

# INCLUSION IN MUSEUMS

## THE COLLECTION OF BEST PRACTICES

# SHIFT

Metamorpho*S*is of cultural Heri*tage*  
into augmented hypermedia assets  
For enhanced accessi*b*ility  
and inclusion



Funded by  
the European Union

# INCLUSION IN MUSEUMS: A COLLECTION OF BEST PRACTICES

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# PREFACE



Museums play an important role in preserving cultural heritage and educating the public. Accessibility in museums involves more than just physical access or ensuring access for people with disabilities; it encompasses broader aspects that contribute to enhancing visitor experience and promoting greater social inclusion. To achieve accessibility, museums are increasingly ensuring it by removing architectural barriers, using technology, creating accessible exhibitions, and collaborating with local communities and other museums to understand diverse visitor needs. Thanks to these efforts, museums become true centres of education, cultural interest and social inclusion.

We are proud to present to you a publication showcasing examples of inclusive practices implemented in museums across the Balkans. Museum experts have presented specific examples, describing the process of implementing inclusive strategies, identifying successes achieved, and presenting the obstacles encountered as well as those to overcome in the future. Examples of pedagogical work in museums highlight the diversity of educational opportunities museums provide, particularly in adapting exhibitions to meet the needs of all visitors. Museum professionals, making the best use of their experiences and projects, focus on creating multisensory environments using a wide range of tools and digital platforms to ensure accessibility for all visitors.

Examples from Bosnia and Herzegovina, Montenegro, Serbia, North Macedonia and Hungary as well as a library example from Romania, have set standards in inclusivity. These museums, galleries, and libraries provide inspiration and examples of how to implement accessible practices that can serve as models for others. In the context of the pandemic, the publication illustrates how museum practices have adapted to new challenges and how those changes have spurred the development of new technologies and adaptations, enhancing accessibility even further.

This publication is designed as a source of inspiration and information for museum professionals, decision-makers, researchers, and visitors to better understand how museums can become more accessible and inclusive. The examples highlighted in the publication underscore the importance of inclusivity with the aim of encouraging other museums to implement similar strategies and approaches in order to enhance their services and contribute to social inclusion. We hope that our publication will stimulate further international cooperation among museums, galleries, and libraries in the region to share best practices and support ongoing inclusive practices. We believe that this publication will encourage your museum to become more inclusive, providing enriched and high quality experiences for all its visitors.

Anida Manko

# INTRODUCTION

Building on previous results highlighting the evolving landscape of museum accessibility and inclusion in the Balkans, this publication is an attempt to showcase some of the transformative efforts within galleries, libraries, archives, museums (GLAM) and other cultural institutions with a mission to provide access to knowledge. Despite a legal framework, that only partially guides change, and limited financial support, numerous institutions have demonstrated commendable progress. These improvements, mostly spearheaded by dedicated individuals and teams, reflect a commitment to enhancing equal opportunities and fostering an inclusive environment.

The initiatives undertaken by museums across the Balkans and Europe are notable for their diverse approaches to accessibility. From tactile exhibitions and audio descriptions to digital innovations like QR codes, NFC and VR experiences, these efforts cater not only to visitors with disabilities but also enrich the cultural experience for all audience members. Collaborative projects between GLAM professionals and persons with disability and their organizations have been instrumental in ensuring that programs are inclusive and participatory, reflecting the principle of “Nothing About Us Without Us”. Institutions that represent the willingness to develop this aspect of their work as a value they promote in society should receive due praise: they include prominent national or “large” museums which have implemented comprehensive sensory and inclusive programs. Local community museums in cities and towns in the Balkan region, however, have also made significant strides, demonstrating that impactful change can occur at various scales.

Central to these efforts is the support provided by the Balkan Museum Network through the small-grant scheme funded by the Foundation Cultural Heritage without Borders (CHwB) BiH and CHwB Albania, Stavros Niarchos Foundation, the Swedish and the U.S. embassies, and others, but also Headley Trust UK and the recent Headley South East Europe Cultural Heritage Fund program. On the other hand, one should mention the existing support of the respective national ministries based on international and national conventions and laws.

Various programs and educational events organized by the Balkan Museum Network and the Balkan Museum Access Group promote international cooperation, knowledge exchange, and community involvement, underscoring the broader goals of human rights, tolerance, and equality. Its outcomes highlight the collective achievements of institutions dedicated to broadening access to cultural heritage and capacity building.

The three-year project titled SHIFT «Metamorphosis of Cultural Heritage into Augmented Hypermedia Assets for Enhanced Accessibility and Inclusion” led by the Software Imagination & Vision SRL (SIMAVI) from Romania and funded

through the Horizon EU program represents the new platform for the Balkan Museum Network to continue the process of building upon previous results. SHIFT is strategically conceived to deliver a set of loosely coupled, technological tools, that offer cultural heritage institutions the necessary impetus to stimulate growth, and embrace the latest innovations in artificial intelligence, machine learning, multi-modal data processing, digital content transformation methodologies, semantic representation, linguistic analysis of historical records, and the use of haptics interfaces to effectively and efficiently communicate new experiences to all citizens (including people with disabilities). The development of SHIFT tools will be carried out in close consultation with the stakeholder communities represented in the project. The two cultural heritage networks (BMN, ANBPR - The National Association of Public Librarians and Libraries) will launch an open consultation procedure to aggregate views from their members, while working together with the cultural heritage institutions (Hungarian National Museum and National Museums in Berlin) and heritage professionals (Heritage Management Organisation), they will provide requirements based on the cultural assets being maintained within each organization. The diversity of digital media transformation and the semantic formalization of the cultural assets will be individually demonstrated across all museums and libraries. Additionally, the inclusion of design principles adopted within the project will be evaluated by cultural heritage networks and vulnerable group partners (DBSV - The German Federation of the Blind and Partially Sighted), who will engage with the various tools developed in the project. In addition to the stakeholders and end-users, the SHIFT project also brings together leading industrial (SIMAVI) and academic institutions (FORTH - Foundation for Research and Technology, Technical University of Munich, QMUL - Queen Mary University London). The consortium is complemented by SMEs (MDS - Massive Dynamic Sweden, AUD - Audeering) with high-tech product development teams and ethical expertise (ERC - Ethics Research Center).

Collectively, the project will release twelve technology solutions clustered into five thematic areas (computer vision, audio, text-to-speech, haptic, semantics, and linguistics) that support accessibility and inclusion by design to overcome the shortcomings and limitations of the Cultural and Creative Industries (CCI) sector in order to enable growth and stimulation.

In summary, while challenges persist, the ongoing initiatives of Balkan museums exemplify profound SHIFTS towards accessibility and inclusivity. These endeavours not only improve visitor experiences but also affirm the role of museums as socially responsible entities committed to meeting the diverse needs of their communities.

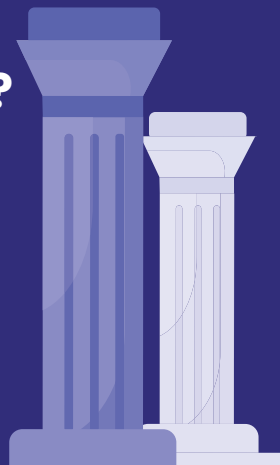
Join us in joining hands, now!  
Milena Milošević Micić

.....

# ARE BALKAN MUSEUMS ACCESSIBLE? SELF-DETERMINATION OF PERSONS WITH DISABILITY OR JUST ANOTHER DECLARATION?

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Balkan Museum Access Group



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## ABSTRACT

*This article examines the concept of self-determination, exploring its significance, challenges, and implications in various contexts. It discusses how legal frameworks, social norms, and other factors can enable or hinder individuals from fully exercising their self-determination rights. Additionally, it emphasizes the importance of balancing individual freedoms with social responsibilities, highlighting the need for inclusive environments that respect the rights of all. Focusing on the Balkans, particularly within the cultural sector, the article discusses efforts to promote accessibility and inclusion in museums and cultural institutions. It analyses the impact of legal reforms, social awareness campaigns, and community initiatives in fostering a more inclusive environment for individuals with disabilities. Furthermore, it presents some of the results of international cooperation projects aimed at enhancing accessibility and involving local communities in cultural programs. While recognizing ongoing challenges, such as financial constraints and limited awareness, the article underscores the progress made and the potential for further improvements through collaboration and innovation.*

**Keywords:** *self-determination, accessibility, inclusion, cultural heritage, human rights, museums, the Balkans, disability rights*

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## INTRODUCTION

Self-determination is a fundamental principle that refers to the right of individuals or groups to make choices and decisions about their own lives without external pressure or interference. This valuable, widely recognized and appreciated concept, also has its limits and can face challenges in various contexts. Limitations usually come from the legal framework that can be directly or indirectly determined by (inter)national conventions, regulations, and other legal instruments. It can also be influenced by social boundaries, geographical characteristics, economic conditions, religious beliefs, moral claims, and many different elements



that could prevent a person from living a completely self-determined life. We should ask ourselves if we are truly able to follow this principle and fulfil our human needs.

One should also remember that “a person’s freedom stops where the other’s freedom begins”. In other words, our freedom is limited by the freedom of those around us, and we should always be mindful of how our actions may impact others. That, in turn, provides an opportunity for individuals, as well as the society, to take actions which do not infringe, but support the rights of others and to provide them with space to live their lives freely, participating fully in all aspects of life.

Statistics show that around 1.3 billion people globally live with some form of disability, which is 16% of the world’s population (World Health Organization, Disability, 2023). Unfortunately, “differences” are still commonly perceived with misunderstanding and prejudice. These facts raise a set of important questions.

Are we, as humans living in the 21st century, creating an environment equal for all, accessible for all and with equal possibilities for the inclusion of all? Are we as countries, societies, and institutions creating a space that is a truly barrier-free, open, inclusive, and an empowering environment, or rather creating boundaries and limitations? Are we living in a “disabling” world or are our societies with “disabilities”?

This brings us to the Universal Declaration of Human Rights (1948), which expresses the basic principles of life, namely the equality of all, the rights of all, as well as the prohibition of all forms of discrimination, regardless of any background, for everyone to be able to enjoy the benefits of life. The most significant step forward, as the crowning achievement of almost 80 years of UN activity regarding equality and human rights, is the adoption of the UN Convention on the Rights of Persons with Disabilities in 2006.

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## **TOWARD ACCESSIBILITY – THE BALKANS CASE**

Coming from the cultural sector in the Balkans, specifically from museums and institutions working in the field of the preservation and presentation of cultural heritage, we very often face two sides of a medal when dealing with accessibility and inclusion in cultural institutions. Quite often, we face many internal obstacles, restrictions, and barriers. “Do not touch!!!” is the most used phrase in our everyday work. Addressing these challenges often requires a combination of legal reforms, social awareness campaigns, economic support, and community initiatives to create an inclusive and empowering environment for individuals with disabilities to fully participate and enjoy culture.

It takes additional effort to work professionally and in line with all the above-mentioned regulations, and definitions, and to establish a minimal set of standards to act ethically. The new ICOM's museum definition, adopted in 2022 defines museums as *"...not-for-profit, permanent institutions in the service of society that research, collect, conserve, interpret and exhibit tangible and intangible heritage, that are **open to the public, accessible and inclusive, and that foster diversity and sustainability...**"* But, again, is it just another declaration or a given framework in which we should operate, without real, continuous support of society, in general?

When discussing the Balkans, accessibility and inclusion in museums and cultural heritage institutions, one should not be a pessimist. All countries have ratified UN Conventions and are therefore obliged to follow their principles, harmonize national laws, and apply certain legal instruments to secure the right of a person to achieve their needs and basic human rights.

Although insufficient, accessible museums and inclusive programs in the Balkans are achieving improvements, especially in the number of community outreach programs. A shift in the attitude of governing bodies of cultural institutions on a local and national level, and among professionals is evident. Improvements are made both in removing and decreasing physical and intellectual barriers that can occur due to the use of technical terminology or/and scientific language, long descriptions, complicated design, or based on cultural differences and differences in perception. Also, better communication and cooperation between museums and organisations and associations of persons with disabilities is established. Museums and cultural institutions are being recognised as community-oriented institutions that serve the society. As a result, we can see initiatives that originate not only from institutions, but also from individuals or groups of people, from the community towards institutions. We should also mention the results of the efforts by the Balkan Museum Access Group, an informal group of museum professionals, the ZERO Project Award winner in 2018, educated and trained by and operating within the framework of the Balkan Museum Network.

An important element of supporting and initiating processes, that results in sometimes small but significant changes in the public and civil sectors in the area of accessibility and inclusion, especially in GLAM<sup>1</sup> institutions, is financial support provided through various grants and open calls. There are different governmental grant schemes on the state, regional and local level, but also European or international grants. The Balkan Museum Network has provided a small grants scheme, with the support of CHwB, SIDA, Stavros Niarchos Foundation, the Headley Trust UK and U.S. Embassies in Bosnia and Herzegovina and Serbia, for funding more than twenty-five projects focused on the improvement of the accessibility and inclusion of the cultural institutions in the Balkans. The Balkan Museum Network has implemented and organized several training programmes

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<sup>1</sup> GLAM is an acronym for galleries, libraries, archives, and museums, and refers to cultural institutions with a mission to provide access to knowledge (author's note).

aiming to raise awareness and advocate for equal rights, build capacity, develop skills, and provide necessary knowledge to professionals in the cultural heritage sector.

The latest analysis from 2020 and 2022 made by the Balkan Museum Network (Manko, 2020; Vežić, 2022), and the Serbian Institute for Cultural Development Research (Milankov, Opačić, Subašić, 2022), shows that museums in the region are improving their accessibility and inclusion, and confirms that socially responsible institutions are raising up to the challenge of meeting the needs of their audiences. Notwithstanding the existing legal framework, which only partly steers institutions toward making changes, and insufficient financial support, there are bright examples that we must mention. These “small steps” represent giant moves toward equal opportunities and an accessible environment, and should be understood as results achieved by self-determined individuals, or teams within the institutions.

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## EXAMPLES FROM THE BALKANS

While there may yet not exist a fully accessible museum, it is encouraging that efforts to enhance accessibility are growing in the Balkan museums. Numerous projects tailored for visitors with different disabilities are noteworthy; some of them employ various tools and modern technology, and some result in improvements in physical accessibility wherever feasible. Most of the actions taken by GLAM institutions are cost-effective and contribute significantly to enhancing accessibility. They are undertaken in cooperation with people with disabilities, and facilitate consultation and reviewing planned activities, according to the “Nothing About Us Without Us” motto. All programs have a participatory element, whether in the process of creation, development, or implementation. They are designed in cooperation of GLAM professionals and representatives of organizations of persons with disabilities, mostly funded by different grants and state funds.

How does one design an inclusive museum program? For now, there is no one-size-fits-all approach. Programs must be adapted according to the given circumstances while utilizing various technical aids. Thus, programs can be divided into several groups: programs and exhibitions with sensory elements such as tactile images and elements, audio descriptions, and visual and sign language interpretation; digital content accessible online and supported by QR codes, NFC and other tools; interactive interpretative printed and digital elements; digital audio/video guides, accessible web sites and digital applications; games supported by VR, AR, etc. Various topics and collections are interpreted and presented, from art and applied art, to history and natural history, but also traditional culture, dance, etc. Although the above-mentioned examples are created for certain groups, they are intended to be appropriate for everyone and their existence improves the quality of work and programs of GLAM institutions.

Regardless of the existing legal framework, which only partially stimulates institutions to make changes, and the insufficient financial support, there are bright examples that must be mentioned. As the most prominent example, we must mention the only specialized museum in the region: the Typhlological Museum in Zagreb, Croatia, which cooperates with other museums in the region, as a consulting expert. Numerous museums in capital cities in the Balkans can be cited as bright examples, such as the Museum of Modern Art in Belgrade with tactile exhibitions of contemporary art, the Museum of Yugoslavia with sign-language guiding inclusive program, the National Museum of Serbia with various sensory and inclusive programs, the Museum of African Art in Belgrade with tactile and inclusive exhibitions and programs, the National Gallery of Bosnia and Herzegovina in Sarajevo with the Blue Artism program for persons with developmental disabilities and different cognitive abilities, sensory exhibitions of the Natural History Museums in Podgorica, Montenegro and Belgrade, the Holocaust Memorial Center for the Jews of Macedonia, and some state museums in Skopje, North Macedonia, etc. The Museum of Contemporary Art of the Republic of Srpska and the Gallery of Matica Srpska in Novi Sad, have presented different tactile and sensory art exhibitions. Noteworthy are also museums from smaller towns, that are members of the Balkan Museum Network, such as the National Museum of Leskovac (RS), Zenica City Museum (BiH), National Museums in Zrenjanin and Kikinda (RS), the NI Institute and Museum in Bitola (NMK), the Homeland Museum of Knjaževac (RS), the Museum of Cycladic Art (GR) and many others. These “small steps” represent giant moves toward equal opportunities and an accessible environment, and should be understood as results achieved by resolute individuals, or teams within the institutions. Through these programs, museums have recognized that they enrich the museum experience for everyone, thereby enhancing overall cultural experiences. Some of the best examples can be found on the interactive map of accessible museums in the Balkans, mentioned above. The map can be explored on the Balkan Museum Network’s website.

Based on the principle of self-determination, the “Making Balkan Museums More Accessible for People with Disabilities” project, poetically titled Balkan Muse(um)s Connecting Communities, supported by the U.S. Embassy in Serbia, was designed as a program of international cooperation in the Balkans, through the exchange of knowledge and skills between museum professionals and representatives of organisations and associations in local communities, to improve the accessibility of museums and museum programs and involve the local community in creating, developing and implementing cultural programs. The motive for the project was the promotion of human rights, tolerance and equality of especially socially vulnerable and vulnerable groups and the establishment and further development of cross-border cooperation. The results of the project clearly showed that the main changes toward the improvement of accessibility and inclusion in museums, galleries and cultural institutions had been accomplished because of the dedicated individuals, teams, and managers who were determined to put some ideas into action and make visible and significant changes. Three main results are ac-

complished through the project: fruitful cooperation and exchange of knowledge, development of an interactive online map of accessible museums in the region and an e-publication (Vežić, A., Bruelisauer, A. M., Milošević Micić, M., Sušić, Ž., Ružin, I., & Pargovski, J. (2022) titled Accessible Balkan Museums that presents twenty-two accessible institutions, nineteen museums, two galleries, one archaeological site, and an open-air museum, all institutional members of the Balkan Museum Network.

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## CONCLUSION

Inclusion benefits everyone. Although numerous initiatives and studies demonstrate progress in Balkan countries regarding inclusion in cultural institutions, there is still a need for action and improvement. The improvements concern dismantling barriers created by the society. This requires an exchange between museums and people with disabilities in general. Inclusive spaces have social impact. Thus, we recognize that with the expansion of offers and accessible programs, tourism in the region is growing. The development of new technologies and services contributes to the economic growth. Most importantly, we as cultural institutions, and beyond, have a responsibility to promote human rights and enable each and every person to have a self-determined life and participation in all areas of life.

Realising accessibility is not just part of the social sphere, but also contributes to the economic growth through tourism development. New services and new technologies should additionally motivate heritage institutions to get involved in wider European collaborations that improve their capacities to become more inclusive and accessible.

Since the United Nations Agenda 2030 for sustainable development requires that “No one should be left behind!”, museums in the Balkans are trying to keep up with the rest of Europe and the world, keeping in mind Article 2 of the UN Universal Declaration of Human Rights: “Everyone is entitled to all the rights and freedoms outlined in this Declaration, without distinction of any kind.”

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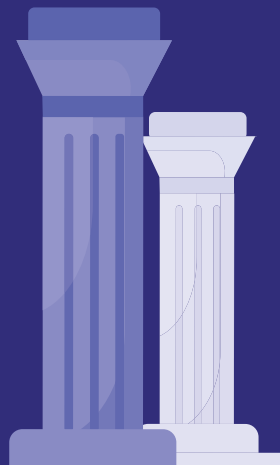
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# INCLUSIVITY AND VISIBILITY ACTIONS FOR SUSTAINABLE CULTURAL DEVELOPMENT – IVA

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## ABSTRACT

*This article presents IVA - an initiative to enhance inclusivity within museums across Bosnia and Herzegovina and Montenegro, supported by UNESCO, through the Culture and Creativity for the Western Balkans” (CC4WBs) project, funded by the European Union and implemented in 2023-24.*

*Despite significant improvements, museums in these countries encounter significant hurdles in providing equal experience for all visitors. This initiative aims to rectify this through a number of actions aimed at establishing inclusive management strategies and enhancing cultural institution capacities. Through intensive institutional networking, comprehensive empowerment activities, and the introduction of innovative services based on modern technologies, the project aims to shape museums as more accessible and appealing to a diverse spectrum of citizens and tourists.*

*Thus, the City of Sarajevo and the City of Podgorica joined hands with the City Museums Sarajevo, the Museum of Literature and Performing arts of Bosnia and Herzegovina, the History Museum of Bosnia and Herzegovina, and the Museums and Galleries of Podgorica in this 12-month long project that has significant potential impact, aiming to establish a model that can be further replicated.*

*The article offers an overview of the project’s overall objectives, methodologies, and potential implications for the preservation of cultural heritage and the advancement of inclusivity.*

**Keywords: Museums, Cooperation, Inclusivity, Technology, Education, Empowerment, Accessibility, Diversity, Engagement**

## INTRODUCTION

Museums, as keepers of cultural heritage, have the objective to serve as inclusive spaces that are adapted to the needs and interests of diverse audiences. Museums in Bosnia and Herzegovina and Montenegro, however, face significant challenges in achieving this vision due to numerous obstacles, including limited resources, outdated equipment, and inadequate training. Supported by UNESCO, the British Council and the Italian Agency for Development Cooperation (AICS) through the Culture and Creativity for the Western Balkans” (CC4WBs) project, and funded by the European Union, this 12-month long project (implemented in 2023-24) seeks to help overcome these obstacles and create a culture of inclusivity within museum spaces.

At its core, IVA is a project designed with an understanding of the significance of inclusivity in cultural institutions. Based on principles of social justice, human rights, and cultural diversity, the project aims to transform museums into welcoming environments where individuals of all backgrounds feel valued and represented, achieving international standards and learning from best practices in inclusive museum management.

The City of Sarajevo and the City of Podgorica joined hands with the City Museums Sarajevo, the Museum of Literature and Performing arts of Bosnia and Herzegovina, the History Museum of Bosnia and Herzegovina, and the Museums and Galleries of Podgorica, to create a working group consisting of museum professionals, public officials, and special educators. A wide range of potential project beneficiaries has been identified, and the core focus was set on people with disabilities, both those living in the region and those visiting as tourists.

The project’s complex approach focuses on several overall goals: fostering general cooperation between cultural institutions, creating an institutional network for inclusivity, enhancing institutional capacities through education and equipment acquirement, and introducing a range of new inclusivity services. To achieve these objectives, a series of targeted activities has been initiated, including the establishment of collaborative networks, development of education modules, and the creation of innovative and inclusive museum souvenirs.

Through strategic partnerships between institutions, and through participatory approaches, the project seeks to give museum professionals the capacity to accept inclusivity as a core value and integrate it into their daily professional practices.

Based on the future success of the project, there is potential to develop a model, which can then be replicated in similar institutions in the region, further widening and strengthening the network for inclusivity.



## GOALS AND METHODS

The implementation of the project activities is well underway, and concrete outcomes are expected to bring more than simple accessibility improvements. Increased visitor engagement, cultural heritage preservation, and heightened social cohesion will be achieved by fostering a culture of inclusivity, through which museums stand to become more vibrant and engaging spaces, welcoming diverse target groups.

The cornerstone of the project is the development of a General Museum Inclusivity Plan, a significant effort undertaken in close collaboration with the Association of Special Educators and Rehabilitators “STOL” Sarajevo. This collaborative effort with partner institutions ensures that the inclusivity plan offers a range of different perspectives and expertise, allowing for a meaningful change within cultural institutions. The Plan outlines specific steps that the institutions need to follow in order to fulfil the goal of creating an inclusive and welcoming environment for all people. Such a strategic approach is ingrained in the core idea of IVA, which aims to set up foundations for continuous work and improvement of spaces, skills, and approaches, rather than focusing on short term actions.

In parallel with the plan development, the project includes a series of educational sessions designed to empower museum employees with essential skills and knowledge. Leveraging the expertise of “STOL” Sarajevo, the project plans to conduct a series of hybrid training sessions designed to allow museum professionals to gain necessary skills needed to adapt everyday professional practices into becoming more sensitive and inclusive for all groups of people. One of the project meeting coinciding with Autism Awareness Day serves as a testament to the project’s commitment to public engagement and awareness-raising, fostering a culture of inclusivity within museum spaces.<sup>2</sup>

Three-day training was conducted by educators from “STOL” in early June, 2024. The Olympic Museum in Sarajevo hosted professionals from the institutions included in the project, which was an opportunity to develop skills, exchange experiences and best practices, and join hands to draft the General Museum Inclusivity Plan.<sup>3</sup>

The training was focused on introducing participants to the diverse range of challenges they will face once they open their spaces to people with disabilities, how to prepare and be able to overcome them. Special attention was given to developing an understanding of the need to use sensitive language and establishing appropriate communication with all museum visitors.

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2 Project IVA: Celebrating World Autism Awareness Day, (April 2, 2024), City of Sarajevo

3 Successfully implemented education for museum staff: “Inclusiveness and visibility for sustainable cultural development”, (June 7, 2024), Museum of Literature and Performing Arts of Bosnia and Herzegovina



Figure 1. Training session at the Olympic Museum in Sarajevo, June 2024



Figure 2: Training session on working with visitors who are blind or visually impaired, June 2024

Local and national legislation in Bosnia and Herzegovina and Montenegro has been identified as a potential significant hurdle to achieving success in this project. Thus, sturdy legal framework and strategic directions have been defined, with a strong commitment of those in charge of decision making to make improvement towards inclusive development of their respective communities.

The overall goals of increasing inclusivity in museums will additionally be achieved by introducing modern technologies into already existing museum exhibitions, and by designing new exhibitions based on principles of inclusivity. Together with adaptation of museum spaces, new equipment, such as VR headsets and the software necessary to integrate them into exhibitions, will allow professionals to apply the skills gained during the training sessions in order to improve and adapt their professional approach to museum spaces and visitors. The procurement of the necessary equipment for the museums participating in the project was completed in July, 2024.

The IVA initiative will symbolically culminate with the creation of a series of innovative museum souvenirs, designed to respect differing needs of various museum visitors. Set in specifically furnished souvenir shop spaces, these souvenirs will aim to combine modern and traditional elements, further expanding their value as a contribution to preservation of heritage. The design of these museum shop spaces is currently underway.

The symbolic souvenirs will be presented at the Museum Inclusiveness Day in December 2024, which will be held simultaneously in both Bosnia and Herzegovina and Montenegro, signifying the determination of project partners to work together on achieving better inclusivity in all public institutions. An attractive souvenir, which will spark interest of wider groups of visitors, will add value to museum spaces, and contribute to the sustainability of these cultural institutions. Disseminating the results of these actions to a wide audience is a precondition to

creating an environment in which such a project could be further replicated. All partners have agreed to use a diverse selection of communication methods and channels to promote the project and inform the wider public on the process and the results. Printed and digital media, and social networks, will all be utilized to raise awareness of IVA and the importance of focusing on inclusivity in cultural institutions.

All of the planned actions have been designed to be dependent on full inclusion of all project partners, joined in a Project Consortium. Formed with seven establishing members and supported by strong professional networks, such as the Network of European Museum Organizations (NEMO), the Balkan Museum Network (BMN), and the Sarajevo Economic Region Development Agency SERDA, the Project Consortium will ensure that the implementation of the project goals continues being a priority even after the proposed 12-month period ends. Such a strong commitment will ensure multiplication and wide dissemination of the effects long into the future.

As administrative and cultural capitals of Bosnia and Herzegovina and Montenegro, the cities of Sarajevo and Podgorica have committed to institutionally support all of the project outputs and their further advancement as a part of wide culture development strategies. They will learn from the positive practices of IVA, and actively work on applying similar actions in other museums under their jurisdiction, helping them to become more sustainable and inclusive to all citizens, as one of their important strategic goals.

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## CONCLUSION

In conclusion, it is crucial to underline the important role that inclusivity has in shaping the future trajectory of museums in Bosnia and Herzegovina and Montenegro. IVA is a project that in its essence advocates for continuous efforts to make inclusive approaches within cultural institutions an everyday practice, and calls for continued collaboration and knowledge-sharing among stakeholders. This project has the potential to be the snowball that can start an avalanche, spreading the understanding of the importance of inclusive practices to different museums and other cultural institutions across the region. The project activities concluded so far testify to this potential, as museum professionals from the partner institutions have already started utilizing the skills and knowledge gained during training sessions in their everyday work.

Even more than that, IVA offers a basis and an established model for future policy initiatives aimed at advancing the inclusivity agenda in the cultural sector. By focusing on inclusivity as a fundamental principle, museums can unlock their full potential as public spaces of cultural exchange and mutual understanding. Together, partners in IVA are sending a strong message – museums belong to all of us, and we will join forces to make them accessible to everyone.

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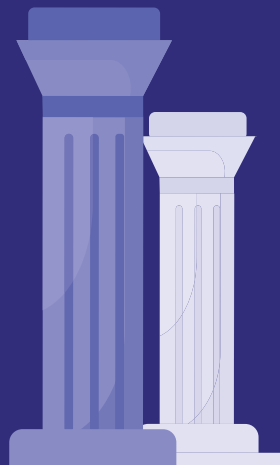
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# CONTEMPORARY VISUAL ART THROUGH MULTISENSORY EXPERIENCE

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## ABSTRACT

*For the first time, the Museum of Contemporary Art Belgrade organised an exhibition for people who are blind and people with low vision in 2019 called “In Touch With”. The project’s second edition, the “Blue Exhibition,” was on display in 2023. Intended to bring persons with vision impairment closer to artistic heritage by providing them with hands-on art experience, both project iterations were supported by the Faculty of Fine Arts and the Association of the Blind of Serbia. Students from the Sculpture department at the Faculty of Fine Arts in Belgrade were asked to consider how to communicate visual art to persons who are blind and people with low vision. They created interpretations of artworks from the collection of the Museum. Developed during the first exhibition, the methodology was expanded in the second iteration with a focus on the phenomena of colour. The artworks from the Museum’s collection were translated into another medium and given a new interpretive framework through a multi-sensory experience (tactile, auditory, olfactory, and spatial). During the “Blue Exhibition”, the special programme entitled “An Unseen Tour” was conducted by Boris Dončić, the associate with low vision who guided the blindfolded audience. This programme was designed to be inclusive and accessible to everyone, demonstrating that visual art should be enjoyed with the complete body. If we let our bodies feel fully, ignoring visual limits and surrendering to multisensory participation, we may allow ourselves to build a sense of equality, tolerance, and empathy.*

**Keywords:** *inclusivity, contemporary art, interpretation, experience, person with visual impairment, person who is blind, and accessibility.*

## INTRODUCTION

In the effort to make the museum collection more accessible for persons with vision impairment, persons who are blind or have low vision, the Museum of Contemporary Art first implemented the idea of a multisensory museum experience with the “In Touch with” exhibition in 2019 and again with the “Blue Exhibition” in 2023. A form of interpretation was created with the intention of providing persons who are blind or have low vision with access to artistic works and visual heritage; this approach has also been proven beneficial to sighted viewers. The main focus was activating the visitor’s sensory body and physically engaging them.

Previously, in the museum accessibility practice, artworks presented to persons with vision impairment and persons who are blind were usually tactile diagrams or replicas – reliefs and objects meant for touching that are produced mechanically, through 3D printing or with a CNC machine. Due to the precision of linear mechanical production, the reliefs and objects produced usually represent artworks by abstract artists. The exhibitions at the Museum of Contemporary Art break through this established model by highlighting the experience and the interpretation. The artworks are observed, felt and interpreted through subjective experience. Every viewer has the freedom to interpret and experience the artwork in their own way.

The projects of the Museum of Contemporary Art present different models of art interpretation. Reducing information and theoretical presentation to a bare minimum, this new methodology creates space for the freedom of personal experience and interpretation of heritage, engaging the visitor’s physical body. The principle of multisensory museum experience relies on previous theories of museum education and art interpretation. In the effort to make artworks and visual

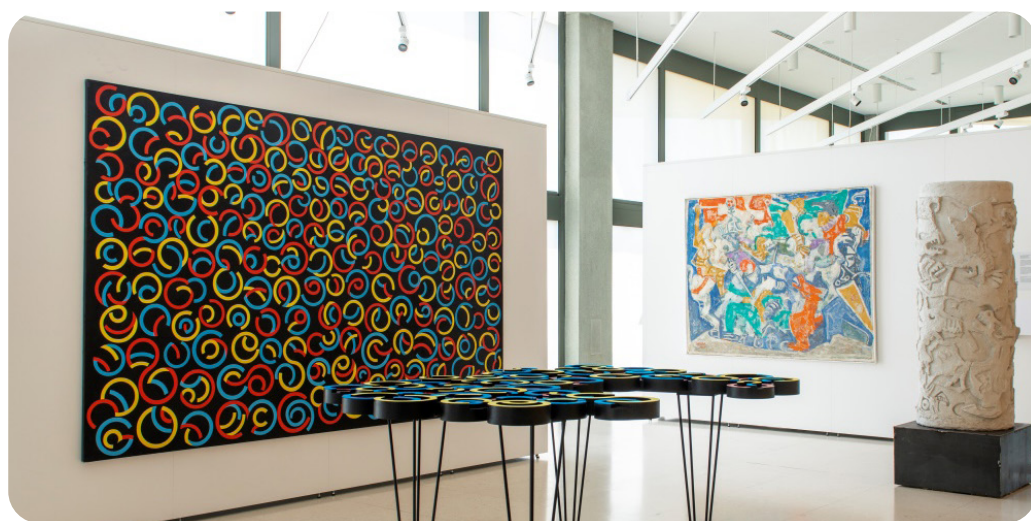


Figure 1. In Touch With exhibition, MoCAB, 2019 (photo: Bojana Janjić, MoCAB)

artistic heritage accessible to persons who are blind or have vision impairment, the newly developed methodology proved valuable for the sighted audience as well, emphasising the development of sensibility, empathy and the acceptance of diversity as a principle of inclusiveness.

The methodology resulted from intense interdisciplinary research that was conducted by the students of the Sculpture Department at the Faculty of Fine Arts in Belgrade, their professors Mrđan Bajić and Radoš Antonijević, MoCAB curators Katarina Krstić and Senka Ristivojević, and the librarian and studio editor of the Library of the Union of the Blind of Serbia “Dr. Milan Budimir”, Boris Dončić, together with the help of the colleagues at the Union of the Blind in Serbia. Their primary inquiry was: How can one interpret and present a visual creation to a person with vision impairment? This raised other related questions: How can the collection of the Museum of Contemporary Art, which comprises over 8,500 artworks – paintings, drawings, graphics, sculptures, objects, installations, photographs, video works and many educational resources – become accessible to persons who are blind or have low vision?

The museum experience is a multi-layered journey that is intellectual, aesthetic, sociological, but also proprioceptive, sensory and emotional. By fostering these experiences, museums become places of learning, wonder, reflection and relaxation, new social connections and the creation of lasting historical memories (Levent and Alvaro (ed.), 2014: xiii). The inclusion of multisensory approaches in creating the museum experiences provides new ways of understanding heritage, enables the creation of an immersive environment, encourages and makes learning more in alignment with the audience than exclusively and dominantly visual and academic approaches (Levent and Alvaro, 2014: 351).

Art has the unique power to evoke compassion and imagination for the lives of others. Therefore, art museums are places where the principles of recognition and inclusion are easily adopted. Art, with its performativity, abolishes the difference between the sign and the signified; it is an experience in living presence.

Returning to the body and senses in interpreting art helps us return to ourselves and respond in an authentic way to the current challenges we face in our daily experience. The benefits of a multisensory approach in museums should not be limited to the communication needs of visitors who have some form of sensory impairment but can help curators and educators improve the experiences of all visitors. Our everyday experiences are multisensory; during the day, we receive different information through our senses. Then, our brain combines these visual, olfactory, and auditory stimuli, and when we touch a surface, all this information meets in multisensory perception, based on which we draw conclusions, find out, react and decide.

Sensory connection plays a key role in creating an immersive experience that encourages emotion, reminiscence and education. Engaging multiple senses can increase the attractiveness of the exhibition, prolong the visit to a certain extent,

and even encourage the visitor to return to the exhibition since such exhibitions and experiences require time. In addition to easing the process of acquiring cognitive knowledge and facts, an intuitive sensory experience fosters visitors' emotional connection and empathy (Levent and Alvaro, 2014: 353).

## THEORETICAL ELABORATION

We believe that we see with our eyes, but it is actually the brain that perceives. We see with our mind, and the eye is only one of the channels through which sensory information reaches our mind, where we process it (Berdžer, 2019: 7). Perception and understanding of the external world are formed by the interpretation of information processed by our sensory systems – sight, hearing, touch, taste, smell, our physical body. The experience and the way in which we will adopt knowledge are predominantly shaped by our previous knowledge, experience, prejudices and expectations, as well as cultural and historical, social background (Panić, 1998: 249). Understanding is an individual but also a social process. In order for the effects of the interpretation to be as effective as possible, it is necessary to enable a more spontaneous and intimate relationship with the artwork being interpreted. One of the frequent mistakes of museum interpretation is excessive reliance on intellect and theory, precisely because of the need to explain in more detail the various circumstances (historical, social, political, philosophical) in which the artwork was created. Relying on intellectual explanations of the content of works of art, we neglect our sensory body, which is vital in building new experiences, spaces for knowledge, learning and experiencing art (Sontag, 1964: 99).

Sensory experience and the audience's perception of the artistic heritage served as the starting point for both exhibitions. The students from the Sculpture department at the Faculty of Fine Arts in Belgrade were invited to propose their own works that would interpret artworks from the museum's collection and bring them closer to individuals with vision impairment.



Figure 2. The Blue Exhibition, MoCAB, 2023  
(photo: Bojana Janjić, MoCAB)



The students worked in a variety of artistic forms and media (from tactile and audio works to performances and spatial, ambient installations) with the intent to convey faithfully the stories, meanings and experiences of the artworks from the Museum collection. In this way, the Museum, in accordance with contemporary museological standards, aims to make its collection accessible to people who are blind or have low vision and to anyone who is willing to explore the artistic heritage of the 20th and the 21st century in an innovative and interactive way. Also, the work featured in the exhibitions provided the students with a better insight into the collection itself as well as the work and procedures of the museum institution.

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## GOALS AND METHODS

The theme of the exhibition is the phenomenon of colour in a world without light, and the main question was how to explain this phenomenon and bring it closer to people with vision impairment. Pastoureau (2012:27) states that colours are “primarily concepts, ideas and intellectual categories.” Having that in mind, the “Blue Exhibition” explains the colour through symbolism and universal meanings built and adopted over the centuries, through history, religion, beliefs, and traditions. Blueness is associated with the transparency of the sky, the depth of the ocean, mountain and heights; from where the meanings attached to the color blue are seen as – infinity, depth, sublimity. We associate a clear sky with optimism, freedom and cheerfulness, while the colour of the night sky and sea depths is darker, more uncertain. Distance, restraint, but also harmony, striving for heights, and sensitivity are associated with the color blue. In psychological interpretations, blue summarises opposites: tenderness and cheerfulness with sadness, sorrow and melancholy. In a sociological context, blue is the colour of rebellion and resistance. During the French Revolution in 1789, navy blue was the favourite colour. In America, the “blue resistance” was brought about by the appearance of jeans on the market in 1920, when the worker’s uniform became a symbol of resistance and youth rebellion (Pasturo, 2011). Therefore, the exhibition focuses on two aspects of blue – “Blue as Sky” and “Blue as Rebellion”. The interpretations produced by the students show a variety of media, materials and approaches. In addition to tactile works and sound elements, artworks from the museum collections were also interpreted through spatial and participatory installations.

Looking for an answer to the question of all questions – how to interpret and bring to mind a work of visual art to a person who cannot see – the students kept in mind that communicating the meaning and value of a work of art involves two aspects. The first one is a physical presence such as form, composition and materiality. The second aspect represents the intellectual, semantical, narrative, emotional and spiritual quality of the work. The meeting point of these two components converges in one’s own experience. The change that experiences bring to the visitor’s life after encountering a work of art is very important when it comes to learning. Interpretation should include information about the subject,

artist, materials and techniques, as well as the historical and social context in which it was created.

Many talks and workshops were held with the students during the first phase of the project. They covered topics such as how to interpret a piece of art, how we experience art in general and what matters to us for that experience, and how crucial the historical, political, and social context is to our comprehension of a work of art. Some conversations touched on the personality of the artist, their surroundings, and the events that shaped them as authors and inspired them to create a certain artwork. Examples of museum interpretations for persons who are blind or have low vision, such as tactile diagrams and 3D printing, that are featured in various art museums were also highlighted throughout the debates. During these discussions, the experience of Boris Dončić, an associate from the Association of the Blind of Serbia, who was involved from the start, was also very helpful.



Figure 3. The Blue Exhibition, MoCAB, 2023  
(photo: Bojana Janjić, MoCAB)

A new model of interpretation engaged different media and approaches, and the priority was activating as many senses as possible. The project opened an inclusive dialogue for the Museum visitors through the exchange of experiences, feelings and opinions. For the first time, the collection of the Museum of Contemporary Art became accessible to the audience that is blind or with vision impairment.

Students were presented with the possibility to select the artworks that would be interpreted and displayed in the exhibition based on their personal preferences and motivations. This gave them greater freedom and flexibility to perceive the artwork intuitively and to communicate that experience more effectively. Stu-

dents were encouraged to investigate the chosen artwork, the ideas it expresses, and the ways in which these values might be further communicated to the audience. The intention was to use touch, hearing, proprioception, and smell to activate the inner eyes as a way of experiencing visual art.

An example of interpreting a piece of visual art through a pure sound installation is the work of Ivan Bon, a PhD candidate at the Faculty of Fine Arts, in response to Radomir Reljić's 1965 *Homo Volans* painting. As the least naturally occurring of all the colours, blue is associated with the sky, height, freedom, and the future. It inspires reflection and is used in chromotherapy to reduce inflammation and cool the body. *Homo Volans* illustrates these qualities. Reljić uses a narrative of man's eternal longing to fly and yearning to transcend his physical body's limitations, his own boundaries, and to achieve the unachievable. Reljić borrowed the name and the main motif from Faust Vrančić, an innovator and constructor from the turn of the 17th century. Vrančić built a flying machine – a flying human being, *homo volans* (Latin for a flying man), after being inspired by Leonardo da Vinci's designs. Reljić sets his flying man against a deep, ambiguous blue background, the colour of the night sky. Beneath the flying construction that the author enriched with wings, a propeller and a zeppelin, Reljić's hero floats, clutching a red rose in one hand. His face is disfigured by a stain, making him an unidentified flying man with an uncertain fate, as it is unclear to us whether he is flying or falling. Aside from all the irony and satire, Reljić's hero has a unique sentimental value that demonstrates the idea that all hopes are in vain, that every attempt to achieve something is bound to fail, and that the only thing that is certain is transience and failure.

The interpretation of *Homo Volans* as the image of the existential drama of a man in the blue sky required a special and subtle approach. Ivan Bon translated the painting into a multi-channel sound installation with different sounds that describe different parts of the composition. Bon used the noises of engines, zep-



Figure 4. Radomir Reljić / Ivan Bon, *Homo Volans*, 1965, The Blue Exhibition, MoCAB, 2023 (photo: Bojana Janjić, MoCAB)



Figure 5. Tomislav Peternek / Obrad Ćešić, Student riots – Red University (2), Belgrade, 1968, The Blue Exhibition, MoCAB, 2023 (photo: Bojana Janjić, MoCAB)

pelin gas firing, aeroplane propellers, wind, and the screams of a falling man to create the sense of a machine that allows a man to rise into the heights of the blue sky. He did this by using sound effects that were positioned on the wall in front of the visitor at various heights and positions to represent each scene and theme from the image. This air battle, this groundbreaking event of human flight, is presented by sound, an intangible stimulus, aligning with the meanings of the colour blue and the sky itself.

Until the 18th century, when the import of indigo from America into Europe rose dramatically, and the synthetic pigment Prussian blue was unintentionally discovered, blue was a rare colour to be seen on clothing. Blue gradually took the role of black in in the army, navy, police, and school uniforms after World War I, most likely due to blue's additional metaphorical meaning of reliability and trust. A black and white photograph by Tomislav Peternek titled "Student riots – Red University (2), Belgrade," 1968, from the Museum's collection captures the moment of confrontation between the police and students on June 3, 1968, in New Belgrade. On that particular day, students marched from the Student City to the University Rectorate building in an effort to make their demands known. That day, Peternek took a number of photographs documenting violent incidents involving repressive actions by government agents and the police. It is evident that the police officers were wearing blue uniforms, even though the picture does not make this very obvious. Obrad Ćešić, an MA student, interpreted Peternek's photograph with an installation of five life-sized dolls dressed in authentic police uniforms from the 1960s.

The dolls were placed in the exhibition's entry area, forcing visitors to move between them in order to experience the oppression and distress of being deprived of freedom. The noises of forced breathing, brutal blows, heavy steps, running, and the police radio are heard from the Motorola radio stations as they stand

frozen in various postures of attack toward the students and public. Češić's multisensory installation emphasised various social themes that are still relevant today, choosing to invoke more sensory emotions from the viewer.

## INTERPRETATION OF RESULTS



Figure 6. The Blue Exhibition, MoCAB, 2023  
(photo: Bojana Janjić, MoCAB)

The “Blue Exhibition” featured twelve artworks from the beginning of the 20th century to the 2020s, all from the museum’s collection, accompanied by an equal number of interpretations made by the students. It was a clear example that museum resources can be activated for a different social and inclusive use – making the visual art accessible to persons who are blind or have low vision while providing the sighted audience with a new experience in viewing modern and contemporary art. The young artists became mediators, offering an unusual and innovative way to experience the artworks from the collection. This exhibition was not an explanation of the artworks from the collection but an invitation to explore and perceive the art with other senses – through touch, smell and sound. Through the sensory, tactile and auditory experience, a more intimate dialogue with the artistic heritage is encouraged; it allows us to activate our “inner eyes” and open our minds to new perceptions; to see more broadly the possibilities that art offers. This exhibition highlights the important role of art – to serve as a guide, to help us get to know ourselves and realise our own possibilities and abilities.

Special attention was paid to accessibility and adapting the venue for easier access to the artworks on the exhibition. Assistance was provided by the experts from the Association of the Blind of Serbia, as well as typhlogologists at the “Veljko Ramadanović” School for Visually Impaired Students. The exhibition space was marked with tactile paving in order to facilitate walking through the exhibition. Along with the interpretive artworks, information about the artworks was provided on labels adapted for people who are visually impaired, but also printed in Braille. Additional information and audio description was made available on audio devices in the exhibition area and on the Internet, easily accessed by scanning the QR code on the label next to the artwork.

Audio description has become an essential tool of accessibility, first applied at the exhibition “In Touch with” in 2019. As a form of intersemiotic translation, it is a verbal description of the visual content (film, series, theatre, opera, dance, performance, sports events, art) in order to make it accessible to persons with vision impairment (Vlaški, 2023). Audio description should be objective and clear. This method of translation can also be useful for sighted people, as it provides insights into details that we often ignore with a superficial view. The audio description was also implemented at the “Blue Exhibition”.

A special accompanying programme was created during the “Blue Exhibition” – the “Unseen Tour”. The programme was designed to be inclusive and accessible to everyone, striving to cultivate a sense of empathy and understanding. The tour was performed by Boris Dončić, the associate with low vision, who guided the blindfolded audience through the exhibition. This programme caused great interest in the audience. With the blindfold, visitors could let their bodies feel fully, ignoring visual limits and surrendering to a multisensory experience; they could feel visual art and “see” in a different way than usual. The audience received instructions in small groups of 10 participants. They were holding hands, and with absolute trust, they let themselves be guided for an hour by a person with a white cane. During the guided tour, the audience was introduced to various accessibility tools such as tactile paving and audio description; they learned about the exhibited artworks through interpretations, listened to explanations of the artworks, and felt the art through touch, sound, smell. After removing the blindfold,

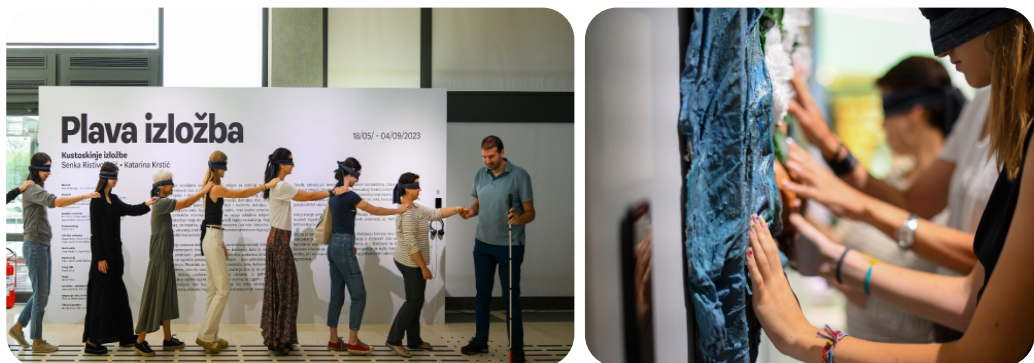


Figure 7. The Unseen Tour, The Blue Exhibition, MoCAB, 2023 (photo: Bojana Janjić, MoCAB)

the visitors shared their observations and described their experiences and feelings, which were very different, from fear and discomfort of moving through the darkness and the unknown, to a feeling of excitement, liberation and tranquillity. The idea of these specially designed programmes was for all participants to meet in the same space and immerse in a purely sensory experience of art, to activate their whole body, to learn to feel, respect and trust each other. Nearly three hundred people experienced this unique guiding experience, and the exhibition itself attracted over 21,000 visitors, making it the most visited exhibition at the Museum of Contemporary Art Belgrade in 2023.

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## CONCLUSIONS/RECOMMENDATIONS

The multisensory design of museum exhibitions is not limited to superficial design for enjoyment only; it is also a catalyst and mediator of knowledge and wisdom through emotional engagement, remembrance and reflection. Visitors are active participants in the interpretation of works of art and interpret their own heritage with immediacy.

The experiences of the “Blue Exhibition” have shown that the creation of a multisensory experience and a space for experiencing art directly contributes to the adaptation of museum contents and learning not only for people with vision impairment but ultimately for all museum visitors as well. Treating the museum exhibition as the framework for an interactive setting for art experience, we are liberated from learning strategies that are not suitable for each and every one of us. It offers visitors the flexibility to choose how they prefer to interact with the artworks on display. The enjoyment derived from engaging in heritage interpretation is unquestionably a significant component of multisensory installations.

The involvement of young artists, students of the Faculty of Fine Arts, in the process of interpretation and production of the exhibition was extremely important. This aspect adds another level to the multilayered inclusivity of both exhibitions and work methods. While reflecting on and discussing artistic heritage and ways of seeing and interpreting visual art forms and narratives, the students showed great interest in heritage but also in different ways of communicating with the audience. The working method discussed here is a proposal for how museums in times of change and transformation can respond to ever evolving circumstances and offer more flexibility and openness to different audiences. The above examples represent platforms for further development of sensory and inclusive heritage interpretation programs. Through improving the accessibility of museums and museum contents, the sensibility of museum employees develops, and the audience that comes to the museum broadens – this is where the most important aspect of inclusion takes place. The exhibition, which places a heavy focus on the visitor’s body and sensory systems, was devised as a resonant place where a person and their understanding and growth are central, generating a museum accessible to all, a place where everyone is welcome, with no physical or mental limitations.

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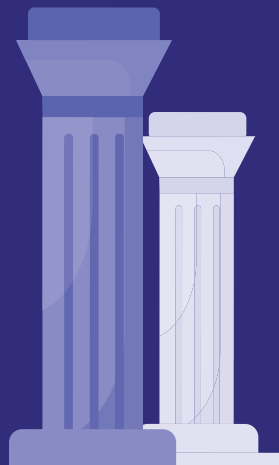


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# THE PAVLE BELJANSKI MEMORIAL COLLECTION: A MUSEUM FOR ALL

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Milica Orlović Čobanov  
The Pavle Beljanski Memorial Collection



## ABSTRACT

*The principles and standards of accessibility have their application in all areas of life, which is also the case with art for people with disabilities. Their participation in the presentation of cultural heritage, whose most important form is inclusion, is a part of the cultural approach of every museum. Since 2011, The Pavle Beljanski Memorial Collection has been directing educational work towards specific target groups with an emphasis on the persons who are blind, visually impaired, deaf or hard of hearing, intending to bring its programmes as close as possible to the most diverse audiences. During the pandemic in 2020, the Memorial Collection continued to enrich and enhance the educational online content in order to improve digital interaction with the audience. Some of the museum's projects, such as the mobile apps development and curatorial tours with interpretation in sign language, have been posted on the institution's website to ensure inclusion in everyday life and address their aesthetic and cultural needs. The rich tactile segment of the Touch and Feel permanent exhibition, and the Museum for All project by interpreting works of art in sign language, bring this unique collection closer to people with sensory disabilities.*

**Keywords:** accessibility, sensibilization, inclusion, tactile gallery, mobile application, sign language, theatre

## CREATING INCLUSIVE PROGRAMS FOR THE PAVLE BELJANSKI MEMORIAL COLLECTION

In recent decades, cultural institutions have been making significant efforts to create inclusive environments for their visitors, who have been underrepresented or marginalized. As a respectable social group, persons with disabilities possess the creative potential to contribute to society and serve as valuable contributors that can not only enhance public engagement but also, through their involvement and abilities, become valuable sources of inspiration for all people engaged

in creating a cultural offer (Masliković, 2015). Government bodies in Serbia, including the Ministry of Culture, have adopted the social model, as evidenced by legislation and the “Guidelines for Implementing Activities to Ensure Unhindered Access to Content and Programmes of Cultural Institutions for Persons with Disabilities”, which the Ministry adopted in 2007. It is evident that people with disabilities have the right to participate in the cultural life of their communities, visit cultural institutions, and experience art just like everyone else. This is why there has recently been a growing number of inclusive programmes in museums.

The reason for their growth lies in understanding the audience’s needs and collaborating with the users for whom these programs are intended. Their implementation fosters the development of professional skills and encourages the adoption of new methods for working with the public. In the long term, this opens up the possibility for the institution to increase the number of visitors and associates, ensuring sustainability in the future.

In museums, inclusion plays a crucial role in social activities and opens up various perspectives, among which understanding the audience is paramount, as each category presents specific challenges. To implement such programmes, inter-institutional cooperation is essential for building on knowledge and experience, given that inclusion is a relatively new field in Serbian culture.

Although data indicate that museum institutions are not doing enough regarding accessibility and inclusion, it should be noted that there have been positive developments. Among the 20% of museums that meet accessibility criteria, there are examples of excellent innovative practices. The National Museum of Leskovac and The Knjaževac Heritage Museum are institutions that have systematically addressed accessibility for many years and have met multiple criteria, from removing physical barriers to providing accessible online presentations, communication, and inclusive programs. Among other good examples, Dunja Karanović highlights in 2023 The Pavle Beljanski Memorial Collection, The Gallery of Matica Srpska, The Gallery of Fine Arts Gift Collection of Rajko Mamuzić in Novi Sad, The City Museum of Sombor, The Museum of Yugoslavia, The Museum of Contemporary Art, and The National Museum in Belgrade. These institutions are recognized for continuously creating programmes and content for people with disabilities, children, and the elderly. Her research shows that venues that follow the principles of universal design are more popular among visitors, and the removal of barriers facilitates access for wider population, such as children, pregnant women, and the senior citizens. The means that we can apply and that definitely yield long-term results involve continuous education about diversity from the youngest age, through the practice of universal design in all segments of life. Sensitization and education should start from the age when discussions about diversity occur directly, subtly, and daily because these are the moments when the personality is formed; professional development should involve the inclusion of universal design in programmes of humanities and engineering studies; diversity should be visible in everyday life and the media; the application of universal design principles should take place in all segments of life (Nikolić, Isakov and Kekić 2021).

For this reason, The Pavle Beljanski Memorial Collection collaborates with a variety of associations, schools, other museum institutions, both in the country and abroad, as well as with advisors for universal design. Inclusive design is a broad term describing the extent to which a product, service, or system can be used by a large number of people without requiring modifications. As stated in the guide of the British Standard Institute (2005), the role of the inclusive design system in societal accessibility is significant, encompassing all segments, layers, and the entire population.

In an effort to allow people with disabilities to experience The Pavle Beljanski Collection, several projects have been implemented in collaboration with the “Milan Petrović” School for Primary and Secondary Education in Novi Sad (Prof. Snežana Nikolić, a typhlogologist) and the Association of Sign Language Interpreters and Translators from Novi Sad (Nina Baranovski, a sign language interpreter). These projects, initiated in 2019, are tailored to visitors with visual and hearing impairments and have been unified under the name “Museum for All”. Among the projects that stand out is the Touch and Feel tactile exhibition designed for persons that are blind or visually impaired, along with the Museum for All application tailored to people who are deaf and hard of hearing, as well as anyone who wishes to experience art in an extraordinary way. Integrating applications on tablets, audio guides (with descriptions), graphic (tactile) reliefs, and tactile route guides enables all museum visitors to equally experience art in a new and more comprehensive way. In 2011, the pilot steps were made for the inclusion of blind and visually impaired people, with elements for them as a part of larger exhibitions. Based on these experiences the project and exhibition were made for that group in 2014.

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## TACTILE EXHIBITION

The project titled **Touch and Feel Ten Artworks from the Pavle Beljanski Collection** (2014), designed for people who are blind and visually impaired, transforms the artworks into unique educational tools, aiming to provide different experiences both psychologically and contextually. This approach introduces ten works by seven artists from the Pavle Beljanski Collection, connecting their creators and visitors through the sense of touch: using diagrams for paintings and replicas for sculptures, which helps raise social awareness about the importance of adapting museum spaces and programmes for visitors with disabilities.

The tactile path and diagrams, Braille legends, plaster sculptures casts, and audio guides on DAISY flash players, as essential parts of this exhibition, allow paintings to be appreciated and experienced, and sculpture to be touched and perceived. The sculptures for the tactile collection were selected based on the suggestions of Snežana Nikolić, a person with visual impairment and a specialist in typhlogology at the “Milan Petrović” School for Primary and Secondary Education in Novi Sad. The chosen items depict people and women of different ages, as well as animals.



Figure 1. Touch and Feel poster (left); Tactile setting - plaster casts (center and right);

Today, the works from the tactile collection appear regularly in the permanent exhibition, ensuring that the accessible medium of the Pavle Beljanski Collection is always present in the museum. This section is consistently enhanced with new tactile exhibits, leading to improved accessibility by offering a substantial portion of the Pavle Beljanski Collection in the future. This simultaneously and continuously reaffirms the need and potential for presenting works of visual art in an accessible format within museums that preserve and exhibit art collections based on specific concepts, such is the legacy of Pavle Beljanski.<sup>2</sup>

This project and its concept have highlighted various opportunities of inclusive programmes in the institutions of culture, thus also creating ambience that fulfils the cultural and aesthetic needs of persons with disabilities. Such display of sculptures and graphic diagrams helps people with visual impairments to interact physically with museum exhibits for the first time and develop a tactile-kinaesthetic perception, significantly easing their navigation in everyday life. The tactile exhibition has sparked interest even among the population without these disabilities, who typically experience art through more than one senses (sight, touch, hearing), especially among the youth, enabling them to perceive artworks in a different, more comprehensive manner. This is a result of the fact that the true and comprehensive experience occurs when the artwork can be perceived with as many senses as possible, not just through the sense of sight.

Examining artwork in this way enables complete sensory integration. Satisfying basic human needs, along with access to healthcare and educational institutions, is not sufficient. The life of individuals with disabilities also requires a meaningful existence, which includes cultural care. In order for persons with disabilities to be visible and recognizable in society, it is necessary to provide them with an accessible environment, rather than just visibility in certain segments of social life.

2. This tactile exhibition includes 19 pieces from the Memorial Collection (7 replicas and 12 diagrams). Since 2015, the tactile exhibition has presented selected works at the National Library of Serbia in Belgrade, the National Museum in Kikinda, the National Library in Užice, and the libraries "Dimitrije Tucović" in Lazarevac and "Ljubomir Nenadović" in Valjevo.

## A MUSEUM FOR ALL

The project titled A Museum for All was launched in 2019 with the goal of raising awareness of cultural institutions and the local community. This elaborate project was conceived to address the cultural and aesthetic needs of visitors with hearing impairments. The “Novi Sad – European Capital of Culture” Foundation, in the year of the city’s cultural reign, supported a unique creative cluster to enable museum institutions in Novi Sad to prepare their exhibition venues for welcoming visitors with hearing impairments.

The primary goal was to support the people who are deaf on their journey towards social affirmation. Making cultural content accessible to individuals for whom sign language is the primary means of communication has enabled the participants of this project to enjoy one of the fundamental human rights – the right to freedom of thought and expression, including the right to receive and spread information.

At the initiative of The Memorial Collection, an application in sign language has been developed for the purpose of this project, facilitating the presentation of selected artworks from four Novi Sad museums: The Pavle Beljanski Memorial Collection (27 pieces), The Gallery of Matica Srpska (18 pieces), while The Museum of Vojvodina and The Museum of Vojvodina’s Annexation to the Kingdom of Serbia (47 pieces). An application with integrated textual and video guides created for 92 exhibits from four museums has made the artworks more accessible to the people who are deaf. Examples of good practice and experiences from the surrounding institutions, particularly those of colleagues from the National Museum in Zrenjanin, served as a guideline for devising the platform. The project promotion, fully supported by the “Novi Sad - European Capital of Culture” Foundation took place on December 4, 2019, on the eve of the impending world health crisis.

In addition to the interactive application for visual presentation of the museum in sign language, other activities were also included in this project, accessible to the general population as well. Simultaneous expert tours, children’s workshops, a brochure featuring sign language motifs, equality training, and training for museum staff were among the other activities encompassed within this project. The fundamental question for the majority of employees, both personally and professionally, is how to appropriately treat people with disabilities. It is only natural for this question to evoke fear when engaging persons with disabilities for the first time, prompting the query of whether contact should be established in a special manner. However, persons with disabilities, like everyone else, prefer to be treated in a friendly manner and with respect.

## ПРОЈЕКАТ „МУЗЕЈ ЗА СВЕ“



Figure 2. Flyer of the A Museum for All project

In the coming years, this project will continue its journey by expanding activities that it covers: hiring sign language interpreters for museum programmes, providing simultaneous expert tours in sign language, uploading new tailored video clips with interpretations of artworks to the Memorial Collection's YouTube channel, and sharing links with information on the Facebook pages of the Sign Language Interpreters and Translators Society and the museum.

In 2020, the existing platform with the sign language application was complemented by stories about artworks from the Pavle Beljanski Collection, published in the "Art as a Sign" brochure, aiming to acquaint young persons with hearing impairments with basic concepts from the world of art through sign language. Expanding the multimedia application with interpretations for children is yet another of the countless possible upgrades to a system that has proven to be a sustainable foundation for supporting a wide range of future ideas.

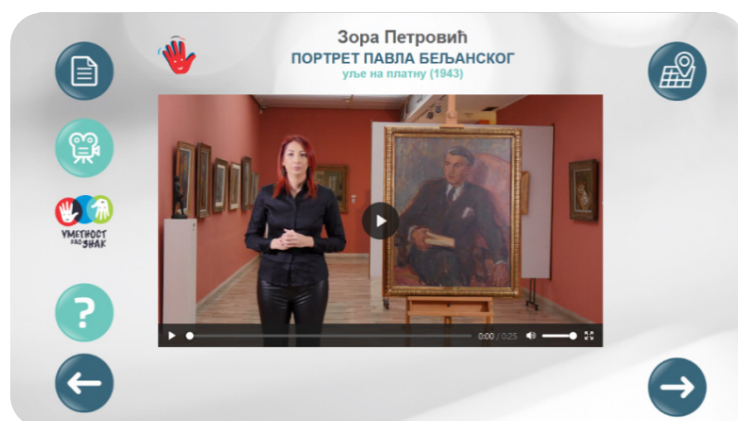


Figure 3. Application of the Pavle Beljanski Memorial Collection and logo signs of the projects



Figure 4. Performance of Six Portraits of Pavle Beljanski in sign language (left); Alicia Hamza's interpretation of the First Time at the Museum handbook (right)

Another Memorial Collection publication aimed at children – *The First Visit to a Museum*, published in 2015, has also been utilized for these purposes. This is the first children's guide on museum etiquette and its purpose was to help every user of this booklet to overcome the fear of their first museum visit and to emphasize the importance of following museum rules and being cautious around museum exhibits.

Based on this edition, a video clip in sign language was recorded in 2021, in collaboration with the Sign Language Interpreters and Translators Society from Novi Sad. The video features young associate, Alisija Hamza, who interprets the basic rules of conduct at a museum exhibition. In 2023, continuing the collaboration with the Sign Language Interpreters Society resulted in producing eight short video clips on the theme of the children's programme titled "The Museum Detective", held in 2015.<sup>3</sup>

A Museum for All is a project conceived with the idea of popularizing museums among people with disabilities, as well as raising awareness within museums about the need to adapt venues and programmes to divergent museum audiences. Each year, this project evolves with new forms of communication, thanks to the involvement of numerous citizens' associations.

The Pavle Beljanski Memorial Collection's theatre play, *The Bohemians of Montparnasse*, was recorded in sign language. This was done in cooperation with the Association of Interpreters and Translators for Sign Language, the "Mišolovka" Youth Theatre and with the support of the City Office for Culture of the City of Novi Sad. A special performance of this play for persons with hearing impairments was uploaded to the YouTube channel of the Sign Language Interpreters and Translators Society on December 3, 2022, to mark the International Day of Persons with Disabilities. In addition, another play titled *Six Portraits of Pavle Beljanski* was interpreted in sign language and performed as a part of the Museum Theatre Festival in 2023.<sup>4</sup>

3. <https://rukegovore.org.rs/muzejski-detektiv-na-znakovnom-jeziku/>

4. In 2022, The Memorial Collection was equipped with a wheelchair ramp at the entrance of the building, designed and constructed according to current regulations and standards (Regulations on Technical Standards for Planning, Designing, and Construction of Objects, ensuring unhindered movement and access for people with disabilities, children, and the elderly, 2019). The project was implemented using the funds obtained from Call of the Ministry of Culture and Information in the field of cultural activities for persons with disabilities, as well as donors from General Insurance Serbia.

## COMMITMENT TO INCLUSION

The Pavle Beljanski Memorial Collection has been recognized as a leading institution in implementing principles of accessibility in its exhibition policies and educational programmes. Inclusive programmes trigger key mechanisms that establish the foundation for implementing inclusiveness and integrating individuals with disabilities into the cultural life of the community. The rich tactile content of the Touch and Feel permanent exhibition and the project titled A Museum for All, with interpretations of artworks in sign language, bring this unique collection closer to individuals with sensory disabilities.

Since 2011, when the Memorial Collection started developing inclusion programs, step by step, they became regular parts of museum yearly programs and the funding became more stable. Successful projects and programs within The Memorial Collection developed the understanding of the needs of vulnerable communities in our society, and connected museum with them and their organizations. The future plans include the improvement of the current inclusion programs through an interdisciplinary and creative approach, following the most recent trends in the field. The future presentations and promotions of the museum's inclusive programs through cooperation will make them more visible to the wider audience.

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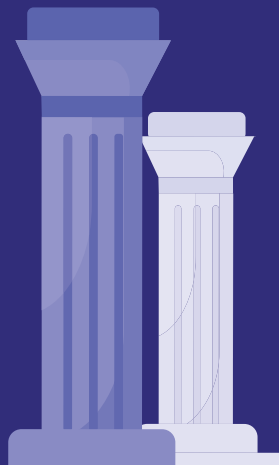


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# A MUSEUM FOR ALL: EXPERIENCES OF THE GALLERY OF MATICA SRPSKA IN IMPLEMENTATION OF THE "UROŠ PREDIĆ FOR EVERYONE" PROJECT

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Ivana Rastović, Jelena Bobić  
The Gallery of Matica Srpska



## ABSTRACT

*In the Republic of Serbia, all legal regulations which prevent any cultural discrimination have been ratified. However, due to various circumstances, cultural contents, programs and activities are still not available to all visitors, especially to people with disabilities. This fact was pointed out in a comprehensive research undertaken by the Institute for the Study of Cultural Development. According to the results of this study, only 20% of museums in Serbia are accessible in terms of their strategic and organizational framework of accessibility, architectural and urban planning accessibility, or their inclusive programs and communication and informational framework of accessibility. Recognizing this as a crucial problem, The Gallery of Matica Srpska, as a museum with a clear idea to take a step forward and show that it is opened to all visitors, implemented the "Uroš Predić for Everyone" project during 2022. The project was designed with the aim of showing how different obstacles (architectural and physical, informational, technological and communicational) can be overcome, as well as to raise the awareness and improve the position of people with disabilities in all fields of cultural life. Through the realisation of this project, the oeuvre and life of Uroš Predić were brought closer to a wider audience - children, youth, the elderly and people with disabilities (sensory, physical, and intellectual), in accordance with the highest museum standards .*

**Keywords:** museum for all, accessibility, inclusion, multisensory communication.

## INTRODUCTION

Accessibility is a term that refers more to the individual and the creation of conditions that allow the visitor to have the best possible experience in the museum. Inclusion is a more comprehensive term that addresses issues from the domain of public policies and the wider community (Milankov et al. 2022). In the context of the museum, it pertains to its mission. The social environment is generally tailored to the majority of the population, leading to the marginalization of minority groups. As a place of informal education, the museum offers countless opportunities to establish contacts with and include all marginalized groups in society. By reconstructing its building in recent years, the Gallery of Matica Srpska has met all the requirements for removing obstacles for people with physical disabilities during their visits. Indoor and outdoor elevators were installed in 2017, followed by a specially equipped toilet for disabled persons in 2020 (Palkovljević Bugarski, 2021). However, these efforts are only the initial steps on the path towards including people with disabilities in the cultural life of the community (Ognjanović, 2023). Moreover, cooperation with the local community, non-governmental organizations and associations was developed to jointly make the collection accessible to people with disabilities. (Gibbs et al. (ed.), 2007). In the year 2022, the Gallery of Matica Srpska celebrated its 175th anniversary. The celebration was crowned with the monographic exhibition of Uroš Predić, one of the most important painters for Serbian national art and the Gallery. Additional value to the “Uroš Predić. Life Dedicated to Beauty and Art” exhibition was provided by the realisation of the “Uroš Predić for Everyone” project that made it accessible to all visitors of the Gallery, as well as children, youth, people with disabilities and the elderly.

Given the complexity of the project, which involved not only the removal of physical barriers, but also enabling unhindered learning, sharing of information and multi-sensory communication about the artworks and creativity of Uroš Predić, the team of the Gallery of Matica Srpska collaborated with other cultural and civil institutions and organizations. Experts from the Typhological Museum in Zagreb (Croatia) provided very significant support, as the only specialized museum for people with disabilities in Europe. Moreover, experts from the Kunsthistorisches Museum in Vienna, who have been creating inclusive and participatory programs for many years, also shared their precious expertise on this issue. The Gallery’s experts visited their partners in Zagreb and Vienna to learn about the examples of good practice in inclusive programs and to gain further education on the implementation of inclusive programs and adaptation of exhibition contents in accordance with the up-to-date museum standards. Professional support during the entire project was also provided by associates from the “Milan Petrović” Elementary and Secondary Boarding School (for students with disabilities), the Association of the Blind of Vojvodina, the Society of Interpreters and Translators for Sign Language and Mrs Marija Vrebalov Đorđević, an adviser for universal design.

In order to become familiar with the topic of accessibility and get training on how to work with people with disabilities, all employees of the Gallery of Matica Srpska who work with the public, took part in a full-day training organized by the Typhlological Museum from Zagreb called "A Museum for All". The aim of this education was to get the employees from cultural institutions acquainted with the theoretical and practical knowledge essential for working with visitors with disabilities.

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## MULTISENSORY EXHIBITION COMMUNICATION AND PROGRAMS FOR VISITORS WITH DISABILITIES

To enable art to be perceived not only visually, but also through tactile and auditory senses, the team of museum educators at the Gallery, in collaboration with project partners, created five tactile models of paintings for visitors that are blind or visually impaired, along with audio descriptions of the paintings and the models accompanying them. By touching these tactile models and listening to specially prepared audio descriptions, visitors who are blind or partially sighted could experience five masterpieces of Uroš Predić – "Sulking Little Girl", "Maiden at the Well", "Kosovo Maiden", "Merry Brothers" and "Self-Portrait".

By far, the most used method of creating tactile versions of two-dimensional artworks was creating tactile graphics, as transformed representations of images, by using printers that use heat sensitive capsule paper. Controlled heat source of these printers causes any black lines, letters or shapes that are drawn, printed or copied onto the capsule paper to swell and the result is a tactile graphic (The Braille Authority of North America, 2010). By touching the tactile graphic, persons who are blind or partially sighted get to experience the artwork to some extent, as they do not perceive the aspect of depth, only the outline. In accordance with the technological development and following the good practices and instructions of the project partners, the museum educators in the Gallery decided to create three-dimensional models of paintings by using 3D printer technology. 3D printing is a process of making a physical object from a three-dimensional digital model, typically by laying down many thin layers of a material in succession. When it comes to creating a three-dimensional model of a two-dimensional artwork, it is done as a relief that has some important details made to be three-dimensional. This way of making tactile models gives better understanding of depth in the painting. In addition, these tactile models can be colored to look exactly like the original artwork. That way, persons who are partially sighted and can see to some extent have the opportunity to experience both the tactile aspect and the visual aspect of the model.

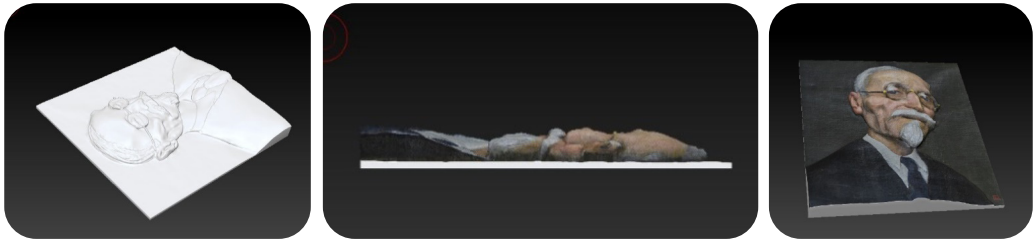


Figure 1. Process of making 3D tactile models of paintings

During the process of creating these tactile models, the museum educators have experienced some challenges, and the most challenging part of the process was to determine what details to point out in the more complex compositions. 3D printing has proved to be a very effective method with simple portraits, since only the person in the portrait is pointed out in the tactile model, while the background is flat. However, when it comes to compositions that depict space, more figures and details, producing 3D models was much more problematic. The steps are similar to the creation of tactile graphics – planning the process, resizing the original painting, editing, simplification and elimination. When creating tactile models of paintings, museum educators chose to point out only the most important details, such as the main characters and one or two important objects, while the background was kept flat. That is why audio descriptions were made, to make the experience of an artwork complete and to tell the story about the paintings.

Tactile models were placed on a pedestal and next to them there was the label written in Braille and an object that resembles the one in the painting. For example, next to the tactile model of artist's "Self-Portrait", museum educators placed glasses that resemble the glasses that the artist is wearing in the painting, and next to the tactile model of the "Maiden at the Well" painting, there was an example of embossed folk embroidery that resembles the embroidery on the clothes of the girl in the painting. These objects were placed there to enrich the tactile experience of the visitor and they were also mentioned in the audio description. For all technical instructions, such as the dimensions of the pedestals and show-cases, the fonts size for labels, etc. we advised a guidebook written by the experts in the field of inclusion (Isakov et al, 2019).

The audio descriptions that visitors listen to while they are experiencing artwork include information about the exhibition, as well as detailed descriptions of the artworks and the tactile models (American Council of the Blind, 2009). The voices were recorded by experienced actors with well-trained diction. Where there were quotes written by the artist, the voice would change to give the illusion of the artist himself speaking. In addition, while the actors are telling the story about a painting, the background sounds that could be coming from the painting would be played, for example the sound of horses running or people singing in the distance. These sounds give another dimension to the listener's experience, as was

confirmed by the visitors who are blind or partially sighted. After the short story about the painting, the detailed audio description of the tactile model starts with instructions about where to place their hands. These descriptions are full of details about every part of the tactile model that the visitor can perceive by touching it. Museum educators, who wrote these descriptions, tried to make them poetic and vivid, in order to enhance the visitor's experience (Milanović, 2022).

In addition to the tactile models of paintings, a tactile map with a relief representation of the exhibition space was created (Isakov et al, 2019). Directional guides in the form of tactile guide paths were also created and installed for unhindered mobility throughout the venue. While creating the map, it is very important to only point out the space where the visitor who is blind or partially sighted can move. That means that only the entrance, the artworks that have the tactile models, the path that leads to them and the toilets are in the map. This is important as it includes only the most important information for the visitor who is blind or partially sighted, and it excludes the confusion when there is too much information that is not relevant to the visitor.

For the needs of visitors that are blind or partially sighted, the exhibition catalogues, as well as the introductory label, were printed in Braille. The catalogue also includes an audio recording on a memory drive attached to the back of the catalogue. Thanks to the exhibition catalogue written in Braille alphabet and its audio recording, visitors who are blind or partially sighted had the opportunity to complete their knowledge of the life and work of Uroš Predić.

After the exhibition closed, the National Museum in Belgrade, the City Museum of Belgrade and the National Museum in Zrenjanin were given tactile models of paintings that they had loaned the Gallery from their collections ("Merry Brothers", "Kosovo Maiden" and "Self-Portrait") together with audio descriptions and catalogues in Braille. In this way, even after the exhibition was over, the Gallery of Matica Srpska enabled the visitors who are blind or partially sighted to get to know the works of Uroš Predić in other museum collections, as well. Two tactile

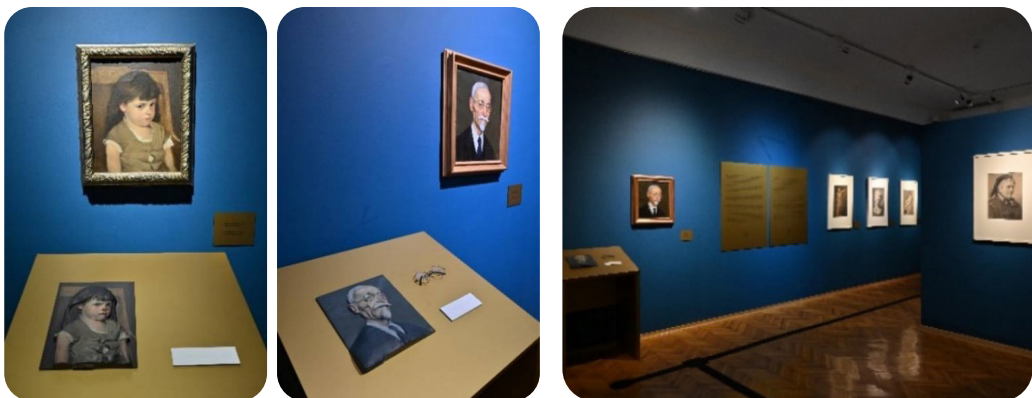


Figure 2. Tactile models of paintings

models of paintings from the Gallery's collection have become a part of its permanent exhibition ("Sulking Little Girl" and "A Maiden at the Well"). By exhibiting these tactile models in the permanent exhibition of the the Gallery of Matica Srpska and museums in Belgrade and Zrenjanin, the needs and rights of people with disabilities to participate in the cultural and artistic life of the community were emphasized. Also, this gesture had a positive influence on the attitude of the public towards people with disabilities and motivated other museums to make their venues and artworks more accessible.

In cooperation with the Society of Sign Language Interpreters and Translators, lectures and curatorial guidance through the exhibition with simultaneous translation into sign language were organized in the Gallery. In this way, Predić's life and work were brought closer to the community of visitors who are deaf or hard of hearing. Given that people with hearing impairments cannot listen to the curator's stories and expert lectures, in cooperation with the Association of Sign Language Interpreters and Translators, museum educators and curators realized 10 expert interpretations of the exhibition and three lectures with sign language translation. With the idea of making artistic creativity accessible to all visitors, by simultaneous translation into sign language, we wanted to point out the importance of creating a society of successful, free and selfless people in which persons who are deaf and hard of hearing exercise their right to use a sign language.

Through the long-term cooperation with the Per. Art Association within the project "Uroš Predić for Everyone", a cycle of inclusive workshops was realized for persons with and without intellectual disabilities. In this way, the life and work of Uroš Predić was interpreted to people with disabilities. At the same time, they were provided with a better quality and more meaningful daily life and their integration into the social community was improved. At the art, drama, music and dance workshops, the participants had the opportunity to get to know each other better through the creative workshop process, as well as to create new social situations and relationships together.



Figure 3. Accompanying program of the exhibition translated into sign language



Figure 4. Inclusive workshops with Per.Art organisation

## PROGRAMS FOR VISITORS OF DIFFERENT AGE GROUPS

With the intention of introducing preschool and elementary school children to the life and work of Uroš Predić, the educational program “Once Upon a Time There was a Painter. Uroš Predić” was implemented. The program was carried out in the exhibition venue in front of the original artworks, created by the brushstrokes of one of the most important Serbian artists. For the purposes of the educational program, the Children’s Room, as a space in the Gallery with which children identify, was arranged as Uroš Predić’s art studio. Observing the works of art and the inventory of the studio with museum educators, children had the opportunity to get to know this great Serbian painter. The program was accompanied by a uniquely illustrated and written children’s publication, with reproductions of artworks and interactive tasks. In order to provide the children with an opportunity to enrich their language skills through artistic stories, the publication was also translated into English, French and German. In addition, a family guide was created in Serbian and English called “The Trail of the Painter’s Brush”. It contains various tasks and games that direct attention to the observation of artworks and reveal stories about them.



Figure 5. Educational programme for children

In order to introduce young people to the work of Uroš Predić, Mileta Poštić, a famous Novi Sad artist, presented him as a comic book hero. By reading the "Wisdom and Folly Go Hand in Hand. Uros Predić in a Comic Book" comic book, young people had the opportunity to enter Predić's artistic world in a unique way and to discover interesting stories from his seemingly peaceful life. In addition to this comic book, workshops were also organized in the Gallery, led by the Gallery's curators and museum educators together with Mr Poštić. On the other hand, students of the "Bogdan Šuput" Design School from Novi Sad were invited to paint their works in the exhibition space, inspired by the works of Uroš Predić. Therefore, they gave a unique contribution to the promotion of creativity among young people through the experience of the work of this important artist. Students' works were presented at the "Uroš Predić as an Inspiration" exhibition held in the Gallery of Matica Srpska, exhibiting 20 students' works that were created by observing and reflecting on Predić's artistic oeuvre.

As a part of the project, curators and the museum created the "Predić in the Suitcase" program for the users of homes for the elderly with mobility impairments who are therefore deprived of engagement in cultural and artistic contents. Museum educators visited nursing homes in Novi Sad and through a virtual tour and the reproduction of artworks and catalogues brought the entire exhibition closer to the users.

Before the exhibition closed, the team of authors from the Gallery of Matica Srpska, in cooperation with partners and representatives of the Institute for the Study of Cultural Development, held a one-day conference titled "Museums and Inclusion". The conference was intended for museums, galleries and other institutions of culture, as well as organizations and associations dealing with inclusion and inclusive programs, in order to assess and improve the position of people with disabilities in the cultural life from different aspects.



Figure 6. Educational comic book workshops with artist Mileta Poštić



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## CONCLUSION

By realising this project, the importance of inclusion of people who are marginalised in the society and who cannot participate in the cultural life of their community because of the communicational and physical barriers has been brought up to attention to the public. However, it is very important to maintain the continuity and keep developing similar projects and programs so that the participation in the cultural life in the community becomes a part of everyday life of people with different kinds of disabilities. Having this in mind, our idea is to make the new permanent exhibition of the Gallery of Matica Srpska accessible to people with disabilities and to create the strategy of developing accessibility in the Gallery. The “Uroš Predić for All” project and the complexity of its implementation showed us how important it is to have a strategic approach in the implementation of accessibility programmes because, so far, it has been done only in accordance with the current possibilities and therefore the work has been incomplete. The biggest challenge in our work so far has been the process of making artworks accessible to the visitors who are blind or partially sighted. Even though there are many theoretical accessibility guidelines, there are different opinions on choosing the ones that appropriate to different situations in practice, which forces the persons in charge of making the exhibition or the venue accessible to make some decisions on their own. With our current experience, we think that we should provide encouragement to people in this field, thus making accessibility much more approachable to different institutions.

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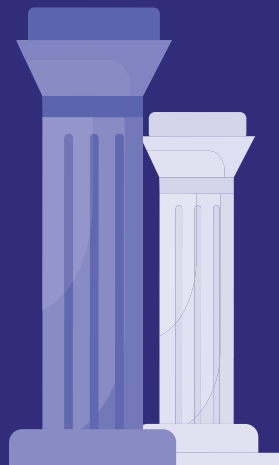
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# „NATURE TO TOUCH“ – EXHIBITION ADAPTED FOR PERSONS WITH DISABILITIES

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## ABSTRACT

*With the changing role of museums in society, they become centers of education, social events and entertainment. At the same time, the inclusiveness and availability of content for all types of visitors is often overlooked. One of the ways in which people with disabilities can experience the exhibition is the display of copies of the original exhibits, which can be touched freely, the creation of audio and video content, and the creation of guides in Braille. The Natural History Museum of Montenegro has incorporated all these into the exhibition called “Nature to Touch”, which, due to great interest, has been touring the region for months.*

**Keywords:** 3D models of living world, tactile exhibits, audio and video content.

## INTRODUCTION

Today’s museums are not just places to display museum exhibits that are kept behind glass for future generations. The role of museums is changing (ICOM, 2022). They become centers of education, social interaction, entertainment, multidisciplinary scientific investigation and cultural events. For some visitors, they are places where they find inner peace.

Simultaneously, museums must be available for all kinds of visitors, meaning not only people of different ages or educational levels, but they need to cater to people with mobility issues or sensory difficulties. Setting up a wheelchair ramp is the most common first step; unfortunately, that is the only step that many museums have taken. It must be followed by ways of presenting museum exhibits so that they are accessible to both people who are visually impaired and people who are hearing impaired.

Museums in Montenegro dedicate very little attention to the accessibility issues. Visitors could not touch the objects on display, there was no other way to access information about the exhibition other than written texts or being guided through

the exhibition by a museum guide. However, museum guides are not educated on how to interact with people with disabilities.

We have only witnessed one exhibition that has been adapted to people with disabilities. It was the “The Beauties of Montenegro on the Palm of your Hand” exhibition by the Library for the Blind which opened in November 2019. There were 23 exhibits, printed 3D objects, that represent examples of cultural heritage of Montenegro. An audio guide for each item was recorded, with short text printed on black press and in Braille alphabet.

Museum visitors thought those touchable 3D printed replicas enhanced their museum experience and agreed strongly that they should be present in more museums (Wilson et al. 2017). This prompted us to think about presenting the natural history material in an exhibition that would be fully adapted to people with disabilities.

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## GOALS AND METHODS

Experiences in museums must be multi-layered, they must not be reduced to just looking at exhibits from a certain distance and reading information. Museum settings should excite our senses, our intellect, and produce lasting memories. Museums need to combine complex interactions between visual, auditory, olfactory, spatial, and other aspects of the visitors’ experience (Levent and Pascual, 2014; Bjerregaard, 2015).

Exhibition of museum artefacts is the main form of museum communication. The „Do not touch!“ warning is a usual component of museum exhibitions in Montenegro, regardless of the type of museum. It is also understandable considering that they present original historical facts and objects that must be preserved. Touching as a form of interaction with the object is a way to change and improve the visitor’s experience.

This led us to the idea of using touch to enable visitors who are visually impaired to feel the object, and to receive information about it using from an audio recording. People who are hearing impaired access information about the objects by watching video recordings and by reading texts provided on the panels. The easiest way to activate the audio and video tracks is to scan the QR code that is placed on each item. In addition, the audio track can be activated using a separate audio device with headphones, also for each model.

## RESULTS

Communication between a visitor and museum item depends on the exposure technique. The success of the exhibition depends on whether the exhibition technique is appropriate to successfully convey the messages to the visitor. Our initial idea was to show enlarged models of smaller living creatures - insects and other invertebrates, with details that the vast majority of museum visitors do not see in nature. We began by creating models of the scorpion, spider, praying mantis, greater stag beetle and mole cricket. Following the successful creation of initial models, they were presented to the public as a part of a larger exhibition.

Developing the models as faithful enlarged copies of the original, we came to the conclusion that this is the best way for people who are visually impaired to experience the shape and texture of a living being. We continued to make models and added the following species: common bottlenose dolphin, European eel, sparrow hawk, Dalmatian pelican, six species of fungi, mosses, loggerhead sea turtle, alligator, alpine salamander, fire salamander and northern pike. In addition to their shape, the models are also identical in color to the natural appearance of the species, so that other visitors can have a complete experience (Figs. 1 and 2).



Figures. 1 and 2: Details from „Nature to Touch“ exhibition, Natural History Museum of Montenegro

Interesting information about the ecology of each species was prepared by the curators, and an announcer read and recorded it to be used as an audio file. The audio file was also used as the basis for a video composed of photographs and video sequences about the species in question. In addition, the same text was printed on large posters. In this way, in addition to each individual being able to feel the object, people who are visually impaired could hear the audio and people who are hearing impaired could watch the video and read the printed text. The text is also printed in Braille.



Figures. 3 and 4: Details from „Nature to Touch“ exhibition, Natural History Museum of Montenegro

The „Nature on Touch“ exhibition of the living world models officially opened in December 2021 in the Gallery of the Natural History Museum of Montenegro (Figs. 3 and 4). Authors are Dr Natalija Čadenović and Dr Marko Karaman. After a very successful premiere, various institutions from the region have shown interest in hosting this exhibition. Redesigned, the exhibition has been on tour in the region since June 2023. The most recent host is the National Museum in Sarajevo (figs. 5 and 6), and previously it was hosted by the Museum of Herzegovina in Trebinje, the City Museum of Vršac, the Museum of Vojvodina in Novi Sad and the “Parobrod” cultural institution in Belgrade. Guest appearances in Dubrovnik and Zagreb have been arranged.

The attendance has exceeded our expectations. Apart from the organized visits of pre-school and school children and families, organized visits of groups of people with different degrees and types of disabilities are particularly significant.



Figures. 5 and 6: „Nature to touch“ exhibition in the National Museum in Sarajevo.

## CONCLUSIONS

The exceptional attendance and positive reactions of visitors show us that the possibility of touching exhibited objects enriches the experience of all visitors. Some persons with disabilities, in particular, have visited a museum for the first time, and they were also provided with a museum experience intensified by the possibilities of touching models, accessing the content by sound, as well as by video recordings.

The extent of interest museums have shown in hosting this exhibition indicates that there is little of such content in the region. Exhibitions, if any, are only partially adapted for people with certain disabilities. Mainly it all comes down to providing wheelchair access. That is why it is necessary to prepare future exhibitions in such a way that they are accessible to people with disabilities to the greatest extent possible. Of course, not all objects can be touched, but there are 3D printing options, as well as new digital technologies available to replicate objects at exhibitions.

However, it should be taken into account that media (i.e. digital applications and new technologies) with unimaginable possibilities for challenging our senses cannot completely replace the function and role of museums.

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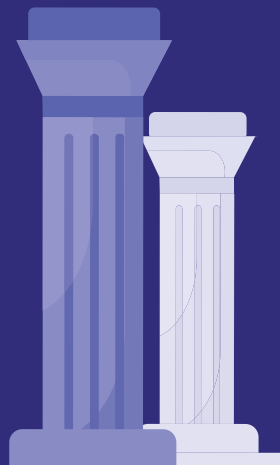
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# ADAPTING MUSEUMS IN TIMES OF CRISIS: INCLUSION LESSONS FROM THE HISTORY MUSEUM OF BOSNIA AND HERZEGOVINA

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## ABSTRACT

*What happens when a museum space, otherwise open and accessible to the public, suddenly closes? This article analyzes the strategies of inclusivity and openness of the History Museum of Bosnia and Herzegovina during the time of the pandemic. By pointing out the specificities of museum work in post-war Bosnian society, this article provides an overview of the problems and practical attempts to overcome them. This article delves into the shifting landscape of museums during times of crisis, achieving alignment with the updated definition of museums by the International Council of Museums (ICOM) which emphasizes the dynamic nature of museums as inclusive, polyphonic spaces that engage with contemporary social issues. The innovative strategies employed by the History Museum of Bosnia and Herzegovina underscore the importance of adapting to changing circumstances while upholding the core values of openness and accessibility in line with the new definition of museums. By exploring the intersection of digital technology and traditional museum practices, this article aims to inspire dialogue and action among museum professionals in advancing the transformative potential of museums.*

*During the pandemic, the existing museum contents were transferred to the virtual world, allowing museum activities and stories to be accessible to the audience beyond the physical museum space. The article will present inclusive workshops conducted by the History Museum of Bosnia and Herzegovina and offer an analysis of the museum's potential. Special attention will be given to the development of museum digital platforms during the pandemic. Digital formats, born out of the pandemic with the idea of opening the museum to the public, are now an important tool for the museum to engage with a diverse audience. During the pandemic, a tactile mural, an animated film about the museum, and various other formats were created, allowing the museum to be open, inclusive, and a place of healing.*

**Keywords:** crisis, adaptation, inclusion, polyphony, ICOM, social issues, innovation, digital technology, transformative potential.



## THE REAL MUSEUM SPACE

To explain the importance of transforming the History Museum of Bosnia and Herzegovina during the pandemic, it is necessary to start from the beginning: by describing the museum's role in society and reflecting on its previous transformations. The History Museum of Bosnia and Herzegovina collects, preserves, researches, presents, and promotes the cultural and historical heritage of Bosnia and Herzegovina. Over time, the museum has undergone transformations, which have also been reflected in its name.

The foundation of inclusion at the History Museum of Bosnia and Herzegovina is based on the accessibility of the museum building and its programming activities. After the Dayton Agreement in 1995, the museum lost its legal framework and state support. Since 2012, it has focused on integrating into contemporary society, addressing sensitive topics, and using museum objects and stories to connect with the community. From 2012 onward, driven by the desire to become integrated into the contemporary Bosnian-Herzegovinian society and play a crucial role in coming to terms with the past, the museum team has been developing activities and programs. Changes in the museum's policy and strategy have altered the public perception of museum institutions, while the museum itself has found a new place in the city's cultural life. Keeping museum doors open and the museum accessible to all has become one of its most important goals. The loss of physical space has been a loss of a tool without which the museum has never functioned, prompting it to transfer its exhibitions to the virtual world.

## INCLUSION IN THE PRE-PANDEMIC ERA

The History Museum of Bosnia and Herzegovina has been facing significant challenges in last three decades, primarily in terms of accessibility, with physical barriers such as the lack of ramps, lifts, and everything that makes a museum inclusive. The main problem of inclusion at the History Museum of Bosnia and Herzegovina is the damage to the museum building. Structural issues, such as the lack of elevators and access ramps, are a hindrance in terms of accessibility for wheelchair users and individuals with mobility impairments. Additionally, the absence of a proper heating system makes the museum space uncomfortable for visitors during the winter months. These challenges are compounded by a general lack of financial resources needed for essential repairs and the implementation of inclusive practices. Consequently, the museum struggles to provide an accessible and welcoming environment for all visitors. Due to the damage to the building and the lack of systemic support, the History Museum of BiH has faced the following challenges:

- **Accessibility Issues:** The absence of elevators or access ramps makes it difficult for wheelchair users and individuals with mobility impairments to enter and navigate the museum.
- **Heating Deficiencies:** The lack of a proper heating system creates an uncomfortable environment for visitors, particularly during the cold winter months, which can significantly reduce visitor attendance and engagement.
- **Financial Constraints:** The museum struggles with a general lack of financial resources, which hinders its ability to implement and maintain inclusive practices, conduct essential repairs, and develop new exhibitions and programs.
- **Structural Damage:** The building itself has sustained damage that requires significant repair and restoration efforts, impacting both the safety and aesthetic quality of the museum.
- **Limited Outreach and Engagement:** Due to financial and structural constraints, the museum faces challenges in expanding its outreach programs, engaging with diverse communities, and promoting educational initiatives.
- **Insufficient Staffing and Training:** The museum is short-staffed and it lacks training opportunities which would ensure that the museum operates efficiently and meets contemporary museum standards, including providing an inclusive and accessible experience for all visitors.

However, based on the opinions of experts in the field of inclusion, who work at the Faculty of Education, University of Sarajevo, and are highly engaged in social and cultural inclusion, these are problems that can be easily overcome. They highlighted the Museum's advantages when entering the facility, emphasizing that the interior space of the History Museum of Bosnia and Herzegovina has a fantastic layout for the movement of people with disabilities. The advantages they pointed out include: the width of doors, corridors, passages, and visibility within

the Museum's interior. They suggested that the stairs can be easily overcome by installing a lift or self-propelled wheelchairs. Naturally, such words inspire optimism because these are issues that can be addressed without enormous costs.

The History Museum of Bosnia and Herzegovina has taken steps towards museum inclusion through projects such as "Touch the History"<sup>1</sup> in 2014 and "Museum Stories"<sup>5</sup> in 2020.

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## INTRODUCTION TO THE PANDEMIC: NEW MEDIA AND PRACTICES

The Covid-19 pandemic intensified in Bosnia and Herzegovina in March 2020, disrupting several significant projects at the History Museum of Bosnia and Herzegovina, including an exhibition for Sarajevo City Day on April 6. The exhibition, featuring artists' responses to "Who is Walter?" using museum materials, was initially planned for the renovated museum garden. However, the pandemic forced the museum to shift the exhibition online. Launched on April 6, 2020, it attracted over 10,000 virtual visitors. This transition highlighted the museum's adaptability and commitment to inclusivity, as digital formats allowed broader community engagement, overcoming physical, geographical, and sensory barriers. Features like easy-to-understand text, audio guides, and multimedia content catered to diverse learning styles and abilities, while multilingual content reached non-native speakers and international visitors. Interactive elements, such as virtual tours and educational games, enhanced accessibility for children and individuals with cognitive disabilities.

During the pandemic, the museum staff continued working, albeit with reduced shifts, to maintain museum functions and secure financial resources. The muse-

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1 "Touch the History" is a tactile area located in the History Museum of Bosnia and Herzegovina, intended for people who are blind and visually impaired. Here the visitors can touch replicas of exhibits and learn about their history through Braille. This initiative utilizes original exhibits and replicas representing various historical periods to improve accessibility for visitors who are blind and visually impaired. The tactile area comprises two sections: the first features eleven exhibits that visitors can physically handle and explore. The project was realized with the support of the Foundation Cultural Heritage without Borders (CHwB), the Balkan Museum Network, and the Stavros Niarchos Foundation. During the COVID-19 pandemic, adjustments were made to the tactile exhibits, with certain items replaced and new descriptive legends created to enhance the educational experience.

5 Through the "Museum Stories" project, eleven museums from Bosnia and Herzegovina and Serbia collaborated to foster cultural exchange and strengthen the cultural identities of both countries. A significant activity within this project was the creation of a mobile application and audio guide, which has significantly improved the inclusivity of the museum. By providing visitors with easy access to essential information such as the museum's address, contact details, operating hours, and ticket prices, the application enhances accessibility for all visitors. Furthermore, the availability of the mobile application and audio guide in both Bosnian and English ensures that non-native speakers and international visitors can fully engage with the museum's content. The mobile application was developed in adherence to the principles of inclusive museum practices. The texts are worded so to be clear and easily understandable, ensuring accessibility for a wide range of visitors. The application is designed with a layered approach, allowing users to engage with content at varying levels of depth according to their interests and needs.

um's collaboration with TV Sarajevo journalist Leila Kurbegović produced reports on museum exhibits, adapted for the persons who are blind and visually impaired, which were broadcasted on TV Sarajevo. These efforts ensured that the museum's cultural and historical heritage remained accessible and engaging despite the challenges brought about by the pandemic. In line with inclusive practices, the museum adapted one of its most popular stories, "The Story of the Museum-dom," into a digital format. This involved combining illustrations by Sanela Husić Musabašić with an audiobook prepared by the Library for the Blind and Visually Impaired of Bosnia and Herzegovina. By recycling the existing materials, the museum made the story accessible to children who are blind and visually impaired, allowing them to enjoy the adventures of Lady Dinamo, Mr. Hedgehog, and Radio Commando. Positive feedback suggested that the story also benefited children with autism. With simplified vocabulary, the story was transformed into online workshops for preschool and school-age children during the pandemic. This adaptation highlighted the museum's commitment to inclusivity, enabling children with various disabilities to participate and enjoy the museum's offer. The workshops included recognizing objects, motor skills exercises, and navigating the museum space, supporting children's development and fostering collaborative learning and respect for diversity.

## THE MUSEUM IN THE VIRTUAL SPACE

Isolation during the pandemic period affected the cultural sector and required a change in the format of cultural programs – which demanded adaptation and the transfer of cultural activities mostly into the virtual world. Museums slowly began to adapt to the newly emerging situation, with those having digitized collections and VR setups adapting more quickly, (see: Kalfatovic, 2002) while others sought ways to adjust (see: Belevski, 2021). Digital platforms emerged as the ideal format for the History Museum of Bosnia and Herzegovina's team, proving to be a good channel of communication with the audience in the virtual form. Additionally, digital platforms have a layered structure and allow the integration of diverse content, thereby increasing the number of potential users of such content. It is important to note that thanks to the assistive technology, these websites can be used by people who are blind and visually impaired with minor adjustments: Religioskop<sup>6</sup>, Wake up Europe<sup>7</sup>, Youth&WW2. These digital initiatives from the History Museum of Bosnia and Herzegovina not only preserve historical legacies but also foster engagement and dialogue across generations, ensuring that the voices and experiences of the past continue to resonate in the contemporary society.

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6 Launched in 2020, Religioskop is aimed young people and those interested in exploring the cultural and historical contributions of the four monotheistic religions in Bosnia and Herzegovina. This platform focuses on specific stories that illuminate the role of religious communities in shaping the Bosnian society.

7 Following the success of Religioskop, the museum curated the exhibition titled "Wake up Europe" in 2022, complemented by a digital platform of the same name. This initiative showcases 100 stories of international solidarity with Sarajevo and Bosnia and Herzegovina during the 1992 – 1995 war. Through a wide structure of narratives, the platform illustrates various dimensions of solidarity, spanning humanitarian convoys, refugee assistance, demonstrations, and cultural activities.

## INCLUSIVE MUSEUM IN DIGITAL FORMAT – ADVANTAGES AND CHALLENGES

To further explain the importance of digital platforms as a tool that museums use to achieve inclusivity, we offer you a set of key advantages and challenges associated with this approach.

- Digital platforms made the museum more accessible for people with disabilities by providing alternative ways to experience exhibits. For instance, high-contrast visuals and adjustable text sizes can help people with visual impairments read content more easily. Additionally, closed captions and photos/videos can make exhibits accessible to visitors with hearing impairments.
- Digital platforms support multilingual visitors by offering content in multiple languages. This ensures that non-native speakers and international visitors can fully understand and engage with the museum’s exhibits. Providing translations of exhibit descriptions, audio stories, and interactive content in various languages helps break down language barriers and makes the museum experience more inclusive for a global audience.
- Digital platforms provide access to people who cannot physically visit the museum by allowing them to explore exhibits from anywhere in the world - online. This is especially beneficial for individuals with mobility issues, health concerns, or those living far from the museum. Virtual tours, online galleries, and digital exhibitions enable these visitors to enjoy and learn from the museum’s collections without having to be on-site. The virtual stories of the History museum of Bosnia and Herzegovina site is free of charge.
- Digital platforms accommodate different learning preferences and cognitive abilities by presenting information in various formats — text, audio, video, and interactive media. This multimodal approach ensures that visitors can engage with the content in the way that best suits their learning style. For example, some individuals may prefer reading detailed descriptions, while others might benefit more from watching videos or listening to audio guides. Digital platforms make learning more engaging for children by incorporating interactive features such as virtual tours, educational games, and interactive timelines. These elements transform passive viewing into active participation, which can be more stimulating and enjoyable for younger audiences and those with cognitive disabilities. Interactive activities also help reinforce learning through play and exploration.
- Providing content at multiple levels of detail on digital platforms allows users to choose how deeply they want to explore a topic, making the platform suitable for both casual visitors and researchers. Casual visitors might prefer a quick overview, while researchers or enthusiasts can delve into more detailed information. This layered approach ensures that the platform caters to a wide range of interests and knowledge levels.

- A user-friendly design enhances the experience on digital platforms by making it easier for all visitors to navigate and find the information they need. Intuitive navigation, clear labelling, and easy-to-read fonts are particularly important for visitors who are not tech-savvy or who may have cognitive disabilities. A well-designed interface can reduce frustration and improve the overall user experience, making the digital platform more welcoming and accessible.
- Digital platforms allow for customizable museum experiences by enabling users to personalize their interaction with the museum's content. Visitors can select preferred content formats, such as text, audio, or video, and create custom tours based on their interests. This flexibility ensures that each visitor can tailor their experience to suit their individual preferences and needs, making their visit more engaging and relevant.
- Digital platforms foster community engagement by including features such as forums and social media integration. These elements allow visitors to share their experiences, insights, and feedback, creating a sense of community among museum-goers. Interactive projects and collaborative activities can also encourage visitors to contribute to the museum's content and participate in communal learning, further enhancing the inclusive and interactive nature of the museum experience.
- One of the challenges lies in the diverse authorship of stories, which can make it difficult to maintain consistent standards and quality across the content. Additionally, some stories may lack digital content that is visually adequate or tailored to meet various users' needs. Another barrier is that older generations often avoid using modern technology, potentially limiting their access to digital platforms and impacting the inclusivity efforts. These factors highlight the importance of considering diverse user perspectives and ensuring technological accessibility when developing inclusive digital initiatives.

# DIGITAL PLATFORMS – INCLUSIVE MUSEUM TOOL OF THE FUTURE

To make digital platforms an even better inclusive tool, the team at the History Museum of BiH will take several steps to improve the content and accessibility:

- The museum has involved various user groups to test the platforms and advise the museum team on enhancements.
- The museum will organize workshops for different visitor groups, using the platforms as educational material.
- Complete adaptation of text to be easy to read.
- Reducing the number of gadgets needed to use the platforms.
- Introducing audio recordings to make the platforms more enjoyable for people who are blind and visually impaired.
- Developing a set of tools to standardize the visual identity of the platforms in consultation with inclusion experts (standardization is important for the future use of digital platforms by the History Museum of BiH).
- Implementing multilingual support to cater to a diverse audience, including minority languages.
- Ensuring the platforms are compatible with various assistive technologies, such as screen readers and alternative input devices.
- Creating interactive and multimedia content that is accessible to people with different learning styles and abilities.
- Offering virtual tours with sign language interpretation and subtitles.
- Incorporating user feedback loops to continuously improve the platforms based on user experiences and suggestions.
- Developing a mobile-friendly version of the platforms to increase accessibility for users on various devices.
- Providing training sessions for the staff on best practices for digital accessibility and inclusion.
- Establishing partnerships with organizations that advocate for people with disabilities to ensure the platforms meet their needs and expectations.
- Conducting regular accessibility audits to identify and address any barriers users may face.
- Creating a help desk or support service specifically for users with disabilities to assist them in navigating the platforms.
- Offering customizable user interfaces to allow users to adjust settings such as font size, colour contrast, and layout according to their preferences.

## INSTEAD OF A CONCLUSION – POST-PANDEMIC AWAKENING

The History Museum of Bosnia and Herzegovina's adaptation during the pandemic enhanced engagement and accessibility, making its collections more visible locally and globally. This shift aligns with the International Council of Museums' (ICOM) definition of museums as non-profit, permanent institutions dedicated to heritage and community involvement, emphasizing ethical and inclusive operations. The museum's response to the pandemic, including digitizing exhibitions and engaging the community through inclusive projects, underscores its resilience and commitment to accessibility. The museum's digital transformation has maintained accessibility and engagement beyond physical space, including audio adaptations for individuals who are visually impaired. Its community-centered approach ensures that the cultural heritage is accessible to all, promoting inclusivity by inviting diverse voices to engage with its collections and stories. Moving forward, the museum's commitment to accessibility and ethical engagement will shape its narrative, ensuring that past stories resonate with and inspire people globally. These efforts highlight the evolving role of museums as inclusive spaces for dialogue, reflection, and societal transformation, serving as catalysts for unity and understanding in an interconnected world.

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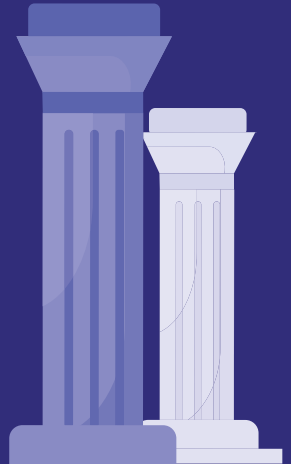


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# FOSTERING REMOTE INCLUSION AT THE NATIONAL GALLERY OF BOSNIA AND HERZEGOVINA DURING AND AFTER THE PANDEMIC

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## ABSTRACT

*The paper examines social responsibility of museums in the context of the global COVID-19 pandemic with an emphasis on the use of digital technologies and creating content for people with intellectual disabilities. In the introductory part, through the framework process of adopting the new definition of the museum, increasing importance of the museum's role in society is elaborated in the conditions of the global pandemic. The pandemic has caused a global health, economic, educational, social, and psychological and mental crisis, to which museums have responded with various forms of digital transformation of collections, work, and practice in the virtual environment. The pandemic had particularly negative consequences for people with disabilities; this part of the population, neglected even before the global emergency, found itself in an even greater state of social isolation. Through the case study of "ARTsee" - digital assistive technology, which was developed and tested in the National Gallery of Bosnia and Herzegovina in the period from 2019 to 2021, the paper will consider the possibility of increasing accessibility to the contents and significance of the collection for people with intellectual disabilities during and after the pandemic.*

**Keywords:** digital assistive technologies, social responsibility of the museum, digital accessibility, people with intellectual disabilities, art museum.

## SOCIAL RESPONSIBILITY OF THE MUSEUM DURING THE PANDEMIC

In the modern age, we are witnessing the progressive development of technology that follows constant changes in the global socio-economic sphere. The museum as a public and social institution should monitor closely the needs of the society and respond promptly by increasing its collection to remain relevant to the currents of the contemporary life. For many years, a circle of museum experts led by the International Council of Museums (ICOM) emphasized the need for

museum democratization, demanding the redefinition of this type of institution for the benefit of the society. The museum as an institution with practices that are dominantly focused on collecting, was problematized at the 24th ICOM General Meeting in Milan in 2016. In this meeting, the need for the museum's ability to perceive deep inequalities within the community, i.e. to respond to current global problems, socio-political unrest, economic problems, population migration, deep social and other inequalities, the climate change, etc. was presented (ICOM, 2016). The three-year revision period (during which the ICOM collected 250 proposals for a new definition of a museum from museum experts from all over the world) resulted in a proposal for a new definition, which was presented to the professional museum public at the 25th ICOM General Meeting in Kyoto in 2019. However, the international circle of museum experts was not ready to change the existing definition. More than 70% of the representatives of the ICOM National Committees in Kyoto in 2019 decided to postpone the vote on the new proposed definition of the museum because they considered it a vague collection of 'political correctness' and 'modern posturing'. Some expressed concern that the proposed definition did not include terms such as 'education' and 'collection' which they consider crucial to the museum's mission. (Noce, 2020)

The definition adopted by ICOM in 1974 (Copenhagen) describes a museum as a non-profit, permanent institution in the service of society and its development, open to the public, which collects, preserves, researches, communicates and exhibits the heritage of mankind and its environment for education, study, and enjoyment. This definition was slightly modified in 1989 (The Hague), 1995 (Stavanger, Norway), and 2001 (Barcelona, Spain). The change, which includes the intangible character of the cultural heritage that the museum inherits, was added in 2007 at the ICOM General Meeting in Vienna. Just a few months later, the world was shaken by the global pandemic of Coronavirus disease (COVID-19) pandemic, which complicated the issue of the social responsibility of museums. To protect the population's health, authorities of many worldwide countries ordered staying in homes (lockdown) on several occasions during 2020, followed by prohibitions on gatherings in closed public spaces. These preventive measures also affected the work of the museum. As public institutions, museums had the responsibility to close their doors to the public during the periods of rapid spread of the virus. The absence of public gatherings in the museum and the impossibility of working directly with the public caused the institution to come up with new ways of working that accelerated the process of digitizing the collection and changed the ways of its presentation and interpretation in the virtual space. The museum's response to the emerging crisis is reflected in interdisciplinary forms of cooperation with creative industries, the information technology sector, and the educational sector to offer to the public collection based digital content and participatory activities in a safer virtual environment. Frequent and often prolonged periods of isolation have caused people to experience anxiety, depression, and alienation from the rest of the society. Museums that provided digital access to their contents managed to compensate for the loss of visitors in the physical

environment. Museum contents accessible in a virtual environment have helped people maintain their mental well-being during the pandemic.

Motivated by the changes that were rapidly taking place on the global health and socio-economic level, but also by the proven willingness of the museum to adapt to the emerging needs of society, museum experts gathered around the ICOM again at the end of 2022 to vote on a new definition of the museum. At the 26th ICOM General Meeting, held on August 24, 2022, as a part of the triennial conference in Prague, 127 national committees agreed on a new definition: “A museum is a not-for-profit, permanent institution in the service of society that researches, collects, conserves, interprets, and exhibits tangible and intangible heritage. Open to the public, accessible, and inclusive, museums foster diversity and sustainability. They operate and communicate ethically, professionally and with the participation of communities, offering varied experiences for education, enjoyment, reflection and knowledge sharing” (ICOM, 2022).

The new definition has yet to take root in museum practice. Experts and practitioners in the field of museum education and accessibility, such as Šarac (2021), believe that with the new definition, basic museum functions such as collecting, preserving, research, interpretation, and display should be carried out to meet the needs of the society. A museum institution that uses its basic functions to meet the needs of the society will demonstrate its willingness to open to the diversities that exist in the society by cooperating and enabling equity, access and accessibility to its collections. This definition obliges museums to act and communicate ethically with the participation of social communities in the processes of preparation, creation, and interpretation of the collection based content. The museum’s new responsibilities refer to the overall social community with different groups whose cultural, educational, sensory, physical, economic, information, emotional, and other needs differ. One of the social groups that least visit the museum and utilise its programs or services of its staff are people with disabilities, says Šarac (2021). In order to include this and other social groups in their activities and work, at the end of the 20th century the museums initiated democratization processes, adopting policies on access and accessibility, organizing various additional programs and activities, etc. (American Association of Museums, 1992) The state of the pandemic, which caught the world by surprise in 2020, stalled these processes in the museum. During the pandemic, people with disabilities experienced even greater isolation, reflected in the lack of psycho-social support, timely medical care, loss of employment and sources of financial income, interruption of the continuity of education caused by digital barriers, etc. (International Disability Alliance, 2021).

# DESIGNING DIGITAL TECHNOLOGIES AND MUSEUMS CONTENTS FOR PEOPLE WITH DISABILITIES

The spread of the global pandemic was yet another reason to speed up the museum collection digitization process. In order to provide the public with digital access to its collection during the pandemic, museums initiated interdisciplinary forms of cooperation between the information technology and educational sectors, as well as creative industries, which resulted in digital exhibitions co-created by the public, forms of augmented and virtual reality, virtual educational activities and new ways of communication between the museum and the public. When creating digital technologies and content intended for the public, museums are guided by the principles of universal design. The term 'universal design' was coined by Ronald Mace, an American architect (Rose and Strangman, 2007), to describe a set of good architectural and design solutions that will not only be useful to people with disabilities but to all other people. As we learn from Johnstone (2014), over the last 20 years, the Center for Applied Special Technology (CAST) has conducted research on technological possibilities and flexible design to improve the education of people with disabilities, their peers, children, and adults. From this research emerges an innovative approach called 'universal design for learning' used to design rich and more flexible teaching curricula that will provide students with a range of opportunities to meet their diverse learning needs (Johnstone, 2014). The Smithsonian Institute's Human Centered Design and MuseWeb report (2020) contains recommendations for creating digital content for people with disabilities which are based on the universal learning design. According to Jones (2020), a creative designer from New York whose chapter is included in the report, inclusive design does not imply that one solution fits everyone, but that created digital interactivity intended for a wide audience has alternatives for accessing the same content differently. In his opinion, the most important feature of inclusive interactivity is the story. The story about the museum object or exhibition is created by the museum visitor, who is offered the opportunity to take the storyteller position with the help of various digital methods and options. To create successful inclusive digital interactive content for people with disabilities in the museum, Jones (2020) recommends: simple and easy-to-read language, creating a hierarchy of information about the exhibit, using commonly known concepts, and universal symbols, and creating a repetitive structure of activities.

When a museum wants to interpret an object with digital technologies, it is necessary to make the contents more accessible in terms of information and its sensory qualities to a wider range of users. According to the recommendations of the Council for Museums Archives and Libraries (2001) and a practical guide of the Trustees of the National Museums of Scotland (2002), digital content should be interpreted with different media: video, augmented and virtual reality, audio, textual interpretation, animation, hologram, etc. The aforementioned forms of

digital media imply a revision of the usual interpretation strategies that we are accustomed to in the museum space. The Council for Museums Archives and Libraries (2001) and the National Museums of Scotland (2002) also recommend that, when museums offer textual content related to digitally presented exhibits, they must be created according to the principles of easy-to-read language and in the appropriate font, font size, and in clear contrast. By using easy-to-read language, the museum will not only increase accessibility for the group of people with intellectual disabilities but will also contribute to the general comprehensibility of the collection meaning for a wider audience. Šarac (2021) suggests that authors of textual interpretations can also be representatives of the target group, for example, people with intellectual disabilities, which will enable their neglected voices to be heard in public.

For people with intellectual disabilities museums can develop different forms of digital assistive technologies, that will enable this group to navigate the museum space easily, help meet their basic needs, or interpret selected exhibits in alternative ways according to the established needs of the target group. By developing digital technology for a group of people with intellectual disabilities, the museum will enable greater accessibility of the content and meaning of the collection, and in situations such as the COVID-19 pandemic, offer this group customized digital content that they can use from the safety of their home.

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## **ARTsee: DIGITAL ASSISTIVE TECHNOLOGY FOR CHILDREN WITH INTELLECTUAL DISABILITIES AT THE NATIONAL GALLERY OF BOSNIA AND HERZEGOVINA**

In the Bosnian society, even before the global pandemic, people with disabilities had limited opportunities for (social) inclusion, which became even more evident in 2020 and 2021. Museums in Bosnia and Herzegovina as public and social institutions whose contents should be universally accessible, offered people with disabilities little accessible digital content and additional activities in a virtual context during the pandemic. A positive example is the National Gallery of Bosnia and Herzegovina, which entered the pandemic in the initial stages of developing a digital assistive technology process intended for children with intellectual disabilities. During the global pandemic, the “ARTsee” application offered the target group digital contents of an informal educational character based on the collection, and has provided additional reasons to visit the museum in the post-pandemic period.

During the global COVID-19 pandemic in Bosnia and Herzegovina children with intellectual disabilities were in a disadvantageous position, in terms of their social status and educational resources. Children with intellectual disabilities, who are part of the education system, encountered numerous digital barriers due to

remote schooling. According to Mujkanović and Mujkanović (2018), each of the lifelong conditions of people with intellectual disabilities is characterized by specific forms of educational, sensory, physical, information, language-communication, social, and other needs, which differ from person to person. Full involvement of this population in everyday life, while respecting their mutual differences, can be achieved through the process of inclusion.

Opportunities for working in person with museums visitors in Bosnia and Herzegovina were reduced to a minimum during the COVID pandemic. Even before the virus outbreak, a certain number of museums in the country had initiated the process of digitizing their collections for the purpose of research conducted by the curators. These museums, however, have yet to provide public access to the contents of their collections in a digital format. Museums in Bosnia and Herzegovina, following the example set by major museums in the West, maintained their communication with the public through social networks during the COVID. The social media content provided by these museums was intended for the general audience, with no visible efforts to make it more accessible to marginalized social groups with different sensory and information needs.

The National Gallery of Bosnia and Herzegovina was established by the Legal Act of the People's Government of Bosnia and Herzegovina in 1946. Today, this institution preserves, researches, and exhibits 6,000 art objects categorized into the following collections: the Bosnia and Herzegovina Art Collection, the Yugoslav Art Collection, the Icon Collection, the Ferdinand Hodler Collection, the International Donation Collection, the Photography Collection, and the New Media and Art Archives of the "Nada" magazine (National Gallery of Bosnia and Herzegovina, 1986). In the past 10 years, the institution has developed education programs adapted to the needs of different social groups in the museum's local community. The Gallery offers the following programs for the general public: the "Our Story" education program for families with preschool-age children, the "Alternative Classroom" education program for children of primary and secondary school age, and the „Youth Museum Theatre“ for adolescents. Since 2018, the Gallery has offered the underrepresented groups of children with intellectual disabilities the "Blue Artism" education program and the "CogniART" program intended for elderly people.

In mid-2019, empowered by the results achieved in the attempts to provide inclusion for children with intellectual disabilities, the Gallery's museum experts who work with the public decided to create a form of digital technology to make the collection more information accessible.

The "ARTsee" Android application is a digital form of assistive technology that alternatively interprets selected exhibits from the Gallery's collection for the target group. According to the UNICEF glossary (2017), assistive technology is any device designed, made, or adapted to help a person with disability perform a task. Products can be purpose-built for people with disabilities or be in wide use. We distinguish between mechanical and digital assistive technologies. An assistive

technology in a museum can be in the form of a tactile map of the museum, illustrated cards for expressing the basic needs of non-verbal museum visitors, or a social story. The Gallery opted for a digital form of assistive technology to keep up with the progressive technological development of modern society, not having the global pandemic in mind at the time. The idea for the development arose after research on the understanding and interpretation of visual art in children with Autism Spectrum Disorder, conducted during the implementation of the “Blue Artism”<sup>9</sup> pilot project in 2018/2019. The results of the research showed that participants perceive works of art through commonly known symbols and associations. These findings led the museum experts to develop a digital assistive technology based on the principles of universal learning design that can interpret parts of the collection through animation, sound, and easy-to-read text. The development of the “ARTsee” from the code required the interdisciplinary cooperation of the Gallery with the information technology, rehabilitation and pedagogy sector, and creative industries. A team of IT programmers, a graphic designer, a special education teacher, and a museum pedagogue from the Gallery participated in the development process. The back-end interface of “ARTsee” is a feature that makes this application specific. It is an interface intended for museum experts who can add new content or changes the existing one. This feature makes “ARTsee” a global virtual platform where it is possible to join the contents of museum collections of different types to make them more accessible for people with intellectual disabilities in terms of information and sensory approach. The graphic designer, guided by the principles of universal design, created a simple, intuitive, and easy-to-use design. In cooperation with the special education teacher from the “Mjedenica” Institute for Special Education and Upbringing of Children, the museum pedagogue from the Gallery determined the criteria for the selection of works of art. These criteria include the narrative, formal and emotional quality of the artwork, and the possibility to present the artwork through animation, sound, and text. The visual interpretation of an artwork by animation implies manipulation of its reproduction by the graphic designer. The museum pedagogue and special education teacher determine the narrative flow of the animation, which the graphic designer implements using image manipulation software programs. The audio segment of the application includes sounds we imagine when we look at a painting in the exhibition space. The textual content of the application is offered at three different information levels to reach the widest possible range of users. Each content ‘package’ includes seven works of art/museum exhibits so that the end user’s concentration and focus level do not drop due to an excessive amount of content.

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10. Read more about the methodology of the “Blue Artism”: Šarac, Aida “Social responsibility of the Art Museum: working with children with intellectual disabilities at the National Gallery of Bosnia and Herzegovina”, unpublished master’s thesis, Faculty of Philosophy, University of Sarajevo, Sarajevo, 2021. Available at: [https://www.ff.unsa.ba/files/zavDipl/20\\_21/hum/Aida-Sarac.pdf](https://www.ff.unsa.ba/files/zavDipl/20_21/hum/Aida-Sarac.pdf)

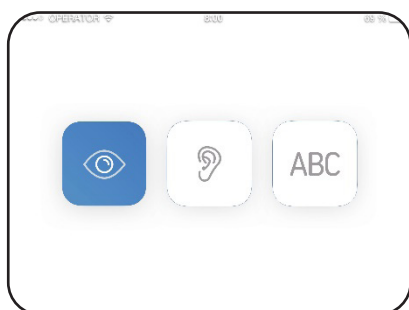


Figure 1. Symbols of 'eye', 'ear', and 'ABC' that lead to multimedia contents of the app (Photo by Mahmutović Amra)

In the process of developing the technology and its contents, the Gallery also cooperated with representatives of the target group from the "Oaza" Association for Supporting People with Intellectual Disabilities in the Sarajevo Canton. The consultative process was carried out in the phases of application development and textual content creation, which was verified by the representatives of the target group as easy-to-read content. The main goal of the originally conceived digital technology was to

offer a group of children with intellectual disabilities additional reasons to visit the Gallery. In the first attempt, we developed a closed system application which enabled scanning the QR code located next to the artwork in the Gallery's exhibition venue. After scanning, users can select a visual, audio, or textual interpretation of the exhibit using the universal symbols for 'eye', 'ear', or 'ABC' on the tablet/smartphone display.

In mid-March 2020, the Gallery, in cooperation with pedagogy, psychology, sociology and special education students organized application prototype testing with control groups of young people from the "Oaza" association and participants of the "Blue Artism" program. For research purposes, the aforementioned interdisciplinary team created forms through which they observed the application usage by the participants. The results of the observation were aimed to determine how the participants use the technical features, how they use fine motor skills when selecting options in the application, whether there is sensory overload by the application effects, whether the application captures their attention to a

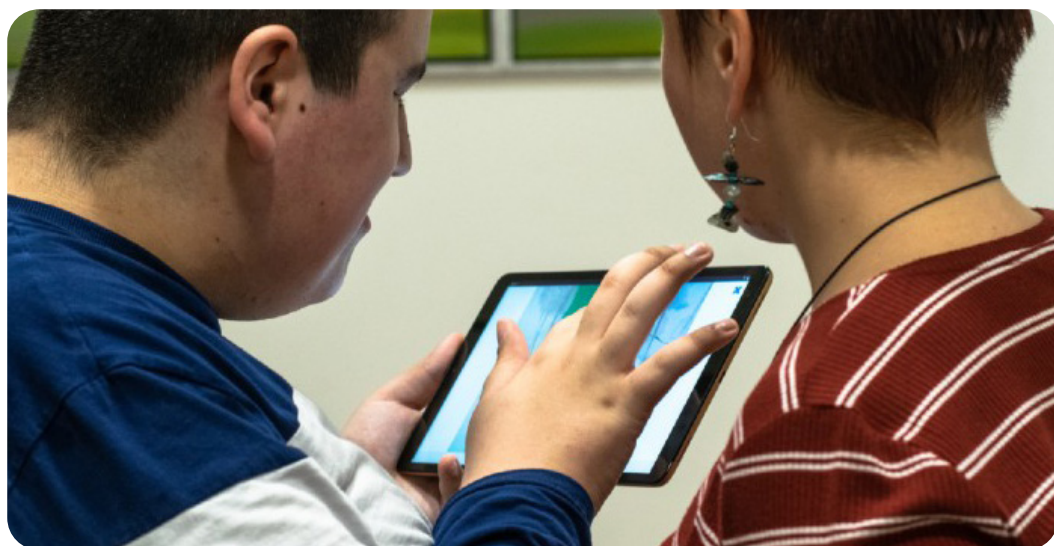


Figure 2. Prototype application testing with control groups of children with intellectual impairments at the National Gallery of Bosnia and Herzegovina (photo by Mahmutović Amra)



greater extent than the stimuli of the environment, whether there is any social interaction among the respondents in the testing area and how the respondents react to individual original works of art as well as their digital animations. Considering that the testing period at the Gallery had to be suspended due to the rapid spread of the COVID-19 virus, we do not yet have the complete research results.

The newly emerged situation led to changes in the app development: in the second attempt, IT developers created an open source app, which made it available to end users for free download via the Google Play Store platform. In this way, the Gallery offered the public an integrated application package that includes: the first version intended for use in the museum exhibition context, and the second for safe use from home in the conditions of a global pandemic.

The second version of the app has been available to the public since February 5, 2021. through the Google Play Store. Along with this version, the Gallery also provided instructions for the use of the digital technology at home for the parents/guardians of users with intellectual disabilities. The instructions require asked users questions about the visual content, linking the visual and audio content and reading the textual content together with the user or to the user. By developing the “ARTsee” application, the Gallery provided children with intellectual disabilities with informational and sensory-accessible digital content based on the museum’s collection during the pandemic.

After the number of people infected with the coronavirus disease decreased globally, the Gallery organized group activities for children and young people with intellectual disabilities using the “ARTsee” application. The digital technology has proven to be very successful in working with typical children of a younger school age. In late 2020, the “ARTsee” android application was nominated by SALTO-YOUTH for the prestigious annual “SALTO Awards” in the category of digital transformation.

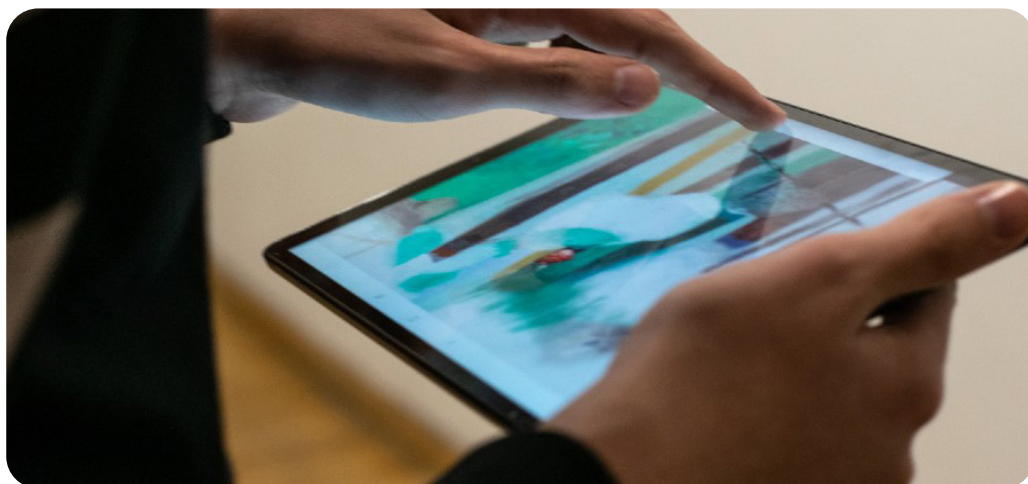


Figure. 3. Proto-testing of the app with control groups of children with intellectual impairments (photo by Mahmutović Amra)

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## INSTEAD OF A CONCLUSION

As a public and social institution, the museum should listen to the needs of society, and respond to them promptly through the prism of the collection if it wants to stay up to date with the contemporary life trends. For museums, it is necessary to achieve digital transformation in the context of their public programs, exhibitions, and also internal museological practices. Digital technologies can offer alternative ways of interpreting collections through multimedia content, thus bridging the gap in the sensory, information, and physical access for visitors. Having worked with children and youth with intellectual disabilities with the “ARTsee” digital assistive technology in the exhibition contexts at the National Gallery of Bosnia and Herzegovina, we can confirm that digital technology is an intermediary in comprehension and experience with museum exhibits. Digital technologies should be treated as an auxiliary tool with multimedia interpretation content which supports developing conversations about the exhibits and gaining a multisensory experience of the exhibition and museum visits in general. Museums can use digital technologies to facilitate group activities at the museum or simply offer these technologies to visitors when entering the museum. Museums, however, should thread carefully when using digital technologies, since they may turn out to be a double-edged sword. By their very nature, museums are institutions for socialization and therefore have great potential for providing additional opportunities for social inclusion of groups that are marginalized in society. It would be sad to completely replace the human factor in the museum with technology. When it comes to people with disabilities, a warm human approach is what will make the difference in motivating visitors to return to the museum again.

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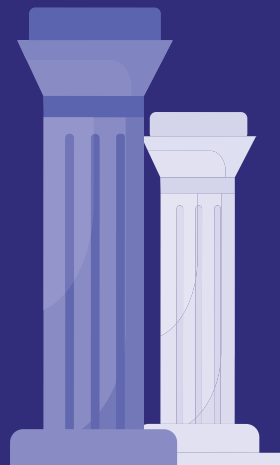
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# PUBLIC LIBRARIES AS KEY FACTORS FOR THE INCLUSION OF VULNERABLE GROUPS

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## ABSTRACT

*This paper explores the critical role of public libraries in promoting inclusion, particularly for vulnerable groups, through an action research approach. Focusing on examples of good practices from the National Library of Romania (BNaR) and the Metropolitan Library of Bucharest (BMB), the article evaluates the accessibility features and assistive technologies available in public libraries in Romania. BNaR, identified as accessible on the [www.accesibil.org](http://www.accesibil.org) map, offers facilities such as ramps, lifts and tactile resources. Supported by the Orange Foundation, BNaR has integrated assistive technologies, including screen readers, magnifiers and devices for scanning and rendering. Particularly, a Braille printer improves access to printed materials for people with visual impairments. In addition, BNaR hosts a large digital library for the visually impaired, accessible by logging into the assistive platform for the visually impaired. Similarly, BMB operates a robust audiobook studio established through funding from the European Union, facilitating the production of audio materials by volunteers. This research also investigates the impact of inclusion initiatives on stakeholders in the context of the library-museum partnership within the project titled SHIFT: MetamorphoSis of cultural Heritage Into augmented hypermedia assets For enhanced accessibiliTy and inclusion. Based on the information collected from the participants, including people with disabilities, educators and support organizations for people belonging to vulnerable groups, during the SHIFT TO INCLUSION Workshop, the National Association of Public Librarians and Libraries in Romania (ANBPR) presented extensive evidence on the benefits of using technology in ensuring accessibility of services for vulnerable groups.*

**Keywords:** public libraries, assistive technologies, library-museum partnership, cultural heritage accessibility, benefits of technology

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## INTRODUCTION

In the last decades, public libraries in Romania have consolidated their role of key actors in the field of culture in terms of increasing the degree of inclusion of vulnerable people. Through strategic partnerships (Crihană, 2014) with governmental entities, non-governmental organizations and private sector operators specialized in assistive technology solutions, libraries have developed and implemented accessible services and infrastructures for various groups with special needs, including people with visual impairments, hearing impairments, locomotor problems and people belonging to the autistic spectrum. Library professionals have engaged in long-term collaborations, demonstrating a growing commitment to social inclusion. These efforts are reflected in increasing the accessibility and attractiveness of cultural heritage for those segments of the public that are typically marginalized by the society. Also, through these partnerships, libraries focus on strengthening the relationship with their users, especially those belonging to vulnerable groups, with the aim of generating a transformative impact on the well-being of the community as a whole.

Being among the most inclusive cultural institutions in Romania, the National Library of Romania and the Bucharest Metropolitan Library demonstrate a solid and long-term commitment to meeting the needs of people with disabilities, thus promoting equal access to culture and knowledge for all categories of users of cultural goods and services. By adopting advanced technological solutions and developing sustainable partnerships libraries succeed in creating an inclusive and accessible environment for all members of the community (Georges Badr, et al. 2020).

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## OBJECTIVES AND METHODS

The main purpose of this article is to explore and evaluate, employing the method of observation and comparative analysis, the initiatives undertaken by the National Library of Romania (BNaR) and the Bucharest Metropolitan Library (BMB) in promoting the inclusion of vulnerable groups, especially people with visual impairments and impaired hearing. By focusing on these institutions, this paper aims to highlight the significant contributions of public libraries in Romania to improving accessibility and ensuring equitable access to cultural and educational resources. The target audience for these initiatives primarily includes people with visual and hearing impairments from Bucharest, but the benefits extend to people with visual and hearing impairments throughout Romania. Special attention is paid to young people, but inclusion programs are designed to ultimately address all age groups. For people who are partially sighted or unsighted, BNaR offers the latest access technologies integrated into current library services. These technol-

ogies are crucial in facilitating the independent use of library resources by visually impaired users. By integrating these advanced technologies, BNaR ensures that users with visual impairments can access a wide range of information and cultural resources independently.

Starting from the premise that many users with visual impairments cannot physically visit the library, BNaR has scanned and made accessible a significant number of documents, including textbooks and school bibliographies, essential for students who are partially sighted or unsighted. This initiative, supported by volunteers, addresses the educational needs of students by providing them with the necessary learning materials in accessible formats. Despite the success of this initiative, the number of completed requests remains insufficient compared to the total number of requests received, highlighting the continued need for expanding services and resources. As the methodological coordinator of the national library system, BNaR plays a key role in assisting other libraries in adapting their spaces and information presented to support people with visual impairments in their communities. This support extends to educational institutions and potential employers who want to learn more about accessibility methods. By providing these guidelines, BNaR promotes a more inclusive environment in various institutions, ensuring that people with visual impairments have better access to educational and employment opportunities.

BNaR continuously enriches its digital library collection by adding new scanned and accessible documents. This ongoing effort ensures that the digital library remains a valuable resource for visually impaired users, providing them with access to an ever-growing repository of information and cultural materials. Through the "Sound of the pages" project, funded by the Orange Foundation, BNaR has created an accessible digital library available through an electronic catalogue. In this way, people who are visual impaired can log in with an ID and password to access the catalogue and retrieve full-text documents through the links provided in the bibliographic descriptions. BNaR is taking important steps to offer users with visual impairments access to the same works that are already available to the general public, comprising approximately 500,000 titles. This objective is achieved by converting printed documents into accessible electronic formats that can be viewed in Braille, enlarged or converted to an audio file. Also, users have the option to print, on demand, various chapters or didactic materials, thus ensuring real and fair inclusion in terms of access to information and education.

According to the most recent statistical data available, there are 93,133 people with visual impairments registered in Romania, representing 10.91% of the total of 213,170 people with disabilities registered at the national level. These statistics underline the importance of BNaR initiatives in addressing the needs of a significant part of the population.

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## THE “SOUND LIBRARY” OF THE METROPOLITAN LIBRARY OF BUCHAREST

Another good practice revealed in the field of inclusion is represented by the Sound Library for the Blind and Amblyopia People (BSNA) of the Bucharest Metropolitan Library. Since its inauguration, on March 7, 2001, BSNA has remained an unprecedented initiative in the Romanian cultural landscape. Established through a project within the Euroart Program - the European Cultural Fund for Romania - with funding from the European Union through the EU Delegation in Romania and technical assistance from the British Council in Bucharest, in partnership with the Foundation for the Development of Civil Society, BSNA has continuously expanded its coverage and capabilities.

The audio books from BSNA, whether digitally recorded or on magnetic tapes, are distributed nationally through the branches of the Association of the Blind in Romania (ANR) or at the initiative of various county libraries. In 2022, BSNA was equipped with a state-of-the-art computer and specialized software for professional voice recording, supported by the Lions Clubs of Bucharest. This upgrade coincided with World Sight Day.

This pro-inclusion initiative within the BMB is aligned with the Marrakesh Treaty, ratified by the European Union, which aims to eliminate discriminatory barriers to access to cultural materials for people with disabilities. As a result, the BSNA recording studio offers audio materials to people who are blind, visually impaired or those who have difficulties in reading printed materials.

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## SHIFT TO INCLUSION WORKSHOP – TESTING SHIFT TECHNOLOGICAL SOLUTIONS FOR VULNERABLE GROUPS

The SHIFT TO INCLUSION workshop, organized by ANBPR at BNaR on May 27, 2024, offered participants a collaborative space (Crihană, 2018), to engage with the latest technological advances of the SHIFT project. ANBPR representatives presented the participants belonging to vulnerable groups short videos illustrating the main SHIFT technological solutions, accompanied by explanations to clarify the utility of these applications for common understanding:

- Generating motion sequences for foreground objects using GANs
- Browsing large-scale models
- SHIFT Picture-to-Speech
- SHIFT Landscapes-to-Soundscapes
- Digital Story – Text-to-Speech

The participants watched the videos, asked questions, formulated personalized requirements from the perspective of their own disabilities and expressed their personal impressions regarding the possible improvements that can be made to the project. During the group consultation session, participants provided valuable feedback and personal insights, which significantly contributed to the development of the project. These detailed observations, documented in the form of questionnaires, structured thematic interviews and in-depth interviews, will guide the SHIFT team in refining and improving the technical and conceptual aspects of the project.

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## COLLECTING FEEDBACK AND INTERPRETING RESULTS

During the SHIFT TO INCLUSION Workshop, ANBPR surveyed the interest of people with disability in SHIFT technological solutions and collected essential comments from participants with various impairments, including visual and hearing impairments, people with locomotor problems and people belonging to the autistic spectrum. This feedback provided improved insight into the needs of direct beneficiaries, enhancing the future utility of SHIFT's technology solutions designed to make cultural heritage more accessible and attractive. For example, participants with visual impairments emphasized the need for detailed audio descriptions and tactile technologies, while participants with hearing impairments emphasized the importance of clear subtitles and sign language interpretations. Participants with locomotive disability emphasized the need for physically accessible spaces and digital solutions that reduce the need for physical movement. People on the autistic spectrum suggested the importance of intuitive interfaces to minimize anxiety and facilitate easier navigation and understanding of information.

Moreover, the participants of the SHIFT TO INCLUSION Workshop were particularly interested in the availability of SHIFT technological solutions in libraries and museums free of charge, the accessibility of SHIFT solutions for users with various disabilities, including functionalities in the Romanian language, the need for prior training in order to use different devices, synchronization of visual with auditory and tactile elements to ensure a comprehensive reception of the cultural heritage content by different vulnerable groups.

Participants with visual impairments found the synthetic voice acceptable as long as it provided basic access to the content without emotionally influencing the perception of the message. In addition, they showed interest in the functionality of generating Image-to-Speech descriptions in different styles. Regarding the Image-to-Sound technique, persons with visual impairments present at the event expressed certain doubts regarding the use of metaphorical and abstract approaches, which can become quite confusing for people with visual impairments, as well as for people belonging to the autistic spectrum.



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## CONCLUSIONS & RECOMMENDATIONS

By providing accessible resources and technologies, BNaR contributes to the educational and cultural inclusion of people with visual impairments, ensuring that they can fully participate in society. This demonstrates that BNaR plays a key role in the inclusion of people with visual impairments through the integration of advanced technologies, remote access to digitized documents and methodological support for other libraries and institutions. By continuously expanding its accessible digital collections and promoting a more inclusive environment, BNaR ensures that visually impaired people have a fair access to the educational and cultural resources that they require.

The sustainability of BSNA recording studio within the BMB is ensured thanks to the long-term partnerships with ANR, educational units for people with visual impairments from Bucharest and ANBPR Romania member libraries. According to the BMB's audio materials development plan, audio books are to be made available to ANR through ftp platforms in all branches in the country. This initiative transforms the BMB into a specialized library service dedicated to visually impaired people at the national level, constantly promoted through the ANBPR library network, especially with the support of county libraries.

The SHIFT TO INCLUSION Workshop provided a valuable opportunity for the presentation and evaluation of technological solutions developed within the SHIFT project. The participants, representing various categories of people with disabilities, had the opportunity to watch illustrative videos about the latest technological solutions developed and receive detailed explanations about them. The participants reacted favourably, asking questions and formulating personalized requirements, reflecting on the specific needs of people with each type of disability. Their personal impressions and suggestions for improvement were particularly valuable for the further development of the project. The feedback provided included requirements for specific adjustments based on specific disability, but also suggestions for improving overall accessibility and user experience. The SHIFT TO INCLUSION workshop once again highlighted the importance of continuing the dialogue with end-users to ensure the relevance and efficiency of the proposed solutions, in order to create an accessible and inclusive cultural environment for all categories of users, regardless of their disabilities.

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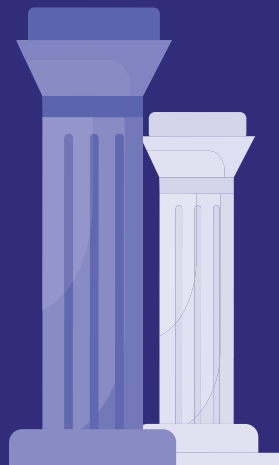
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# WORK OF THE PEDAGOGICAL SERVICE AT THE MUSEUM OF OLD HERZEGOVINA: 'A TOUCH OF THE PAST – INCLUSION IN THE MUSEUM'

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## ABSTRACT

*With the help of audio guides and written guides and Braille leaflets, we provided an opportunity for children and young persons with disabilities from the “Glimpse of Hope” day center and members of the Intermunicipal Organization of the Blind and Visually Impaired from Foča to familiarize themselves with the museum’s collections. In this way, the museum has enriched its offer and readily welcomes persons with disabilities as an audience. Previously, persons with disabilities did not have the opportunity to get acquainted with the cultural and historical heritage of Foča and its surroundings in this way. As a continuation of the cooperation, an exhibition of typhotechnical aids for persons with visual impairments and persons who are blind opened in our museum. Specially made or adapted typhotechnical aids were presented together with devices that make it easier for persons with visual impairments and persons who are blind to perform various activities in their everyday lives. Our goal is to promote positive social values in our community.*

**Keywords:** inclusion in the museum, audio guides, Braille leaflets, workshops

## INTRODUCTION

One of the tasks of a museum educator is to design and implement educational activities in the form of artistic, creative, and educational workshops for audiences ranging from kindergarten to senior age, with a special focus on working with persons with disabilities. A museum is a “not-for-profit, permanent institution in the service of society that researches, collects, conserves, interprets, and exhibits tangible and intangible heritage. Open to the public, accessible and inclusive, museums foster diversity and sustainability. They operate and communicate ethically, professionally, and with the participation of communities, offering varied ex-

periences for education, enjoyment, reflection, and knowledge sharing” (ICOM, 2022). Taking into account the interests and expectations of visitors, museums become a place for communication, education, research, learning, and identity development, fostering talent, as well as valuing historical and cultural heritage within sociocultural frameworks (Gajić and Milutinović, 2011).

Inclusion enables adaptation of educational structures, systems and methodologies to the needs of all children. It promotes acceptance and respect of differences among children, regardless of age, gender, ethnicity, language, class, or any physical disability. Inclusive education implies that education primarily occurs at home and in the community, and then in both formal and informal settings (Šušnjara 2017).

Sustainable inclusive informal education in cultural institutions is not possible without the continuous education of museum staff, primarily museum educators and curators, as well as the implementation of new educational and pedagogical programs. Recently, the museum has held numerous workshops for children and elementary school students. We introduced elementary school students to the history of this region, traditions and customs, important figures, and events within the subjects of My Environment, Nature and Society, History, and Geography. We collaborated with the Ecology Club and the History Club of the ‘Sveti Sava’ Elementary School, as well as the Geography Club of the ‘Veselin Masleša’ Elementary School. One of the priorities of our Pedagogical Service is working with individuals with developmental disabilities. We strive to make our institution accessible to individuals with developmental disabilities as a place where they are always welcome. The project ‘A Touch of the Past - Inclusion in the Museum’ is an example of our successful collaboration.

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## ‘A TOUCH OF THE PAST’

At the project’s promotion, audio guides and Braille leaflets describing the museum’s permanent exhibitions were presented. These exhibitions include ‘Foča in the Past,’ ‘Dr. Risto Jeremić,’ ‘Ethnographic Exhibition,’ ‘Foča Period of the National Liberation Struggle,’ and ‘The Memorial Room.’ The new panels featured cultural-educational societies in Foča, complementing the exhibition about Dr. Risto Jeremić and the Sokol Society. The members of the Intermunicipal Organization of the Blind and Visually Impaired and the “Glimpse of Hope” Service Center expressed their satisfaction with the opportunity to familiarize themselves with the museum in their town.

The museum in Foča exists since 1956 and this was the first adaption of the permanent exhibitions of the Museum of Old Herzegovina for persons with disabilities. The first step was to adapt our exhibitions for persons who are blind and persons with visual impairments who were associated with this project.



Figure 1. Presented by the “A Touch of the past - Inclusion in the Museum” project

We aimed to make museum exhibits accessible to persons who are blind and persons with visual impairments through audio guides, leaflets, and new exhibition panels in Braille. Until then, they had not had the opportunity to acquaint themselves with the cultural and historical heritage of Foča and its surroundings in this way. Our partners were the Association of Blind and Visually Impaired Persons Foča and the “Glimpse of Hope” Service Center for children and young people with disabilities. Members of

these two associations shared their experiences, activities from everyday life, problems and obstacles they face. It was an initial step to understand the needs of this population and start solving some of the problems. After the project’s implementation, the number of visits by persons who are blind and persons with visual impairments to our museum increased. Our partner, the Association of Blind and Visually Impaired Persons Foča, has an inter-municipal character and brings together persons who are blind and persons with visual impairments from Foča, Kalinovik, Rudo, Višegrad, Novo Goražde, and Čajniče. Additionally, the “Glimpse of Hope” Service Center provides services to children and young people with disabilities from this area.

Following their visit, the Museum extended services to other persons who are blind and persons with visual impairments. In this way, we enriched the museum’s offer and made it accessible to persons with disabilities. The leaflets contain a brief description of all our permanent exhibitions.

The Museum of Old Herzegovina in Foča realized the ‘A Touch of the Past - Inclusion in the Museum’ project. Children and young persons who are blind from the “Glimpse of Hope” Service Center and members of the Intermunicipal Organization of the Blind and Visually Impaired from Foča visited the museum. The project is very significant because museum exhibits were previously inaccessible to persons who are blind and persons with visual impairments. For the first time, they have the opportunity to get to know the exhibits, and they are very grateful for that. With the help of audio guides and Braille leaflets, visitors can now familiarize themselves with the museum’s permanent exhibition, and we also created new exhibition panels in Braille.

At the exhibition panels, we showcased the development of educational societies in Foča. The “Pobratimstvo” temperance society was founded in 1893 in Foča. After a long procedure, it was approved by the Provincial Government on June 23, 1899. “Pobratimstvo” is the first anti-alcohol association founded in Bosnia and Herzegovina, which fought for abstinence from alcohol with educational lectures and advocated for the preservation of public health.

The establishment of the “Prosvjeta” subcommittee on 13 May 1904 was of special importance for the cultural and educational work of the Serb population in Foča and its surroundings. Similar activities were carried out among Muslims by the “Gajret” cultural society. “Gajret” was a Muslim society founded in Sarajevo in 1903, which inspired cultural and educational activities among Muslim communities at the beginning of the 20th century.

Through new exhibition panels, we planned to present interesting information on the activities of numerous cultural, artistic, and sports associations that marked the past of the Foča region and to supplement knowledge about the past of our community. In this way, the museum enriched its offer and is ready to welcome persons with disabilities.

The “A Touch of the Past - Inclusion in the Museum” project was funded by the Headley Trust UK through the BMN Small Grants program. This project was only the beginning of activities related to the inclusion of persons with developmental disabilities in the museum’s work. As a continuation of our good cooperation, the Museum of Old Herzegovina in Foča opened an exhibition of assistive devices for persons who are blind and persons with visual impairments, organized in collaboration with the Intermunicipal Organization of the Blind and Visually Impaired from Foča and the Association of the Blind and Visually Impaired from Goražde.

This is one of the first exhibitions of this kind in the Republic of Srpska. Assistive devices are specially designed or adapted tools to help persons with visual impairments perform everyday activities. Members of the Association of the Blind and Visually Impaired from Goražde demonstrated the use of various devices, including a Braille typewriter, a slate and stylus, a talking clock, a talking phone, a blood pressure monitor, and others. The exhibition attracted many visitors.

On the International Day of Persons with Disabilities, our guests were members of the Intermunicipal Organization of the Blind and Visually Impaired from Foča and members of the Student Council of “Sveti Sava” Elementary School. We provided students with audio guides and brochures in Braille, allowing persons who are blind and persons with visual impairments to explore the museum’s exhibits. Dara Đajić, president of the

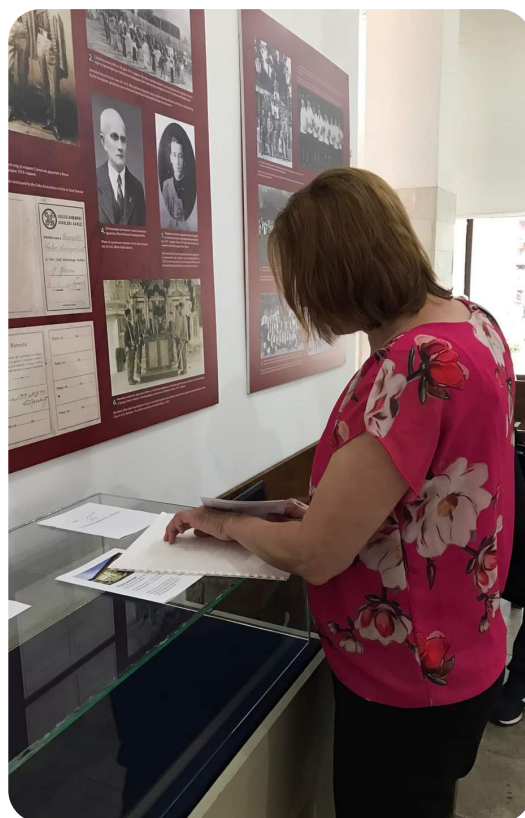


Figure 2. Getting to know the contents of the exhibition through a Braille brochure



Figure 3. Magnifying glass – a typhlotechnical aid

Intermunicipal Organization of the Blind and Visually Impaired in Foča, demonstrated daily-use aids for persons who are blind and persons with visual impairments.

We discussed the conditions and challenges faced by this population. The students were encouraged to be persistent and understand that there should be no obstacles in life to discourage them, and always be ready to help those in need.

Each year, we share the joy of the New Year and Christmas holidays with the members of the “Glimpse of Hope” Service Center. We continued this tradition this year by decorating our Christmas tree with ornaments they made themselves.



Figures 4. and 5. Elementary school students are introduced to typhlotechnical aids and brochures in Braille



Figure 6. New Year's ornaments made by users of the "Glimpse of Hope" Service Center

## COOPERATION AND SUPPORT

Experts in this field, employed in the Library for Blind and Visually Impaired Persons of the Republika Srpska and the Faculty of Medicine in Foča, contributed with their knowledge to better preparation and implementation of the project. Students from the Faculty of Medicine in Foča, specializing in special education, helped us create leaflets and exhibition panels in Braille. Ivana Zečević, Master of Special Education and Rehabilitation, was our consultant. The leaflets provide a brief description of all our permanent exhibitions.

We created the audio guides in collaboration with the Library for the Blind and Visually Impaired of the Republic of Srpska. They recorded the text in audio form to present the exhibitions to our visitors in an appropriate and comprehensible manner. Detailed descriptions include items from the Ethnographic Room (spindle and loom), and educational societies in Foča: "Prosvjeta", "Gajret" and "Sokolsko društvo", which complement the exhibition about Dr. Rista Jeremić. This is another way to promote and preserve the cultural and historical heritage of the town of Foča and its surroundings.



## EXCHANGE AND LEARNING

The second part of the project involved a visit to Trebinje. The project's results were presented at the Museum of Herzegovina, where we exchanged experiences with colleagues about including persons with disabilities in museum work.

Colleagues from the Museum of Herzegovina in Trebinje shared valuable experiences with us, which the Museum of Old Herzegovina in Foča has applied in its further work. During this time, members of the Intermunicipal Organization of the Blind and Visually Impaired and the "Glimpse of Hope" Service Center explored the rich cultural and historical heritage of Trebinje presented at the Museum of Herzegovina and visited some of the town's tourist attractions. We visited the Herzegovina Gračanica monastery, where one of the most famous Herzegovinians, the renowned poet and diplomat Jovan Dučić, is buried. Dučić was one of the founders of the museum in Trebinje.

We enjoyed this visit and the time spent together, which further strengthened our relationships and provided a good foundation for a continuous cooperation and friendship. The "Glimpse of Hope" Service Center members particularly enjoyed this visit.



Figure 7. Visit to the Museum of Herzegovina and the city of Trebinje

## CONCLUSION

Through the “A Touch of the Past - Inclusion in the Museum” project, we enabled persons with disabilities to familiarize themselves adequately with our permanent exhibition settings. Our efforts have resulted in an increased number of visits by persons with visual impairments and persons who are blind to the museum, indicating the positive impact of our work on the local community.

We aimed to familiarize our fellow citizens with the problems and obstacles faced by persons with disabilities, provide them with support in their daily activities and adopt positive attitudes and an adequate approach to people who are blind and partially sighted, because our goal is to establish a strong relationship with persons with disabilities, making them feel welcome in our institution and letting them know that they have friends here. Working with them enriches people and brings them happiness. We have conducted numerous workshops, marked important dates, and are certain that our collaboration with associations that support children, young people, and older individuals with disabilities will continue.

In the coming period, we will try to provide additional funds through projects in order to continue the process of inclusion in the museum and the removal of existing barriers. Our intention is to remove architectural barriers in the coming year.

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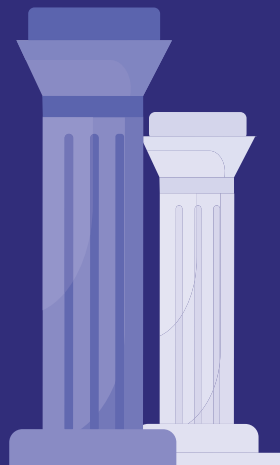
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# EDUCATIONAL FORMS OF NIŠ NATIONAL MUSEUM INTENDED FOR PERSONS WITH DISABILITIES

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## ABSTRACT

*The paper will discuss the potential of the museum as a place of social inclusion where persons with disabilities get the opportunity to learn what they are interested in through programs adapted to their abilities. The openness of the museum to all visitors, regardless of their intellectual abilities, will be presented through a series of workshops and the long-term cooperation of the Niš National Museum and the “Mara” Center for the Provision of Social Care Services from Niš. The final part of the paper will focus on the analysis of the current state of training of museum workers in Serbia in the communication department for working with marginalized groups.*

**Keywords:** museum, inclusion, workshops, education

## INTRODUCTION

The function of museums in society and the ways of promoting cultural heritage have changed over time, so museums have become more and more open to the museum audience. Education in the museum today represents an important segment of museum activity with the aim of bringing the cultural heritage closer to different categories of visitors. Interpretation and presentation of museum collections has become an integral part of museum work, inseparable from the collection, preservation and professional processing of objects. The museum has ceased to be a gathering place for the elite; it is now rather recognized as a place of informal education, study and enjoyment. Thanks to the United Nations Convention on the Rights of Persons with Disabilities, to which Serbia is also a signatory, the social life of persons with disabilities, including the availability of cultural institutions, has been significantly improved (Radivojević and Raičević, 2007).

There has been a long debate about the term used to address a person with a disability. Until recently, the term “person with special needs” was generally accept-

ed, which has been replaced by the term “person with developmental disabilities”, “person with disabilities” or “person with the need for additional social support” as suggested by experts pointing to the fact that the needs of all people are equal.

When it comes to the formal education of individuals with disabilities, pursuant to the Law on Education of the Republic of Serbia, they have the right to education within the regular education system with additional support, or in special schools with a recommendation from a physician and mandatory consent from parents (Muškinja, 2011). Inclusive education is seen as collaborative work, learning, and living of persons with and without disabilities, and it involves special support in the education of children with disabilities in terms of adapting the curriculum to their abilities (Kostović et al., 2011). Inclusive education should not only entail enrolling children with disabilities in regular schools but also requires adapting the education system and adequately preparing the teaching staff for new roles. Due to insufficient preparation of school staff and the rapid introduction of inclusion in schools in Serbia, many studies show a negative attitude of educational workers towards this educational approach. Commonly cited obstacles to quality education for students with disabilities include inadequate initial education of teaching staff, a large number of students in classrooms, and the lack of support in creating an inclusive learning environment (Knežević Florić et al., 2018).

Cultural institutions, in addition to their primary role, also serve as informal education institutions, and they have recognized the obligation to set a positive example in their approach to people with disabilities, thereby providing encouragement to the entire community. Inclusion in museums involves creating environments and programs that are accessible to all visitors, including those with disabilities. Today, museums clearly demonstrate a commitment to adapting spaces and activities for people with disabilities during the design of exhibition spaces, preparation of exhibitions, educational programs, and similar activities. Museum educators in Serbia have initiated inclusive programs within museums often without specific training from museum communication departments, relying instead on suggestions and experiences from educators who work daily with people with disabilities.

Involving people with disabilities in the functioning of the community and opening institutions, as well as adapting programs to their capabilities, transforms museums into institutions that are accessible to everyone. Otherwise, museums remain relevant only to those already engaged in the cultural life of the city. (Brstilo and Jelavić, 2010)

## INCLUSIVE WORKSHOPS OF NIŠ NATIONAL MUSEUM

Preparations for launching inclusive programs in the museum require adapting the space and interpretation to the abilities of the participants. For years, the museum in Niš has had wheelchair ramps, while free entry to our facilities has been provided for all individuals with disabilities. This initial step has communicated to all disability associations or individuals visiting the museum that they are the audience we want to see in the museum. Due to the aforementioned initiatives, the inclusive educational programs we implement in the museum have not required special preparations of the spaces we use for education. Preparations for conducting workshops mainly focused on adapting the exhibition presentation to the participants' abilities and linking objects from the exhibition with everyday items familiar to them. If the items were small and required analysis or the creation of objects based on museum exhibits, we prepared enlarged photographs, considering that a large number of participants in inclusive workshops have visual impairments.

The inclusive educational program of Niš National Museum was launched in 2018, through online cooperation with the "Vuk Karadžić" Boarding School for Primary and Secondary Education from Sombor, where students follow lessons according to an individual educational plan. The students who attend this school have various disabilities such as low vision, motor disabilities, ADHD and autism spectrum disorders. The first in a series of joint activities were museum Skype classes held in the "12th February" Memorial Complex and the archaeology hall of our museum. The general goal of the program was to get the audience acquainted with the cultural heritage of our museum, while the specific goals were defined as the acquisition of basic knowledge about the Holocaust and medieval weapons in an educational sense and the use of modern technologies in order to promote



Figure 1. Museum Skype class

cultural heritage. Following a Skype lesson on medieval weapons, the students would draw museum exhibits that left the strongest impression on them, which contributed to the fulfilment of another functional goal, the development of fine motor skills and the visualization of what was previously shown.

In terms of inclusive-educational activities at the city level, the museum achieved excellent cooperation with the "Mara" Center for the Provision of Social Care Services from Niš, first by marking international days that draw attention to persons with disabilities, and later by including them in the educational programs of our museum. The beneficiaries of this center are people with intellectual disabilities and autism spectrum disorders. The inclusion of persons with disabilities in the city cultural life and their introduction to the cultural heritage of the Niš National Museum was emphasized as a general goal in all the programs that will be described below. In this case, the advantage was the fact that our museum does not have a unique space dedicated to education, so we went through several museum buildings through various programs: Branko Miljković/Stevan Sremac Literary and Memorial Exhibition, the Museum's Archaeological Hall and the Synagogue Gallery.

The first in a series of workshops, through which we got to know each other, was held on the occasion of the World Down Syndrome Day. We organized this workshop out of our own enthusiasm, without much knowledge and experience in working with persons with disabilities. In the preparation of the educational program, we relied on the suggestions of educators who communicated their experiences in working with the center's beneficiaries. During the workshop, we talked about clothing in ancient times, how raw materials and clothing were created, which was also the educational goal of the program. In the creative part of the workshop, pointing to the symbol of the World Down Syndrome Day, the participants colored drawn socks based on specimens from the Ethnological Collection of our museum. The functional goal of the workshop was to develop fine motor skills.

Our second joint activity was the marking of the World Autism Awareness Day. This time we talked about the Medijana archaeological site and the life of Emperor Constantine. The educational goal was fulfilled through an interesting story in terms of forming knowledge about our city's Antiquity period and the life of a Roman ruler. Bearing in mind the fact that the symbol of World Autism Awareness Day is an infinity sign with multi-colored puzzles, we decided to devote the creative part of the workshop to making the mosaic out of collage paper, the formation of which resembles the joining of puzzles. The functional goals of the workshop were to develop fine motor skills and improve precision.

The New Year's holidays, decorating the Christmas tree and making ornaments were the theme of our third workshop. Through the conversation about the New Year and the holidays that follow, we were reminded of all the customs that we practice during this period. The educational goal of the workshop was to learn more about traditions related to the celebration of Christmas Eve and Christ-

mas, while the functional goal was to improve motor skills and develop creativity.

Through an interesting exhibition in the Synagogue Gallery called *Ethnology in the Museum - What Do They Do There?*, we got acquainted with the duties of the museum employees, learned a bit more about ethnology and the objects that make up the exhibition. In the creative part, using previously prepared wooden frames, the participants learned the weaving technique and learned about old crafts, thus fulfilling another educational goal. The functional goals of the workshop were to develop creativity, improve fine motor skills, and recognize different colours and materials.

By organizing the *Diversity through Poetry and Painting* workshop, Niš National Museum marked the World Poetry Day and World Down Syndrome Day. Bearing in mind that the workshops are most often held in the literary-memorial space of our museum we wanted to connect the understanding of poetry and the visualization of what was read through the educational program. In addition to the above, the educational goal was also to get acquainted with the works of writers from Niš to whom the exhibition is dedicated. Through joint analysis of the poem *Peloponnese Oranges*, by poet Ljiljana Bibović, we searched for motifs that could be shown in paintings, along with an analysis of terms that have a figurative meaning. In a functional sense, the participants were trained to work with acrylic paints and their application to painting canvas, to develop creativity and the ability to visualize what they have read.



Figure 2. Ethnology in the Museum



Figure 3. Diversity through Poetry and Painting

## INCLUSION IN MUSEUMS IN SERBIA

For the purposes of this paper, we conducted a short survey of the state of inclusive programs in museums in Serbia. This April, museum educators and pedagogues from 13 museums and galleries responded to an online questionnaire containing 5 questions<sup>10</sup>. The fact that all listed museums have inclusive programs, with minor differences, speaks of the development of museum education in Serbia. Most museums adapt current educational content to persons with disabilities, while a smaller number of museums purposefully create a program for persons with disabilities. Regarding the theoretical knowledge acquired during formal training and its contribution to working with people with disabilities, answers varied. Eight out of thirteen respondents answered that their previous education did not contribute to facilitating working with persons with disabilities, while five of them answered that the knowledge from their studies helped them in working with the mentioned category of visitors. The difference in answers probably comes from the fact that museum education is not exclusively carried out by pedagogues, since educators come from various professions. There is also a number of smaller museums in Serbia that do not have museum educators and pedagogues; instead, curators of various collections perform these tasks as a part of their regular activities. It is a devastating fact that all inclusive educational programs in museums in Serbia are carried out thanks to the enthusiasm of their employees, who have not received any kind of training for working with persons with disabilities. This results in the unequivocal answer to what the last question of the survey aimed to investigate, namely that the training of museum pedagogues and educators for working with the mentioned category should be improved. This step would have a positive impact on the content and diversity of inclusive educational programs, while museum employees, in the communication department, would have more freedom and confidence when working with audiences composed of people with disabilities.

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10. The following museums and galleries participated in the survey: Belgrade City Museum, African Art Museum, Zrenjanin National Museum, Knjaževac National Museum, Pavle Beljanski Memorial Collection, Subotica Contemporary Gallery, Natural History Museum in Belgrade, Kragujevac National Museum, Leskovac National Museum, Bečej City Museum, Kikinda National Museum, Sava Šumanović Gallery and Niš National Museum.



## CONCLUSIONS

In museums in Serbia, inclusive workshops are an inseparable part of regular educational activities. Coming to the museum represents a new experience for persons with disabilities and a change in their everyday environment. In the beginning stages of implementing inclusive programs, we encountered numerous obstacles. We had to adapt expert guidance to the abilities of the participants and connect it to everyday life skills. In the interactive part, we did not always receive the feedback we expected, especially when working with participants with autism spectrum disorders. In attempting to assist them in the creative aspect of the workshop, we sometimes faced resistance. Over time, the "Mara" institution's group of users became familiar with the museum environment, often spending time there and participating in various workshops. Museum educators became increasingly involved in their activities, and participants eagerly communicated with them, expressing their interests. This is why we plan to actively involve center's users in regular museum activities in the future, according to their interests, as well as to establish stronger connections with the "Carica Jelena" School for Students with Disabilities and the Association for the Blind and Visually Impaired from Niš. Literary evenings, activities within museum exhibitions and guided tours through our facilities are just some of the programs in which users will be involved.

Due to insufficient training for working with persons with disabilities, the workers in the communication department of the museum relied on the suggestions of educators who work with persons with disabilities on daily basis. Seminars, conferences and educations in the field of working with persons with disabilities, specifically intended for museum workers, would significantly contribute to the diversity of educational programs adapted to the persons with disabilities, while museum educators and pedagogues would become more independent in creating programs and more confident in performing activities.

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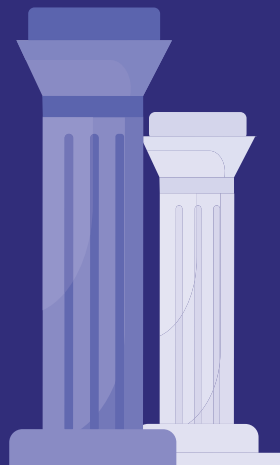
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# DESIGNING INCLUSIVE MUSEUM EXHIBITIONS: A COST-EFFECTIVE APPROACH TO SENSORY ACCESSIBILITY

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## ABSTRACT

*Access to cultural institutions is essential for all individuals. People with disabilities, however, often face significant barriers. This paper details the efforts to enhance museum accessibility for individuals with sensory disabilities in the NI Institute and Museum Bitola. Initially, we discuss the creation of tactile exhibitions, highlighting the challenges encountered and the solutions implemented. Furthermore, we explore the measures taken to improve accessibility for people with hearing and speech impairments. By leveraging QR codes and NFC tags, all visitors can use their own mobile phones as personal guides, thereby enhancing museum accessibility for everyone. The participation of the Balkan Museum Network in the SHIFT project represents the next phase. Through the use of AI and modern technologies, this initiative aims to significantly improve museum accessibility, setting a new standard for inclusivity.*

**Keywords:** *museum accessibility, visual impairments, tactile exhibition, SHIFT*

## INTRODUCTION

People with disabilities often face significant barriers when attempting to visit cultural institutions. Several factors contribute to this limitation, with the most prominent being a lack of information and understanding regarding international and national regulations. Institutions frequently struggle to comprehend their responsibilities related to human rights and other relevant considerations.

Many Balkan museums started to develop projects for accessibility and inclusion in cooperation with the BMAG<sup>11</sup>. Training sessions and international seminars were organized for the museum staff with the goal of enhancing accessibility and inclusion. These sessions highlighted best practices and emphasized both

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11. Since 2010, the Balkan Museum Network has been providing support to Balkan museums through small grants for implementing projects for accessibility. Many museums benefited from these grants, developing tactile exhibitions and access surveys conducted by representatives of the BMAG <https://www.bmmuseums.net/balkan-museum-access-group/>

international and national regulations. The NI Institute and Museum Bitola efforts started with improving physical accessibility with movable ramps and a lift car. This was proposed by the Association of Persons with Physical Disabilities of Bitola, as one of the measures to improve the physical accessibility of an object that is registered as a monument of culture, where there is a limited possibility for architectural interventions.

The same approach was applied to improve accessibility for people with sensory disabilities. Through communication and cooperation with the relevant associations from our country, work began on proposing new solutions to improve accessibility guided by the principle "Nothing About Us Without Us".

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## TACTILE EXHIBITIONS FOR BLIND AND VISUALLY IMPAIRED VISITORS

The sense of touch holds profound significance for persons who are blind or visually impaired, serving as a gateway to understanding and experiencing the world around them (Levent and McRaine, 2014). Recognizing the pivotal role of touch in the lives of persons who are blind, museums have increasingly embraced the creation of tactile exhibits. By offering multisensory encounters through tactile displays, museums strive to democratize access to art, history, and culture, ensuring that everyone can engage with and appreciate their collections regardless of visual ability. These tactile exhibits not only empower visitors who are blind to independently explore and interpret artefacts but also foster empathy and understanding among sighted visitors, thereby promoting a more inclusive and diverse museum experience.

Two elements are essential for a successful tactile representation: a tactile object and its description.

The tactile object in some cases can be the museum object itself. It would be ideal if all museum objects were available to be touched. However, as touching is prohibited in most cases, an appropriate solution could be to use a representative tactile copy.

A "true copy" made of same material would be ideal, but sometimes these are expensive or impossible to produce. Also, many times the object itself in its original form cannot convey any message to the persons who are blind (for example - the elements cannot be distinguished from each other when touched), so it is necessary to create a tactile representation with more pronounced elements (Picture 1.c). Thus, tactile objects can be created using paper, plaster, 3D printing or some other technique or material (Candlin, 2008).

The second important element is the description of the object, crucial for making tactile objects accessible and meaningful for persons who are blind or visually impaired. Tactile objects rely on touch, so detailed descriptions provide the essential context, guide exploration, and aid comprehension. Descriptions bridge



a. 3D printed tactile map of the Heraclea Lyncestis archaeological site near Bitola



b. Plaster copy of the Tragic Mask of Heraclea Lyncestis (reduced size)



c. Enlarged plaster copy of a coin portraying Alexander the Great

the physical object and the individual's understanding, offering details like shape, texture, size, and spatial relationships to create a mental image. Descriptions also provide interpretive information not obvious through touch alone, such as the object's historical or cultural context, function, significance, and symbolic elements. This enriches the understanding and appreciation of the object (Asakawa, et al. 2018).

Descriptions can be divided into two types:

- **Object Description:** Explains the object's uniqueness, importance, and exhibition context using clear and concise language to create an engaging story for all visitors.
- **Navigational Description:** Specifically for persons who are blind, this type of description provides instructions on what the tactile object represents, whether a 2D drawing or 3D copy.

The first tactile exhibition in the NI Institute and museum Bitola was organized in 2018 with the support of the Balkan Museum Network. This initiative aimed to improve accessibility for persons who are blind or visually impaired individuals. Tactile images, inspired by objects from the permanent exhibition, were displayed on panels with Braille descriptions and accompanying pictures for sighted individuals. An audio narration accessible via QR code was also provided.

The exhibition was enthusiastically received by blind individuals nationwide and soon followed requests for the exhibition to visit other cities. Many museums adopted this approach, including institutions in Macedonia, Montenegro, and Serbia. Additionally, exhibitions were held in museums in Slovenia, Croatia, Bosnia and Herzegovina and Serbia. The objects on the tactile images were selected from the permanent collection of the museum in Bitola, promoting the rich cultural heritage of the Bitola region.



Figure 2. Portable tactile exhibition with motifs from the museum objects from the NI institute and Museum Bitola, presented on tactile panels

## ENHANCING MUSEUM ACCESSIBILITY WITH SIGN LANGUAGE VIDEOS AND QR CODES

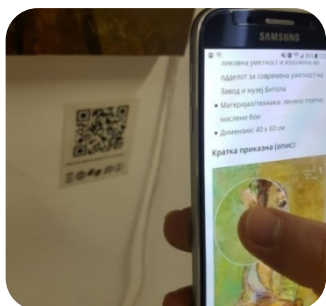


Figure 3. QR code next to the museum object

Initially, QR codes were unfamiliar to many visitors at our first tactile exhibition in 2018, so we provided informational flyers with aid usage instructions. The first part of the tactile object - the description, the object's story, is universally translatable and can also be presented through audio narrations or sign language videos, also enhancing engagement and accessibility for persons who are deaf or hard of hearing.



Figure 4. Museum in a suitcase- tactile copies

By scanning the QR code, visitors can access the museum website for more information, including sign language videos, high-quality photos with zooming capabilities, and even 3D reconstructions for some objects.

This initiative marked the first self-guided tour tailored for the people who are deaf and hard of hearing, offering them a deeper understanding of Bitola's heritage. Simultaneously, object descriptions elevated the experience for sighted visitors, resulting in an improved museum experience for all museum visitors.

Picture 3 shows a QR code placed next to the museum object in the permanent museum exhibit.

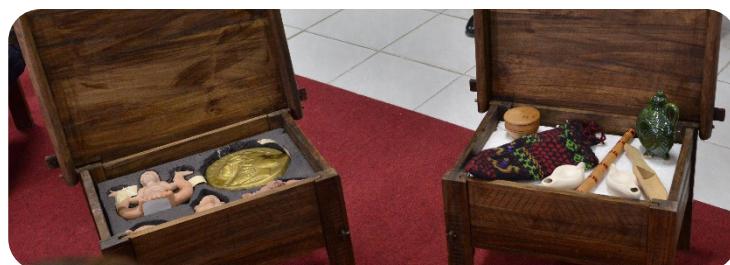


Figure 5. 3 D model of the Museum building

By scanning the code, visitors open the appropriate section on the website, where more information is provided: narration, a sign language video and a high quality photo with the possibility of zooming in. By using this approach, we have managed to bring the museum collection closer to a much larger number of visitors in a relatively cost-effective and simple way. The objects are accessible to all visitors around the world 24/7. Through the use of sign language videos, the museum exhibit has been made more accessible to people who are hearing and speech impaired, while audio narrations allow visitors' smartphones to serve as their personal museum guides, without the need to install software.

Each new visit to the exhibition and each new object led to an improvement in access and an increase in the collection with new "tactile" objects. The "Museum in a Suitcase" was a project created in cooperation with the Homeland Museum of Knjaževac, Serbia (Picture 4) that included copies made of material similar or identical to the original object.

For immovable cultural heritage objects, such as the museum building, 3D printing was utilized (Picture 5). This created smaller-scale replicas to help people who are blind or visually impaired understand their shape. Additionally, these 3D prints could be used to craft tactile maps showcasing the city center's key features.

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## **NFC TAGS AND THE AIM OF ACHIEVING FULL INDEPENDENCE FOR BLIND AND VISUALLY IMPAIRED VISITORS**

During the initial exhibitions, it became evident that, in order to visit museums, people with visual impairments still dependent on the assistance they get from their family, friends or from the museum personnel. This dependence stems from challenges such as navigating spaces not being designed for people who are blind, or the inability to read Braille. Braille illiteracy is a significant obstacle, limiting the persons who are blind or visually impaired from accessing crucial information and hindering their educational and professional prospects.

In Europe, approximately 5% of people who are blind can read Braille. Globally, the highest percentage is in the USA, at around 10% (Asakawa, S. et al. 2018).

Starting from our belief that modern technologies should complement Braille, we have started to integrate modern technologies to enhance the accessibility. Initially, we provided audio narration alongside Braille text, accessible online via smartphones. As many people who are blind are smartphone users, this approach proved effective. For those without smartphones, museum staff offered devices during the exhibition. To streamline the access, assistants scanned QR codes to open relevant audio narrations for tactile objects. Later, we explored the use of NFC tags.

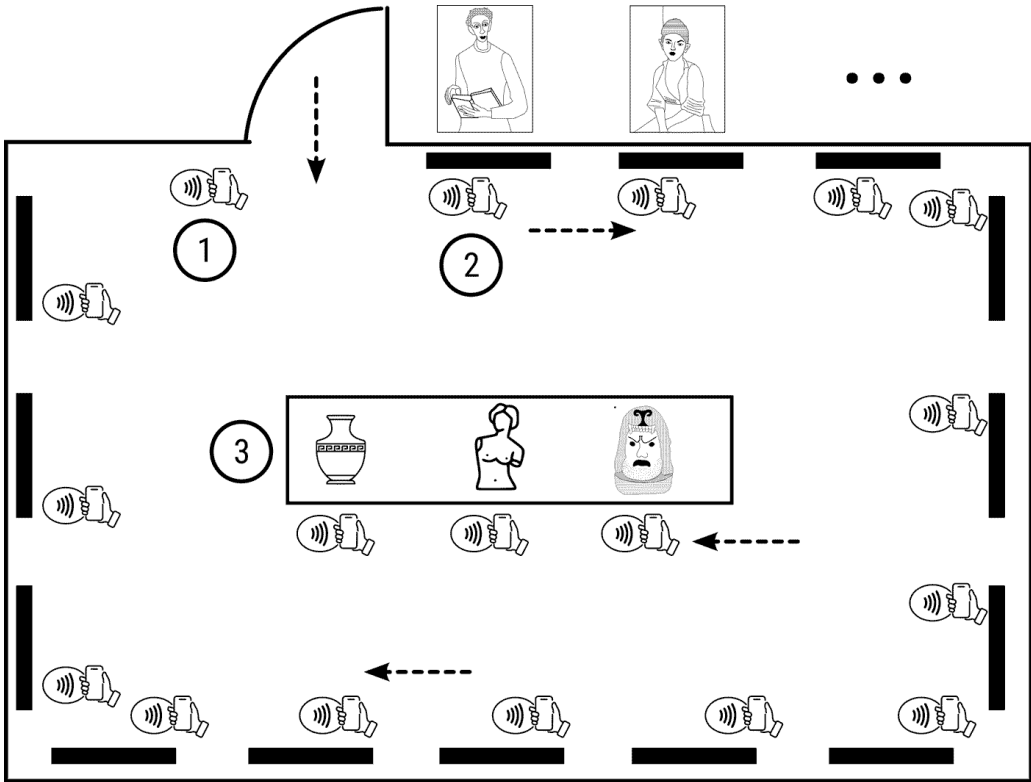


Figure 6. Proposed design of a tactile exhibition space, in which NFC tags are used

In the realm of tactile museum experiences, NFC (Near Field Communication) tags emerge as a ground-breaking tool (Blöckner et al., 2009). These tiny, unobtrusive tags discreetly embedded within museum exhibits hold the power to transform static objects into gateways of rich auditory description.

Near Field Communication (NFC) is a short-range wireless technology that allows devices to communicate when they are close to each other, typically within a few centimeters (Blöckner et al., 2009).

Imagine a scenario like the one shown in Picture 6: A blind or visually impaired visitor enters the exhibition space and taps their smartphone on a designated NFC tag (1). This action provides them with navigational and other relevant information about the exhibition. By tapping their smartphone on additional NFC tags placed at tactile images (2) or 3D replicas (3), visitors instantly receive tailored audio descriptions. This level of autonomy empowers visually impaired individuals to explore museum collections independently and at their own pace, enhancing their understanding and connection to the exhibits.

The versatility of NFC technology allows for flexibility and scalability in creating accessible museum experiences. Curators can easily update or customize audio descriptions to cater to diverse audiences or accommodate temporary exhibitions, ensuring that inclusivity should remain at the forefront of museum accessibility initiatives.

Ultimately, NFC tags revolutionize tactile museum experiences, foster inclusivity, innovation, and engagement for all visitors, regardless of their visual ability.

## THE SHIFT PROJECT

The approach explained earlier and the activities described have proven to be successful tools for improving the accessibility of museum exhibits. However, modern trends and technologies offer many new possibilities, that will significantly improve the accessibility of museums.

Since 2023, the Balkan Museum Network has been a member of the SHIFT project (Metamorphosis of cultural Heritage Into augmented hypermedia assets For enhanced accessibility and inclusion supports the adoption of digital transformation strategies and the uptake of tools within the creative and cultural industries - CCI).

SHIFT is a part of a cluster of six projects funded under HORIZON Europe and it leverages advances in Artificial Intelligence (AI) and Machine Learning (ML) to improve cultural heritage access for European citizens experiencing sensory impairment. It aims to enrich the experience of interacting with cultural assets through visual, auditory, and sensory modalities, e.g., using haptics.

SHIFT also develops tools and methodologies to enable contemporary description of cultural assets through language evolution models. Results are thematically clustered into visual-auditory-haptics components:

- Visual toolkit: using AI and ML algorithms will enable automatic transcription of the cultural heritage content. The toolkit will identify objects and actions, which assist in transcribing the historical depictions at economies of scale.
- Auditory toolkit: the toolkit will deliver an emotional response to the audience by using advances in auditory synthesizers. Human-like correspondence will minimise barriers for effective interaction by people with sensory impairments.
- Haptics toolkit: this will enable multi-sensory interaction with digital objects, through a novel approach which delivers haptic feedback emulating the feeling of touch in a digital object.
- IPR toolkit: To address the challenge of protecting the digital native content, SHIFT will adopt international standards on copyrights and digital protection of derivative copyrights.



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## CONCLUSION

The integration of new technologies such as smartphones, QR codes, NFC, and AI into the permanent and tactile exhibits at the NI Institute and Museum Bitola holds tremendous potential for enhancing accessibility for people with sensory disabilities. These innovations enable personalized and adaptable experiences, that cater to the specific needs of visitors. The use of QR codes and NFC tags within the exhibit, combined with visitors' personal smartphones, transforms these devices into personal guides, providing audio descriptions and sign language videos that make the exhibits more inclusive and engaging. AI technologies further enhance accessibility by offering sophisticated tools, such as those mentioned in the SHIFT project. Together, these advancements contribute to creating a more inclusive museum environment. The latest developments in AI technologies open up a wide range of possibilities, which, combined with our experience in improving accessibility, are steadily leading us toward the goal of an inclusive museum environment where all visitors can fully enjoy and benefit from our exhibits.

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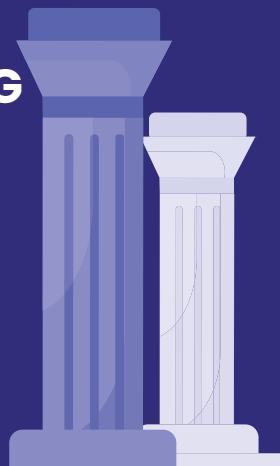
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# INCLUSIVITY, ACCESSIBILITY AND USABILITY IN THE MAKING – SHAPING THE MUSEUM WITH THE HELP OF STAKEHOLDER VISITOR GROUPS

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## ABSTRACT

*The Semmelweis Museum of the History of Medicine of the Hungarian National Museum Public Collection Centre (SOM), in collaboration with the SHIFT Horizon Europe project, pioneers inclusive measures to accommodate diverse visitor groups, including people who are deaf, blind, or on the autism spectrum. This initiative entails the development and implementation of innovative technological solutions to enhance accessibility and engagement within cultural heritage spaces. Through the utilization of cutting-edge artificial intelligence, machine learning, and multi-modal data processing techniques, the museum aims to transcend traditional barriers to participation. Specifically tailored tools and interfaces, such as haptic interfaces and linguistic analysis of historical records, are designed to cater to the unique needs of each diverse visitor groups. Comprehensive assessments of these technological innovations ensure their efficacy in facilitating meaningful experiences for all visitors. By embracing the latest advancements in digital content transformation methodologies and semantic representation, the museum strives to foster an inclusive environment where every individual can fully engage with and appreciate the richness of cultural heritage and contribute to the final results of the SHIFT project. Through the strategic integration of technology, inclusivity and a participative approach, the Semmelweis Museum hopes to set a precedent for cultural institutions, demonstrating how digital transformation can lead to greater accessibility and enriched experiences for diverse audiences.*

**Keywords:** inclusion, accessibility, usability, museums, cooperation

## INTRODUCTION

The Semmelweis Museum of the History of Medicine, a division of the Hungarian National Museum Public Collection Centre, has dedicated nearly 60 years to preserving, collecting, researching, and disseminating knowledge of medical history. The collection features an extensive array of medical instruments and a comprehensive historical timeline of Western medicine, spanning from the ancient Egypt to modern advancements. Visitors can explore the continuous evolution of medical practices and the critical roles of medicine and pharmacy across different eras and civilisations. This rich and dynamic tradition of Western medical culture, with its diverse origins, is exhibited within the historic Meindl House. This 18th-century building, recognised as a national monument for its architectural significance and historical importance, is also the birthplace of Ignaz Semmelweis. Semmelweis (1818-1865), an early pioneer of antiseptic procedures known as the “saviour of mothers,” revolutionised medical practices with his discovery that hand disinfection in obstetrical clinics could significantly reduce the incidence of childbed fever. The building itself is an exceptionally old, protected monument. Despite efforts to present the medical history collection to the widest possible audience in a manner befitting Semmelweis’s legacy, the building’s nature poses challenges. The building spans two floors, with the ground-floor exhibition area being difficult to access for individuals with mobility impairments, and access to the upper floor which is particularly challenging for this visitor group. Although the permanent exhibition has a long history, a few changes have been made in recent years.

This institution honours the legacy of Ignaz Semmelweis by ensuring its collections are accessible to a diverse audience, including individuals with hearing impairments, visual impairments, and those on the autism spectrum. It is, therefore, particularly important to introduce the collection to individuals with disabilities, as many artefacts preserve and present the intellectual, material, and cultural memories of individuals from previous eras. In recent years, the museum has had the opportunity to host several groups of individuals with disabilities. Currently, efforts are focused on making the museum accessible to the widest audience possible, ensuring that affected individuals can enjoy visits, whether for programmes or individual tours. Over the past two years, the museum has consciously expanded its programme offer (educational programmes also) to make individuals living with disabilities feel at home (Sova, 2010). The programme includes museum education sessions on the history of disabilities, lectures, and training on museum inclusion, and collaborations with relevant organisations.

## THE PROJECT: SHIFT

The SHIFT project: **MetamorphoSiS of cultural Heritage Into augmented hypermedia assets For enhanced accessibility and inclusion**<sup>12</sup> aims to support the adoption of digital transformation strategies and the integration of advanced tools within the creative and cultural industries, where progress has traditionally lagged. The project is strategically designed to advance beyond the current state-of-the-art by providing a suite of loosely coupled technological tools. These tools empower cultural heritage institutions to foster growth and deliver new experiences to all citizens, including individuals with disabilities, by leveraging the latest technological innovations in artificial intelligence, machine learning, multi-modal data processing, digital content transformation methodologies, semantic representation, linguistic analysis of historical records, and haptics interfaces.

The SHIFT project aims to develop an innovative, multimodal framework and toolkit to enhance accessibility and inclusion in the cultural heritage sector through digital means. This sector, often conservative and hesitant to adopt rapid technological advancements, critically needs to become more inclusive. The project's innovative approach introduces challenges and risks associated with ensuring the accessibility and usability of cultural content. Therefore, a thorough understanding of user and stakeholder requirements within the cultural heritage sector is essential for its successful implementation. The project began in October of 2022 and will last until the December of 2025, with a full-scale funding from the European Union's Horizon Europe research and innovation framework programme.

As the SHIFT project entered its second part, a draft toolkit developed by a team of developers was available for primary testing by the target audience. The stakeholder group workshops held in April and June at SOM, along with the evaluation of non-user and user surveys conducted by SOM and partner institutions, provided substantial feedback from the focus groups, which proved valuable for the developers. For the project, this cooperation holds significant added value due to its inclusive approach towards individuals with physical disabilities and its cutting-edge methodology of participatory development, facilitated by the workshops and questionnaires conducted by SOM involving the target groups.

Receiving first-hand feedback is crucial, alongside considering professional guidelines. The development directions and details are determined through collaborative processes involving individuals with disabilities and experts, adhering to the principle of "Nothing About Us Without Us." This approach is also applied in the SHIFT project, with continuous consultations with individuals living with disabilities and joint brainstorming sessions during workshops. These workshops primarily involved the most frequent visitor groups, including individuals on the autism spectrum, those with visual impairments, and those with hearing impairments. The conclusions drawn from this collaborative work are not only utilised during

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<sup>12</sup> <https://shift-europe.eu/>

the project but also facilitate daily operations, since individuals with disabilities often visit as individual visitors or integrated groups. Furthermore, the workshop conclusions highlight the importance of adjustability and customisation, a lesson integrated into daily operations thanks to the project.

For a relatively small institution like SOM, participating in large-scale international projects always presents a significant opportunity. Through the SHIFT project, the museum gains a platform for collaboration with global experts in accessibility tool development – an opportunity that would not be feasible without the support of the Horizon Europe project. To date, SOM has hosted an international project meeting, facilitating extensive knowledge sharing, and conducted several workshops for stakeholder groups. These workshops provided first-hand feedback from the target audience, creating an inclusive project development environment.

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## **THEORETICAL BACKGROUND: 4 INCLUSIVE WORKSHOPS AT THE SOM**

In April 2024, the SOM hosted three workshops tailored to different accessibility groups: people with hearing disabilities, people on the autism spectrum, and people with sight disabilities. These workshops aimed to explain the latest technical developments of the SHIFT project through short videos provided by developers to gather the participants' feedback on the inclusivity, accessibility and usability of the technologies in the making.

Having shared the results with the SHIFT consortium some weeks later, a follow-up workshop was organised in June back at the Semmelweis Museum. Instead of hosting three separate workshops, individuals with visual and hearing impairments and those on the autism spectrum were invited to share their ideas and exchange experiences regarding their challenges and best practices when visiting museums and cultural institutions. During the final workshop, the concepts of inclusivity, accessibility, and usability were interpreted, through which SOM and the project staff aimed to gain deeper insights into the attitudes of the target groups.

This cooperation is definitely multifaceted: throughout the process, not only the project developers and partners but also SOM colleagues are able to accumulate substantial experience, which can be utilised in the future to make the museum more visitor-friendly.

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## GOALS AND METHODS

The primary objective of this case study is to present the workflow – comprising professional workshops and bilateral consultations – during which SOM staff and the focus group visitors collaboratively processed and evaluated the SHIFT project’s targeted technical developments. On one hand, the feedback obtained in this manner will be further utilised by the project’s technological partners in the relevant stages of the SHIFT project to develop technological solutions for visitors. On the other hand, museologists and museum educators at the SOM and at the extended network of the Hungarian National Museum PCC can also collect a significant amount of information to be used in the future when designing exhibitions, events and visits to their museum spaces (Kruczek et al. 2024).

The methods used during the workshops consisted of online and offline questionnaires, compiling word clouds, interviews and individual consultations. The results discussed in this case study, mostly but not exclusively, come from the offline workshops, triangulated by further interviews and online questionnaires launched during the events or within some days after the workshops.

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## WORKSHOP WEEK WITH FOCUS GROUPS AT THE SEMMELWEIS MUSEUM: INSIGHTS AND RECOMMENDATIONS FOR ACCESSIBILITY

In April 2024, the Semmelweis Museum of the History of Medicine, an institution affiliated to the Hungarian National Museum (MNM SOM) in Budapest, Hungary, conducted a series of workshops aimed at understanding and enhancing accessibility for diverse visitor groups. These groups included individuals with hearing disabilities, individuals on the autism spectrum, and individuals with sight disabilities. The workshops, focused on the latest technical developments presented through short videos by their respective developers, included feedback sessions that functioned as focus group interviews.

As a warm-up activity, participants engaged in a tactile exploration of coins from the museum collection, kept in plastic foil covers for protection. This exercise aimed to solicit feedback on the sensory experience and the informational content associated with the coins. Participants highlighted the need for more comprehensive background information, including details about the creation, usage, and relevance of the coins to medical sciences. Visitors who are blind or visually impaired preferred auditory descriptions to complement the tactile experience as detailed auditory information can significantly enhance the understanding and appreciation of the artefacts. Visitors who are deaf or hearing-impaired opted for written texts or sign language interpreters, either as live interpreters or virtual assistants on screens. Improved text-to-speech solutions, avoiding “machine

voice” effects, were also recommended for better engagement over extended periods. Finally, visitors on the autism spectrum wished for clear, predictable information delivery, avoiding sensory overload from flashing screens or intricate backgrounds. For this group, providing advance information about the tactile and visual experiences can help reduce anxiety and improve engagement.

The workshop continued with the feedback session where target group representatives were invited to give their assessment on five new SHIFT technologies showcased via short videos compiled by the developers of the project.

The first video showcased an image processing technology for analysing and restoring artefacts, transforming visual information into accessible formats and unlocking the stories embedded within artworks based on the SOM coin collections used in the previous exercise. Visitors on the autism spectrum required clear, direct information with minimal design distractions. Supporting materials such as flowcharts and visual guidelines, along with the presence of knowledgeable staff, were recommended. Visitors who are visually impaired felt they would benefit from strong contrast in visual displays, though preferences varied. Customisable tools for adjusting contrast, sound, and text size were labelled necessary to meet diverse needs.

The second video demonstrated the use of VR headsets and haptic gloves to create immersive experiences, allowing visitors to virtually interact with artefacts. Visitors on the autism spectrum asked for clear instructions and control over sensory inputs to prevent sensory overload in similar cases. In general, providing advance information about the duration and nature of the immersion was considered crucial for them. Visitors who are visually impaired looked for detailed narrations describing visual elements. Differentiating between types of information through distinct voices was also beneficial for them. Visitors who are deaf or hearing-impaired required easy-to-read texts and clear signage for effective navigation and understanding.

The third development focused on creating more human-sounding text-to-speech translations using a museologist’s voice for consistency, aiming to provide extensive textual content in translated languages at a lower cost. In general, visitors who are on the autism spectrum or hearing-impaired found the lack of synchronisation between facial gestures and spoken words in translated versions disturbing. Optional captioning with large, clear fonts was suggested to assist such groups of visitors.

The fourth video featured an AI tool offering customisable descriptions of artefacts in various formats, allowing visitors to tailor the information to their preferences and needs. Visitors who are visually impaired opted for flexible description lengths and clear user interfaces, while autistic individuals needed straightforward navigation and important keywords highlighted. The group comprising of individuals who are hearing-impaired found captioning options helpful in reducing noise and aiding in understanding the content framing the artefacts.



The last technological development added sound effects to visual artefacts, creating a fuller sensory experience, particularly for visitors who are visually impaired. For example, the sound of the seashore was added to the painting “The Isle of the Dead” by Arnold Böcklin to enhance the immersive experience. Visitors on the autism spectrum required the careful handling of abstract concepts and metaphorical content to avoid overwhelming them. They also preferred separating background sounds and narration to help prevent sensory overload. The group comprising of individuals who are visually impaired found that sound effects enhanced their understanding of the visual elements. Participants who are hearing-impaired opted for captioned narrations and control over background sound volumes for an effective comprehension.



Figure 1. Workshop for visitors who are hearing-impaired at the SOM in April 2024

## SUMMARISING WORKSHOP: MORE ON ACCESSIBILITY, INCLUSIVITY AND USABILITY

The workshop began with a brief update on the project’s latest developments. Subsequently, participants who are visually impaired and professionals specialising in autism were invited to provide their feedback. Thought bubbles and word clouds were generated based on the project’s primary objectives: accessibility, inclusivity, and usability. Among the keywords, the participants associated “inclusivity” with acceptance, openness, awareness-raising, and “being in the picture,” emphasising that inclusion should not only pertain to the presence of visitors with special needs but also to the museum adopting their perspective. One participant elaborated on this, saying: “Inclusion also means that we should be able to receive what the museum wants to offer us, establishing an equal, non-hierarchical relationship as recipients and givers.” This also involves the museum understanding the capabilities of its visitors, whether they are living with a disability, adults, children, elderly, from the city, or from the countryside.

Regarding “usability,” discussions touched on accessible movement within museum spaces and the comprehensibility of artefacts. Controllable lighting was deemed especially important, as some of the individuals who are visually impaired require more light, while for others, it can be a hindrance. Glass display cases, due to their transparency, can pose a danger – contrast, predictability, and prior knowledge of the case’s existence, dimensions, and shape can help mitigate this. Discreet but clear sound signals can also be beneficial.

On the topic of “accessibility,” it was emphasised that having an online accessible audio map when planning a museum visit significantly improves the user experience. Knowing the length of the exhibit, the route to be taken, and the installation method beforehand allows for better focus on the exhibition, making it easier to understand the curator’s concept and appreciate the value of the artefacts (Casanova-Salas et al. 2024). A negative example mentioned was the inconsiderate use of buttons: while push buttons are more practical than touch screens for a visually impaired person, they are only truly functional if one knows in advance about their presence, location, and function.

The workshop revisited the previously examined Arnold Böcklin’s painting “The Isle of the Dead”. Visually impaired individuals could choose from texts of varying lengths and detail, selecting the most informative and accessible version. Participants again highlighted that the perception of a painting differs for someone who has been blind since birth versus someone who lost sight later in life: for the former, listing the colours and forms of the painting means little, while for the latter, these details help connect with the artwork. Besides physical data – such as the painting’s size, weight, and significance – both groups considered it important to understand the relationship between the painting and the artist, its place in the artist’s oeuvre, and the description of the depicted scene. For individuals who were born blind, accurately conveying the painting’s mood is crucial.

Subsequently, participants were introduced to two artefacts from the Semmelweis Museum of the History of Medicine: a porcelain “opium pillow” and a wooden model of a medieval anatomical theatre. Both artefacts are displayed in cases, and their comprehension is primarily achieved through auditory descriptions. However, there was consensus that a handheld, three-dimensional model could help “visualise” the artefact behind the glass.

Individuals with autism highlighted that, for many, interactions with doctors are associated with anxiety, which can be triggered by historical medical instruments seen in a museum setting. They suggested that it is worthwhile to pre-emptively inform visitors about these critical artefacts and allow for them to be avoided.

To accommodate diverse visitor groups, the development of applications and solutions must be inherently flexible and customisable. Tools and features should be optional and adjustable to ensure a tailored experience that meets the specific needs of each visitor group. This approach not only enhances accessibility but also enriches the overall visitor experience by catering to individual preferences and requirements.

- Visitors who are hearing-impaired: Museums should implement clear, easy-to-read texts, optional captions, and sign language interpretation to facilitate better understanding and navigation.
- Visitors who are on the autism spectrum: Museum should ensure predictability, clear information delivery, minimal distractions, and control over sensory inputs to prevent sensory overload and anxiety.
- Visitors who are visually-impaired: Museum should provide detailed auditory descriptions, customisable visual contrasts, and distinguishable narration options to enhance the overall experience.



Figure 2. Word clouds compiled at the June workshop at the SOM

## CONCLUSION

At a local scale, the cooperation between the different stakeholder groups, the museum and the SHIFT project highlighted that, by addressing the specific needs and preferences of diverse visitor groups, museums can ensure that everyone has the opportunity to enjoy and understand cultural offerings. It was critical for the SOM to create inclusive and accessible experiences that allow all visitors, regardless of their disabilities, to fully engage with and appreciate exhibits. The results of these workshops also clearly demonstrated the importance of involving focus groups – in this case, comprising individuals who are blind, deaf, or are on the autism spectrum – throughout the project’s various stages. Their firsthand

feedback provided important insights that can significantly enhance the usability of the developed tools and strategies. This involvement ensures that the solutions created are practical, effective, and genuinely beneficial for the intended users. The workshops may also contribute to the successful implementation of the SHIFT project, hopefully paving the way for other EU funded projects with a similar approach.

At a larger scale, by adopting this comprehensive approach to accessibility, museums can foster a more inclusive cultural environment. This not only improves the experience for visitors with disabilities but also enriches the cultural landscape for all, promoting diversity, understanding, and acceptance. The insights gained from this cooperation so far already underscore the essential role of continuous user engagement and feedback in developing truly accessible and inclusive cultural spaces. These insights also highlighted the importance of creating inclusive and accessible museum experiences, ensuring that all visitors, regardless of their disabilities, can fully engage with and appreciate the exhibits. Finally, and most importantly, as one of the visually impaired visitors emphasized, the collaboration has brought significant benefits for people living with disabilities:

*“Here - and I can speak for everyone - there is really **no wrong question, no taboo question**, and we are happy to talk about our disability because we know that later on, **you will be able to use the practices and advice that we give you.**”*

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## AUTHOR'S BIOGRAPHIES

**Jelena Bobić** graduated from the Faculty of Philosophy in Novi Sad, in pedagogy. She has been employed at the Gallery of Matica Srpska since 2020, as a museum educator. She participates in the creation and implementation of educational programs and creative workshops for children, family programs and youth programs. Since starting her internship at the Gallery, she has been developing cooperation between primary and secondary schools and museums through the Gallery as a Classroom program. She is a member of the Pedagogical Society of Vojvodina and National Committee of ICOM Serbia.

**Liliána Benyó-Vattay** obtained her degree in History from the Faculty of Humanities at Eötvös Loránd University (ELTE-BTK) in 2014, specialising in the ecclesiastical and social history of the early Middle Ages. She has been working as a museum educator in historical museums since 2016. In her work, she employs a variety of methods, primarily using elements of drama pedagogy and playful techniques. Since 2018, she has been the owner of a company that develops museum games, responsible for the museum education offerings of several Hungarian museums and the development of digital and analogue games. Since 2021, she has been a student at the ELTE Bárczi Gusztáv Faculty of Special Needs Education, specialising in the education of individuals with learning disabilities and hearing impairments. Since 2022, she has been working as a museum educator at the MNM Semmelweis Museum of Medical History. In her current role, she focuses on democratic and inclusive education, primarily working with adolescents. She supports the SHIFT project from a museum education perspective.

**Natalija Čađenović**, director of the Natural History Museum of Montenegro, was born in Podgorica, Montenegro. She completed her basic studies at the University of Montenegro, Faculty of Science, Department of Biology. She completed her postgraduate studies in 2006 at the Faculty of Biology, University of Belgrade. She obtained the title of Doctor of Biological Sciences at the Department of Biology and Ecology, Faculty of Science and Mathematics in Novi Sad in 2014. She obtained the title of museum adviser in 2009, while she obtained the title of scientific associate in the field of zoology in 2019. She is the author and co-author of numerous scientific papers in the field of herpetology, published in domestic and renowned international journals. She is the author and co-author of numerous exhibitions of the Natural History Museum of Montenegro, and a participant in many international conferences, projects, and workshops. Since her appointment as the museum director, she improved the work of the museum, which now has a significant cultural, scientific and educational role in the Montenegrin society.

She has made a special contribution to the improvement of exhibitions and the creation of accessible content for people with disabilities, and she has devoted herself especially to visually impaired and blind visitors.

**Branka Dragičević** was born in Foča in 1980. She completed the elementary school and high school in Foča, and the Faculty of Philosophy, Department of Journalism at the University of Banja Luka. She has been employed at the Museum of Old Herzegovina since 2010, where she held the position of director for two terms. She has been working as a museum pedagogue for seven years. She has organized numerous exhibitions, and initiated workshops for children, adults and people with disabilities.

**Ioana Cornelia Cristina Crihană** is a philology graduate who specialized in digital enterprise management and service science as well as financial management and consultancy and expertise in advertising. She is a certified trainer in the partnership brokering field and is now a PhD student in System Engineering. Ioana Cornelia Cristina Crihană worked consecutively in a radio studio, in the written media, in an important governmental institution, in a well-known advertising agency, and in a leading company in the software industry. Currently, she is the Executive Director of the most representative professional association of public libraries in Romania. In the last 15 years, she coordinated complex cultural and educational projects and acted as an active ambassador of inclusive education, being the initiator and project manager in numerous cultural, educational and community development projects.

**Ivana Gruden Milentijević** was born in Leskovac in 1985. She graduated from the Faculty of Philosophy at the University of Niš, Department of History, in 2011. Ivana is employed as a senior museum educator at the National Museum in Niš. She is one of the authors of the permanent exhibition at the Red Cross Concentration Camp and has authored several monographs and professional papers related to civilian suffering during the World War II. In addition to her scholarly work in history, she actively promotes the cultural heritage of the National Museum in Niš through workshops and lectures.

**Derviš Hadžimuhamedović** is a Project Manager at the Department for Sustainable Development, City of Sarajevo, with experience in cultural management. He has coordinated the International Summer School Youth and Heritage since 2017. Derviš is an archaeologist who combines practical work with a constant aspiration to expand the scientific and theoretical knowledge of cultural heritage in an international framework, with a special focus on heritage documentation methods. He has participated in a number of international conferences and workshops, including UNESCO and World Heritage Committee Meetings. He is engaged in creative photography, for which he has received several awards.

**Elma Hodžić**, a curator from Sarajevo, has worked at the History Museum of Bosnia and Herzegovina since 2013. Actively involved in revitalizing the museum, she has helped shape a more open policy that encourages societal engagement, dialogue about the past, and critical thinking. As head of the museum's library,

she also oversees the Art Collection and the Collection of three-dimensional objects. Together with her colleagues, she has implemented programs that reinterpret museum stories, providing them with new social contexts and exploring heritage from diverse narratological perspectives. Her work focuses on the role of museums in constructing collective memory and identity, as well as on the musealization of the 1992-1995 war through the “Besieged Sarajevo” exhibition. Hodžić has collaborated with prominent artists on the national and international cultural scene, curating over 50 exhibitions for the History Museum of BiH and other institutions. She has contributed to projects aimed at developing museum pedagogy, authored the program “The Story of Museumdom,” and designed programs for various audiences, including children and seniors. An active participant in museological seminars, conferences, and workshops, she also serves as editor-in-chief of the \*Proceedings of the History Museum of BiH\* since 2017. Since 2022, she has worked as a journalist and culture editor at \*Urban Magazine\*. With a decade of experience, Hodžić remains committed to the transformative power of museums in society.

**Amar Karapuš** (born 1981 in Sarajevo, Bosnia & Herzegovina) is a museum advisor at the Historical Museum of Bosnia and Herzegovina. He received his university Diploma from Faculty of Philosophy, University of Sarajevo in 2006, and is currently a postgraduate student in History at the same university. He has been employed by the Historical Museum since 2007, and during this time has overseen the organization of numerous exhibitions (both for the Historical Museum and other institutions), and has participated in a number of workshops and conferences; both regional and international. Much of his current work and interests covers themes such as the Second World War in the Former Yugoslavia, interpretation of contentious histories, historical interpretation for the public, and preventive conservation techniques. He currently oversees the weapons collections of the Historical Museum and is actively engaged in researching and inventorying these collections. During his work in museum practice, he participated in the realization of 16 exhibitions, of which 3 are permanent installations including the “Touch History” tactile area intended for individuals who are blind and visually impaired, and has authored 11 works in the field of history and museology. He also participated in numerous workshops, trainings, conferences and courses aimed at working people with disabilities.

**Marko Karaman** has served as the curator of the invertebrate collection of the Natural History Museum of Montenegro since the museum was established in 1996. He graduated with a degree in biology in 1995 at the University of Novi Sad, and earned a PhD degree in 2010 at Department of Morphology, Systematics and Phylogeny of Animals, the University of Belgrade, Serbia. Well acquainted with environmental problems in Montenegro, he has significant experience in ecology and taxonomy of invertebrates, especially ants and cave dwelling animals. He participated as the co-author in several exhibitions of the Natural History Museum of Montenegro, as well as in many international projects, workshops, conferences. Since he became the Assistant Director, in 2021, he has devoted

more of his time to improving the educational and cultural role of the Museum in the Montenegrin society. In particular, he examines the ways in which exhibitions can be adapted to people with disabilities, as well as how to implement results of these examines.

**Katarina Krstić** graduated from the Department of Art History at the Faculty of Philosophy in Belgrade. She completed Master's studies in Cultural Studies at the Faculty of Political Sciences in Belgrade. Since 2006, she has been employed at the Museum of Contemporary Art in Belgrade in the Department of Art Documentation as a curator and librarian. She deals with the processing and presentation of artistic documentation and library activities. Since 2014, she has been developing her curatorial practice by implementing a program for adaptation of the museum contents and collections to persons with disabilities through the Inclusion and Museum program, which she designed with Senka Ristivojević, the curator. As part of the program, she co-authored workshops for children with intellectual disabilities, guidance in sign language and exhibitions for the blind and persons with visual impairment – In Touch With in 2019, and the Blue Exhibition in 2023.

**Anida Manko**, PhD. is a senior assistant at the Faculty of Philosophy, University of Sarajevo. In her professional development, she researches and develops topics in the fields of inclusive education, museum pedagogy, intercultural education, and educational policies. She is particularly interested in creating an accessible educational environment in museums. In line with this, she has researched the application of Universal Design for Learning in museum environments. She has participated in many international scientific and professional conferences and has authored numerous scientific articles and publications in the fields of pedagogy, inclusion, museum pedagogy, and intercultural education.

**Milena Milošević Micić**, with an M.A. in art history, works as a museum advisor at the Homeland Museum of Knjaževac. For more than 20 years, she has been a dedicated activist, curator, educator, PR, project manager, and acting director of the museum in two mandates, with the main goal of developing a new role for the museum in the local community. She believes that museums are public spaces open for everyone, forums for open dialogues or debates, and places of unique values of common heritage. Her fields of expertise include museum studies, collection management, re-organization of the museum storages, access & inclusion, marketing in culture, cultural & educational tourism, heritage interpretation etc. She is also a member of ICOM, SMA, BMN, BMAG, AAM, AAMC, Interpret Europe, Bridging Ages and was awarded by the ICOM's National Committee of Serbia, as the best museum professional in Serbia in 2021. She is a licensed heritage interpreter (Interpret Europe) and a tourist guide.

**Milica Orlović Čobanov** graduated from the Faculty of Philosophy in Belgrade, at the Art History Department. Since 2002, she has been employed in The Pavle Beljanski Memorial Collection in Novi Sad as a curator – educator, and from 2011 as a coordinator of the Museology Department. She is in charge of research team



coordination and works on exhibitions, as well as on educational programmes and designing educational, informative and promotional material in public relations. With the idea of making the Memorial Collection open for all and making it accessible, from 2011 she has coordinated the Touch and Feel project, designed for visually impaired people. From 2019, she is engaged in production of application for hearing impaired visitors within the Museum for All project. She is a member of Museum Society of Serbia and the ICOM Serbia.

**Jove Pargovski**, MSc. works in the National Institution Institute and Museum Bitola, in the documentation and digitization department. He is actively engaged in enhancing museum accessibility through the implementation of diverse projects. Jove has authored several tactile exhibitions and showcases in countries including Macedonia, Serbia, Montenegro, Albania, Croatia, and Slovenia. In addition to his exhibitions, he has produced numerous scientific papers, printed publications, and multimedia content. Jove is a member of the Balkan Museum Network and several national associations.

**Ivana Rastović** graduated from the Faculty of Philosophy, University of Belgrade, in art history. Since 2018, she has been employed at the Gallery of Matica Srpska as the curator. As author and an associate, she participates in the organization, realization and promotion of exhibitions and accompanying programs. Moreover, she creates programs for children, the young and adults. She has also authored several publications in the field. Ivana is also engaged in the development of accessibility and inclusive programs. She is a member of the National Committee of ICOM Serbia.

**Senka Ristivojević** is a curator at the Culture Centre of Belgrade, and former curator at the Museum of Contemporary Art in Belgrade, Serbia. She holds a bachelor's degree in History of Art from the Faculty of Philosophy, Belgrade, University of Belgrade. With Katarina Krstić, she is the co-author of inclusive exhibitions titled In Touch With and the Blue Exhibition, which propose a new approach to the adaptation, mediation and interpretation of artworks intended for the blind and people with visual impairments. She is the author of many educational texts and art reviews. Her fields of interest include art interpretation and mediation, museum studies, and advancing accessibility and availability of contemporary art.

**Irena Ružin** Ph.D. is a proud Steering Board member of the Balkan Museum Network, Balkan Museum Access Group and other professional bodies. She has worked in the National Institution Institute and Museum Bitola, Macedonia, for more than 30 years. Her professional work is mainly focused on managing international and national projects, museum marketing and cultural heritage education. Irena is involved in many international projects related to cultural tourism and tourism development strategies. She has shared her knowledge, gained from many international trainings, specializations and study visits, with her colleagues from the Balkans. Several years ago she started to implement accessibility and inclusion projects in museums and cultural heritage sites in the Balkans. Irena is an active member of several international professional associations and boards

and has participated in many international conferences and symposiums. Irena has won several international and national awards.

**Nermina Suljević** is the Assistant Mayor for Sustainable Development at the City of Sarajevo, with extensive experience in projects focused on sustainable development in culture and other areas. Among her many successful initiatives are projects “Museum Stories”, “Chimera,” and “IVA”, through which she has effectively managed efforts aimed at strengthening museums in Sarajevo and the broader Balkan region. As a key initiator, she has significantly contributed to creating networks that enhance collaboration between museums in Sarajevo, Serbia, and Montenegro. Her dedication and expertise make her a vital figure in promoting culture and sustainable development in the region.

**Aida Šarac Berbić** was born in 1991 in Sarajevo, Bosnia and Herzegovina, where she completed her Master’s degree in art history, majoring in teaching, at the University of Sarajevo’s Faculty of Philosophy. For ten years, she has worked as a museum pedagogue in the Museum of the National Gallery of Bosnia and Herzegovina, where she fights for the democratization of art, museums, and the development of accessibility for people with developmental disabilities. She has published scientific works in the field of accessibility and museum pedagogy in proceedings from regional and international conferences, manuals, and local, regional, and international magazines in the field of museology. She is an individual member of ICOM, BMN, GEM, and the Forum of Slavic Cultures.

**Kludia Klára Tvergyák** obtained her degrees in History, English and Hungarian in 2001-2003, specialising in political thinking and teaching Hungarian as a foreign language. She worked on her PhD in applied linguistics in Pécs and then worked as a secondary school teacher. From 2009 she worked as a digital education expert, then in innovation and research development, before joining the Hungarian National Museum as a grant consultant in 2016. Over the last 15 years, she has led several projects on innovation, inclusion, education development and youth in different EU Framework Programmes (Erasmus+, Creative Europe, FP7, Horizon 2020 and Horizon Europe, etc.). Currently, she is responsible for the international cooperation projects of the HNM PCC and supports the SHIFT project as a team lead.

**Aida Vežić** is Secretary General of the Balkan Museum Network since 2013. She finished Faculty of Economics at the University of Sarajevo and Master Program “Cultural Projects for Development“ in Turin. Aida is developing civil society organisations in the last 25 years and working as consultant, facilitator, researcher and trainer. Her work has mostly been cross-border focusing on culture, heritage, peace building and philanthropy. Her guiding principle is the notion that every individual is responsible for creating the society they want to live in and for developing systems that ensure fairness and equality.

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# ABOUT THE BALKAN MUSEUM NETWORK

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Aida Vežić  
Balkan Museum Network

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## ABSTRACT

*The Balkan Museum Network (BMN) serves as a collaborative platform for museum professionals dedicated to celebrating and preserving the diverse heritage of the Balkans. Through capacity-building programs, small grants, and international partnerships, BMN supports accessibility and inclusivity in museums across the region. A key achievement is the creation of the Balkan Museum Access Group (BMAG), which consults museums on accessibility for people with disabilities. BMN's initiatives have led to improved infrastructure and accessible exhibitions, supported by grants from various donors. In recent years, BMN manages the Headley South East European Fund for Cultural Heritage, further providing possibilities for the heritage sector. The network actively promotes professional development, knowledge exchange, and best practices through its flagship conference, "Meet, See, Do," as well as collaborations on Erasmus+ projects like within the projects iNCLUSION, which explores digital solutions for accessibility in cultural heritage, ToMiMEUs, which focused on multisensory and inclusive museum experiences for individuals with sensory disabilities. BMN's ongoing efforts underscore its dedication to fostering an inclusive, accessible, and resilient museum community in the Balkans.*

**Keywords:** Accessibility, Cultural heritage, Balkan Museum Network, Inclusivity, Professional development

The Balkan Museum Network (BMN) is a platform for museum professionals to learn, share, and support each other. Its mission is to celebrate, preserve, and promote the diverse and shared heritage of the Balkans. By fostering cooperation, BMN creates strong collective learning opportunities for heritage and museum professionals. BMN is a membership-based organization that includes museums, individuals, and associations (nongovernmental institutions). In 2024, BMN has more than 250 members from across the Balkan region.

BMN stands out as a unique structure, welcoming and supporting all museums in the Balkans. It seeks ways to collaborate and exchange ideas, even in challenging environments. BMN connects museums with broader heritage sectors, especially educational institutions, and establishes international ties. The network addresses various thematic issues through its events, projects, and collaborations. BMN organizes capacity-building activities for its members, including conferences, webinars, trainings, and workshops. Through a small grants scheme, it provides funding for pilot projects, enabling museums to develop new services, engage new audiences, strengthen outreach, build partnerships, and adopt problem-solving approaches.

BMN is committed to making museums more inclusive and accessible. This journey began over 10 years ago with the first step of building human capacities. A key outcome of this long-term training program is **the Balkan Museum Access Group (BMAG)**, a team of museum professionals who consult museums across the region on how to increase accessibility for people with disabilities. BMAG members conduct accessibility surveys and recommend priority actions tailored to each museum's needs and infrastructure. They have worked with many vulnerable groups and promote partnerships with associations of disabled people, using the social model of inclusion.

BMN has also invested in improving museum infrastructure to increase accessibility. It continues to fund museum projects that enhance exhibition spaces by installing features such as audio guides, benches, magnifying glasses, ramps, lifts, handrails, movable chairs, improved lighting, QR codes, simplified labels and other features. These investments have been made possible through BMN's facilitation of re-granting programs from various donors. **The Small Grants Program** has been running since 2010, and it serves as a laboratory for museums to develop ideas, test partnerships, and gain media visibility. Projects funded by BMN often grow beyond the initial grants, as the partnerships formed during these projects build mutual trust and demonstrate shared benefits. Museums that receive small grants are often empowered to apply for additional funding from national and international sources.

In 2024, following the success of the 'Small Grants Programme' BMN partnered with the Headley Trust UK to establish the Headley South East European Fund for Cultural Heritage (More about the fund at <https://headleyseefund.org>). This fund aims to support the cultural heritage of South East Europe, with three main objectives: (1) to increase the capacity of young people, communities, heritage professionals, and third-sector organizations to engage with and manage the region's cultural heritage; (2) to foster partnerships between public and civil society organizations for heritage management; and (3) to promote regional cooperation and understanding. In the first two years, the Fund has made available

BMN's international museum conference, "**Meet, See, Do,**" serves as a platform for sharing success stories and best practices. By 2024, BMN has hosted eight editions of the conference, which is highly regarded as a forum for learning, networking, and community support.

BMN also gains valuable insights through transnational collaboration, participating in **European projects** funded by mechanisms such as Erasmus+ and Horizon Europe. International projects enable BMN to be part of relevant initiatives that bring in current knowledge and enhance the skills of BMN members.

Apart from SHIFT, Horizon funded project, BMN is currently partnered in the **iNCLUSION project** (ERASMUS+ KA220 HED (2023-2-TR01-KA220-HED-000177708), which addresses the limitations of technology in fully resolving accessibility issues in cultural heritage by advocating for a multidisciplinary approach. Recognizing that technological innovations alone cannot bridge all ac-

cessibility gaps due to the intangible benefits of cultural engagement, the project seeks to harness digital culture to foster inclusivity for diverse audiences, including those with visual, auditory, mobility, intellectual impairments, and Autism Spectrum Disorders (ASD). To this end, iNCLUSION has set three key objectives. First, it aims to research the heritage sector's needs to develop viable solutions for generating an inclusive cultural environment. Through a multidisciplinary approach, the project offers comprehensive training schemes and tools to elevate cultural production standards and leverage technologies that enhance accessibility for disabled audiences. This approach ensures a diverse set of skills is applied to create a more inclusive cultural experience. Secondly, the partnership aims to establish standards for creating digital culture accessible to disability audiences. This effort not only cultivates a new market but also leads to better employment opportunities by fostering more specialized, well-paid jobs. By setting these standards, the project helps to expand the cultural sector's reach and adapt to the evolving demands of audiences with disabilities. Finally, iNCLUSION trains 80 higher education (HED) students, equipping them with skills to develop new cultural products and follow market trends. This training also facilitates the replication of innovative practices across the EU and other partnering countries. Additionally, iNCLUSION enhances the transparency and recognition of qualifications for those working at the intersection of cultural heritage, ICT, and special education. By establishing clear micro-credentials and certification processes, the project supports the employability of graduates, particularly women, fostering a workforce that is better prepared to meet the accessibility needs within the cultural heritage domain. More about iNCLUSION project can be found at <https://inclusioninhed.eu>

BMN participated in the Erasmus+ project "Towards a Multisensory and Inclusive Museum for Individuals with Sensory Disabilities" (ToMiMEUs), led by the Transylvanian Museum of Ethnography. This initiative aimed to enhance accessibility to cultural heritage for individuals with sensory disabilities. BMN collaborated with museums and universities from Romania, Hungary, Greece, and Turkey. The project aimed to identify best practices and develop guidelines for creating accessible, multisensory, and inclusive museum experiences for visitors with sensory disabilities. Another objective was to promote collaboration between museums and universities to facilitate knowledge exchange and joint development. Additionally, the project sought to strengthen the professional profiles of museum staff by providing specialized training at partner museums, particularly for those involved in designing exhibitions and educational programs. A variety of resources and documents produced through the project are available at <https://tomimeus.eu>

BMN promotes inclusion and accessibility as core values among its members and the wider community, remaining steadfast in its commitment to fostering a more inclusive cultural heritage sector for all. Follow BMN on <https://www.bmuseums.net/>



## EXCERPT FROM THE REVIEW OF THE PUBLICATION



**Prof. Dr Tatjana Cvjetićanin**

National Museum of Serbia/Faculty of Philosophy University of Belgrade

Preface and introduction by editors of the manuscript **Inclusion in museums: a collection of best practices** clearly state its background and objectives: presenting selected examples of inclusive practices developed (mostly) in museums, with particular focus on the strategies and process of implementation as well as identification of obstacles and difficulties encounter in their realisation. Building upon previous and constantly evolving experiences of the Balkan museums, based on the social model of disability, most of the selected cases discuss inclusion for people with impairments, promoting greater social inclusion. And, as with the other publications by the BMN, this one is also a textbook – manual for putting into practice a range of solutions for still much needed accessibility and fulfilment of the culture for all concept.

Editors choose different examples from museums in Bosnia and Herzegovina, Hungary, Montenegro, North Macedonia and Serbia, as well as one from a library in Romania, considering that those institutions have set standards in inclusivity. Cases are coming from museums with various status and resources, from state and city museums, those with or without departments for educational or pedagogic activities, those with or (mostly) without previous experiences, showing foremost that dedication of involved professionals and determination to change, with the help of vulnerable groups always results in the democratization of institutions.

...the most important virtue – of all presented cases and of this book – is the constant betterment of the “inclusion landscape” and emergence of the new meeting points of various stakeholders. From heavy closed doors and ‘do not touch’ attitude, just to mention some obstacles, Balkan museums professionals – or in this case GLAM professionals – addressed divers challenges, often just with a pure enthusiasm, without adequate legal, financial or community support. And they continue, as several contributions show, to adapt to new challenges and to cleverly use the development of new technologies, enhancing accessibility even further.

This collection is also important evidence of the constant betterment of the professionals themselves. While accessibility issues (stairs, elevators, ramps, structural and architectural deficiencies) preventing audience to fully experience museum environment could be resolved following existing standards, the inclusion of various marginalised, stigmatised, vulnerable groups is not happening just following protocols. As all examples show, and some emphasise in lessons learned,

it needs constant re-examination of the strategies, approaches, attitudes and education. The creativity of professionals is certainly one important cornerstone, but without participation, engagement or involvement of persons with disability experience, those initiatives would never really change museums' settings. All contributions demonstrate that developing the inclusion projects together with representatives of diverse marginalised groups meant at the end more comprehensive communication and mediation of heritage values to all.

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