient of the work and the individual way in which the viewer interprets it. Gombrich¹⁹ understood art as a process in which certain ends are achieved by certain means, and the achievement of these ends is not a matter of the artist's self-conscious declarations, but a matter of the effect of the work on the person viewing it. This is because when an observer of a painting inserts their own knowledge and previous experience into the painting, they see, and then interpret and complete the depicted scene in its context. Art can thus be understood as a communication process in which the author of the work sends a certain message to the viewer. The viewer interprets and reacts to this message in a specific way. It is a process of communication in which the meaning and sense of the artwork is shaped, communicated and maintained.

The communication process as a tool for constructing meanings is not only related to artworks, but also to other types of exhibit and the exhibition as a whole. Schärer²⁰ agrees with this, and according to him this process of communication takes place between the author of the work, the curator and the visitor, who is an active participant in the communication process, not just a passive recipient of meaning (which is why Schärer does not refer to the visitor as a recipient of meaning in museum communication, but as a participant in communication). We can assume that the communication process and its meaning-making potential affects the whole social reality as such. According to Habermas,²¹ society is based precisely on communicative action – on interactions between actors whose aim is to achieve understanding. Human action derives from a dialogical process of mutual understanding and negotiation of reality with other actors. In the case of art, this takes the form of communication between the author of the work and its viewer; in the case of a museum exhibition, it is primarily communication between the curators and the museum management and its visitors. Communication with visitors is primarily through the exhibits, which may also represent other actors in the exhibition (authors, collectors, curators, museum educators, but also historical figures or local residents, etc.). Primarily, however, through the existence of a socially constructed sign, exhibits represent a group reality that is negotiated and affirmed in communication with visitors.

Other factors also enter into this communication. In addition to the author/curator or other museum representative and the viewer, the time of the object's creation and, last but not least, the social and cultural conditions in which the object is interpreted play a role:

It is said that every painting tells a story, but we all know from our own experience that if we don't understand what the story is, we can't 'read' it in a painting nearly as easily as we can read it in a book. Most narrative painting is based on the artist's belief that the particular story they is telling is well known to the viewer.²²

¹⁷ MIKŠ, František. *Gombrich: Tajemství obrazu a jazyk umění: Pozvání k dějinám a teorii umění*. Brno: Barrister & Principal, 2008, p. 43.

¹⁸ Gombrich himself was not a representative of post-structuralism, and he distanced himself from cultural relativism and the processes of deconstruction. Nevertheless, we can see that he was also aware of the important role of the viewer in the process of perceiving works of art (in KESNER, *Vizuální teorie...*)

¹⁹ MIKŠ, Gombrich..., p. 44.

²⁰ SCHÄRER, The exhibition..., pp. 14–17.

²¹ ŠUBRT, Jiří. *Postavy a problémy soudobé teoretické sociologie: sociologické teorie druhé poloviny 20. století*. Praha: ISV nakladatelství, 2001.

²² STURGIS, Alexander. *Jak rozumět obrazům*. Praha: Slovart, 2006, p. 10.

This statement is important in order to be aware of the cultural context of the work, knowledge of which is necessary to understand the painting, and again any other type of exhibit or cultural object and its meaning, since the time and environment in which the object was created, as well as the time in which it is subsequently interpreted, has had and continues to have a profound effect on it.

Post-structuralism thus pointed out that it is impossible to look for objective meaning in art, which would be (consciously) inserted into the work by the author. At the same time, it drew attention to the need to perceive the specificity of the cultural, social and historical situation that determines the construction of the work and its meaning. This relativity of interpretation applies not only to art, but also to other museum exhibits and the exhibition as a whole. The point is that the meaning of an exhibit or exhibition is not a whole, pre-given entity but something that is formed only in the process of interpretation. The meaning that people attribute to objects (and not just objects of a physical nature) is created in the course of human interaction.²³ Meaning is therefore always social and, as such, is socially determined. According to Foucault,²⁴ meaning is socially agreed upon within a conscious or unconscious consensus, or emerges within a discussion. Society uses signs as meaningful units operating within a given discourse.

Logically, then, the meaning of an object is not fixed, but can be variable both in terms of time (an exhibit in a museum today has a completely different function and meaning than it did in the past at the time of its common use) and in terms of the socio-cultural environment of the social actors who ascribe meaning to the object. Indeed, members of a particular social group share what Taborsky²⁵ refers to as a common group reality that provides social actors with a particular way of looking at the world that is specific to their group. At the same time, there is agreement within a given social group about the meaning of a given object. Therefore, meaning tends to be stable over time and space. However, this does not mean that the meaning of an object is permanently assigned, nor that it cannot change over time, or that a particular feature cannot have multiple interpretations. Meaning can change and a sign can take on different meanings. But the number of such meanings is not infinite. On the contrary, the meaning of a sign as a sign unit is closed in the sense that a sign cannot take on any random form of meaning (if only because meaning always arises within a social group), nor can it take on all meanings simultaneously. The number and style of meanings assigned to an object is limited.

The meaning of an object is formed in the process of interpretation. The difficulty of interpretation, however, stems from the fact that museum exhibits, unlike literature, use various, often symbolic languages, which require a certain prior knowledge and cultural competence on the part of the visitor in order to decode the meaning of the exhibit. This brings us to a problem already noted by Bourdieu in the 1960s – that is, that the form of interpretation of exhibitions and the objects placed in them (in Bourdieu's concept of paintings) is linked to the possession of a certain type of capital, i.e. competences, skills and knowledge related to the theme, even if it is only knowledge of national or local myths and stereotypes. We return to the fact that the

²³ Cf. KESNER, Ladislav. Teorie, vizuální zobrazení a dějiny umění. In: KESNER, Ladislav (ed.). *Vizuální teorie: Současné anglo-americké myšlení o výtvarných dílech* (pp. 11–70). Jinočany: H & H, 2005; MANGUEL, Alberto. Čtení obrazů: o čem přemýšlíme, když se díváme na umění? Brno: Host, 2008; KRESS, Gunther, VAN LEEUWEN, Theo. *Reading Images: Socio cultural aspects of language and education*. Australia: Deakin University Press, 1990.

²⁴ TABORSKY, Edwina. The discursive object. In: PEARCE, Susan (ed.). *Objects of Knowledge: New Research in Museum Studies: An International Series* (pp. 50 – 77). London: The Athlone Press, 1990.

²⁵ TABORSKY, The discursive...

visitor interprets the meaning of objects from the position of the culture and society in which they lives and whose values, norms, knowledge, stereotypes and ideas about the world and about life they has acquired. After all, culture is made up of signs to which people attach meaning.²⁶ Signs are forms with socially constituted meanings. Signs are framed²⁷ by various discursive practices, institutional arrangements, value systems and semiotic mechanisms. These cultural and social frameworks and the visitor's experience play an essential role in the interpretation of exhibits. Thus, it is not only a person's "external" knowledge, gained by being educated in the field that the exhibit presents, but also the knowledge derived from their everyday life in a given culture and society that influences their interpretation process. Thus, we can speak of the museum visitor as an "empirical viewer"²⁸ who is embedded in their time, culture and habits, making meaning of the images by reaching into the source of their own experience, thinking, emotions and relationships rather than being educated in art²⁹ or history.

The role of the museum visitor is therefore active; visitors are active co-creators of the meaning of the object, the exhibition, the narrative. This brings us back to social constructivism, which works extensively with this very idea of the social actor as a co-creator of social reality and confirms the above-described process of interpreting the work as a communicative process in which the visitor – as a social actor with specific characteristics, knowledge, attitudes and interests – is actively involved.

1.4 The museum and the discursive reality

When I argue that exhibits reflect the social reality in which they were created, but also the reality that now surrounds them, it means not only that they are contextualised or framed, but above all that the exhibits are discursively embedded and based on the form of social discourse that manifests itself in people's everyday lives. "Everydayness" is the typical experience of every human being. Berger and Luckmann³⁰ say that the reality of everyday life is perceived by people as self-evident, ordered, intersubjective and originating in people's thoughts and actions, by means of which this reality is being created and maintained. A museum exhibition and its exhibits can be part of the narratives which are perpetuated in a given society and which, in their own way, tell a story about social reality. These narratives are all the more interesting to us as researchers because museums have been regarded by people as professional institutions associated with unwavering knowledge ever since they opened to the general public. As scientific institutions, museums are perceived as sources of truthful information collected by

²⁶ BAL, Mieke – BRYSON, Norman. Semiotics and Art History. In: *The Art Bulletin*, 73(2), 1991, pp. 174–208.

²⁷ Bal and Bryson, following Culler, propose not to speak about context but about "framing" the sign. They, like other semioticians, find the notion of context problematic because context itself is composed of signs requiring interpretation. For example, determining the context of a work's creation, or the context of its viewing at the time of its creation, is very difficult, since our historical records do not capture all that is relevant; they do not usually tell us how the general public reacted to the work, and any records are attuned to the power discourses and practices of the time. According to Bal and Bryson, the notion of framing better describes the situation of the signs and the process of their interpretation. They point out that the art historian, in analysing art, is always part of the process of constructing meanings that they or she influences. What they considers as positive knowledge is the product of his or her interpretive decisions and the interactions he undergoes when examining the social factors that frame the sign. As we can see, one could say, with reference to constructivism, that there is no such thing as an objective and a priori meaning.

²⁸ FULKOVÁ, Marie. *Diskurs umění a vzdělávání*. Praha: H & H. 2008, p. 186.

²⁹ Fulková uses the concept of the empirical viewer most often to refer to children who have not yet been educated in art theory, yet are able to interpret, evaluate and creatively respond to works of art.

³⁰ BERGER, Peter Ludwig – LUCKMANN, Thomas. *Sociální konstrukce reality*. Brno: CDK, 1999.

credentialed professionals who understand their work (as opposed to lay people), and therefore there is no need to question museum presentations – museums have recognised authority.³¹

Thanks to the connection with knowledge, museums are also connected with power, which was noticed by representatives of post-structuralist trends. Post-structuralists are not only interested in what museums say (what information they convey to visitors through the exhibition), but also what they do – how they influence visitors; whether they somehow affect their preconceptions, values and attitudes; how they manipulate information; what they say or, on the contrary, what they withhold on a given topic; how their statements are discursively anchored, and so on. It is a matter of tracing the performative and discourse levels of museum reality, and in this context it is impossible not to mention one of the most important discursive thinkers, Michel Foucault. Foucault³² understands museums as specific places – so-called heterotopias. Heterotopias are not classical free public places. Entry into heterotopias is accompanied by specific rituals, rules, prohibitions, or commands that can even take the form of enforcement, as is the case with entry into prisons and barracks. As another example of heterotopia, Foucault mentions cultural institutions such as theatres, cinemas, museums, zoos and other places such as cemeteries.

Heterotopias are places with a precisely defined function in which time intersects in a specific way with space that is not the classical real space as we experience it in our everyday life (imagine the precisely arranged space of the museum, which incorporates many more spaces and places through its collections) and in which time is accumulated differently than is usual with traditional time (in a museum there is an eternal accumulation of time). According to Foucault:

Museums and libraries are heterotopias in which time never stops accumulating and reaching its peak, whereas as late as the end of the 17th century museums and libraries were expressions of individual choice. On the other hand, the idea of collecting everything, the establishment of a kind of universal archive, the will to enclose in a single place all time, all periods, all forms, all changes of taste, the idea of building a place of all times that is itself beyond all time and its destructive effects, the plan to organize in this way a certain incessant and infinite accumulation of time in one immovable place, this whole idea belongs to our modernity. The museum and the library are heterotopias inherent in 19th century Western culture.³³

In his scholarly work, Foucault was preoccupied with analysing social reality and its discourse level, society and the institutions present in it. In describing institutions, specifically barracks, but also hospitals and schools, he focused not only on their function, but above all on their association with disciplinary power, with which museums are also inherently linked. Disciplinary power is typically associated with a specific architecture, which is also characteristic of museums.

³¹ According to Cain (CAIN, Victoria. Exhibitionary complexity: Reconsidering museums cultural authority. In: *American Quarterly*, 60(4), 2008, p. 1143), museums in the USA have won considerable authority and trust of the people in terms of telling the truth about the world, about history, and about society and its members. Most Americans consider museums to be a trustworthy source of information and give even more weight and credibility to museum information than to books or television. Similarly, museums are perceived as authoritative places in Europe – the importance and trust of visitors in museums has been confirmed in research by Voices from the Museum (DODD, Jocelyn et al. *Voices from the Museum: Qualitative research conducted in Europe's National Museums* (EuNaMus Report No. 6.). Sweden: Linköping University Electronic Press, 2012), according to which the majority of respondents perceive national museums as having cultural and historical authority and as places that present important information about the nation and its history.

³² FOUCAULT, Michel. *Myslení vnějšku*. Praha: Herrmann & synové, 1996.

³³ FOUCAULT, *Myšlení vnějšku*..., p. 82.

Architecture facilitates disciplinary power by dividing people and their functions in space. The definition of power positions and roles is related not only to the internal distribution of space (the exhibition as a space where visitors are allowed versus the depositories as places only certain museum employees are allowed to enter) and the architectural layout of the exhibition (often the direction of the tour and possible movement in the exhibition is determined); certain elements of power are connected to the museum building itself (a historical building with an aura of artistic value or, on the contrary, a modern building that attracts attention).

The dispositive nature of power is also linked to a specific timetable and schedule that also affects museums in the form of their opening hours. Access to the museum is only possible on certain days and hours. In addition to this, visiting a museum also entails specific rules of behaviour. Everyone knows that in a museum you do not touch the exhibits, shout or run. There are people working in the museum (curators, guides, museum educators, historians and other professionals, including the museum management) who, through public programmes, reinforce their special role associated with knowledge and thus power. It is then these actors who decide what information is presented to the public and in what form. They thus determine the shape of the museum and its role in society.

In thinking about the museum's power functions and impact, however, we should remember that the character of the museum has changed since the eighteenth and nineteenth centuries. We no longer encounter exclusively traditional museums of an imperialist and nationalist character. More than ever before, museums are emphasizing dialogue with the visitor, not only through new forms of presentation but also through educational activities. Moreover, starting from a constructivist paradigm, it cannot be claimed that museum curators can shape all visitors' journeys and thought processes through exhibitions in a targeted way and with the same effect. That is to say, an exhibition and the associated learning process do not have the same impact on all individuals. In fact, individual visitors have different life experiences, attitudes and prior knowledge. Therefore, the process of personalization of symbols (exhibited objects and what they represent) takes place in a unique manner for each visitor. However, this "unique manner" is not completely random; it is discursively anchored, that is to say, it is based on the specific socio-cultural and historical position of the social actors.

2. DISPOSITIVE ANALYSIS AS A VARIANT OF DISCOURSE ANALYSIS

2.1 The concepts of discourse and the dispositive

The intention of the study – to create a methodological framework suitable for use in museum exhibition analysis – is based on the constructivist paradigm, which is closely linked not only to the issue of social action, but also to the issue of discourse. The concept of discourse is problematic, with different scholars and scholarly perspectives using it in different ways; even Foucault,³⁴ who made the term famous, referred to discourse as a fluid concept with multiple meanings. Building on Foucault, this study sees discourse as a set of utterances carrying a certain type of knowledge.³⁵ Foucault understands discourse as a group of utterances belonging to a system of the same discursive formation, which consists of a limited number of utterances for which a set of conditions for their existence can be defined.³⁶ A discursive

³⁴ FOUCAULT, Michel. *Archeologie vědění*. Praha: Herrmann & synové, 2002.

³⁵ According to Velký sociologický slovník (PETRUSEK, Miloslav (ed.). *Velký sociologický slovník. I. svazek A – O*. Praha: Karolinum, 1996, p. 213), discourse today is understood as an ordered set of sentences about a given subject, a particular form of knowledge.

³⁶ FOUCAULT, Archeologie vědění..., p. 180.

formation is a set of utterances giving meaning within a single discourse.³⁷ It might seem that these are utterances organised around a common theme, but the relations between utterances cannot be reduced to mere thematic relations. Discursive formations organise heterogeneous utterances scattered in space, whereby the object of interest, and thus its topic, is still being created by discourse³⁸ and further reproduced in the sense that it influences the thinking of social actors through its specific conception.

Foucault³⁹ does not understand an utterance as a mere structure of assertion, nor can an utterance be generalised to a speech act or a mere sentence. In addition to the content of the utterance and its “material” existence (e.g., its pronouncement or writing), the important level of the utterance is also the manner of utterance and the circumstances in which the utterance exists and acquires its meaning (the field of use) and, last but not least, the kind of action that is triggered by the utterance. Discourses and utterances, like knowledge, are determined by a specific socio-historical context, i.e., by existing social structures that take on a specific form due to the influence of a given time, culture, prevailing ideology, social norms, and so on. The analyst should also pay attention to these influences, since the view of history and the identities associated with it is never neutral, but always constructed from a certain contemporary position. From the position of the constructivist paradigm, it is necessary to know the context of the utterance, which helps to discern its meaning. It is evident that at this point the study departs from Foucault’s “thinking from the outside”, within which it is desirable to try to free oneself from all meaning essentialism that seeks to clarify the “true essence” of events, objects, processes or meanings.⁴⁰ The context of the emergence, existence and functioning of an utterance and its meaning, as well as the position of the social actors, is taken into account in the study’s analytical intention.

Discourses can be understood within the framework of the study as certain worldviews that are closely tied to individual epistemes, i.e., epochs characterised by a specific knowledge for a given historical period.⁴¹ This is a broader conception of discourse than the one usually put forward by Foucault. A more comprehensive understanding of the concept of discourse is also provided by Laclau,⁴² according to whom the term refers not only to phenomena concerning texts, but also to a set of phenomena concerning the social production of meaning on which society is based. According to Jäger,⁴³ people are born and subsequently live in certain discursive contexts that determine what knowledge (i.e., knowledge corresponding to a given discourse and epoch) they acquire. Discourses can be imagined as bodies of knowledge – or, in Foucault’s words,⁴⁴ as discursive units – theories, themes or concepts that to some extent influence how social reality is perceived by social actors, as they largely determine what they know or do not know about a given reality and in what form they know or do not know about a given reality.

³⁷ KLAPKO, Dušan. Diskursivní analýza a její využití ve výzkumu edukačních jevů. In: *Pedagogická orientace*, 26(3), 2016, p. 385.

³⁸ HÁJEK, Martin. Čtenář a stroji: *Vybrané metody sociálněvědní analýzy textů*. Praha: Slon, 2014.

³⁹ FOUCAULT, Archeologie vědění..., p. 125.

⁴⁰ HÁJEK, Martin. Čtenář a stroji..., p. 118

⁴¹ For more on the notion of the episteme, see PETRUSEK, Velký sociologický..., p. 265.

⁴² JÄGER, Siegfried. Discourse and knowledge: Theoretical and methodological aspects of a critical discourse and diapositive analysis. In: WODAK, Ruth – MEYER, Michael (eds.). *Methods of Critical Discourse Analysis* (pp. 32–62). London: SAGE Publications, 2001, p. 42.

⁴³ JÄGER, Discourse and knowledge....

⁴⁴ FOUCAULT, Archeologie vědění, p. 102.

This is because discourses give rise to a certain organization of concepts, to certain rearrangements of objects, to certain types of testimony, which, according to their degree of coherence, precision and stability, form themes or theories.⁴⁵ We can therefore speak about the discourses of medicine, economics, the humanities and other spheres of human life connected with the category of knowledge, which could be the spheres of politics, mass media, identity or gender, among others. This fact then suggests that discourses can be the specific property – capital – of certain groups well placed in power with respect to a given context of knowledge, to whom the fact of owning a given discourse not only gives the right to possess and understand a certain type of knowledge, but also attributes to them the right to speak (or to conceal) the content of that knowledge and, through this speaking, to act, or to influence the actions of other subjects. Thus, for example, a doctor is the holder of knowledge capital concerning the treatment of people, which gives them the right to tell patients (actors without such capital) how to behave if they want to maintain their health. Similarly, a museum educator or curator is a professional in possession of knowledge capital related to a given exhibit, whose form and the associated narrative, information and knowledge they, as a recognised authority, can convey to visitors.

In other words, discourse is, in Foucault's perspective,

the sum total of all meaningful statements in a given historical period and society and the rules of their production. ... discourse delimits a field of objects, defines a legitimate perspective from the point of view of the cognitive actor, and establishes norms for the production of concepts and theories. Discourse thus structures reality by defining, first, what objects are knowable, of proper interest, or even actually existent; second, who has the right to make true claims about reality and who is excluded from such production; and third, what are the legitimate ways of using and developing the categories by which the world is grasped at any given time.⁴⁶

Discourses are thus an inherent part of everyday reality, whose form they not only describe but also construct. Discourses not only tell us about the shape of social reality and the categorization of groups, both their own and others', but they themselves participate in the construction of social reality and this categorisation through the transmission of knowledge to the social actors on whom they exert power. Through the mediation of certain bodies of knowledge, discourses participate in the ways of thinking and acting of people, who then themselves influence and shape the form of social reality – i.e., not only interpret it.

To summarise, discourse is endowed with knowledge associated with power (the power to disseminate knowledge, to categorise objects of knowledge, to normalise, etc.). Discourse is the site in which power and knowledge intersect.⁴⁷ Discourse can not only be an instrument of power, its producer, its mover, its catalyst; it can also be its barrier, its limitation, and, last but not least, its effect. Discourse carries with it a range of intentions and effects: Discourse thus means elements or tactical blocks in the field of power relations; within one and the same strategy there may be differences, even contradictions; conversely, they may circulate between opposing strategies without change of form.⁴⁸

⁴⁵ FOUCAULT, Archeologie vědění, p. 99.

⁴⁶ ZÁBRODSKÁ, Kateřina. *Variace na gender: Poststrukturalismus, genderová analýza a genderová identita*. Praha: Academia, 2009, p. 34.

⁴⁷ FOUCAULT, Michel. *Vůle k věděni. Dějiny sexuality I*. Praha: Hermann & synové, 1999, p. 118.

⁴⁸ *Ibid.*, p. 119.

In the field of discourse analysis, discourse is most often understood as a communicative utterance usually associated with a text or speech act. Discourse is a speech field within which the meanings of events and objects of social reality are conceptually formed or constructed.⁴⁹ According to Foucault,⁵⁰ discourses can be defined not only as written texts, but generally as any organization of utterances that take on different relations to each other. They can be articulated utterances that are connected not only to the present moment, but also to memory and past situations that have triggered the discursive events in question, as well as to the future, which they can influence and in which they can reappear and transform. Utterances acquire their meaning in relation to the context and conditions in which they occur and in which they take on certain forms and relations with other statements (discourse field). According to Foucault,⁵¹ then, each utterance is singular – unique with respect to its context of being and acquiring meanings.

In the context of Foucault's notion of utterances, it is important to mention discursive practices, which we refer to as routinised speech acts that produce utterances through language or other sign systems.⁵² But it is not only discursive practices that participate in the formation of social reality. Non-discursive practices, which Foucault began to pay attention to later than linguistic utterances, are also important, but are therefore no less important components of discourse. By non-discursive practices, Foucault⁵³ refers to extra-linguistic (symbolic) practices (e.g. human gesture, institutional knowledge, tacit knowledge, etc.) and materializations (architecture, the body, technology, material products and products resulting from non-discursive practices). Discursive and non-discursive practices together form the so-called dispositive.

The dispositive is defined by Foucault⁵⁴ as a heterogeneous set consisting of various discursive and non-discursive elements, namely, discourses, institutions (i.e., learned behaviour that is not an utterance), architectural forms, laws, administrative measures, scientific pronouncements, philosophical, moral and philanthropic statements and other elements that take on different relations with each other. The network and varied form of relations between these elements and their functions is also part of the dispositive. At the same time, as a set of practices, the dispositive responds to the needs and events of a given time (epoch), and from this perspective the dispositive can be seen as a strategic imperative⁵⁵ that has strategic goals, but also carries with it what Giddens would call the unintended consequences of action. As an example of this, Foucault cites the dispositive of surveillance and discipline associated with the architecture of the panopticon, which was first associated with the realm of crime and the prison environment (the goal of eliminating crime and facilitating its surveillance and correction through the

⁴⁹ KLAPKO, Diskursivní analýza..., p. 388.

⁵⁰ FOUCAULT, Archeologie vědění. Cf. LE, Thao – LE, Quynh – SHORT, Megan (eds.). *Critical Discourse Analysis: An Interdisciplinary Perspective*. New York: Nova Science Publishers, 2009, p. 6.

⁵¹ FOUCAULT, Archeologie vědění...

⁵² RECKWITZ, Andreas. Theorizing toward a theory of social practices: A Development in culturalist. In: *European Journal of Social Theory*, 5(2), 2002, pp. 243–263.

⁵³ FOUCAULT, Archeologie vědění. Cf. KLAPKO, Diskursivní analýza...

⁵⁴ FOUCAULT, Michel. *Power/knowledge: Selected Interviews and Other Writings 1972–1977*. New York: Pantheon Books, 1980, pp. 194–196.

⁵⁵ Foucault (FOUCAULT, *Power/knowledge...*, p. 197) even speaks of the dispositive being essentially a general case of an episteme. The difference, however, is that an episteme is understood more as a specific discursive apparatus, whereas the elements of the dispositive are much more heterogeneous and take on both a discursive and a non-discursive nature.

control and self-control of the human body), but eventually the dispositive of surveillance and its panoptical character permeated the entire society of the late eighteenth century, which Foucault calls the disciplinary society.⁵⁶

The dispositive, like discourse, is tied to knowledge – the apparatus of the dispositive is based on strategies of relations of forces that both support a certain type of learning (knowledge) and are themselves supported by that learning.⁵⁷ In this way, dispositives are also linked to power, which Foucault understands as a network of more or less organised, hierarchised, coordinated and constantly conflicting relations of forces. The dispositive is linked to the power to constitute society and the individual. The individual, according to Foucault,⁵⁸ is both the effect of power and its agent precisely insofar as he is its effect: power permeates the individual it has constituted. But the individual is not only the sufferer of power, but also its transmitter and executor. Power⁵⁹ is not a property, but a functioning force that comes from everywhere and is therefore omnipresent.

2.2 Discourse and dispositive analysis

Discourse analysis is a concept that encompasses a number of qualitatively oriented analytical approaches (discursive psychology, critical discursive psychology, conversation analysis, critical discourse analysis, Foucaultian discourse analysis, dispositive analysis, etc.) which are shaped around the notion of discourse, but which can be defined in various ways based on their different approaches; various authors also work with this notion in the context of analysis. In general, discourse analysis can be defined as a group of approaches that focus on the search for regularities that emerge in the formation of the meaning of psychological and social reality in written and spoken language.⁶⁰

Various approaches to discourse analyses have been introduced by Klapko,⁶¹ according to whom we cannot speak of a single clearly defined methodological approach within discourse analysis. Rather, discourse analysis opens up space for the researcher's own sensitivity and intuition, applying research methods flexibly with regard to research needs. Although discourse analysis can never be considered as definitively finished, as it can always potentially be deepened further, the analyst should make use of all available materials and include rich research data in the analysis. In addition to spoken and written speech and text, this could be visual data, since discourse analysis can deal not only with everything spoken but also with everything produced by the actor.⁶² The actor himself or herself is often also a very important source of data for the analysis. Indeed, discourse analysis is not a tool that examines the assumptions of the researcher, but deals with specific units of analysis, which should also include the interpretations and meanings assigned to the phenomena under study by the social actors (respondents)

⁵⁶ Or also a surveillance society, i.e., a society imbued with disciplinary power, the form of which has been outlined above.

⁵⁷ FOUCAULT, *Power/knowledge...*

⁵⁸ FOUCAULT, Michel. *Je třeba bránit společnost. Kurs na Collège de France 1975–1976*. Praha: Filosofia, 2005, p. 42.

⁵⁹ Power, according to Foucault, is not an institution, it is not a structure, it is not even a force that some are equipped with; it is a name that we attribute to a complex strategic situation in a given society (FOUCAULT, *Vůle k vědění...*, p. 119).

⁶⁰ Wetherell, Taylor and Yates, cited in ZÁBRODSKÁ, Kateřina, PETRJÁNOŠOVÁ, Magda. *Metody diskurzivní analýzy*. In: ŘIHÁČEK, Tomáš et al. (eds.), *Kvalitativní analýzy textů: čtyři přístupy* (pp. 105–138). Brno: Masarykova Univerzita, 2013, p. 105.

⁶¹ KLAPKO, *Diskurzivní analýza...*

⁶² Cf. KLAPKO, *Diskurzivní analýza...*; ZÁBRODSKÁ, PETRJÁNOŠOVÁ, *Metody diskurzivní...*

themselves. Social reality is in fact also co-constructed by these actors, and therefore discourse analysis often aims to understand the construction of their everyday social world.

Dispositive analysis is one of the methods that falls within discourse analysis. It builds on Foucault's thinking and deals with the analysis of the dispositive. Its advantage is that it not only deals with linguistic utterances and texts, but also non-linguistic and material elements; more precisely, it brings non-discursive practices, and thus materialization, to the centre of analytical attention. As such, dispositive analysis can be described as discourse analysis supplemented by the analysis of the dispositive. According to Jäger,⁶³ one of the leading representatives of dispositive analysis, its aim is to identify the knowledge of a given discourse or/and dispositive that is valid in a particular place at a particular time, in an attempt to examine the context of that knowledge and its associated power and to subject it to critique. Dispositive analysis relates to everyday knowledge mediated through the media, everyday communication, school, family, etc., as well as knowledge produced by the sciences. Among these institutions, we can certainly include museums that present scientific and cultural knowledge to the public.

2.3 The method of dispositive analysis according to S. Jäger

2.3.1 The concepts of discourse and the dispositive

Jäger⁶⁴ conceives of discourse as the body of all social knowledge that determines individual and collective actions and formative actions that shape society, and thus discourse exercises power. According to him, discourses are not merely manifestations of social practice but also producers of power and social reality, which they shape through their effects on social actors and their actions. Discourses have evolved and become independent of the will of individuals or power groups as a result of historical processes. It is not, therefore, that discourses and the power they contain are something to be owned, capital that one can dispose of at will. Discourses are linked to power through their association with action, and power can be reinforced by their institutionalised and regulated nature. According to Jäger,⁶⁵ discourses form non-static networks with other discourses, with which they connect through collective symbolism, or through cultural stereotypes transmitted in society. These stereotypes and symbols are known by social actors and with their help they construct an image of social reality. The analysis of collective symbolism is also an important part of discourse analysis.

Following on Foucault, Jäger understands the dispositive as a set of interlocking discursive and non-discursive practices and materializations (or manifestations) of knowledge.⁶⁶ By discursive practices, he means forms of speaking and thinking that are based on knowledge, and by non-discursive practices he means any action based on knowledge. Materializations are the products of human labour and human thought. Materializations have a discursive context – or better, a basis, a meaning that humans have assigned to them and with which they were created. The point, then, is that when the discourse itself changes, the meaning of the object changes. According to Foucault, discourses are practices that systematically produce the objects they speak about.

Jäger⁶⁷ goes further in his understanding and explanation of the dispositive, however, by faulting Foucault for his lack of understanding of non-discursive practices, human activity and

⁶³ JÄGER, Discourse and...

⁶⁴ Ibid.

⁶⁵ Ibid.

⁶⁶ Ibid.

⁶⁷ Ibid.

labour, and their effects and continuities on society and discourse. According to him, due to the influence of the bourgeois era in which he lived, Foucault understood discursive practices as verbal entities, strictly separated from non-discursive practices. Jäger posits that discursive practices are tied to intellectual activity – as opposed to non-discursive practices which are based only on physical labour. But he also attributes intellectual activity and knowledge work to physical work, even though knowledge work can often be routinised. Thus, materializations are not merely the physical product of human labour, but also of human thought. And consequently, in objects, as in social reality, people seek meaning – meaning whose form is discursively conditioned. The assignment of meaning is conditioned by discourse and, in particular, by the largely socially shared collective symbolism, the form of which is also discursively conditioned.

If we understand the dispositive in the way described above, it can be said that dispositive analysis presents non-discursive and materialized knowledge in discursive knowledge.⁶⁸ The analyst gives meaning to the elements of the dispositive and makes the evolving context of knowledge (knowing), action and manifestation the object of his investigation. In doing so, power is associated with both knowledge and objects. It may not be visible, but the analyst can make it visible.

2.3.2 The procedure of dispositive analysis

According to Jäger,⁶⁹ dispositive analysis should include the following steps:

i) Reconstructing the knowledge contained in discursive practices

The first step is discourse analysis, i.e., the reconstruction of knowledge (knowing).⁷⁰ Discourse analysis is important because it focuses attention on the aspects of the dispositive to be investigated. These aspects, according to Jäger, can be the forms in which knowledge appears (the analyst is interested in how knowledge is presented, whether it appears openly or is masked); they can also be materializations belonging to the discourse, as well as missing places in the discourse, etc.

Researchers engaged in the examination of museum exhibitions in the context of dispositive analysis should already be knowledgeable in discourse analysis. Although it is true that the focus of discourse analysis should be primarily based on and oriented by the object of research interest, researchers may also choose procedures within this part of the analysis with regard to their experience and analytical practice. The procedure of discourse analysis may therefore vary from researcher to researcher. The following lines, describing Jäger's conception of the analysis of discursive practices, are therefore more a kind of recommendation or inspiration than a definitive guide.

Jäger himself illustrates his approach with the example of an analysis of printed mass media. In this case, knowledge is mediated by linguistic practice. Therefore, in his text Jäger deals primarily with the linguistic analytical toolkits that an analyst can use. To be able to analyse discourse at all, he argues, it is first necessary to unravel the intricate structure of discourse. To this end, the analyst determines whether their analysis is of a *special discourse* (meaning scientific discourse) or an *inter-discourse*, i.e., an interdisciplinary discourse of which all non-scientific discourses are part. Elements of scientific discourse are constantly flowing into

⁶⁸ KLAPKO, Diskursivní analýza..., p. 400.

⁶⁹ JÄGER, Discourse and...

⁷⁰ *Knowledge* is the original term; ELLIOT, Robert. et al. Towards a material history methodology. In: PEARCE, Susan M. (ed.). *Interpreting Objects and Collections* (pp. 109–124). London: Routledge, 1994.

inter-discourses.⁷¹

In order to identify the structure of the discourse, Jäger proposes the identification of several internationalizing devices with which the analyst subsequently works. These include *discourse stands*, which can be understood as thematically uniform discourse processes. Working with these procedures helps the analyst to identify what has been said and/or what is being or may be said. A discourse stand is made up of so-called *discourse fragments* (traditionally referred to as texts, but not necessarily only texts) that are oriented around a certain theme. Discourse stands contain multiple discourse fragments that are intertwined and refer to different topics. A discourse stand usually includes *discursive events*⁷² that can influence its quality and direction and that are related to the whole *discursive context* of the discourse stand. The respective discourse stands operate on different *discourse planes* (science, politics, media, education, everyday life, economy, administration, etc.). Discourse planes can be understood as the social sites from which speaking takes place. The discourse planes do not exist in isolation, but rather are interconnected; they influence each other and refer to each other.

A useful tool can be the determination of the *discourse position*, by which Jäger means the determination of the ideological position from which those who participate in the discourse (social actor, group or institution) start. This position determines the form of the actor's experienced life situation, as well as their evaluation and perception of life, and this perception is influenced by the discursive position of the actor in question. The analyst is further interested in the *overall societal discourse in its entanglement and complexity*. In a given society, discourse strands form the overall societal discourse in a state of complex entanglement. Jäger points out that a society is never completely homogeneous in terms of societal discourse, and so the analyst must in certain cases work with social subgroups. At the same time, societal discourse is influenced by the shape of the global worldwide discourse, which, according to Jäger, is to a certain extent homogenised in the "Western" world today, and re-polarization can be observed on a global scale ("West" versus "East", etc.). Finally, the analyst is interested in the *history, present and future of discourse stands*. To uncover these, it is necessary to analyse longer timeframes of discursive processes in an attempt to reveal their strength, intertwining, changes, and future forecasts. This would be to do what Foucault did first within his archaeological and then genealogical method. In the practice of the ordinary researcher, according to Jäger, these can only be partial projects telling us about certain discursive areas.

How can an analyst working with these concepts proceed in their discourse analysis? Jäger⁷³ proposes the following procedure: first, the analyst explains why they are working on a particular discourse plane and briefly characterises this plane. In the next step, they set up and process the material base by creating an archive of data. They can then embark on structural analysis, which is based on an evaluation of the processed material. This evaluation takes place with regard to the discourse stand to be analysed. Once this phase is complete, a deeper analysis of one or more discursive fragments that are typical of the sector follows. When working with discursive fragments, these fragments will also be matched to superordinate themes. The process is completed with an overall analysis of the sector under study on the discourse plane (i.e., the sector in question). This means that all relevant results that have been obtained so far in the analysis are incorporated into the overall description of the discourse stand under

⁷¹ JÄGER, Discourse and...

⁷² According to Jäger all events have discursive roots.

⁷³ JÄGER, Discourse and..., p. 53.

investigation.

ii) Reconstructing the knowledge that underpins non-discursive practices

This step involves the analysis of the actions of social actors, or more precisely, the attempt to reconstruct the knowledge that conditions and accompanies these actions (social actions). It is an attempt to understand what leads people to the form of their behaviour. However, the analyst cannot always deduce these things from mere observation and therefore it is often necessary to proceed to the questioning of the social actors themselves.

iii) Reconstructing the non-discursive practices that led to the emergence of materializations and reconstructing the knowledge contained in materializations

The third step is the analysis of materializations, i.e., objects. The analysis of objects is not simple. Objects cannot testify about themselves in the same way that social actors do. Therefore, in trying to reconstruct the knowledge and actions that led to the creation of objects, the analyst first relies on their own knowledge concerning these objects. However, this alone is not enough: the analyst must expand his knowledge (reading books, interviewing experts and users of the objects, etc.). Only then, according to Jäger, will the analyst be able to discern the knowledge associated with the object.

The analyst, as tends to be the case in discourse analyses, never finds and establishes the essential truth within this analysis. They do not obtain this truth from their respondents or from other sources. It is not possible to obtain neutral knowledge, because knowledge is always reinterpreted in some way; statements are always influenced by interpretations. Moreover, as Jäger himself adds, the knowledge that gave rise to a given object and became embedded in it is itself subject to change over time. An object may have been assigned a different meaning in the course of history than the meaning it now takes on.

2.3.3 Analysis of materializations

The question remains of how to analyse materializations in the context of a museum and a museum exhibition. Objects in the context of the museum sphere are mainly dealt with by restoration studies or archaeology. It is the latter that has abundantly inspired analysts. The method of analysis of objects is dealt with, for example, by Elliot,⁷⁴ whose model of analysis could be an inspiration for us, although it is not possible to adopt it completely, since the author used the analysis for different goals and in the context of different interests than ours. His is more of an archaeological or curatorial approach that seeks to reveal the form, function and condition of the object in itself, rather than as the object as an item placed in an exhibition. The purpose of this approach is to encourage the analyst to examine the artefact in more detail at the level of observable data, rather than relying on documentary sources. The analysis procedure is as follows:

1. Direct investigation of an object through observable data, i.e., data that can be determined by sensory examination of the object, which is carried out by the researcher before proceeding to other sources of information.
2. Working with comparative data, that is, information obtained by comparing an artefact with similar (or identical) objects.

⁷⁴ ELLIOT, Robert. et al. Towards a material history methodology...

3. Working with complementary data, that is, sources of information about other characteristics of the artefact (documents, internet, etc.).
4. Drawing conclusions based on all observable, comparative and complementary data.

Each of the steps listed in the analytical method is divided into five categories: areas of inquiry, which are material; construction; function; origin (history); and value. For these categories of artefacts, general questions have been developed that apply to a wide range of very different objects. Because the researcher is primarily interested in what the artefact can say about the culture that created it, the questions lead the researcher to look for evidence of cultural expression hidden in the object. In the material section, the researcher may ask about what materials (natural, organic, man-made) were used to make the artefact and how they affect its appearance. The construction category is about describing the physical appearance of the artefact and the impression it leaves on the observer. The analyst might ask how the artefact was made, whether it is decorated in any way, and whether it is worn. Within the category of function, attention turns to the reasons for the artefact's production. The analyst asks why the artefact was made, what function it served, what its function is today, and whether it has changed in any way. The origin category focuses on the place and time of the artefact's creation, its makers and owners, as well as the evolution that it has undergone up to the present. The value category is concerned with the value of the artefact to the original maker or owner as well as the (cultural) value of the artefact to contemporary society.

An interesting approach to the analysis of artefacts is also provided by Prown,⁷⁵ who suggests that objects encode information (mainly of a cultural nature) that can be interpreted. When interpreting, one should not only draw on the influences of art history and archaeology, but also draw on the methods of cultural and social history, anthropology, sociology, cultural geography and linguistics. The advantage of the method is that it admits the subjective nature of analysis and brings the interpreter's understanding and response into the interpretive framework.

According to Prown, the procedure of object analysis should include the following steps:⁷⁶

i) Description – description of an object based on its observation.

First the object is described in general and then its details are observed. The description begins with a material analysis – of the object's physical dimensions, materials and articulation. The next step is content analysis. This is simple iconography – reading the apparent representations. The content may include decorative patterns or motifs, inscriptions, coats of arms or diagrams. The first stage is completed with a formal analysis which pays attention to the visual form of the artefact – its colour, texture, and so on.

ii) Deduction – interpretation of the interaction/relationship between an object and its observer

In this stage, an empathetic connection between the material (real) or represented world of the object and the world of the observer is explored. The analyst reflects on what it would be like to use the object, to treat it. The first step in the deduction stage is the sensory experience of the object (such as its weight or texture). The analyst then proceeds to work intellectually with the object and tries to deduce its role in society. The goal is to discover what the object

⁷⁵ PROWN, Jules. Mind in matter: an introduction to material culture theory and method. In PEARCE, Susan M. (ed.). *Interpreting Objects and Collections* (pp. 133–138). London: Routledge, 1994.

⁷⁶ PROWN, Mind in matter...

says about its culture. It is clear that at this stage the analyst is drawing on their history and experience, so the results of the inference process may vary from analyst to analyst, and may also vary for the same analyst over the years. Finally, the analyst looks at what emotional reactions the object evokes in the viewer (joy, fear, awe, disgust, curiosity, etc.).

iii) Speculation – a process of creative imagination in which hypotheses and questions are formulated as a basis from which to seek external evidence

The first step here is to review the information developed in the descriptive and deductive phases and formulate hypotheses. This step therefore involves summarizing previous findings and developing theories. This is a creative process that is partly influenced by the cultural attitude of the analyst. The analyst should be aware while doing this that changing cultural perspectives make it impossible to react to and interpret the object in the same way that society reacted to it at the time of its creation. We are entitled to use the knowledge provided by our cultural and historical perspective, but we cannot attribute this perspective to previous generations.

3. DISPOSITIVE ANALYSIS OF THE MUSEUM EXHIBITION

Now that we know what a dispositive analysis is, all that remains is to define a research procedure that the museum analyst can follow in their research. I myself use the discussed methodological procedure in research on museum exhibitions in which I deal with the topic of the construction and presentation of Czech national identity. Dispositive analysis is ideal for this purpose, as it enables the analysis of exhibits (materialisations), the museum narrative, the societal discourse plane of the topic and the analysis of the statements of social actors, by which we can mean both the curators of the exhibition and its visitors. However, the possibility of incorporating a detailed analysis of objects (materialisation) into the research is crucial. It is through objects that abstract concepts, which may include the category of nation, can be thought, expressed symbolically and materially, and shared. According to Hooper-Greenhill,⁷⁷ objects can be involved in the process of identity construction at both the personal and national levels. Objects can be associated with the personal experience and memory of an individual as well as the collective memory of a group (nation). Objects are inscribed signs of cultural memory that help to symbolise, represent, materialise and concretise this memory. They can thus contribute to the co-creation of cultural identity and a sense of cultural belonging. However, objects do not only represent the history of a group, but also perpetuate its values, ideas and experiences. The objects represented by the exhibits in the exhibition are loaded with multiple meanings, which are often constructed or reinforced by the way they are placed in a context. Dispositive analysis allows for sufficient analytical space to be devoted to this context and to the way the exhibits are displayed.

Dispositive analysis can also be applied to numerous other topics in which researchers are interested in exhibits together with the entire context and narrative of the exhibition and the museum as a whole. Being interested in exhibitions and exhibits does not mean excluding social actors from research. On the contrary, they, on behalf of museum curators, museum educators and guides, visitors, and others, are involved in the research and become an important part and source of information. The following sections summarise the steps of dispositive analysis in a museum setting.

⁷⁷ HOOPER–GREENHILL, Eilean. *Museums and the interpretation of visual culture*. London: Routledge, 2008.

3.1 The research procedure of dispositive analysis

The research procedure is defined with respect to the steps of Jäger's dispositive analysis described above.

i) Defining the research topic and characterizing the discourse plane under investigation

At the beginning of the thesis, the researcher should clearly and sufficiently define their research topic. It is assumed that the researcher is familiar with the topic, is knowledgeable about it, and is thus competent to work with the topic in a professional manner.

ii) Determining the research objective

At the beginning of the research, it is important for the researcher to identify and define the research objective(s). This will form the basis for the next step.

iii) Defining the research questions

The researcher defines the main and secondary research questions.

iv) Anchoring the research within a scientific paradigm and choosing an appropriate methodology

At this stage, the researcher has already defined what they are interested in researching and the objectives of the research activity. With this in mind, an appropriate methodology that is anchored within a scientific paradigm is chosen. Knowing and defining this paradigm is important for the researcher, not only because it gives them a basic insight into the subject, but also determines their position in the research and goes hand in hand with the research objectives and the chosen methodology. In our case, the analysis is based on the paradigm of social constructivism, which is intertwined with discourse theories. The chosen methodology is dispositive analysis, which builds on these paradigms.

v) Determining the research sample

An important step in the research is the selection of a suitable research sample. It is typical for dispositive analysis in a museum that there are likely to be several research samples, as the researcher is likely to be working with different types of data that complement each other and whose comprehensive knowledge is central to dispositive analysis. The research sample may consist of a permanent exhibition and the exhibits therein, as well as other data sources (accompanying texts, visual data, models, interactive elements, etc.), and the research focus may be on the museum narrative. Other research samples may consist of curators or other museum staff interviewed by the researchers. Last but not least, museum visitors are also important respondents; researchers may conduct interviews or focus groups with visitors, work with them in video studies, etc. The diversity of research samples suggests that data collection techniques may also be varied in dispositive analysis, and the analyst will use many different types in their research work.

vi) Researcher's self-reflection

As with all types of qualitative research, it is appropriate for the researcher to develop a position of self-reflection. This will introduce the eventual reader of the report to the researcher's position and role in the research and help define any risks or problematic points in the research.

vii) Analysis and description of the societal discourse related to the research topic (i.e., analysis of the discourse plane)

The researcher should pay attention to the discursive plane of the topic as part of the dispositive analysis process. Most often, this will involve seeking knowledge on and describing the societal discourse associated with the phenomenon under analysis. It is assumed that this phenomenon is explored within the dispositive analysis of the museum as a theme of the exhibition and its narrative, of which it is a part.

viii) Creating a data archive

Creating a good data archive is essential for dispositive analysis. Data sources can vary depending on the research objective of the dispositive analysis. Nevertheless, there are items in the data archive that will almost always occur when analysing a museum exhibition. The data archive usually includes:

a) Description of the museum – This includes topics related to the history of the museum, its size (number of employees, size of the building, spaces usable for exhibitions and displays – their quantity and description), its building (architecture, accessibility, barrier-free access), its location within the site (accessibility of the museum, the surrounding environment, the local community), its role in society (its goals and vision), events organised by the museum, characteristics of visitors, etc.

b) Description of the exhibition – This not only introduces the theme of the exhibition, but also its architecture. The entrance to the exhibition itself can be an interesting element; attention may be paid to the way the exhibition is structured, the way the visitor route is organised, the visual aspects of the exhibition, and the way the exhibits are displayed (location and method of display, visibility, lighting, position of exhibits in relation to eye-level, etc.). It is also important to answer the question whether the exhibition is more formalistic or contextual. Data collection may also involve recording the exhibition – photographing it, videoing how people pass through it, and so on.

c) List of exhibits related to the research topic and photographs of them, including a record of their descriptions and accompanying texts present in the exhibition – A list and in-depth description of exhibits is an important part of this, along with a list and description of any accompanying texts, technologies used (video and other visualizations, audio, interactive technologies, etc.). In addition to the information presented in the exhibition itself, the curators of the museum's collections can also provide additional information about the exhibits.

d) Interviews with curators and other museum staff – This kind of data enables the researcher to reconstruct the knowledge that underpins non-discursive practices, such as the goals of the exhibition's curators, their motivations for selecting particular exhibits, etc. Interviews can also provide important information regarding the exhibits themselves (the materialisations *analysed*).

e) Interviews and focus groups with museum visitors – This stage is not simply about finding out whether visitors liked the exhibition or how satisfied they are with the museum: it can reveal how museum visitors themselves interpret the exhibition, its narrative and the presented exhibits.

ix) Data analysis

a) Analysis of materializations – This stage involves analysing museum exhibits and the related museum narrative related to the research topic. Materialization analysis includes the description of selected exhibits and their interpretation. When describing an exhibit, social

science researchers are often not so much interested in the material from which it is made as the meaning it carries, which is legible to visitors to varying degrees. It is about uncovering the meaning that the exhibit takes on in relation to the narrative of the exhibition, in relation to its location within the exhibition (description and interpretation of contextual information such as “visual” aspects – how the exhibit is lit, its position in relation to the eye horizon, etc.) and in relation to the surrounding exhibits. Along with this, it is also about revealing the meaning that the exhibit presents in relation to the social discourse. Last but not least, it is also about the meaning it presents to visitors, or the meaning that visitors interpret through the exhibits. Interpretation is not only based on the knowledge and analytical intuition of the researcher (who at this stage must pay attention to explaining their research position, which influences the data analysis, i.e., the processing of the researcher’s self-reflection); the researcher must also compare and substantiate their findings with expert knowledge and findings from the literature and other relevant sources. The analysis and interpretation is also supplemented by what the researcher has learned about the exhibits from the museum’s curators or other museum staff.

b) Analysis of the behaviour of social actors – This data can be obtained in a variety of ways chosen with respect to the research objective – for example, interviews with museum staff and/or visitors. The two steps of data analysis are complementary. For example, the first phase of the research, where the exhibition is examined through a dispositive analysis of the materialisations and the museum narrative, can be followed by a research phase based on interviews with the curators of the exhibition. The results of the materialisation analysis can be used to develop questions for this phase of the research. Conversely, the results from the analysis of the interviews would then be incorporated into the analysis of materializations phase so that a comprehensive interpretation of the research data can emerge. The same is then true of a potential third phase of research, which could be based on interviews with visitors, the results of which would be incorporated into the overall analysis. However, interviews are not the only way of collecting data relating to social actors. Video recordings of educational programs or museum tours can also be used. These may be of use if the researcher is interested in how visitors move through the exhibition (e.g., along a defined route or otherwise), how much time they spend at individual exhibits, whether they use interactive elements of the exhibition, whether they read accompanying texts on panels, etc. Visitor feedback, in the form of satisfaction questionnaires, entries in visitor books, feedback cards and so on can also be a source of data.

x) Summary of research findings and their interpretation (for each phase of the research and for the research as a whole)

xi) Writing a research report

4. FINAL SUMMARY

Related to the analysis of exhibitions is the issue of how their meaning and narratives are created in the first place. Taking into account theories of the social construction of reality as well as other scholarly theories and sources, the study concludes that the meaning of an exhibition emerges as a dialectical process shaped between the exhibition, which represents the dominant social discourse as well as the goals of the curators (and thus creates a kind of structural level of the phenomenon under study), and the visitors who actively participate in the process of generating the meaning of the exhibition. They bring to its interpretation their existing

knowledge and experience, interpretive frameworks and attitudes, as well as the experience currently lived in the museum. Thus, the study understands the museum exhibition as a social phenomenon which, as a representative of a certain section of social reality, corresponds to Giddens' theory of structuration or Berger and Luckmann's theory describing the construction of social reality as a dialectical process in which existing social structures (by which the authors mean the objectified social world) and the social actors themselves (their thinking, behaviour and actions) participate in mutual conditioning.

In practice, this means that when analysing museum exhibitions and their meanings, it is necessary to pay attention to both the analysis of social structures and the analysis of social actors. Social structure is represented by the discourse plane related to the topic of the museum exhibition, while the structural level is to some extent represented by the museum exhibition itself, which acts as an external objectified structure in relation to the visitors. However, it is not only the dominant social discourses in society that participate in its formation, but also the curators and other museum employees, who represent an equally important level of social actors in the study. A second group of social actors is that of museum visitors, each of whom interprets the exhibition in some way.

It is thus evident that museum reality represents a broad social phenomenon, the careful and complex analysis of which requires a specific methodological approach. I consider dispositive analysis to be a suitable methodological tool for examining museum exhibitions, and it is one I use in my own analytical practice. However, before I was able to carry out my first dispositive analysis of an exhibition, it was necessary to adapt this methodology to the environment and the research objective, which meant that the entire methodological procedure based had to be rebuilt, described and then applied in practice. For this purpose, it was first necessary to study the variants of dispositive analysis in order to become thoroughly familiar with its theory, which is closely intertwined with the issues of discourse and dispositive as described by Foucault. In addition to Foucault's work, Jäger's dispositive analysis inspired the methodological procedure of the research, which I adapted to the needs of museum research and added elements of methods for analysing material objects.

Dispositive analysis is a rather difficult analytical method that requires not only specific analytical competence in discourse and dispositive analysis, but also a thorough knowledge of the topic under study. An advantage, but also a risk for some researchers, may be the fact that the procedure of dispositive analysis is not fixed: it may vary with respect to the professional interests and experience of the analysts and the objectives of the research. Nevertheless, certain procedural rules exist and the analyst can rely on the clues that this study has attempted to present.

The advantage of dispositive analysis over discourse analysis is that it pays attention to the exhibition and its narrative as a whole, as well as to the individual exhibits and situations that constitute them. All the elements of the exhibition and, by extension, the museum reality, are perceived by dispositive analysis in a broad context that is conditioned by the form of the discursive reality itself. The discursive framework does not fall outside the remit of the analysis; on the contrary, it is its central part.

Although the dispositive analysis method is demanding, its use in museum research can be worthwhile, as it is a complex research process that reveals a great deal – not only about the exhibition under study, its narrative and museum reality in general, but also about the social reality itself. In fact, museums participate in the construction and maintenance of social reality in

a specific way, and through their exhibitions they present visitors both with (traditional) culture, history and past experience, and with the present, since exhibitions and the way they are created and presented usually mirror, or at least somehow reflect or grasp, the current dominant social discourses. Thus, research that pays attention to the relationship and role of museums and their exhibitions within the discursive reality of a given society may yield very interesting findings that are important for researchers, museum staff and museum management, and may also be enriching for society itself, as they speak about it in different ways.

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Establishment and development of the Zakarpattia Regional Art Museum during the Soviet and post-Soviet period

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Establishment and development of the Zakarpattia Regional Art Museum during the Soviet and post-Soviet period

The article deals with the preconditions for the formation and stages of establishment of the Zakarpattia Regional Art Museum in Uzhhorod as one of the main cultural and historical centres in the region of scientific, educational and artistic direction. It traces the historical milestones of the cultural and national renaissance in Zakarpattia, which was annexed to the Czechoslovak Republic under the name of Carpathian Ruthenia in 1919 after the collapse of the Austro-Hungarian monarchy, as well as in the post-war period during the Soviet era. The preconditions for the opening of the museum in Uzhhorod and the ways in which the first museum collections were formed have been studied; the activity of persons who played key roles in the formation of the art museum is described.

Key words: Carpathian Ruthenia, union of artists, zemstvo art gallery, zemstvo museum, art museum.

In the context of humanitarian and historical research intensification, scholars have recently been paying increased attention to the activities of local cultural and artistic centres that reflect the spiritual potential of the region. However, on this topic of research, there is a certain complexity, which is associated with the peculiarities of the establishment of important cultural centres in Zakarpattia due to the echo of the political and ideological stereotypes that existed in the past. In line with the scientific problems of local lore, the study of the preconditions and stages of establishment of one of the most important cultural and artistic centres of the region – the J. Bokshai Zakarpattia Regional Art Museum – along with its role in an educational and spiritual mission remains relevant. Today it may be stated that there is an absence of complex scientific work considering the preconditions, stages of establishment and first steps of development of museums of this type in Zakarpattia. Some aspects of the topic have been studied in the works of the following researchers: L. Biksei, P. Mahochii, V. V. Pankulych, H. Ryzhova and O. Prykhodko. Having studied this issue, it can be argued that the history and development of museum construction in Zakarpattia began only in the early twentieth century. As early as 1923, the outstanding Ukrainian scientist, researcher of art history and culturologist Volodymyr Zalozetskyi wrote an article in the *Rusyn* newspaper entitled “The National Museum in Uzhhorod”, where he raised important questions that highlighted the reasons for the absence of local museums in Carpathian Ruthenia. The author points out that all the richness

of national art of the region could be seen only in the ethnographic museum of Budapest. Obviously, until this time, the Hungarian authorities had not supported initiatives of this kind in the region, aiming to prevent the awakening of the national consciousness of the local population. In particular, Zalozetsky drew attention to the uniqueness of the folk art of Carpathian Ruthenia, which, due to its remoteness from the centres of civilization, had preserved its originality with all national features as well as with strong admixtures of archaisms. And in order to preserve and represent all branches of art, the author proposed to create a National Museum in Uzhhorod.¹

After the collapse of the Austro-Hungarian monarchy, according to the Treaty of Saint-Germain in 1919, the modern territory of the region joined the Czechoslovak Republic under the name of Carpathian Ruthenia. It is important to note that that owing to the rule of the Czechoslovak government, which granted the region the status of “cultural autonomy”, the formation and development of monument protection and museum work began.² At this time, interest in the cultural heritage of the region was growing. Special attention was drawn to national handicrafts. One of the common activities for the popularisation of works of art at that time was holding exhibitions of decorative and applied art, including unique Carpathian embroideries. One of them was launched in 1922 in Prague under the title “Life and Art of Carpathian Ruthenia”. It was under this name that a multi-illustrated edition compiled by S. K. Makovsky was published in four languages. According to one of the most famous artists of the region, F. Manaylo, most of the collection was transferred to the museum in Prague, and the rest was supplemented and represented at the “Modern Culture” exhibition, which was held in Brno. In this way, the original collections of Carpathian embroideries became a decoration of the ethnographic museums of Prague and Brno.³

Budapest was traditionally considered the centre of the cultural life and development of fine arts for the artists of Carpathian Ruthenia. But taking into account the favourable conditions for the cultural elevation of the region as early as 1921, a certain centre of young artists began to form in Mukachevo, which the famous church-baroque artist Yuliy Virag tried to unite around him. It aimed to form a cultural centre that would stimulate young creative people to develop art. These were such artists as Erdeli, Bokshai and Beregi, as well as artists from Kosice: Tsordah, Marakuv, Halas, Muson and others. That very year, the first art exhibitions were held in the cities of Kosice and Berehove. In addition, A. Erdeli and J. Bokshai presented their paintings at solo exhibitions in Prague.⁴

Owing to the initiative and persistence of the artists, the state government was beginning to show great interest in the development of art in Carpathian Ruthenia. It is worth noting that the state was beginning to allocate funds separately for the purchase of paintings, and hence the payment of scholarships for artists to participate in studio trips.⁵

One of the primary tasks for the creative intelligentsia of the region was the establishment

¹ ZALOZETSKYI, V. Nats'ionalnyi Muzei v Uzhhorod'i. In: *Rusyns*, Chtodenna hazeta, 1923, №2, p. 1.

² KUZMA, V. V. Tendentsii ta osoblyvosti rozvytku muzeinoi spravy v Pidkarpatskii Rusi (20-30-ti roky KhKh st.). In: *Naukovyi visnyk Uzhhorodskoho universytetu, seriia. «Istoriia»*, vyp 1. p. 32.

³ MANAILOV' FEDOR' B. Yzobrazitel'noe yskusstvo na Podkarpatskoi Rusi. In: *Podkarpatskaia Rus za hodby 1919–1936*. Uzhhorod' B, 1936, pp.144–146.

⁴ MAHOCHII, P. R. *Formuvannia natsionalnoi samovidomosti: Pidkarpatska Rus (1848–1948)*. Uzhhorod. Polychka «Karpatskoho kraiu», 1994, № 3-6 (18), p. 295.

⁵ PROF. BOKSAJ, JOSYP. Malirstvi na Podkarpatske Rusi. In: *Podkarpatska Rus. Sbornik hospodarskebo, kulturnibo a politickebo poznani Podkarpatske Rusi*. 1936, p. 216.

of an art gallery in the town of Uzhhorod. According to Joseph Bokshay in the article “Malirstvi na Podkarpatske Rusi”, a significant part of the artwork was purchased by the department of education. The artists hoped that this collection would become the basis of a future Carpathian gallery. However, the gallery was not created, so the paintings adorned the walls of authority offices for some time.⁶

During this time, the general public of Carpathian Ruthenia was extensively paying increased attention to national traditions, history, culture and art. Great selfless labour in local lore, education and culture was carried out by newly created public associations – the “Prosvita” society (1920), the Regional Museum Society (1929), the “Ruthenian National Museum” society (1930) and the Ethnographic Society of Carpathian Ruthenia (1939).⁷

As of June 12, 1931, on the initiative of the famous graphic artist B. Ozhdian, the Union of Artists of Carpathian Ruthenia was established in Uzhhorod, and it included the most outstanding artists of the region: A. Erdeli, I. Bokshai, L. Kaiidl, B. Ozhdian, M. Shpalova, I. Tomashek and sculptor I. Kupal. A. Erdeli was elected as the head of the union, as one of the best representatives of the modernist movement, and who had obtained his education in Munich and Paris.⁸ B. Ozhdian became the secretary of the Carpathian Ruthenia Union of Artists, and later this position was given to A. Kotska. The leaders of the “Union”, as historian Ivan Pop emphasises, were distinguished by “high demands, sharply negative attitudes towards dilettantism, salonism and officialdom”. Therefore, the exhibitions of the members of the “Union” in Uzhhorod, Mukachevo, Košice, Bratislava and Prague found a lively and positive response in professional circles and withstood the “firm competition of professionalism in the very rich field of the fine arts of Czechoslovakia at that time”.⁹

The main purpose of the activities carried out by the public associations was to raise the region in the economic, educational, cultural and artistic direction. The establishment of museums and art galleries became a priority in the development of culture and art. A significant part of the funds was allocated from the budget of extracurricular educational activities to support local artists, and the first exposition of the newly created Carpatho-Ruthenian Art Gallery was formed from the paintings which had been purchased from them.¹⁰

As of 1933, the art gallery became one of the departments of the Uzhhorod Zemstvo Museum, established in the same year by the Regional Museum Society. To accommodate the museum’s collections, beautiful rooms of the district court in the building of the local *zhupanat* (county council) were allocated. For a long time, the paintings of artists of Carpathian Ruthenia were exhibited here.¹¹

1938 was a difficult period for Czechoslovakia. On the eve of World War II, as a result of the Vienna Arbitration of November 2, 1938, the towns of Uzhhorod and Mukachevo became part of Hungary. As a result, the expositions of museum institutions were evacuated to other

⁶ Ibid, p. 217.

⁷ KUZMA, V. V. Tendentsii ta osoblyvosti rozvytku muzeinoi spravy v Pidkarpatskii Rusi (20-30-ti roky KhKh st.). In: *Naukovyi visnyk Uzhhorodskoho universytetu, seriya. «Istoria»*, vyp 1. p. 32.

⁸ ERDELYI, BELA. Eloszo. Kepkiállítás. *A karpatiai képzőművészek egyesületének*. Ungvár, 1939 december 16. 1940. Január 8.–16. c.3.

⁹ POP, I. I. Zakarpatska shkola zhyvopysu yak fenomen natsionalnoho i kulturnoho vidrodzhennia. In: *KARPATICA – KARPATYKA. Aktualni problemy istorii i kultury Zakarpattia*. Vyp.I. Uzhhorod, 1992, p. 192.

¹⁰ KYRYL'Ь, V. KOKhANN'ИИ. Vn'ishkolnyia dostyzhenniia. In: *Podkarpatskaia Rus za hodbi 1919–1936*. Uzhhorod', 1936. p. 112.

¹¹ KUZMA, V. V. Tendentsii ta osoblyvosti rozvytku muzeinoi spravy v Pidkarpatskii Rusi (20-30-ti roky KhKh st.). In: *Naukovyi visnyk Uzhhorodskoho universytetu, seriya. «Istoria»*, vyp 1. p. 32.

settlements.¹²

During the Second World War, the museum business in Zakarpattia was not developing. And the information about the activities of the art gallery have not been preserved.

As of June 29, 1945, the Treaty on Zakarpattia Ukraine was concluded between the Soviet Union and Czechoslovakia, ratified in November 1945 by the Provisional National Assembly of Czechoslovakia and the Presidium of the Verkhovna Rada of the USSR, on the basis of which the process of the unification of Ukrainian lands was completed. According to the decree of the Presidium of the Verkhovna Rada of the USSR of January 22, 1946, the Zakarpattia region was formed within the USSR with the division into 13 districts, which in 1954 were transformed into raions; and from January 24, 1946 the legislation of the Ukrainian SSR extended to its territory.¹³

Thus, a new page in the history of museum affairs in Zakarpattia begins with the accession of the region to Soviet Ukraine. The specificity of museums at that time was that their activities closely combined research and educational functions. Therefore, they were successfully used for a wide range of promotional activities. All the research work of museums, in particular the construction of expositions, was based on the decisions of party congresses, resolutions of the Central Committee of the Communist Party of the Soviet Union on ideological work.¹⁴

In accordance with the resolution of the Zakarpattia Regional Executive Committee, on February 19, 1946, a decision was made to establish an art gallery in the town of Uzhhorod.¹⁵ Since its inception, the gallery has been organised on the basis of works by the local, Czech, Slovak and Hungarian artists of the 1920s–1930s in a modernist orientation. The new Zemstvo Art Gallery was located in the administrative building at 1, Lenin Square (today Narodna Square) where works of art were perfectly exhibited.¹⁶

However, later, its history became inextricably linked with the process of development of the Zakarpattia Museum of Local Lore. At the beginning of April 1947, the Zakarpattia Regional Executive Committee allocated the premises of Uzhhorod Castle for the Museum of Local Lore and the Art Gallery. Here 11 rooms, including five large halls, were allocated for the gallery. In the newly allotted room, the art gallery resumed its work and continued to replenish the art collection.

Beginning in 1946, the museum collection was replenished with materials received in the form of gifts from the central art museums of the Soviet Union (Moscow, Leningrad [St Petersburg], Riga, Kyiv, Kharkiv, Odesa, Lviv).¹⁷

One of the accession sources was also the nationalisation of private collections. A number of interesting works came from the collection of the outstanding scientist, collector Tyvodar

¹² PANKULYCH, V. V. Rozvytok muzeinytstva Uzhhoroda v 1920–1940-kh rokakh. In: *Naukovyi visnyk Uzhhorodskoho universytetu, seriya. «Istoriia»*, 2014, vyp.1(32), p. 44.

¹³ DAZO. – FR-842. – Op.1. – Spr.2. – Ark.2.

¹⁴ VASYLECHKO, A. S. *Litopys slavy narodnoi. Z istorii stanovlennia i roznytku narodnykh muzeiv Ukrainy*. Kyiv: Naukova dumka, 1959, p. 176.

¹⁵ KUZMA, V. V. Stvorennia tffiuia diialnist khudozhno-mystetskykh muzeiv na Zakarpatti za roky radianskoï vlady (1945–1991). In: *Mystetske viddzerkalennia epokhy. Naukovyi zbirnyk. Materialy Mizhnarodnoi naukovo-praktychnoi konferentsii za pidsumkamy vystavky «Zoloti storinky. Ukrainske obrazotvorche mystetstvo druboi polovyny 20 stolittia»*. Uzhhorod, 2008, p. 87.

¹⁶ KOBAL, Y., KOBAL, L. Domivka Zakarpatskoho oblasnoho khudozhnoho muzeiu im. Y.Bokshaia. In: *Zakarpatskyi oblasnyi khudozhnii muzei im.I.Bokshaia. Zbirnyk stattei i materialiv*. Uzhhorod, 2008, p. 22.

¹⁷ RYZHOVA, H. Rosiiske mystetstvo KhVIII – pochatku KhKh st. In: *Zakarpatskyi oblasnyi khudozhnii muzei imeni Yosypa Bokshaia. 70 rokiv*. Uzhhorod: TDV «Patent», 2016, p. 224.

Lehotskyi, as well as from the private collections of Baron Pereni, Counts Schönborn and Drugets and others.¹⁸

The family of the famous Hungarian artist and teacher Imre Reves in 1948 donated a collection of the master to the state. They did it in order to obtain permission to leave the country and bring with them at least a part of the inheritance. The exhibition of this collection became the first one in the history of the Zakarpattia Art Gallery.¹⁹

In the 1950s, the board of the Mukachevo branch of the state bank transferred the works of prominent Hungarian artists which had once been deposited by private individuals.²⁰

A valuable source of accession was the Greek Catholic Diocese, which had a rich collection of works by artists from various national schools of previous epochs.

The process of replenishing the museum collection with new works was not stopped during the entire period of operation of the regional art gallery during the Soviet era. The state annually allocated funds for the purchase of works of art both from the authors and individual owners.

Systematic public procurement from exhibition expositions was a considerable aid in the formation of the art collection. Special funds for art collections were formed at the Ministry of Culture and the Union of Artists of the USSR. Representatives from national and regional museums were invited to Kyiv and Moscow to select exhibits for their museum collections. Works of art were transferred to the museum collections exclusively free of charge.

Occasionally, museum collections were replenished with author's works of individual artists (A. Erdeli, J. Bokshai, A. Kotska, etc.).²¹

An important event in the history of the art gallery was the act of donating his works by the famous artist Ihor Hrabar. He lived and worked in Russia, but he came from the well-known Dobryanskyi family, which left a good mark in Eastern Slovakia and Zakarpattia.²² The maternal grandfather of Hrabar, Adolf Ivanovych Dobryanskyi (1817–1901), who had been born in the village of Rudliv of the Zemplinsky district, and was a public and political figure. In the 1840s he had established close contacts with prominent representatives of the Czech and Slovak national revival V. Hanka, F. Palatsky, P. Shafarik and the Russian Slavist scientist I. Sreznevsky, and under their influence had been imbued with the ideas of Slavic unity, becoming a defender of the national and cultural rights of the oppressed Slavic peoples of the Austrian Empire, in particular the Hungarian Ruthenians, promoted Austroslavism, and then switched to the position of moscophilism.²³

Initially, Ihor Hrabar's gift to the Uzhhorod Art Gallery consisted of 26 canvases. For this, the famous brush master, despite his 84-year-old age, personally came to Zakarpattia, visited all its corners and took a direct part in the preparation of the exhibition of his paintings.²⁴ And so, on June 4, 1955, in the Zakarpattia Regional Art Gallery, with the personal participation of the artist, the ceremonial opening of an exhibition of his 26 art canvases took place. Among

¹⁸ KUZMA, V. V. Mystetski muzei Zakarpattia chasiv radianskoï vldy (1945–1991) In: *Aktualni problemy mystetskoï praktyky i mystetstvoznavchoï nauky*, 2010, vyp. 3, p. 383.

¹⁹ ERFAN, F., BIKSEI, L. V muzee ymeny Bokshaia. In: *Antykvár*, 2011, noiabr, № 11, p. 58.

²⁰ PRYKHODKO, O. Zakhidnoievropeiske mystetstvo. In: *Zakarpatskyi oblasnyi khudozhnii muzei imeni Yosypa Bokshaia. 70 rokiv*. Uzhhorod: TDV «Patent», 2016, p. 224.

²¹ BIKSEI, L. Mystetstvo Zakarpattia KhKh stolittia. In: *Zakarpatskyi oblasnyi khudozhnii muzei imeni Yosypa Bokshaia. 70 rokiv*, Uzhhorod: TDV «Patent», 2016, p. 224.

²² HRABAR YHOR. Pysma 1941–1960. Pysmo 262 Y.S. Svetsytskomu, Moskva, 1955, p. 175.

²³ HRABAR YHOR. Pysma 1941–1960. Pysmo 273 neustanovlennomu lytsu, Moskva, 1955, pp. 182–183.

²⁴ HRABAR YHOR. Pysma 1941–1960. Pysmo 272 S.M.Ohranovychu, Moskva, 1955, p. 182.

the works were two self-portraits, portraits of people close to him, sketches, still lifes and paintings with depictions of nature: “Golden Autumn” (1901), “Pears” (1921), “Birch Alley” (1939), “White and Pink Roses” (1945), “Lilac bush” (1947) and “A fog rises over the river” (1954). The works donated by Hrabar are considered milestones in the creative biography of the artist and worthily represent the highest achievements of his art. The stay in Zakarpattia made an incredible impression on Hrabar. Returning to Moscow, he decided to present another 24 graphic works to the Uzhhorod Art Gallery.²⁵

Though sometimes museum collections were replenished with author’s works of individual artists (A. Erdeli, J. Bokshay, A. Kotska, etc.),²⁶ in the conditions of the Soviet coordinate system, the Zakarpattia Regional Committee of the Communist Party of Ukraine demanded that the artists of Zakarpattia create paintings on historical and revolutionary themes. Already in 1945, Uzhhorod hosted the first regional art exhibition dedicated to the liberation of Zakarpattia by Soviet troops. Among the works of the region’s artists were Andriy Kotska’s paintings “Portrait of the Partisan Detachment Commander Vasyl Rusyn”, Adalbert Boretskyi’s “Meeting of the Soviet Army”, Fyodor Manaylo’s “Greetings to Soviet Army Soldiers”, “Peace Rally” and others.²⁷

After the end of the war, socialist construction took place in the region, which the artists of Zakarpattia also celebrated. As of 1955, most members of the Zakarpattia branch of the Union of Soviet Artists of Ukraine graduated from the evening university of Marxism-Leninism. At the same time, several artists were sent to Kyiv for a several-month internship to improve their professional skills. In addition, in 1955 two well-known Zakarpattia artists, G. Gluck and I. Garapko, were sent to the All-Union Agricultural Exhibition in Moscow to get acquainted with the achievements in agriculture.²⁸

However, it was not so easy to reorient the artists of Zakarpattia, whose artistic tastes were formed in the conditions of democratic Czechoslovakia, to a new theme. In the summer of 1957, the secretary of the Zakarpattia regional committee of the Communist Party of Ukraine, V. Povkh, stated:

There is a big squad of artists who have earned the respect in the republic and even the Union, but the topic of their works is narrow and biased. It does not touch on vital topics of our time. Most of the paintings of our artists are mountain landscapes, sketches and more. Artists hardly write paintings on historical and revolutionary themes, about the daily life of the workers of the region, about the great socialist transformations that took place in our country during the years of Soviet rule. Artists still do little in the regional press on instigators of war and Anglo-American colonizers.²⁹

²⁵ HRABAR YHOR. Pysma 1941–1960. Pysmo 272 S.M.Ohranovychu, Moskva, 1955, p. 182; HRABAR YHOR. Pysma 1941–1960. Pysmo 273 neustanovlennomu lytsu, Moskva, 1955, p. 182.

²⁶ BIKSEI, L. Mystetstvo Zakarpattia KhKh stolittia. In: *Zakarpatskyi oblasnyi khudozhnii muzei imeni Yosyfa Bokshaia. 70 rokiv*, Uzhhorod: TDV «Patent», 2016, p. 224.

²⁷ Kulturne zhyttia v Ukraini. Zakhidni zemli. Dokumenty i materialy, tom II (1953–1966). № 226. Iz dopovidi holovy pravlinnia Zakarpatskoho viddilennia Spilky khudozhnykiv Ukrainy Antona Kashshaia na urochystomu zasidanni pravlinnia Spilky. 25 veresnia 1965 r., Lviv, 1996, pp. 647–648.

²⁸ Kulturne zhyttia v Ukraini. Zakhidni zemli. Dokumenty i materialy, tom II (1953–1966). № 24. Iz zvitu Zakarpatskoho oblasnoho pravlinnia Spilky radianskykh khudozhnykiv Ukrainy. Ne ranishe 1 sichnia 1955 r., Lviv, 1996, pp. 113–114.

²⁹ Kulturne zhyttia v Ukraini. Zakhidni zemli. Dokumenty i materialy, tom II (1953–1966). № 77. Iz dopovidi sekretaria Zakarpatskoho obkomu KP Ukrainy V.Povkha na plenumi obkomu pro ideolohichnu robotu. 26 lypnia 1957 r., Lviv, 1996 p. 280.

However, the party leadership did not back down and in 1965 the chairman of the Zakarpattia branch of the Union of Artists of Ukraine, Anton Kashshai, among other things, reported on the changing worldview of the artists of Zakarpattia. At the same time, he stressed that “this creative process did not always go smoothly and painlessly”, and some artists were even forced to radically “reconsider their views on art” in order to apply the principles of socialist realism. At the same time, Kashshai names the works of several masters of the brush in which the free, joyful work of Zakarpattia workers was “reflected”. These are J. Bokshay’s paintings “Work in the Forest”, “Bridge Construction” and “Threshing”, A. Boretskyi’s paintings “Forest Removal”, “On Construction” and “Rakhivpapirbud”, and G. Gluck’s paintings “On Construction” and “Grape Harvesting in the collective farm”. Kashshai also mentions A. Erdeli and A. Kotska, who were the first to recreate “portraits of the people of the new Soviet Zakarpattia.”³⁰ It is works of this nature, first of all, that replenished the funds of the Zakarpattia Regional Art Gallery over 50–80 years of the twentieth century.

According to the resolution of the Council of Ministers of the USSR “On the network of state museums in the system of the Ministry of Culture of the USSR” and the Executive Committee of the Zakarpattia Regional Council of Workers’ Deputies, in 1965 the Zakarpattia State Museum of Local Lore with a branch named the Zakarpattia Regional Art gallery was further called the Zakarpattia Museum of Local Lore with a branch named Zakarpattia Art Museum.³¹

Since 1960, the Zakarpattia Art Museum has carried out significant work to raise the scientific level and improve the exposition in all departments: Western European art, Russian, Ukrainian and Soviet art.³² In the 1970s, the collection grew and was enriched with valuable monuments of art. Where in 1953 the exhibition consisted of three sections and numbered 240 works of art, after the reconstruction and reorganisation of 1964–1973 it housed about 400 works of fine art.

Every year the museum organised several stationary and traveling exhibitions. International exchange exhibitions with museums of the Hungarian People’s Republic and the Czechoslovak Republic were also arranged.³³

The subject of special attention of the museum workers was the study and promotion of local artists.³⁴ In 1973, for the first time in the museum works of folk and decorative art of Zakarpattia were exhibited.

During 1972–1973, the Zakarpattia Art Museum registered and stored about 300 new paintings, including works by prominent artists from various republics of the Soviet Union.³⁵

Also central to the department of Soviet art was the theme of Lenin, with sculptural images of Lenin and works dedicated to the heroism of the Soviet people during the Great Patriotic War featured.³⁶

The year 1978 became significant for Zakarpattia Art Museum. As its funds were constantly replenished with new exhibits, there is no doubt that there was a need for new exhibition and

³⁰ Kulturne zhyttia v Ukraini. Zakhidni zemli. Dokumenty i materialy, tom II (1953–1966). № 226. Iz dopovidi holovy pravlinnia Zakarpatskoho viddilennia Spilky khudozhnykiv Ukrainy Antona Kashshaia na urochystomu zasidanni pravlinnia Spilky. 25 veresnia 1965 r., Lviv, 1996, pp. 648–649.

³¹ DAZO. – F.1713. - Op.1. - Od.zb.139. - Ark.6. – S.6.

³² DAZO. – F.1713. - Op.1. - Od.zb.134. - Ark.6. – S.1.

³³ ChERNEHA-BALLA, O. Dva miliony vidviduvachiv. In: *Zakarpatska pravda*, 1973, №303, 29 hrudnia, p. 4.

³⁴ OSTROVSKYI, H. Zbyrach, khrarytel, propahandyst. In: *Zakarpatska pravda*, 1984 r, №7, 8 sichnia, p. 3.

³⁵ ChERNEHA-BALLA, O. Dva miliony vidviduvachiv. In: *Zakarpatska pravda*, 1973, №303, 29 hrudnia, p. 4.

³⁶ Khudozhestvennyy muzei. Uzhhorod. Putevodytel. Uzhhorod, 1978, p. 159.

stock areas. And in November, in pursuance of a decision of the Uzhhorod City Executive Committee, the museum would move to the historic centre of Uzhhorod, to the building of the former zhananat, an architectural monument of 1809.³⁷

The newly allocated premises for the museum perfectly met the requirements of modern art exhibitions. Departments of foreign, domestic, Soviet and Zakarpattia art were deployed here, which revealed the general picture of development and history of art culture.³⁸

Naturally, over time, the exhibition space needed restoration work, and museum staff were forced to close the exhibition. Therefore, for two decades, they became inaccessible to visitors.

In conclusion, the Zakarpattia Regional Art Museum has become one of the centres of culture and art of the region. It has gone through a difficult path in its formation and development over more than half a century. The basis of its formation was a valuable collection of works by local, Czech, Slovak and Hungarian artists of the 1920s–1930s. Today its collection is a real treasure trove of national culture, which gives the opportunity to see and study the unique works of regional artists, as well as the art of Western and Central Europe, Ukraine and Russia.

The difficulty of studying this problem lies in different approaches, as the territory of the region has been part of different states, which has been reinforced by both national and political factors. The most favourable time for the development of the culture and art of the region was the period of the 1920s–1930s, when the territory of Zakarpattia was part of Czechoslovakia. Artists obtained a unique opportunity to develop their professional artistic skills, participate in exhibitions and promote a high level of European art. However, the authorities were indifferent to the creation of museums and art galleries in the region which would primarily indicate the national identity of the region, its history and unique culture.

Even after the establishment of Soviet power and the region's entry into the USSR, the problem of the development of national culture was not solved. The policy of the communist regime skilfully used museum institutions to pursue specific ideological goals and objectives. Thus all scientific, expositional activity was completely subordinated to official ideological doctrines.

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³⁷ KOBAL, Y., KOBAL, L. Domivka Zakarpatskoho oblasnoho khudozhnoho muzeiu im. Y.Bokshaia. In: *Zakarpatskyi oblasnyi khudozhnii muzei im.I.Bokshaia. Zbirnyk stattei i materialiv*. Uzhhorod, 2008, p. 22.

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3D Scanning of Porto Alegre Museum Artifacts: The Crockery of the Rocco Bakery

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3D Scanning of Porto Alegre Museum Artifacts: The Crockery of the Rocco Bakery

Antiques usually require careful handling, so these objects cannot be made available to the general public and are handled only by restoration specialists. This article focuses on the preservation of antiquities in terms of cultural heritage and the availability of these objects for access by visitors, it describes and evaluates the development of a method to support the digitisation of objects considered solids of revolution. The artifacts were provided by the Museu Joaquim José Felizardo in the city of Porto Alegre, Brazil, and were used to set the table in the former Confeitaria Rocco (bakery). The 3D process consisted of the following steps: laser scanning, data processing of the coordinates obtained from the surface of the object into point clouds, creation of the virtual model, creation of a physical model using additive manufacturing, and evaluation of the physical model in comparison with the original artifact. The obtained results show that highly accurate models can be created using the proposed method. Therefore, virtual data can be obtained for the conservation, restoration and creation of replicas for studies and accessibility.

Keywords: 3D digitisation, cultural heritage, historical artifacts, solids of revolution

INTRODUCTION

The possibility to bring and incorporate 3D techniques into museums is a valuable and significant addition to protect and interact with heritage and art objects. 3D technologies capture small objects' asymmetries and marks of time that would be difficult to accurately reproduce using other techniques. In this sense, the use of 3D techniques is a good way to preserve cultural and historical heritage and, moreover, to make these objects accessible by offering a unique experience to visitors, including those with visual impairments. Therefore, the development of a precise and reliable method for the 3D reconstruction of pieces considering them solids of revolution becomes a useful tool. 3D technologies call for interdisciplinary studies concerning the cultural heritage, and on the other hand, may also be used as an interaction tool.¹ According to Turner et al., 3D tools provide an interface where participants, including children, may have contact with museum spaces and objects.²

The Joaquim Jose Felizardo Museum is a reference for accessibility in southern Brazil and has various aids and an accessibility area that is being developed with the support of a dedicated team. The museum's collection includes utensils from Confeitaria Rocco, a bakery that served the population of Porto Alegre between 1912 and 1964.³ The selection criteria for the digitised pieces were the state of conservation and the cultural relevance for the city.

Three main reasons influenced the decision to conduct this study:

It should be considered that within the historical heritage there are many fixed objects of revolution, for example, vases, bowls, jars and decorative objects. Despite their similarity, these pieces have small differences and traces of the period, which should be accurately reproduced.

In the context of cultural dissemination, a detailed 3D model not only helps in virtual accessibility, but also in cataloguing and restoration in case of damage.

Making accurate replicas allows physical contact with objects that cannot otherwise be touched or handled because of the original's value.

The aim of this paper is to present a method for the 3D scanning of, and the development of 3D models of, artifacts with slightly asymmetric solids of revolution. The second goal is to contribute to the generation of 3D models of solids of revolution to enable the reproduction of accurate replicas.

THE MUSEUM AND THE BAKERY

The museum is currently housed in the Solar Lopo Gonçalves, a historic building built between 1845 and 1855, located at 582 Rua João Alfredo in the Cidade Baixa neighbourhood of Porto Alegre, capital of the state of Rio Grande do Sul. It was built as a weekend home for the family of Lopo Gonçalves Bastos (1800–1872), a Portuguese merchant who was active in business and politics in Porto Alegre.⁴ In 1979, the Museum of Porto Alegre or the Municipal

¹ GALEAZZI Fabrizio. 3D recording, documentation and management of cultural heritage. In: *International Journal of Heritage Studies*, 23(7), 2017, pp. 671–673.

² TURNER, Hannach et al. Using 3D Printing to Enhance Understanding and Engagement with Young Audiences: lessons from Workshops in a Museum. In: *Curator: The Museum Journal* 60(3), 2017, pp. 311–333.

³ SOSKA, Gabriela Barbosa. Confeitaria Rocco: instituto de gastronomia [Rocco bakery: gastronomy institute]. Senior thesis in architecture at the Federal University of Rio Grande do Sul, Porto Alegre, 2018, 32 pp., accessed October 19, 2020, <http://hdl.handle.net/10183/182815> [In Portuguese].

⁴ Site da prefeitura de Porto Alegre [Porto Alegre City Hall website, RS, Brazil]. *Cultura - Museu de Porto Alegre Joaquim Felizardo* [Culture - Museum of Porto Alegre Joaquim Felizardo], accessed May 10, 2022, https://www2.portoalegre.rs.gov.br/smc/default.php?p_secao=278 [In Portuguese].

Museum was created, and the building in question underwent two years of restoration to later become the seat of the museum. Joaquim José Felizardo (1932–1992) was a writer and professor who founded the Porto Alegre Municipal Cultural Department (SMC) in 1988. In his memory, the Historical Museum of Porto Alegre was named after him in 1993 (Figure 1). In 2010, the accessibility sector was created with the main objective of widening, qualifying and democratising access for the general public and the integration of people with disabilities.⁵



Figure 1: Exterior view of the building of the Museum Joaquim José Felizardo.

Source: free stock photos bank. <https://bancodeimagens.portoalegre.rs.gov.br/imagem/31489>

The museum has a digital collection room with about 5,000 photographs of Porto Alegre in the nineteenth century, as well as three important collections on the history of the city: a photographic collection consisting of about 20,000 photographs collected at Fototeca Sioma Breitman to create an image database, a large part of which will be restored and conserved to be later digitised; an archaeological collection including 120,000 pieces, including fragments and whole objects related to prehistoric and historic settlement sites in the city of Porto Alegre – these are pieces made of ceramics, stone, porcelain, glass, metal, leather and bone; a historical collection including about 1,300 pieces that were donated by Porto Alegre citizens in the late nineteenth and twentieth centuries. These are objects of various types that belonged to Porto Alegre citizens, with the pieces from the old Confeitaria Rocco standing out.⁶ Therefore, the tableware from the former Confeitaria Rocco is an important part of the urban memory of the city of Porto Alegre.

Confeitaria Rocco, founded in 1772 by Portuguese from the Azores islands,⁷ is a renovated historic building in the city of Porto Alegre, located at the corner of Riachuelo and Dr Flores

⁵ ATOLINI, Thanise Guerini. *Oficina de Acessibilidade Conhecendo Porto Alegre através dos sentidos: Educação Patrimonial no Museu de Porto Alegre Joaquim José Felizardo. Experimentações em lugares de memória: ações educativas e patrimônios*. Porto Alegre/RS: Selbach & autores associados, 2015, pp. 335–348. [In Portuguese].

⁶ Site da prefeitura de Porto Alegre [Porto Alegre City Hall website, RS, Brazil], ref. 4.

⁷ Site oficial da prefeitura da cidade de Porto Alegre [Porto Alegre City Hall official website, RS, Brazil]. *Conheça Porto Alegre* [Discover Porto Alegre], accessed August 3, 2021, <https://prefeitura.poa.br/gp/projetos/conheca-porto-alegre> [In Portuguese].

streets, next to Praça Conde de Porto Alegre. It was an important meeting point for the aristocratic society of Porto Alegre (RS, Brazil). It was built in 1912 and belonged to the Italian Niccolau Rocco (1861–1932). It was a meeting place for rio-grandense society because of the quality of its services and products, because of the external beauty of the building with its masonry made of adobe bricks and facades decorated with beautiful details on staircases, balconies and columns, and because of the splendour of the interiors, which were furnished with luxury and refinement. Its banquets and sweet and savoury pastries, as well as the service, installations and utensils, became famous. The bakery property was officially proclaimed a historical landmark by the municipality of Porto Alegre in 1997.⁸

THE PROJECT

From the outside, the four-story building of 1,560 m² has an Art Nouveau style and is made of clay brick masonry and ornate facades with beautiful details on the stairways, balconies and columns.⁹

The interiors were as luxurious and sophisticatedly decorated as the utensils used for serving. The tableware used for serving at the table included two sets: a dessert service with a silver holder and glass bowl (Figure 2A) and a ceramic cup and saucer (Figure 2B). Both sets feature intricate details, curves and organic shapes. The glass bowl is composed of pieces of varying thicknesses with refined embossed floral details.

It should be noted that the cultural heritage objects had to be handled with special care and could not be modified, changed or in any way damaged.¹⁰ Acquisition protocols were far stricter than those required for the scanning of objects for industrial applications.¹¹



Figure 2: Tableware from the former *Confeitaria Rocco*, on display at the *Museu Joaquim José Felizardo* in Porto Alegre/ RS. Dessert service consisting of a silver saucer and a glass bowl (A). Ceramic teacup and saucer (B)

Materials such as wood, stone, marble, glass, ceramic and metal, including copper alloys,

⁸ SOSKA, Gabriela Barbosa, *Confeitaria Rocco: instituto de gastronomia...*

⁹ PALOMBINI, Marco Antônio de Lima. O processo recente de revitalização na área central de Porto Alegre: uma análise acerca do papel da Universidade Federal do Rio Grande do Sul [The recent revitalisation process in downtown Porto Alegre: an analysis of the contribution of the Federal University of Rio Grande do Sul]. Master's thesis, Postgraduate Program in Economics, Federal University of Rio Grande do Sul, Porto Alegre, 2015, 119 pp., accessed March 10, 2022, <http://hdl.handle.net/10183/147473> [In Portuguese].

¹⁰ KUZMINSKY, Susan C., and GARDINER, Megan S. Three-dimensional laser scanning: potential uses for museum conservation and scientific research. In: *Journal of Archaeological Science*, 39(8), 2012, pp. 2744–2751

¹¹ Ibidem; PAVLIDIS, George et al. Methods for 3D digitization of Cultural Heritage. In: *Journal of Cultural Heritage*, 8(1), 2007, pp. 93–98.

silver, gold and different grades of steel, are commonly used on historical sculptures or antiques.¹² Great efforts have been made to preserve cultural heritage objects and make them accessible to citizens. This is a relatively delicate matter related to the democratisation of cultural heritage through the 3D digitisation of artifacts and spaces.¹³ Therefore, multidisciplinary research lines are emerging in order to reproduce and store precise information on patrimony.¹⁴

Three-dimensional scanning stands out as a technology that is used to accurately capture the contours of the object surface.¹⁵ It captures 3D images and data using computer tools to obtain highly accurate details of surfaces, textures and the object as a whole.¹⁶ It is possible to create photorealistic 3D models or prototypes to explore and disseminate historical and cultural heritage from 2D paintings to 3D sculptures, from big buildings to very small objects.¹⁷

Moreover, research by Lee et al. has shown that 3D scanning and printing equipment, processes and materials are interdependent. Biomaterials, composites, electronic materials and smart materials are interesting alternative choices. Smart materials using, for example, water or heat, have the ability to change their geometry, making them ideal for 4D printing.¹⁸

Technological advances also underscore the importance of the technology in the fields of archaeology¹⁹ and biological anthropology.²⁰

Findings from testing different 3D scanners for cultural heritage showed that, due the technical complexity of 3D scanning variables, no method alone meets the necessary specifications

¹² Ibidem; ANDRADE, Beatriz Trinchão et al. Digital preservation of Brazilian indigenous artworks: Generating high quality textures for 3D models. In: *Journal of Cultural Heritage*, 13(1), 2012, pp. 28–39; GOMES, Leonardo, BELLON, Olga R. P., and SILVA, Luciano. 3D reconstruction methods for digital preservation of cultural heritage: A survey. In: *Pattern Recognition Letters*, 50(C), 2014, pp. 3–14 BRUNO, Fabio et al. From 3D reconstruction to virtual reality: A complete methodology for digital archaeological exhibition. In: *Journal of Cultural Heritage*, 11(1), 2010, pp. 42–49; FOWLES, P. Stephen et al. The laser recording and virtual restoration of a wooden sculpture of Buddha. In: *Journal of Cultural Heritage*, 4(1), 2003, pp. 67–371; YOUNAN, Sarah, and TREADAWAY, Cathy. Digital 3D models of heritage artefacts: Towards a digital dream space. In: *Digital Applications in Archaeology and Cultural Heritage*, 2(4), 2015, pp. 240–247.

¹³ TAYLOR, Joel, and GIBSON, Lara Kate. Digitisation, digital interaction and social media: embedded barriers to democratic heritage. In: *International Journal of Heritage Studies*, 23(5), 2016, pp. 408–420.

¹⁴ ANDRADE, Beatriz Trinchão et al. Digital preservation of Brazilian...

¹⁵ SHORT, Daniel B. Use of 3D Printing by Museums: Educational Exhibits, Artifact Education, and Artifact Restoration. In: *3D Printing and Additive Manufacturing*, 2(4), 2015, pp. 209–215; GOMES, Leonardo, BELLON, Olga R. P., and SILVA, Luciano. 3D reconstruction methods for digital preservation...; BRUNO, Fabio et al. From 3D reconstruction to virtual reality...; FOWLES, P. Stephen et al. The laser recording and virtual restoration...

¹⁶ PAVLIDIS, George et al. Methods for 3D digitization...; ANDRADE, Beatriz Trinchão et al. Digital preservation of Brazilian...; GOMES, Leonardo, BELLON, Olga R. P., and SILVA, Luciano. 3D reconstruction methods for digital preservation...; BRUNO, Fabio et al. From 3D reconstruction to virtual reality...; FOWLES, P. Stephen et al. The laser recording and virtual restoration...

¹⁷ BRUNO, Fabio et al. From 3D reconstruction to virtual reality...; FOWLES, P. Stephen et al. The laser recording and virtual restoration...; GILLESPIE, Susan D. – VOLK, Michael. A 3D model of Complex A, La Venta, Mexico. In: *Digital Applications in Archaeology and Cultural Heritage*, 1(3-4), 2014, pp. 72–81.

¹⁸ LEE, Jian-Yuan, AN, Jia, and CHUA, Chee Kai. Fundamentals and applications of 3D printing for novel materials. In: *Applied Materials Today*, 7, 2017, pp. 120–133.

¹⁹ ANDRADE, Beatriz Trinchão et al. Digital preservation of Brazilian...; no. 3D reconstruction methods for digital preservation...; BRUNO, Fabio et al. From 3D reconstruction to virtual reality...; FOWLES, P. Stephen et al. The laser recording and virtual restoration...; GILLESPIE, Susan D. – VOLK, Michael. A 3D model of Complex A...

²⁰ KUZMINSKY, Susan C., and GARDINER, Megan S. Three-dimensional laser scanning...; WEBER, Gerhard W. Another link between archaeology and anthropology: Virtual anthropology. In: *Digital Applications in Archaeology and Cultural Heritage*, 1(1), 2013, pp. 3–11.

required in each project.²¹ Furthermore, associated with the appropriate 3D scanner, the proper 3D digitisation procedure is equally important.²² The combination of laser scanning and photogrammetry techniques has proven its effectiveness in reproducing precise and pleasing 3D models of historical cities.²³

Typically, a 3D scanning process generates point clouds, which are sets of thousands of coordinates from the surface of an object. Different point clouds need to be aligned and merged to form a 3D mesh. To scan solids of revolution aiming at the reproduction of textures and asymmetric details in cyclic surfaces can be very challenging. In other words, these objects, even though they have similar sides, feature simple differences that should be accurately reproduced. Greater difficulty occurs while building the point clouds measured by the scanner because the software tends to overlap similar surfaces, interfering with the point clouds' resolution. The definition, constraints, quality and level of the information withdrawn from the point cloud is relevant. The cloud's resolution is directly related to the points – a greater number of points results in a smaller variation in the cloud points, therefore refining the model.²⁴

A detailed 3D model offers the possibility of archiving geometric details and object surface conditions such as corrosion, wear and other characteristics.²⁵ Digital files are durable and unchangeable and can be used as references for monitoring the degradation and restoration of artifacts, among other benefits.²⁶ In the context of cultural dissemination, researchers have been scanning the collections of museums around the world providing people with greater access to digital objects.²⁷

For real-time visualisation purposes, low-resolution meshes and image maps are used for the representation of surface details.²⁸ Therefore, a high level of detail in a low-resolution model can be obtained with little processing effort. However, only a model with a high-resolution mesh is capable of representing details and textures with the use of 3D printing.²⁹

²¹ DI ANGELO, Luka et al. An AHP-based method for choosing the best 3D scanner for cultural heritage applications. In: *Journal of Cultural Heritage*, 34, 2018, pp. 109–115.

²² BUDAK, Igor et al. Development of Expert System for the Selection of 3D Digitization Method in Tangible Cultural Heritage. In: *Technical Gazette*, 26(3), 2019, pp. 837–844.

²³ BALSABARREIRO, José, and FRITSCH, Dieter. Generation of visually aesthetic and detailed 3D models of historical cities by using laser scanning and digital photogrammetry. In: *Digital Applications in Archaeology and Cultural Heritage*, 8, 2018, pp. 57–64; LERONES, Pedro Marín et al. A practical approach to making accurate 3D layouts of interesting cultural heritage sites through digital models. In: *Journal of Cultural Heritage*, 11(1), 2010, pp. 1–9.

²⁴ FRYSKOWSKA, Anna, and STACHELEK, Julita. A no-reference method of geometric content quality analysis of 3D models generated from laser scanning point clouds for hBIM. In: *Journal of Cultural Heritage*, 34, 2018, pp. 95–108.

²⁵ PAVLIDIS, George et al. Methods for 3D digitization...; ANDRADE, Beatriz Trinchão et al. Digital preservation of Brazilian...; GOMES, Leonardo, BELLON, Olga R. P., and SILVA, Luciano. 3D reconstruction methods for digital preservation...

²⁶ ANDRADE, Beatriz Trinchão et al. Digital preservation of Brazilian...; PIERACCINI, Massimiliano – GUIDI, Gabriele – ATZENI, Carlo. 3D digitizing of cultural heritage. In: *Journal of Cultural Heritage*, 2(1), 2001, pp. 63–70.

²⁷ KUZMINSKY, Susan C., and GARDINER, Megan S. Three-dimensional laser scanning...; BRUNO, Fabio et al. From 3D reconstruction to virtual reality...; FOWLES, P. Stephen et al. The laser recording and virtual restoration...; PIERACCINI, Massimiliano – GUIDI, Gabriele – ATZENI, Carlo. 3D digitizing...; KOLLER, David, FRISCHER, Bernard, and HUMPHREYS, Greg. Research challenges for digital archives of 3D cultural heritage models. In: *ACM Journal on Computing and Cultural Heritage*, 2(3), 2009, Art 7, pp. 1–17.

²⁸ AKENINE-MÖLLER, Tomas, HAINES, Eric, and HOFFMAN, Naty. *Real-time rendering*. 3rd. ed. Natick, Massachusetts: A K Peters, 2008.

²⁹ FOSTER, Shaun, and HALBSTEIN David. *Integrating 3D modeling, photogrammetry and design*. London: Springer, 2014.

The 3D reconstruction of cultural heritage objects requires accuracy and precision with respect to texture to capture small details.³⁰ 3D scanning and 3D printing combined are efficient techniques in cultural heritage preservation and the reproduction of elements and architectural features.³¹

The construction of accurate replicas allows a physical contact with objects which is essential to the accessibility of cultural heritage to people with visual impairment.³²

PROJECT PHASES

The present study consists of five coordinated and interrelated phases detailed in Figure 3.

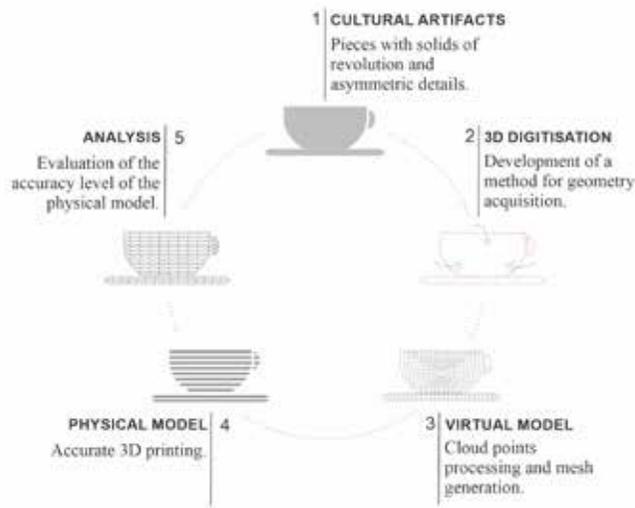


Figure 3: Flowchart of the experimental procedure consisting of 5 steps: (1) selection of cultural artifacts (rotating bodies); (2) development of a 3D scanning method; (3) data processing and generation of a virtual model; (4) construction of a physical model with 3D printing; and (5) comparison between the original piece and the model

³⁰ ANDRADE, Beatriz Trinchão et al. Digital preservation of Brazilian...; GOMES, Leonardo, BELLON, Olga R. P., and SILVA, Luciano. 3D reconstruction methods for digital preservation...; NEELY, Liz – LANGER, Miriam. *Please Feel the Museum: The Emergence of 3D Printing and Scanning*. The annual conference of Museums and the Web. Portland, OR, USA, April 17–20, 2013; NEELY, Liz – ROZNER, Elory. *Museum3D: Experiments in engaging audiences using 3D*. The annual conference of Museums and the Web, Chicago, IL, USA, April 8–11, 2015; LAPP, Eric, and NICOLI, Joe. Exploring 3D modeling, finger print extraction, and other scanning applications for ancient clay oil lamps. In: *Digital Applications in Archaeology and Cultural Heritage*, 1(2), 2014, pp. 34–44.

³¹ XU, Jie, DING, Lieyun – LOVE, Peter E. D. Digital reproduction of historical building ornamental components: from 3D scanning to 3D printing. In: *Automation in Construction*, 76, 2017, pp. 85–96.

³² YOUNAN, Sarah, and TREADAWAY, Cathy. Digital 3D models of heritage artefacts...; EVREINOVA, Tatiana G., EVREINOV, Grigori, and RAISAMO, Roope. An alternative approach to strengthening tactile memory for sensory disabled people. In: *Universal Access in the Information Society*, 5(2), 2006, pp. 189–198; BALLETTI, Caterina, BALLARIN, Martina, and GUERRA, Francesco. 3D printing: State of the art and future perspectives. In: *Journal of Cultural Heritage*, 26, 2017, pp. 172–182; ROSSETTI, V., et al. Enabling Access to Cultural Heritage for the visually impaired: an interactive 3D model of a cultural site. In: *Procedia Computer Science*, 130, 2018, pp. 383–391.

METHODS AND PROCEDURES

3D Scanning and Printing

Complex shapes or large amounts of surface detail are preferably captured using laser scanners.³³ To digitise the artifacts a laser scanning system (Digimil 3D Tecnodrill®) was used. It was a CNC (computer numerical controlled) device with a laser source that emitted light in the form of a line or pattern over the objects and extracted thousands of points. A computer file with the extension “TXT” was created containing the coordinates x, y, z of each point of the scanned external surfaces. The accuracy is determined by the selected lens, and the resolution or the distance between the points can be controlled depending on the desired image quality.

The main parameters of the laser scanner used were: a lens with a focal length of 150 mm, a resolution of 0.1 mm and an accuracy of 0.035 mm.

The system for generating the 3D shape is based on conoscopic holography. It consists of emitting a laser beam onto an object, which returns and passes through a birefringent crystal and is then detected by a charge-coupled device (CCD). A CCD imager consists of a large number of light-sensitive elements. Therefore, the relationship between the emitter and the projection of the laser beam onto a material surface is determined by the calibration process, which is performed separately for each lens.

After point clouds were acquired from each object surface, the data were organised and entered into Geomagic Studio software. First, the point clouds were acquired based on the common areas between each surface. The point clouds were then converted into a mesh of triangles. Small errors in the meshes were carefully repaired to maintain the accuracy and original features of the model.

To verify the quality of the digitisation, one of the models was exported as an STL file, a file used in additive manufacturing. The Objet350 Connex3™ 3D printer was used to produce the saucer. It produces parts with a minimum layer thickness of 0.016 mm.

The resin used in our experiment was VeroWhite, which preserved the glossy surface of the top. The printed piece was also 3D scanned and compared to the scan of the original piece. For this purpose, the two virtual models were lined up and the distances between the surfaces were measured.

3D Scanning Procedure

The present study was carried out to develop a method to facilitate the digitisation of 3D solids of revolution. The scanning method was optimised while the first parts were scanned; i.e., the first scanned part allowed feedback on the procedures to facilitate the digitisation of subsequent parts. The data collection and the development of the physical model were evaluated.

At first glance, the parts appeared to be symmetrical, meaning both sides were the same. However, in the case of an old artifact, the geometry was not exactly identical. Another important feature was the surface texture. These pieces had an embossed texture that was unevenly worn in some places due to time or use. Because of these factors, it was not possible to scan a single piece so that it could be cut at an angle as if it were symmetrical.

So, the experimental procedure began with scanning the dessert harness, as shown in Figure 4. A schematic was created to determine the direction of rotation. The numbers show the order of digitisation and the arrows show the direction of incidence of the laser light on the object.

³³ NEELY, Liz – ROZNER, Elory. *Museum3D*...

The same procedure was used to analyse the back side of the object.

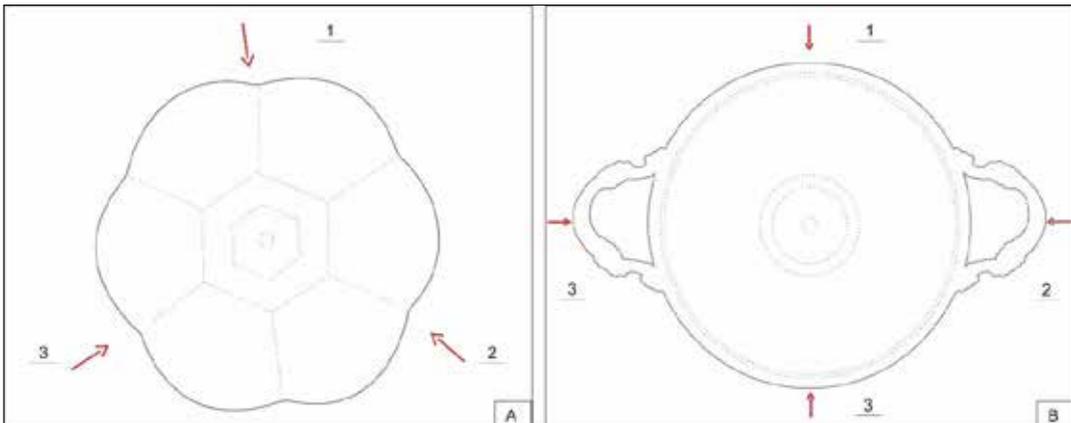


Figure 4: Illustration of the scanning process (top view): (A) glass dish, (B) silver slide. The numbers show the order of digitisation and the arrows show the direction of incidence of the laser beam on the object. The dashed lines represent the geometry of the parts

The procedure continued with the scanning of the saucer (Figure 5A) and the cup (Figure 5B). To minimise the difficulty of matching the point clouds, a problem observed in the previous pieces, some paper labels (with easily removable acrylic adhesive) were applied in different geometric shapes.

The raised design of the label was detected by the laser and allowed accurate identification of the directions. These labels were placed in the four quadrants of the saucer and in the three quadrants of the cup. The handle of the cup helped identify one of the quadrants.

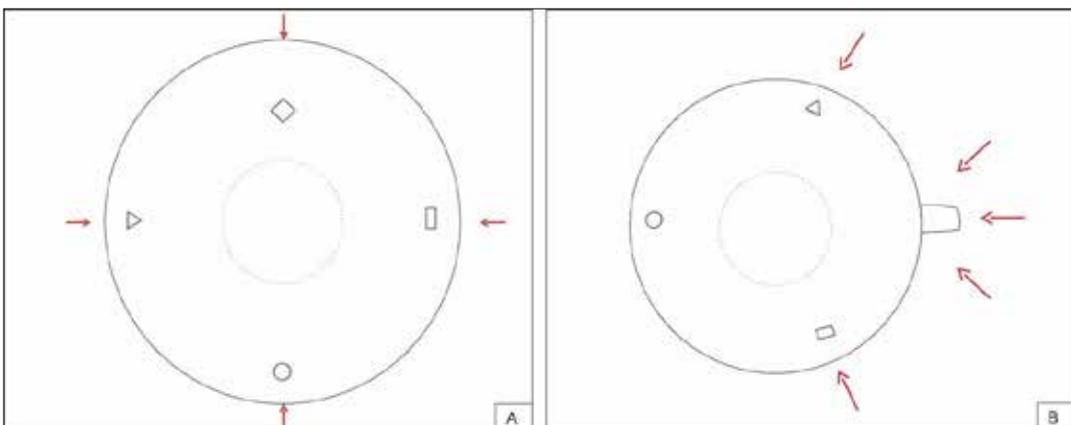


Figure 5: Schematic representation of the scanning process (top view): (A) ceramic saucer, (B) ceramic cup. The numbers show the sequence used for digitisation and the arrows show the direction of incidence of the laser light on the object. The geometric shapes show the position of the adhesive labels. The dashed lines represent the geometry of the parts

The surface properties of the materials used to manufacture the tableware must be taken into account in the 3D scanning process. Silver artifacts have reflective properties that make point cloud acquisition difficult. The laser beam passes through a clear liquid crystal glass that

is not detected by the scanner.³⁴ Therefore, the surface of the material had to be covered, a common procedure for reflective materials. For this reason, Metal-Chek D-70 was used, a non-aqueous wet developer for penetrant testing. It consists essentially of calcium carbonate in isopropyl alcohol. After application, the alcohol evaporates, leaving micrometric calcium carbonate particles that make the surface of the objects opaque. After scanning, the developer powder was removed with a bristle brush.

RESULTS AND DISCUSSION

The proposed method was used to create virtual models of two artifacts from the crockery of the former Confeitaria Rocco.

Figure 6 and Figure 7 show the digitised 3D reproduction of the cup and saucer from the Confeitaria Rocco tableware. The comparison of Figure 2(B) with Figures 6(B) and 7(B) shows that the technique can provide a good 3D representation of the pieces. However, a high quality mesh is required to produce physical replicas. Meshes with a large number of triangles allow accurate reproduction of fine surface details, especially embossments with organic morphology, such as those present on the mount of the silver handle and around the rim of the saucer.

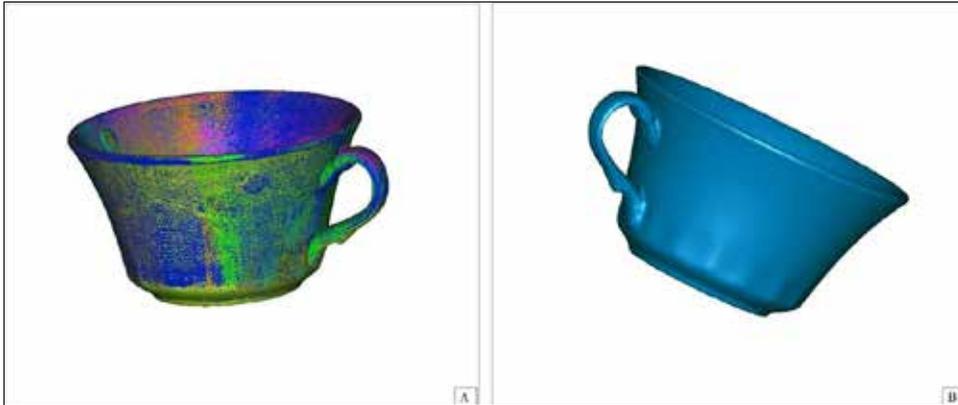


Figure 6: Digital reproduction of the cup: (A) registered point clouds and (B) final mesh from the fusion of point clouds

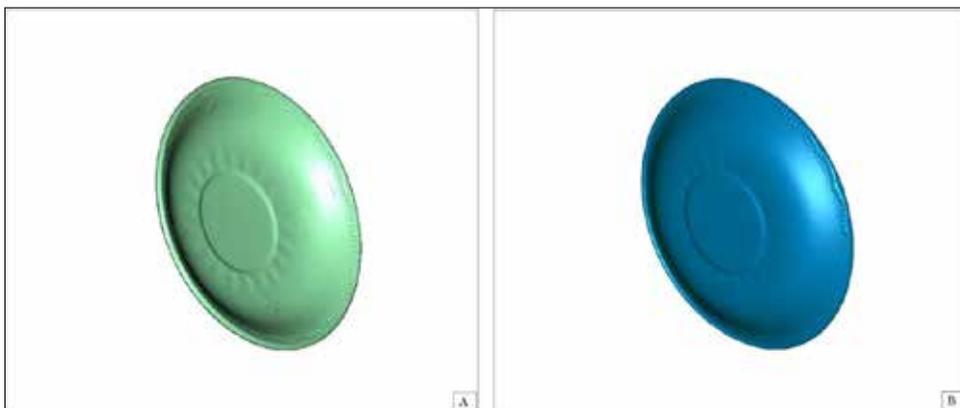


Figure 7: Digital reproduction of the saucer: (A) shaded view defined by the point clouds and (B) final rendered 3D surface

³⁴ PAVLIDIS, George et al. Methods for 3D digitization...; BRUNO, Fabio et al. From 3D reconstruction to virtual reality...

Table 1 presents data from the point clouds acquired and from the meshes generated for each of the four scanned parts. Due to the geometric complexity of the silver support, there was no significant reduction in the number of triangles generated. The symmetric ceramic parts were acquired with greater overlapping of surfaces, resulting in a large number of redundant points, which were reduced during their conversion into mesh.

	Piece 1	Piece 2	Piece 3	Piece 4
Pieces	Bowl	Support	Saucer	Cup
Material	Glass	Silver	Ceramic	Ceramic
Point clouds	5	8	6	8
Total of points acquired	1,533,113	3,247,706	4,762,502	4,060,989
Resulted mesh triangles	1,452,034	5,228,608	837,472	752,402

Table 1: Data from the point clouds and meshes generated for each of the four scanned pieces.

Figure 8 shows the photorealistic rendering of the models obtained. The 3D models can be viewed and manipulated interactively at the following links: A) <https://www.ufrgs.br/ldsm/3d/?p=1273> and B) <https://www.ufrgs.br/ldsm/3d/?p=1228>.



Figure 8: Photorealistic rendering of the models: (A) bowl and support (conjunto para servir) – <http://www.ufrgs.br/ldsm/3d/?p=1273>, (B) cup and saucer – (jogo de chá) – <http://www.ufrgs.br/ldsm/3d/?p=1228>

During the processing of the point clouds of the first scanned part (bowl), it was observed that the matching of data obtained from different viewing directions was complex as there was no method for the identification of sides with great similarity. For this reason, adhesive labels were used, as described in the experimental section. The labels facilitated the process of assembling the subsequent parts. This procedure is similar to that used in photogrammetry methods; however, it was possible to use a reduced number of labels. Due to the scanner's high accuracy, the embossed geometry originated by them was captured and had to be removed during the editing of the point clouds for mesh generation. An in-depth analysis of the saucer was conducted due to the greater difficulty in scanning symmetrical parts.

The procedure for the identification of pieces was essential because they were not exactly symmetrical, particularly those with relief details. Moreover, these original pieces were affected by time marks, which should be accurately represented while dealing with objects of heritage value. The comparison of details between the original piece and the 3D model obtained from a rendering technique is shown in Figure 9.

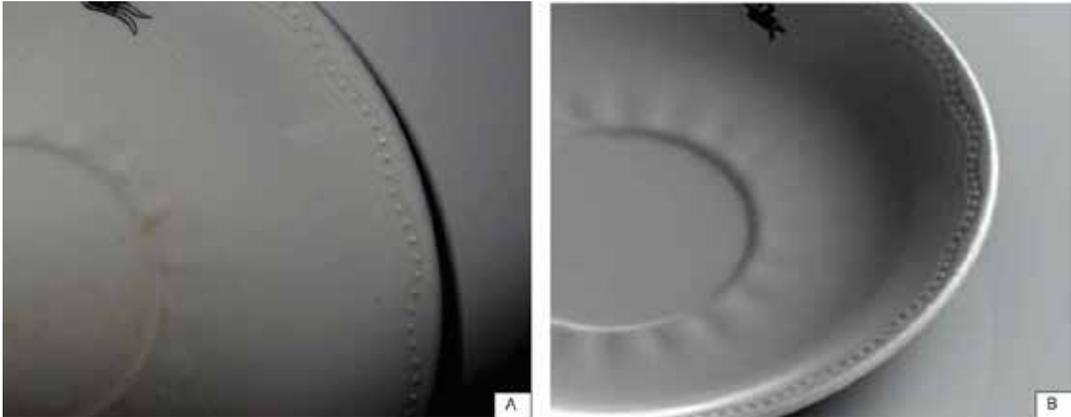


Figure 9: Comparison of details with emphasis on the surface structure of the ceramic saucer. Original object (A) and virtual model rendered and completed after scanning (B)

To exemplify an accurate representation of the piece, and to compare it to the original, a precision prototyping process was also required. Figure 10 shows the comparison of details between the original piece and the 3D model. With the naked eye, the geometry is very similar. Differences in the colours of the original object were noticeable due to degradation. The texture was well defined, including the worn parts around the rim of the original piece and the embossed central details. The shiny finish on the upper side provided a similarity with the original ceramic piece.

Applications of 3D scanning technologies include the analysis of real-world objects to collect data on their shapes and appearances and also the monitoring of the deterioration of objects. Thus, it was possible to analyse the results obtained following the reproduction of the scanned object.



Figure 10: Comparison of details focusing on the surface structure of the original ceramic saucer (right) and the printed physical model (left). With the naked eye, one can see the quality of the physical model compared to the original, especially in terms of details of texture and size

The printed model was scanned from a top view to be compared with the original piece. Figure 11 shows the result of the dimensional evaluation performed from the overlapping images of two 3D models, and the measurement of differences between their surfaces. The cold tones (blue) indicated the areas where the scanned model was smaller. The warm colours (red) indicated the areas that were larger than the original model. The green colour indicated the areas where the difference between them was below 0.05 mm.

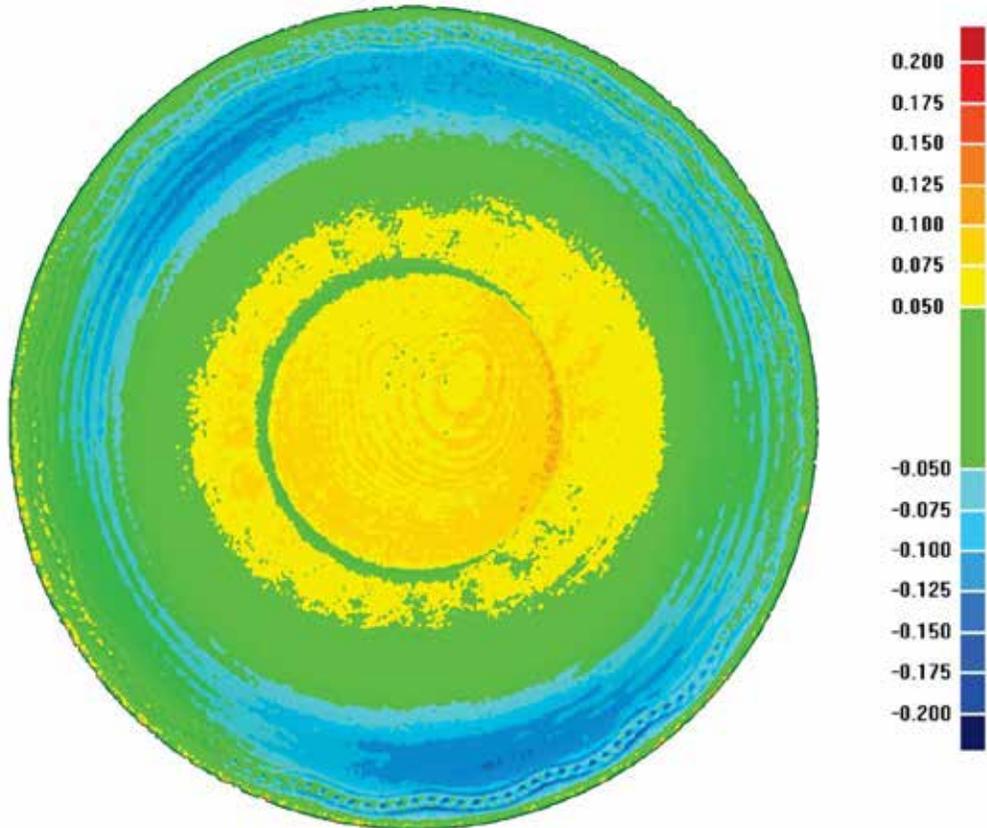


Figure 11: *Alignment calculation analysis using the Global Registration tool in Geomagic Studio to evaluate the accuracy between the artifacts scanned from the original and the artifacts scanned from the replica. The blue tones correspond to the points that are below the average surface. The reddish tones represent points that are above it, and the green color indicates areas without significant dimensional errors. The units are in mm*

Based on the colour pattern shown in Figure 11, it was possible to determine that the scanned model had a slight deformation characterised by a slightly raised centre and slightly lower edges compared to the original model. This feature is seen in one of the scanned axes and not on the entire circumference of the piece. The traces left by the build-up of the layers during 3D printing can be seen mainly in the central part (yellow). Although the maximum difference was 0.18 mm, the mean difference between the surfaces was 0.05 mm, with a standard deviation of 0.06 mm. No significant differences were found in the textured area or around the edge of the saucer.

CONCLUSIONS

In this study, a method was proposed to obtain models of historical artifacts considered as a rotating body for the reproduction of accurate replicas. Four 3D virtual models of historical and cultural artifacts were created to verify the accuracy of the method. These objects are part of the local museum collection. One physical model was produced using the 3D printing of a polymer material.

The proposed 3D digitisation method enabled the acquisition of highly accurate virtual models. Since 3D laser scanning technology is non-contact, the risk of damage to delicate historical objects is minimal. However, further studies are needed to digitise objects made of opaque materials (such as metal and glass) without coatings.

The high accuracy of the laser scanner allowed the detection and obtainment of superficial details such as small asymmetries and traces of time, which are important from a historical point of view. Although the method is not able to capture hidden surfaces / internal geometries, it can be used with other complementary technologies such as ultrasound or tomography to obtain more comprehensive data.

Thus, the limiting factor for obtaining accurate replicas was the reproduction technology, i.e., 3D printing. However, the physical model obtained in this study had a satisfactory surface quality. By touch and with the naked eye, the geometric differences between the original and the scanned object were not visible, only the differences in materials.

The digitised objects presented in this study are essentially a showcase for the potential and wide range of digitisation techniques to preserve the identity of cultural objects from time, wear, weather or vandalism. 3D scanning and 3D printing are effective means of producing replicas and prototypes for museum purposes and preserving the original for further study.

The ability to 3D scan pieces with complex geometries and fine surface details offers the museum the advantage of documenting the objects in its collection while making them available virtually. The 3D models can be used in virtual reality and/or augmented reality applications to bring the public closer to the museum and the diversity of its historical collection, connecting it with people from around the world.

By combining the virtual model with the high-precision 3D printing process, it is possible to reproduce the parts with a better surface quality than with conventional processes. This is because there are very few objects in the museum that users can touch. Touching physical objects on site is therefore a new experience for all museum users, including visually impaired people who rely on the sense of touch.

These methods show the importance and versatility of the technological interaction of museums to offer visitors enjoyment and different levels of experience. The point is to offer a new and interesting way of interacting with the object (touching and handling) without damaging the original.

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AUTHOR DISCLOSURE STATEMENT

Andresa Richetti, Fabio Pinto da Silva and Liane Roldo declare that they have no conflict of interest with the existing project, financial, social or otherwise.

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“Games” using old photographs in the time of the pandemic: Archival photographs in museum education

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“Games” using old photographs in the time of the pandemic: Archival photographs in museum education

The purpose of the article is to show what knowledge on the ludic culture of Cieszyn Silesian residents at the turn of the nineteenth and twentieth centuries can be obtained through the resources of the Photography Section of the Museum of Cieszyn Silesia. The project required both preliminary research and an analysis of archival photographs. The research questions regarded the usefulness of old photographs depicting past games in the preparation of both online and offline museum classes on the local cultural heritage. In the article, the author discusses photographs documenting past toys and pastimes, divided into 10 thematic groups, and presents outlines of lesson scripts as well as other museum activities prepared on their basis. The research conducted during the lockdown caused by the COVID-19 pandemic required netnographic methods and the analysis of historical sources, while the application of methods of design thinking made it possible to prepare scripts of museum classes.

Keywords: old photography, museum online, cultural heritage in lockdown, participatory museum, reconstruction of past games and toys

Introduction

The article constitutes a report on the realisation of one stage of wide-spectrum studies on the reintroduction of past games and toys that used to be popular decades ago in Cieszyn Silesia.¹ This article, continuing this thematic cycle,² is a reflection on the methods of introducing variety in educational activities of museums through archival photographic resources. The author has undertaken the studies in order to verify the hypothesis of the possibility of utilising museum photographic resources, in both online and offline (participatory) forms, to spread knowledge on the past ludic culture and cultural heritage of the region.

¹ Since 2018 the author has been realising the project titled: *Reintroduction of traditional toys and regional games in Cieszyn Silesia*. The research is being conducted in museums, libraries, archives and cultural centres. The next stage will involve reviewing archival resources in Książnica Cieszyńska (the Cieszyn Library), assessing the Cieszyn collectors' interest in ludic issues, interviewing regional toy creators, older residents of the region and those employees of the culture sector who include the elements of traditional toys and games in their work.

² See, e.g.: SZALBOT, Magdalena. Toys within the collections of selected Cieszyn Silesia museums as a source of knowledge of the former ludic culture of the youngest inhabitants of the region. In: *Muzeologia a kulturne dedičstvo*, vol. 7, 2019, is. 2, pp. 63-76; SZALBOT, Magdalena. Photographs from Digital Archives of the Polish Ethnographic Atlas As a Source of Knowledge about Rural children's Toys and Games in the Years 1954-1971. In: *Etnografia Polska*, vol. 65, 2021, is. 1-2, pp. 147-167 <https://doi.org/10.23858/EP65.2021.2645>.

The archival photographs from the Photography Section of the Museum of Cieszyn Silesia, partially made available online years ago in the "virtual storage" tab, constitute the research subject. The museum shows photographs of collections divided into seven thematic areas. The virtual storage makes it possible to browse more than 55 thousand photographs for free. These depict selected objects in the fields of archaeology, ethnography, history, cartography, numismatics, art, technology and photography. The last-named, which includes more than 20 thousand items, was selected as the study area for the preliminary research.

Each photograph in the virtual storage can be magnified on a computer screen and is marked with an inventory number. Each photograph is also provided with a data imprint a record of basic data on the exhibit item in the MUSNET catalogue card which is only as comprehensive as is the knowledge on the photograph. All sections of the virtual storage fall under the same search engine, which makes it possible to search via catalogue numbers that is inventory numbers of the items and any tags associated with a given subject. For instance, finding a photograph from the Museum of Cieszyn Silesia used by, for example, some publishing house is possible through entering the inventory number, as long as it was included on the website of the museum. The engine automatically searches all sections, although it provides only those results entered in the data imprint that match the tags used during the search.

The author has browsed the virtual storage of the Photography Section in search of photographs depicting old toys, games and pastimes of the residents of the region at the turn of the nineteenth and twentieth centuries. The research issue undertaken is of significance for several reasons. The research constitutes another stage of a research project that has been ongoing since 2018. The studies were made even more interesting due to the changes to the museum-related activities brought on by the outbreak of the pandemic. The author, who has been teaching museology classes at the University of Silesia in Katowice, has observed a progressing virtualisation and implementation of more and more technologically advanced solutions in this institution. Since the spring of 2020, the preparation of various exhibitions in the virtual form became a necessity, and frequently the only option of active operation. Since the COVID-19 pandemic began, there have already been first analyses of research results on the activities of museums in lockdown.³ These studies also required an assessment of the functioning of museums on both the Polish and the Czech sides of Cieszyn Silesia from the March of 2020. The author has conducted both an overview of the contents of websites of individual museums and phone or written interviews in 12 selected Polish museums and nine selected Czech museums in Cieszyn Silesia. Neither have shown a drastic increase in online activities for the museum e-audience.⁴

³ See, e.g.: SAMAROUNDI, Myrsini – ECHAVARRIA, Karina Rodriguez – PERRY, Lara: Heritage in lockdown: Digital provision of memory institutions in the UK and US of America during the COVID-19 pandemic. In: *Museum Management and Curatorship*. London – New York: Routledge, Vol. 35, No. 4, 2020, pp. 337–361, <https://doi.org/10.1080/09647775.2020.1810483>.

⁴ The research encompassed the following museums: Muzeum 4 Pulku Strzelców Podhalańskich in Cieszyn, Muzeum Drukarstwa in Cieszyn, Muzeum Protestantyzmu in Cieszyn, Muzeum Zofii Kossak-Szatkowskiej in Górk Wielkie, Muzeum im. Gustawa Morcinka in Skoczów, Muzeum Beskidzkie im. Andrzeja Podzorskiego in Wisła, the Jan Jarocki Museum in Ustroń, "Na Grapie" Muzeum Regionalne in Jaworzynka, the Naturalist House in Hażlach, Muzeum Regionalne Stara Zagroda in Ustroń, Muzeum im. Jana Wálacha in Istebna, Muzeum "Zbiory Marii Skalickiej" in Ustroń, Sala Wystawowa Muzeum Ziemi Cieszyńskiej in Jablonków, Sala Wystawowa Muzeum Ziemi Cieszyńskiej in Orlová, Kotula's wooden hut in Havířov-Bludovice, Muzeum Těšínska in Český Těšín, Světové Muzeum a Knihovnu Bible in Jablunkov, Hasičské muzeum in Český Těšín, the Ostrava Museum, Muzeum Beskyd in Frýdek-Místek, Zámek Fryštát in Karviná.

Literature review

The research issue is located at a crossroads of several currents and it refers to selected theoretical perspectives discussed in the subject literature overviewed below. The studies described in this article constitute the opinion of a cultural anthropologist on the necessity to research and take actions aimed at reintroducing past games that are part of the cultural heritage of the region.⁵ The project takes into account conclusions regarding the museum audience, which displays the qualities of the consumerist society identified by its need for finding new attractions, sensations and feelings.⁶ Moreover, the research required cogitation on significant issues in the fields of museum education,⁷ visual anthropology,⁸ the methods of practical realisation of the premises of a participatory museum,⁹ the issue of trivialisation of photography in modern culture¹⁰ and the availability of digital archives.¹¹ When researching various aspects of past culture, ethnologists find reaching for old photographs obvious, although not entirely free from the doubts associated with the methodological aspects of analysing and interpreting such sources.¹² The pandemic situation turned out to be a crucial context to the research. It

⁵ BURDYKA, Konrad. Gry i zabawy ruchowe jako element dziedzictwa kulturowego polskiej wsi. In: BUKRABARYLKA, Izabella – WIERUSZEWSKA, Maria – BURDYKA, Konrad. *Lokalne dziedzictwo kulturowe w doświadczeniu mieszkańców wsi*. Warszawa: Wydawnictwo Naukowe SCHOLAR: IRWiR PAN, 2017, pp. 81–95, 226–234; PRABUCKI, Bartosz. Badanie tradycyjnych sportów i gier jako perspektywiczny obszar badawczy. In: *Homo Ludens*. Poznań: Polskie Towarzystwo Badania Gier, 1(5), 2013, pp. 205–217; PRABUCKI, Bartosz. Zabawy, gry i sporty tradycyjne. Potencjal i możliwości ich wykorzystania w działalności muzealnej. In: *Studia Lednickie*. Dziekanowice: Muzeum Pierwszych Piastów, (17), 2018, pp. 63–86; KLASINSKA, Barbara. *Kształtowanie zainteresowań kulturą ludową uczniów klas trzecich przez systemowe integrowanie zajęć*. Kielce: Wydawnictwo Uniwersytetu Jana Kochanowskiego, 2011; KLASINSKA, Barbara. Wartość i sens zabawy w polskiej kulturze ludowej: implikacje dla współczesności. In: *Zabawy i Zabawki. Studia Antropologiczne*. Kielce: Muzeum Zabawek i Zabawy, (13), 2015, pp. 195–210.

⁶ See, e.g.: COMBS, James E. *Świat zabaw. Narodziny nowego wieku ludycznego*. Warszawa: Wydawnictwo Uniwersytetu Warszawskiego, 2011; KANTOR, Ryszard. *Zabawa w dobie społeczeństwa konsumpcyjnego: szkice o ludyzmie, ludyczności i ponadzę, a w istocie o jej braku*. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego, 2013.

⁷ PATER, Renata. Edukacja muzealna – wychowanie do aktywnego uczestnictwa w kulturze. In: *Parezya*. Białystok: Wydział Pedagogiki i Psychologii Uniwersytetu w Białymstoku, vol. 1(7), 2017, pp. 74–92; KONIECZKA-SŁIWIŃSKA, Danuta – ROSZAK, Stanisław. Między szkołą, muzeum i archiwum. Dylematy współpracy i konkurencji w edukacji historycznej. In: *Klio. Czasopismo poświęcone dziejom Polski i powszechnym*. Toruń: Uniwersytet Mikołaja Kopernika w Toruniu, vol. 34 (3), 2015, pp. 43–61.

⁸ See, e.g.: COLLIER, John – COLLIER, Malcolm – foreword by HALL, Edward T. *Visual Anthropology: photography as a research method*. Albuquerque: University of New Mexico Press, 1986; COLLIER, John. Photography and Visual Anthropology. In: HOCKINGS, Paul (ed.). *Principles of Visual Anthropology*. Berlin, Boston: De Gruyter Mouton, 1995, pp. 235–254; PEŁCZYŃSKI, Grzegorz – VORBRICH, Ryszard. *Antropologia wobec fotografii i filmu*. Poznań: Biblioteka Telgte, 2004; PINK, Sarah. *Etnografia wizualna: obraz, media i przedstawienie w badaniach*. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego, 2009; BANKS, Marcus. Visual Anthropology. Image, object and Interpretation. In: PROSSER, Jon (ed.). *Image-based research*. London: Routledge, 1998, pp. 6–19; BANKS, Marcus. *Materiały wizualne w badaniach jakościowych*. Warszawa: Wydawnictwo Naukowe PWN, 2009; NOWOTNIAK, Justyna. *Etnografia wizualna w badaniach i praktyce pedagogicznej*. Kraków: Wydawnictwo Impuls, 2012.

⁹ SIMON, Nina. *The Participatory Museum*. Santa Cruz: Museum 2.0, 2010.

¹⁰ SZTANDARA, Magdalena. *Fotografia etnograficzna i "etnograficzność" fotografii. Studium z historii myśli etnologicznej i fotografii II poł. XIX i I poł. XX wieku*. Opole: Wydawnictwo Uniwersytet Opolski, Polskie Towarzystwo Przyjaciół Nauk. Studia i Monografie nr 372, 2006, pp. 211–221.

¹¹ KRAWCZYK-WASILEWSKA, Violetta. *E-folklor w dobie kultury digitalnej. Szkice i studia z przedmową Andy'ego Rossa*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego, 2016, pp. 47–63.

¹² Cf., e.g.: GOMBRICH, Ernst H. *Sztuka i złudzenie. O psychologii przedstawiania obrazowego*. Warszawa: Wydawnictwo Arkady, 1981; PANOFKY, Erwin. *Ikonografia i ikonologia*. Warszawa: Państwowy Instytut Wydawniczy, 1971.

unexpectedly forced museums to reorganise their functioning,¹³ and in terms of ethnographic studies it forced the application of netnographic techniques.¹⁴ In the subject literature, academic, popular and album studies have published some photographs found in museum resources¹⁵ depicting toys, games, pastimes and methods of recreation of past regional inhabitants, even if devoid of explanatory commentary.¹⁶

Materials and methods

The photographs from the Photography Section of the Museum of Cieszyn Silesia constituted the basic empirical foundation of the project. The photographs enriching various publishing houses dedicated to the culture of Cieszyn Silesia were treated by the author as supplementary material which also served to verify the results of the preliminary research. Another control source included photographs presented during the temporary exhibition titled *Ukryte na dawnej fotografii: życie codzienne w Cieszynie końca XIX w. do lat 30. XX w.* (Hidden in old photographs: everyday life in Cieszyn from the late nineteenth century to the 1930s), prepared from the collections of the Museum of Cieszyn Silesia. The exhibition concerned numerous aspects that were part of everyday life decades ago, including forms of entertainment and pastimes.¹⁷

The first of the methods applied selecting photographs in order to find examples of the main theme of the research involved entering selected keywords into the search engine of the virtual storage of the museum. The keywords were related to play and ludic issues, e.g. *game*, *toy*, *entertainment* and *sports* as well as names of various game- and toy-related accessories. The project utilised the method of studying historical sources, which involved the use of techniques and tools applicable in the qualitative and quantitative analysis of archival secondary sources. On the other hand, when working with students, the author referred to the premises of design thinking, which stimulated reflection on which exhibitions and museum classes thematically related to old photographs would be attractive to the modern audience.¹⁸

In this work, the author referred to both the methodology of the division of collected photographs and the definitions of names of individual photograph groups. The solutions were applied on the basis of several aspects, briefly described below.

The initial purpose of the preliminary research was to find examples of archival photographs depicting the circle of ludic phenomena in the broad sense, that is toys, games, forms of entertainment, recreation, sports and leisure of the inhabitants of the region from decades ago. The photographic resources of the virtual museum archive were selected on the basis of

¹³ NIKONOVA, Antonina A. – BIRYUKOVA, Marina V. The Role of Digital Technologies in the Preservation of Cultural Heritage. In: *Muzeologia a kulturné dedičstvo*, vol. 5 (1), 2017, pp. 169–173.

¹⁴ KOZINET, Robert V. *Netnografia: badania etnograficzne online*. Warszawa: Wydawnictwo Naukowe PWN, 2012; MARKHAM, Annette N. Metody, polityka i etyka reprezentacji w etnografii online. In: DENZIN, Norman K. – Lincoln, Yvonna S. (eds). *Metody badań jakościowych*. Vol. 2. Warszawa: Wydawnictwo Naukowe PWN, 2009, pp. 219–256.

¹⁵ MAKOWSKI, Mariusz. *Těšinská /Cieszynska/The Teschen belle époque*. Překlady do češtiny Stanislav Komárek, překlady do angličtiny Marie McDonald. Český Těšín: Ducatus Teschinensis ve spolupráci s Muzeem Śląska Cieszyńskiego, 2016, pp.122–163.

¹⁶ PIERONKIEWICZ-PIECZKO, Krystyna and PAUL, Małgorzata. *Lale, misie, koniki...: zabawki w zbiorach Muzeum Śląskiego w Katowicach*. Katowice: Muzeum Śląskie, 2013, pp. 193–215.

¹⁷ See, e.g.: <https://zwrot.cz/2020/04/wystawa-zycie-codzienne-w-cieszynie-konca-xix-w-do-lat-30-xx-w-oczywiscie-wirtualnie/> (accessed June 30, 2021).

¹⁸ See, e.g.: OKRAJ, Zofia. *Design thinking. Inspiracje dla dydaktyki*. Warszawa: Wydawnictwo DIFIN, 2020; BROWN, Tim. *Zmiana przez design: jak design thinking zmienia organizacje i pobudza innowacyjność*. Współpraca Barry Katz. Wrocław: Wydawnictwo LIBRON, 2016.

photograph subjects, that is ludic objects, actions and events.

The first methodological aspect of the division of photographs is related to the typologies of photographs discussed in subject literature. The assessment of the collected archive materials confirmed there are both difficulties in classifying photographs and imperfections in the systematics proposed by theoreticians.¹⁹ When organising the materials, the author considered the chronological development of the photographs. The photographs collected were taken between 1860 and 1967. This time frame made it possible to isolate typological representatives of documentary photography, conventional photography, painting photography and illustrative photography. Yet, ultimately, dividing the photos into such groups turned out to be unsuitable for fulfilling the main purpose of the research.

The second methodological aspect of the adopted division of photographs is based on the traditional approach used in culture studies. The description of individual societies with a division into specific fields of life and culture is a useful tool for ethnologists, and often also historians, who attempt to understand their history. Those fields include: 1) the vision of the world, 2) family and home, 3) food, 4) work, 5) public life and 6) social life and entertainment.²⁰ This division or a similar one, often reflected in the indices of ethnographic or historical monographs and utilised through an intuitively-constructed catalogue of notions, then helps portray the history of past societies. It makes it possible to collect specific motifs in one place and present an anthropological universe of phenomena that determine a unique character of each group's culture. The merit of the exemplified division is that it can be further specified within several main categories which – in this research – involve ludic issues.

The third hint that would facilitate the classification of collected photographs was the review of picture albums presenting photographs taken at the turn of the nineteenth and twentieth centuries. In such publications, the method of classifying the selected aspects of past life is also somewhat repetitive. Individual, thematically-profiled chapters of album publications are illustrated with photographs that show activities associated with everyday life and occasional events, both in work and out-of-work settings celebrations, social life, recreation and leisure in the past. Some group names were borrowed from these publications, while others were omitted or replaced with broader or narrower terms which determined the subjects of collected photographs more adequately.

An additional reference point in the adopted division of photographs was the descriptions of the exhibition titled *Ukryte na dawnej fotografii...* (Hidden in old photographs...).²¹ This exhibition grouped photographs by specific themes illustrating aspects of everyday life public places, work, schooling and fashion – and leisure – entertainment, celebrations, recreation, balls and masked balls, banquets, parties and sports as well as tourist activities.

In some cases, the issue of adding photographs to a specific thematic group was settled by the titles handwritten on their backs by the authors. However, it should be mentioned that

¹⁹ See, e.g.: GARZTECKI, Juliusz. *Trzęcie oko*. Kraków: Wydawnictwo Literackie, 1975, pp.15–24; LIGOCKI, Alfred. *Fotografia i sztuka*. Warszawa: Wydawnictwa Artystyczne i Filmowe, 1962, pp. 9–13; FERENC, Edward. *Typologia fotografii jako punkt wyjścia. Analizy ejdetycznej dzieła fotograficznego*. Lublin: Katolicki Uniwersytet Lubelski, 1984, https://repozytorium.kul.pl/bitstream/20.500.12153/831/1/Ferenc_Edward_Typologia_fotografii_a_analiza_ejdetyczna.pdf, pp. 15–21.

²⁰ Cf.: CHWALBA, Andrzej (ed.). *Obyczaje w Polsce. Od średniowiecza do czasów współczesnych*. Warszawa: Państwowe Wydawnictwo Naukowe, 2004, pp.16-17.

²¹ See footnote no. 17.

the titles or descriptions assigned by the photographers do not determine their fixed place in a given thematic group.

Ultimately, the author decided to divide the photographs into 10 groups according to the subject. Those were: 1) portraits of children with toys, 2) games and social gatherings, 3) balls and masked balls, 4) ludic games, 5) music-making and dance, 6) harvest festival, 7) amateur theatre performances, 8) marches, 9) recreation activities, and 10) sports and tourism. Yet, there are photos within the collection that could belong to two or even more groups. This classification refers to the solutions applied in subject literature, but also selections by the author due to the type of sources that constitute the research subject.

Results of the preliminary research and their implications with regards to the project

Looking for the games once played by the locals via the search engine does not bring satisfying results. Only with the help of a museum employee did the author manage to obtain more photographs. The research yielded a total of 174 photographs which were then divided into 10 thematic groups: 1) portraits of children with toys (17 photos), 2) games and social gatherings (9 photos), 3) balls and masked balls (16 photos), 4) ludic games (43 photos), 5) music-making and dance (9 photos), 6) harvest festival (4 photos), 7) amateur theatre performances (8 photos), 8) marches (2 photos), 9) recreation activities (19 photos) and 10) sports and tourism (38 photos). The museum possibly owns more photographs that hold information about the ludic culture of the residents of Cieszyn Silesia. Yet, this selection constitutes a representative collection which illustrates this, so far unresearched, thematic area.

The author presents the preliminary research results, supplemented with selected photographs, based on the above-mentioned division of photographs into 10 thematic groups.²²

MC/F/12912/003



Muzeum Śląska Cieszyńskiego

Photograph no. 1: Marketplace on the corner of *Wyspiańskiego* and *Kolejowa* Streets. MC/F/12912/003.

Photograph by: Kodak Ekspres, 2003.

To preserve the coherence of the presentation, the results and the practical implications resulting from the research are discussed jointly for individual groups in the order mentioned earlier on.

1. The first, interesting, although non-uniform group constitutes photographs of children with toys. The preliminary research made it possible to find numerous examples that have not been published so far. Photographs found in the museum archive (a mere 17 photographs) provide insight

²² Adding inventory numbers of photographs or links to all photographs obtained during the preliminary research would result in exceeding the maximum length of the article. The author encourages readers interested in this information to contact her via the e-mail address provided.

into what kinds of toys had been used by Cieszyn Silesian children over a period of 100 years. The oldest photograph, dated 1860, is a photograph taken in a studio and depicting a dressed-up child, approximately a 2-3-year-old, with a furry toy dog on a wheeled platform. On the other hand, the 3 photographs taken in 1967 show manufactured toys – rubber ducks as well as plastic rattles, bears, dolls, toy watches and trumpets, rubber throwing rings (*ringo*) – on sale in the Cieszyn marketplace (photograph no. 1). Even such a simplified juxtaposition of the oldest and newer toys shows the changes that have occurred in this cultural area within a mere hundred years.

The oldest photographs in this group are taken in the style characteristic of the turn of the nineteenth and twentieth centuries, that is portraits of individual children with their toys.²³ The border of a photograph sometimes has the name of the photographic studio it was taken at. The backs of other photographs have personal data of the people in them. Quite frequently commemorative photographs of people were taken in a similar fashion: children leaning on tables, sitting alone (either on chairs, or toy horses) or with siblings, dressed up, girls with parasols and serious facial expressions, and depicted with toys. This sub-group also has some more natural shots showing children's indoor games, usually involving blocks, or outdoor games, with wooden wheelbarrows, bows and arrows, metal rings for rolling, three-wheeler bicycles, miniature carriages or miniature wooden garden houses. Some photographers also captured children's timeless fondness for any mobile equipment used during individual or group play. Others depict childhood-related objects, whose structure strayed from their modern versions, for instance a stroller, whose photograph was published in an album dedicated to the Cieszyn "belle époque".²⁴

Today, showing people old photographs of children with their toys during a museum class may constitute a starting point for story-telling about what childhood was like decades ago.²⁵ Childhood was also joyful, despite the fact that its memory was preserved in a sombre sepia colour.²⁶ On this occasion, the participants may be informed that the type of toys used by children at that time largely depended on their family's wealth. Objects were made from materials differing from modern ones, and toys were more frequently hand made by both children and adults, often from whatever was on hand.²⁷ However the most loved collections of toys – dolls, teddy bears, rocking horses and blocks – remained largely the same despite the passage of time.

2. The subsequent nine photographs, dated between the late nineteenth century and the 1930s, show social gatherings of Cieszyn Silesians of the time and the games they played. This set of photographs makes it possible to approach the issue of past popular ludic behaviours of the residents of the region in a more in-depth way, since, on the one hand, it goes beyond the notion of childhood, and, on the other, it does not concern public, spectacle-like events, which were ludic, but also official in nature. Some photographs give an idea of what feasting among

²³ See: SZTANDARA, *Fotografia etnograficzna...*, pp. 120–135.

²⁴ MAKOWSKI, *Těšínská / Cieszyńska...*, pp. 124–125.

²⁵ E.g. in 2011, Grzegorz Studnicki prepared a temporary exhibition titled *Świat dziecka dawniej wczoraj dziś...* (The world of children in the past, yesterday and now...) in the Museum of Cieszyn Silesia.

²⁶ Cf. KAPUŚCIŃKI, Ryszard. *Z Afryki*. Bielsko-Biała, 2000, p. 7.

²⁷ KACZMARCZYK, Bożena. *Tradycyjne oraz współczesne gry i zabawy dziecięce*. Wrocław: Wydawnictwo Polskie Towarzystwo Ludoznawcze, 2012, pp. 47–69; KACZMARCZYK-GWÓŹDŹ, Bożena. *Wśród lalek, misiów i smartfonów. Od zabawek tradycyjnych do gadżetów kultury popularnej*. Wrocław: Wydawnictwo Polskie Towarzystwo Ludoznawcze, 2021, pp. 95–200; ŻOŁĄDŹ-STRZELCZYK, Dorota et al. *Dzieje zabawek dziecięcych na ziemiach polskich do początku XX wieku*. Wrocław: Wydawnictwo Chronicon, 2016, pp. 107–126.

a wider social circle or family looked like, at home, in wineries or cafés. Other photographs exude the atmosphere of card games played by men while drinking strong alcoholic beverages in smoke-filled Cieszyn restaurants. Then there are those that depict small sources of entertainment enjoyed at home, for instance, the picture of two girls playing chess shown below.



Photograph no. 2: *Chess game.* MC/F/288.
Photograph by: J. Witalis, 1935.

depict ludic behaviours most authentically, people in the photographs make sweeping, spontaneous motions that frequently accompany card games. They face their companions, have half-open mouths and appear in casual positions (see photograph no. 3). Therefore, the photographs were sometimes staged, and at other times, the photographers merely captured a given form of entertainment in its natural, spontaneous course.

The museum classes inspired by this group of photographs could include a discussion with



Photograph no. 3: *A card game.* MC/F/9437/011,
after 1920.

the viewers on the changes in customs occurring in individual decades. Old photos constitute an interesting reservoir of tidbits of information on the past. When viewing an exhibition, the viewers usually only look at the photographs, sometimes glancing at the captions. Many details draw attention for a short while, but ultimately escape and remain without an explanation. One such example is the question of why nineteenth-century boys were wearing dresses (as shown in the photographs in the previous thematic group) or why smoking was so popular only among men at that time. Technology used by the muse-

ums nowadays makes it possible to add variety and flavour to even the most traditionally-prepared exhibitions which present collections of photographs from years ago. One option is to transform the materials from the temporary exhibitions presented up till now into online

events – interactive and activating the e-audience. Participatory features can also be “built-in” into the scripts of offline, museum-based exhibitions. An exhibition based on old photographs could use a computer station, a valuable educational element, which would make it possible to demonstrate the functioning of the virtual storage of the museum (since some people are still unaware of its existence). A short guide or training on how to use the computer station could also be included. The museum should also have no greater difficulty in preparing QR codes which would supplement a given exhibition. An online exhibition could have an additional element in the form a quiz downloadable via the museum application. The quiz would test the viewers during the viewing or afterwards on what was remembered. It could also invite the viewers to make their own old photographs digitally available, especially those that concern a given section of the exhibition. People who had to avoid their favourite entertainment venues, such as restaurants, cafés, wine bars, inns, etc., could be interested in a temporary exhibition with old photographs depicting the functioning of such places in the region decades ago. Some Cieszyn Silesian facilities have been open in a given location for a long time uninterruptedly and they emphasise that fact by displaying old photographs. In this way, they refer to local traditions which not only make them more appealing to tourists, but also make them places often visited and perceived with fond attachment by the oldest residents of the region. Although such actions require additional work, they often attract people and draw them in. They give the impression that a museum may have an open format, and some activities can be undertaken together with the viewers.



Photograph no. 4: *Dressed “as infants”*.
MC/F/25.
Photograph by: H. Jandaurek, circa 1900.

3. The 16 photographs in the third group are examples of visual archive materials, depicting Cieszyn balls and masked balls. The oldest photograph dates back to 1895, but many are carnival keepsakes from the 1930s. Most depict adults: individuals, pairs or rarely groups. These photographs are distinguished by their comical overtone, which can be exemplified by two women dressed as infants in the photograph below (photograph no. 4).

Carnival costumes depicted are often: exotic – women wearing the costumes of: a geisha, a gypsy, Scheherazade; fantastical – fairy tale characters; or representative of various professions – a sailor, a butterfly hunter, a mailwoman, a troubadour. There were also photographs of people in traditional Cieszyn attire as well as methods of decorating rooms where these social ludic events took place. An interesting example is the so-called “living painting” of people dressed as gypsies.

Attempts to achieve mimicry, that is taking on different roles, were present in culture regardless of time or place.²⁸ Currently, dressing as another person requires merely renting a

²⁸ CAILLOIS, Roger. *Gry i ludzkie*. Warszawa: Oficyna Wydawnicza Volumen, 1997, pp. 308–328.

costume, buying a pre-made one in shops or online from a range made for cosplayers.²⁹ In the past, the participants of masquerades needed creativity and imagination in order to make their own outfits. The costumes preserved in the photographs delight with their ingenuity, clarity of message and the elaborate care with which they were made. They also bring to mind the mindset of "doing something from nothing" popular for many post-war decades, encompassing



Photograph no. 5: *Elly Pindór, the daughter of a Cieszyn pastor, dressed as a mailwoman. MC/F/1843. Photograph by: H. Jandaurek, circa 1900.*

also carnival costumes for children's school or kindergarten balls. The photograph of Elly Pindór, taken circa 1900, wherein she is dressed in an intricately and cleverly made costume of a mailwoman, is a perfect example of carnival outfits (photograph no. 5).

Contemporary youth could be interested in facing a challenge set by the museum and consisting in firstly, selecting one of the characters in the old photographs, secondly, trying to dress and pose like them and, thirdly, sending a digital copy of the result of their transformation juxtaposed with the photograph that inspired them. This idea of establishing contact with the viewers is not new. In the early days of the pandemic, the media have shown the results of such competitions, organised mostly by artistic museums, where the participants attempted to resemble, for instance, the characters painted by famous artists.

4. The next group of photographs from the preliminary research is photographs under a collective label of "ludic games". It contains more than 40 photos taken in the 1930s, depicting masqueraders, carollers and monsters from the ritual named "*Mikolaje*", practiced in Istebna village and its vicinity. The Museum decided to also digitalise their reverse sides, where their descriptions were handwritten. In this group there are also examples of "transforming" selected photographs of old rites into postcards. The researchers of ludic culture at that time photographed annual customs of the locals³⁰ that gave the opportunity for playing in a larger group. Many of these photos are used as illustrations in modern publications on the observances and rites performed in Cieszyn Silesia.³¹ Since the masqueraders were frequently children, these photographs were displayed in exhibitions dedicated to childhood or local customs.³²

The usefulness of this particular group of photos should be emphasised when taking into account the main purpose of the project, that is the preparation of museum tools that would facilitate the popularisation and practice of past forms of entertainment, games and play. The sources described above and preserved photographs can be used in the educational work of

²⁹ LAMERICHS, Nicolle. Stranger than Fiction: Fan Identity in Cosplay. In: *Transformative Works and Cultures*. Organization for Transformative Works, vol. 7, 2011. doi:10.3983/twc.2011.0246.

³⁰ GAJEK, Józef. Zadania i metody Polskiego Atlasu Etnograficznego. In: *Lud*. Wrocław: Polskie Towarzystwo Ludoznawcze, vol. 44, 1957, pp. 153–204.

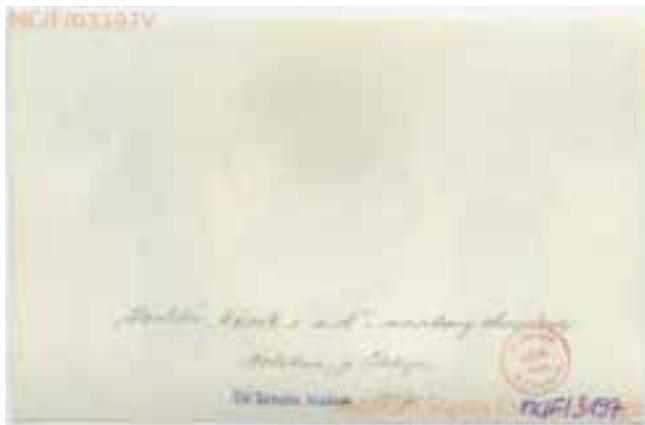
³¹ See, e.g.: STUDNICKI, Grzegorz. *Lidové zvyky a obyčjeje na Těšínském Slezsku / Obrzędowość doroczna i rodzinna na Śląsku Cieszyńskim*. Cieszyn. Ducatus Teschinensis: Muzeum Śląska Cieszyńskiego, 2011, pp. 70–71, 82, 90, 94, 121.

³² See: Archiwum wystaw czasowych Muzeum Śląska Cieszyńskiego: <http://www.muzeumcieszyn.pl/> (accessed March 31, 2021).

the museum in numerous, so far untried ways in the search for new methods for making the museum audience interested in the ludic aspects of past regional culture. These photographs could serve, for instance, to create a museum narrative on the participation of children and youth in annual ludic rites. The customs currently, although sporadically, observed involve visiting houses before Christmas or around Epiphany, also known as the Feast of the Three Kings. The analysis of the selected group of photographs makes it possible to explain the significance of the custom, but also identify the differences between the modern, symbolic elements of the costume worn during this occasion and the costumes of the *Mikolaje* groups used at the time – made from simple, but very diverse fabrics. If the museum has such celebratory costumes, it would be interesting to not only show them, but also create an opportunity to dress up as a selected character from the *Mikolaje* group. Organising workshops for people to recreate the costumes of individual characters using the materials used at the time, such as straw, yarn, fabrics, ram or rabbit leather, animal horns, twine and pieces of wood would bring even more interesting educational results. Such a stimulating undertaking would show the possibilities of the application of these materials. It would also leave a permanent imprint of this element of Cieszyn Silesian culture in the memories of the participants.

The analysis of photographs depicting the *Mikolaje* custom can also be used as an opportunity to discuss the role of masks in culture. To modern people, a mask may be associated mainly with people of distant, non-European cultures or the image of Guy Fawkes, popularised via the Internet. An analysis of nineteenth-century photographs related to the culture of the region may serve to demonstrate that masks were also present in the local ludic customs.

A presentation of handwritten, almost one-hundred-year-old captions on the backs of photographs can be used as a basis for a lecture on the art of calligraphy, the rules of phonetic representation of dialectal texts and changing linguistic styles – in this case, concerning the writing



Photograph no. 6: *Masqueraders*. MC/F/3197v, reverse of the photograph, photograph by: L. Malicki, circa 1937.

of the words “*żyd*”, “*dochtór*” (photograph no. 6). The participants of museum classes could also be invited to design an e-postcard which would illustrate a modern custom passed on from the ancestors and would therefore pass the knowledge thereof onto the next generations, providing both the educational value and an opportunity to have fun crafting.

5. The central theme of the next group of photographs, amounting to nine photos and isolated during the preliminary research, is music-making and dancing. The photographs which immortalised Cieszyn Silesians dancing and/or playing various instruments can become the foundation of a lesson on the regional music folklore, especially one with an addition of the musical items owned by the museum. The photographs, taken over 100 years (1860–1960), depict a form of ludic activity that is hard to capture with a camera. Individual groups of dancers or musicians were usually captured in static form, during breaks, and rarely mid-performance. These photos

constitute a source of knowledge on musical instruments and outfits – both ceremonial and stage costumes. The oldest are characterised by conventionalisation and the physical rigidity of the photographed. On the other hand, mid-dance movements are frequently captured in the newest. These photographs can be used together with the ones discussed in the previous group to organise museum classes related to dance and music issues, making it possible to conduct a music class that would surprise the participants. Presenting such photographs to modern people, who are generally less inclined towards singing, dancing and joint music-making, may provoke reflection on their mostly passive attitude to music, usually limited to watching and listening to personally-unknown artists. Obviously, it should not be assumed that such music-oriented workshops would result in the creation of numerous amateur bands, even if they were to enable the participants to test their skills in using the copies of old instruments to produce sounds. Yet they could at least encourage individuals to get better acquainted with the musical culture of the region or even learn to play a given instrument. There is also a possibility of creating much more entertaining and interactive elements of museum classes, for instance with the participation of special guests: instrumentalists or ethno-choreographers, who would not only speak about the past musical culture of the region, but also teach the steps to once popular dances, such as “*taskany*”, “*grozjik*”, or “*boškany*”.³³ Additionally, the audience could prepare “a living painting” by dressing up as the musical band from a given photograph and posing with replicas of the instruments. Young people, to whom music is an important part of everyday life, may be particularly interested in identifying the names of individual instruments, learning



Photograph no. 7: *An employee of the Cieszyn printing house (Mr. Graf) playing a zither.* MC/F/1679, photograph by: P. Cherny, circa 1860.

their evolution or finding the photographs of modern bands and artists that could be modern equivalents of the old photographs of people with instruments, such as the below photograph of a Cieszyn printing house employee playing a zither who reminded the students of a modern DJ (photograph no. 7).

6. The next group of photographs constitutes mementos from harvest festivals. The photographs come from the 1920s to 1930s. Shots of dressed up participants with banners standing in rows, and groups of people sitting on bedecked wagons or marching in celebratory processions through main streets predominated. The most interesting, from the perspective of the studies, are photographs of dance performances. One example is a photograph depicting choreography prepared by 20 girls standing in four rows of five and feigning the reaping of crops with sickles in their hands (photograph no. 8).

Even nowadays various Cieszyn Silesian towns still hold harvest festival celebrations at the end of the summer. The museum could “meet the audience halfway” by preparing a temporary exhibition, preferably a mobile, travelling one, which would reach the places where

³³ MARCINKOWA, Janina. Kozoka bych tańcowała. In: *Płyniesz Olza. Zarys kultury duchowej ludu cieszyńskiego*. KADŁUBIEC, Daniel (ed.). Ostrawa: Wydawnictwo Profil, 1970, p. 147.



Photograph no. 8: *Harvest festival, album of the School Educational Society in Czechoslovakia.* MC/F/444/40, photograph by: L. Bee, 1929.

such celebrations occur. It would create a space where the participants of the festivals could both reflect on their personal contribution to the continuation of local traditions and confront the past elements of these seasonal celebrations with the present ones on their own – all without the need for additional museum input, aside from the presentation of the selection of magnified photographs.

7. The next, seventh group includes shots from the activities of amateur theatre groups. The photographs, from 1930–1966, include group shots of a Cieszyn group “*Skrzutki?*”, taken during and after a performance. There are also photographs that constitute a trace of performances, spectacles and nativity plays performed decades ago. Those are mostly static, staged, official and collective photographs commemorating both old and young amateur actors. Few of them document the course of performances. Yet, their value lies in the fact that they store information on what the costumes, puppets on sticks and other props used by amateur theatres looked like. They have high educational value for the museum, since they are a source of knowledge on amateur theatre – a cultural form of activity which used to be much more popular than nowadays among both children and adults. They can serve as a basis for finding information about the repertoire of the time, with stage adaptations that were highly anticipated by the audience, since there was no television or Internet.

8. Only a few photographs taken in the 1930s document the celebratory marches that passed through the Cieszyn city centre. According to its annotation, one of them documents a Mother’s Day celebration. Another one shows mostly girls in summer dresses in the foreground with



Photograph no. 9: *Children’s summer camps.* MC/F/4716. Photograph by: L. Beer, 1926.

the fragments of the western frontage of the Cieszyn market in the background. In student projects of museum lessons centred around these photographs, nobody suggested any educational activity related to the events in them. Yet these photographs, similarly to the ones capturing children with toys, could be used together with other photographs to play a museum “game” with the aim of recognising the pieces of urban structure in a given town and comparing their photographic depictions with their current forms.

9. “Recreation” is the common denominator of the next 19 photo-

graphs. These photographs depict picnics, work breaks, summer games by the water and women's meetings dedicated to needlework. The photographs were taken between 1890 and 1936, and constitute a review of various groups' activities related to entertainment and recovering strength. The majority shows outdoor games played in warmer seasons. A few are staged shots taken during social gatherings, mostly depicting dressed up ladies in elegant interiors. But there are also well-thought-out photographs with deliberate composition of groups having picnics in the woods.

Today, viewing some past photographs can give a completely different, fuller image of the past locals' everyday joy of life. Those include photographs in which children play in the river, 1930s photographs depicting children playing in a small, but sturdy paddling pool during a summer camp (photograph no. 9 below), and children dressed in "old-fashioned" costumes and playing in bathing resorts.

Recreational activities captured in old photographs can also contribute to a discussion with the museum audience on the condition of the environment, a subject which is currently very relevant. Currently, an unpolluted natural environment is a very sought after setting for both relaxation and active methods of spending free time. The old photographs show that bathing in rivers used to be popular in the past, but nowadays – due to water pollution – it is not always advisable.

10. A broadly-understood category of culturally-determined models of ludic behaviours also encompasses sport and tourist activities. During the preliminary research, 38 photographs in this category were obtained, taken between 1890 and 1955. These shots are mostly mementos from ski trips, hikes, sports competitions, team games or gymnastic exercises done on school sports fields. They depict people identified by name and surname, smaller or larger groups on tourist trails or during hikes. The locations marked in their descriptions indicate that most such trips took place on the trails of Silesian Beskids.

An interesting element of museum classes based on these photographs would be, for instance, the comparison of the past outfits and sports accessories in the shots and the present ones used by the museum audience. Contemporary youth will probably be shocked at seeing women in long dresses and hats on tourist trails or skiers in sports outfits that largely differ from the current ones. Such a juxtaposition creates an opportunity to talk to modern sportsmen and various types of tourists about the increase in specialisations, comfort and safety, but also prices of sports equipment and clothes. Other notions discussed during this museum class and based on the photographs collected may also concern the elitism and niche-like quality of some sports or the sports that used to be frequently practiced in Cieszyn Silesia, but are now out of fashion (e.g. cricket).

According to teachers' statements, the youth, especially older members, are not fond of physical education. These historical local photographic sources may be used to remind the audience that the introduction of physical education and other recreational conveniences in public schools was a major achievement,³⁴ enabling all social groups to practice sports for free. In lockdown, many PE teachers taught the history of sports. The question is whether museums which have access to the history of local sports would be able to prepare online classes on the basis of both the sources discussed in this article and other sources. They would provide an opportunity for children and youth to get acquainted with the regional sports he-

³⁴ See, e.g.: LIPONSKI, Wojciech. *Encyklopedia sportów świata*. Poznań: Oficyna Wydawnicza Atena, 2001, pp. 331–332.



Photograph no. 10: *Tourists on Lysá hora.* MC/F/6164B, photograph by: L. Bilowitzky, circa 1899.

roes of the past in an interesting, interactive form. Upon deliberation on the possibility of preparing both offline and online museum classes aimed at popularising the knowledge on the Cieszyn Silesian tourism and sports at the turn of the nineteenth and twentieth centuries, lesson scripts were prepared together with students. Those scripts emphasised not only the factual material – player names, team names, victory dates etc. – although such knowledge is undoubtedly valuable, but suggested activities that require the audience’s participation. The collection of photographs provides an opportunity to pass on knowledge on the summits conquered by subsequent generations of the locals, summit names, their elevations and trails leading to them. It also encourages to tell, especially the children and youth in the times of online education brought on by the COVID-19 pandemic, about the history of sports and tourism, but taking into account the usually omitted

regional perspective. The period of the pandemic forced PE teachers to come up with various forms of credits for physical exercises, adapted to the current circumstances. In this case, the cooperation between schools and the museum, which has interesting, less-known sources on the history of sports in the region, could result in preparing interesting undertakings. One of the student projects suggested that the museum organise a photography competition for school children to take a selfie-style photograph upon conquering a selected summit of the Beskid Mountains. Aside from getting a pass for the PE lesson, the participants’ photographs would be evaluated in terms of the resemblance of the composition between their photo and a selected photograph from the virtual storage of the Museum of Cieszyn Silesia, for example the below shot of two men who conquered the summit of Lysá hora in 1899 (photograph no. 10).

The above is merely one proposal suggesting an online, but in this case also healthy, activation of the museum audience. Such competition would make it possible for the museum to collect material for a post-competition exhibition displaying past photographs and their modern equivalents, but would also encourage the next generations of the locals to get acquainted with the local history of tourism in the form of a game.

Discussion

The research has shown that the photographs taken at the turn of the nineteenth and twentieth centuries that document the past ludic Cieszyn Silesian culture are available and can be used to develop museum tools facilitating the reintroduction of toys, games and sports once popular in the region. In the Museum of Cieszyn Silesia and other similar institutions they frequently constitute the “material” for educational museum projects either online or prepared in accordance with the concept of the participatory museum. The review of the current cul-

tural offer of selected museum venues in Cieszyn Silesia indicates a potential usefulness of old digitalised photographs for conducting both online and offline museum activities dedicated to various subjects. During the pandemic, people have had the chance to learn about the friendly nature of such cultural institutions as museums. Therefore, the audience may expect them to expand their offer after the pandemic dies down. The digital archival photographs and other museum resources can constitute a foundation for both such an expansion and the preparation of a new museum offer.

Despite the trivialisation of photography in modern culture, people are still fond of taking and viewing photos. Old photographs can be used to prepare workshops and tasks which would activate the audience, introduce the secrets of taking black and white photographs and prepare for amateur studies using the virtual storage of the museum, all to increase knowledge and raise interest in local culture. The museum narrative on the past forms of entertainment and recreation, presented on the basis of the photographs, can pass on knowledge that would help modern people improve their understanding of the customs and everyday life of the locals from decades ago. Engrossing museum (e-)classes, which would give clues on how to play old games, could attract the youngest visitors and encourage them to put electronic forms of entertainment aside for a while. The archival photographs used in manners described in the article could constitute the "material" for many museum educational projects that would supplement the school programme not only during the lockdown. Activating actions conducted during museum e-classes, or when visiting the exhibitions either in venues or virtually in a ludic, participatory and creative way may convince the audience that learning about the local cultural heritage may be fun and engaging, for instance, through direct participation in forms of ludic activities organised by the museum. It may also encourage the audience to search for the resources of the local cultural heritage, share them and refer to them, which, thanks to participation in various museum educational projects, would make them more understandable and appreciated.

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³⁵ The author has spoken and written to the employees of the Museum of Cieszyn Silesia. They consider the ideas presented in the article as enriching their works (e-mail correspondence in the author's archives).

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