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The Open Lab. Empowering Community Engagement and Knowledge in Conservation and Treatment Methods

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Abstract. From a conservation point of view, the final exhibition of an artefact within a showcase can be characterized as a multidimensional process from the initial diagnosis for possible intervention up to its eventual restoration. In this context, it used to be that museums were solely providing these conservation steps for treatment in a mere relevant community, keeping this kind of knowledge and practice within the walls of the museums. Novel perspectives in conservation at a worldwide level are pushing the limits to concepts and principles such as openness, stakeholders' participation, and collective problem-solving within the whole grid of conservation of museum artifacts. The Open Lab of the Museum of Modern Greek Culture in Athens embraces these concepts and values, opening its conservation and restoration knowledge both to the local community and to interest parties such as conservationists and humanities scientists such as folklorists and historians. The Open Lab presents a groundbreaking approach to biodiversity conservation with expertise in textile conservation and treatment, harnessing open-source principles, community engagement, and technological innovation. This paper introduces the pivotal functionalities of Open Lab, outlining its core components and discussing its transformative potential in conservation efforts. More specifically, the paper unfolds and describes all the steps for its development, namely the selection of space, the configuration, and equipment of the Open conservation Lab, the full utilization of the equipment within specific rooms such as the low vacuum table presentation room, the room with washing tanks and the room of painting presentation room and mechanical cleaning process. By fostering collaboration among scientists, conservationists, and local communities, the Open Lab enables the exchange of vital data, resources, and knowledge crucial for effective conservation and restoration actions. Through case studies and examples, we demonstrate the profound impact of the Open Lab in promoting inclusive and sustainable conservation practices both in the national and worldwide contexts. We conclude by highlighting future directions and challenges for scaling up the Open Lab to address urgent conservation needs in the face of rapid environmental change.

Keywords: open lab, conservation, restoration, textile, visitor engagement

1 Introduction

The Museum of Modern Greek Culture's Open Fabric Conservation Workshop (Open Lab) aims to challenge the traditional practice of conducting conservation and restoration processes behind closed doors. Launched in 2023, the Open Lab seeks to create a transparent, participatory conservation space, making these often-hidden processes accessible to a broad audience and educating visitors on the complex procedures involved in conserving fabric artifacts. This initiative responds to the growing movement within the museum sector to involve the public more directly in preserving cultural heritage **[1]**.

By inviting visitors into the conservation process, the Open Lab serves as an educational tool and a platform for fostering a deeper appreciation for cultural heritage preservation. The Lab's mission is to demonstrate contemporary conservation techniques for fabric objects and actively engage visitors through interactive experiences, catering to a diverse audience, including students, professionals, and the general public. This paper examines the Open Lab's visitor engagement methods and their impact on

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public understanding of conservation practices. It seeks to assess its effectiveness and identify areas for future improvement through analyzing visitor feedback, survey data, and social media interactions.

2 Related Background

Making museum processes accessible to the public is not entirely novel. However, it has gained significant momentum recently, mainly as museums aim to maintain relevance in an increasingly digital and participatory era. Velios **[2]** asserts that museums evolved from static spaces where objects are exhibited to dynamic environments where knowledge is exchanged and generated through interaction. This evolution has prompted the adoption of more transparent conservation practices, inviting the public to engage with the often-imperceptible processes of artifact preservation.

The Open Lab model falls within the broader framework of participatory museology, which emphasizes visitors' active involvement in the museum experience. Abdel-Kareem **[3]** underscores the effectiveness of such models in conservation work, where public comprehension of the intricate processes involved can foster greater appreciation and support for heritage preservation endeavors. In textile conservation, where materials are fragile and methods highly specialized **[4]**, public engagement can demystify the work and encourage deeper community involvement in safeguarding cultural heritage.

Research on visitor engagement has demonstrated that hands-on, interactive experiences significantly enhance learning outcomes, particularly in educational settings. Baglioni and colleagues **[5]** observe that students actively participating in museum programs are more doable to retain information and develop a lasting interest in the subject matter. For professionals, participatory conservation models present opportunities for knowledge exchange and interdisciplinary collaboration, potentially leading to innovative solutions in preservation practices.

The participatory approach of the Open Lab aligns with these trends by providing a platform where visitors can observe and contribute to the conservation of fabric artifacts. This model educates the public and serves as a space for professional development, fostering dialogue between conservators, researchers, and the public. These programs epitomize a forward-thinking approach to museum practice, emphasizing transparency, education, and community involvement **[6]**.

3 Methodology

The methodology for this study utilized a combination of qualitative and quantitative approaches to thoroughly assess visitor engagement with the Open Lab. Data collection spanned from September to December 2023 and was conducted using three primary methods, each designed to capture different aspects of the visitor experience.

Visitor Questionnaires: At the end of their tours, visitors were asked to complete a tailored questionnaire. These surveys were crafted to collect both qualitative feedback and quantitative data, aiming to gauge visitor satisfaction, the level of knowledge acquired, and recommendations for enhancing the experience. Similar methodologies have been successfully employed in other museum studies to measure visitor engagement and educational outcomes **[7]**. The questionnaires were customized for specific visitor categories, including the general public, students, and professionals, allowing for more nuanced insights into how each group interacted with the Open Lab. This approach aligns with research emphasizing the need for targeted evaluation to understand diverse audience interactions in museum settings **[8]**. Questions explored not only general enjoyment and understanding but also sought to uncover how visitors' perspectives on conservation might have shifted due to their engagement with the exhibits. Additionally, demographic information was collected to analyze any correlations between visitor backgrounds and their engagement levels.

Observational data: During guided tours, researchers made informal notes to document visitor behaviors, attention spans, and levels of participation. Observational methods are a widely recognized tool in museum studies, offering valuable insights into visitor behavior that are difficult to capture through self-reported data alone **[9]**. These observations included tracking which interactive exhibits or demonstrations drew the most interest, what types of questions were asked, and how visitors physically interacted with the space. Systematic but flexible, this observational approach allowed researchers to identify trends in visitor engagement, much like in previous studies that used observational data to evaluate interactive exhibitions **[10]**. By noting moments of heightened engagement or areas where attention waned,

the researchers could assess the effectiveness of various interactive components and live demonstrations in conveying the importance of conservation practices.

***Data Synthesis and Analysis*:** After the data collection phase, all quantitative and qualitative data from the questionnaires and observations were compiled for analysis. Quantitative data were statistically analyzed to identify trends in visitor satisfaction, engagement, and knowledge acquisition across different visitor groups. Methods such as descriptive statistics and correlation analysis were employed, similar to approaches used in other visitor engagement studies **[11]**. Simultaneously, qualitative data from open-ended survey responses and researcher observations were thematically analyzed to identify recurring themes or insights regarding visitor engagement and perceptions of conservation. This thematic analysis aligns with established qualitative research methodologies that focus on identifying patterns in textual data **[12, 13]**. This mixed-methods approach provided a well-rounded understanding of how different visitor groups engaged with the Open Lab and highlighted which components were most successful in fostering curiosity, knowledge, and public interest in conservation.

This comprehensive analysis allowed for a deep exploration of visitor experiences and pinpointed areas for potential improvement. The findings offer valuable insights into how diverse audiences interact with conservation-focused educational programs, ultimately supporting the ongoing development of the Open Lab to better serve its mission.

4 Results

The Open Lab attracted a diverse audience, including students, professionals, and members of the general public, each of whom responded to the program in distinct ways:

Students: The Open Lab proved especially popular among students, particularly those studying conservation, museology, and related fields. Many expressed enthusiasm at the opportunity to observe conservation work firsthand, which offered practical insights beyond the classroom. For younger students, the Lab served as an introduction to potential career paths in conservation and heritage preservation, sparking interest in the field. More advanced students appreciated the detailed look into the complexities of textile conservation, often commenting on how it complemented their academic studies. Teachers reported that the Lab stimulated extended discussions in their classes, with many students eager to return for further visits. The immersive experience clearly played a role in bridging the gap between theory and practice, encouraging deeper engagement with conservation topics.

Professionals: The Lab also drew a significant number of museum staff, conservators, and other professionals involved in heritage preservation. These visitors were highly engaged with the technical details of the conservation process, frequently posing specific questions about the equipment, materials, and methods used. The Lab provided a unique platform for interdisciplinary collaboration, allowing professionals from different sectors to exchange ideas and conservation techniques during their visits. Many commented on the value of the Open Lab as a space for professional development, noting that it facilitated knowledge exchange and helped them stay up-to-date with evolving practices in the field. Additionally, the opportunity to observe live conservation work was viewed as beneficial for those seeking to enhance their practical expertise **[14]**.

General public: Though typically less familiar with the intricacies of conservation, members of the general public were highly curious and showed great interest in the conservation processes on display. Many visitors were surprised by the meticulous nature of fabric conservation, particularly the precision required in handling and restoring delicate textiles. Guided tours were instrumental in making these complex procedures accessible to non-experts, with visitors frequently commenting that the experience reshaped their understanding of museum exhibits and the behind-the-scenes work involved in preserving cultural heritage. The interactive format helped demystify conservation work, leading to a greater appreciation for the role of conservators in protecting museum collections **[15]**.

4.1 Quantitative data

Between September and December 2023, the Open Lab welcomed over 108 visitors, with 92% of respondents rating their experience as "very satisfactory." The survey results highlighted the educational impact of the program:

- 85% of visitors reported that they had learned something new about fabric conservation.
- 80% indicated that they would recommend the Open Lab to others.

Further breakdowns revealed that students and professionals were particularly satisfied with the technical demonstrations and hands-on approach, while members of the general public appreciated the opportunity to observe conservation work up close. The overwhelmingly positive feedback suggests that the Open Lab successfully engaged a broad range of audiences, fostering interest and understanding across both expert and non-expert groups.

5 Discussion

The Open Lab's participatory model has proven to be an innovative and highly effective strategy for engaging a wide range of audiences in the specialized field of textile conservation. By inviting visitors to not only observe but also, in certain cases, participate in the conservation process, the Open Lab fosters a much deeper appreciation for the meticulous work involved in preserving cultural heritage. This immersive approach aligns seamlessly with contemporary trends in museum practices, which increasingly prioritize transparency, education, and public engagement **[16]**. Such an approach also helps to demystify the behind-the-scenes efforts of conservation, making the intricate and often invisible work more accessible and understandable to the public.

For students, the Open Lab is an invaluable educational tool, offering a rare opportunity to witness conservation techniques firsthand in a real-world setting. The ability to see complex procedures in action, rather than merely reading about them or observing from a distance, greatly enhances their learning experience. Feedback from students has indicated that the Lab has been instrumental in sparking a genuine interest in conservation as a potential career path. The unique combination of hands-on learning, direct observation, and the opportunity to engage with seasoned conservators offers students both a tangible and inspiring glimpse into the field. Many students have reported that the interactive nature of the Lab has deepened their understanding and appreciation for the conservation profession, making it more than just a theoretical concept but a viable career option.

Professionals in the field also gain from the Open Lab, particularly in terms of knowledge exchange and interdisciplinary collaboration. The Lab provides a dynamic platform where conservators from various backgrounds can meet, share their expertise, discuss common challenges, and experiment with new and emerging techniques in textile conservation. This collaborative environment is not only crucial for the personal growth of those working in the field but also serves as a driving force behind innovation and the cross-pollination of ideas, advancing the entire discipline **[17]**. The Open Lab effectively becomes a hub for creativity and problem-solving, facilitating advancements that might not be possible within more isolated, traditional conservation settings.

However, while the Open Lab has achieved significant success, there remains room for growth and improvement. Visitor feedback suggests that incorporating additional interactive elements could further enhance the educational value of the program, particularly for younger audiences or those without a background in conservation (Author, Year). Currently, the opportunity for hands-on involvement is limited, but expanding these experiences to include more practical engagement—such as allowing visitors to assist with minor, supervised restoration tasks or to handle replica objects—could foster even greater interest and understanding. These enhancements could make the experience not only more engaging but also more memorable, ensuring that visitors leave with a lasting connection to both the field of conservation and the museum itself **[18]**.

Moreover, integrating more advanced digital tools, such as augmented reality (AR) or virtual reality (VR), could offer new ways to bring conservation processes to life (Author, Year). By allowing visitors to virtually explore textiles at a microscopic level or simulate conservation decisions, the program could reach wider audiences, including those who may not be physically able to participate in traditional hands-on activities. Expanding the Lab in these directions would reinforce its role as a pioneering educational and collaborative space, ensuring its continued relevance and appeal in the future.

6 Future Implications & Conclusion

Looking ahead, the Open Lab has the potential to expand its role as a leader in participatory conservation education. Several strategies could be implemented to further enhance its impact:

Digital integration: One of the most promising avenues for growth is the development of a virtual version of the Open Lab experience, which would enable the museum to engage a global audience. Utilizing augmented reality (AR) and virtual reality (VR) technologies could create immersive, interactive

experiences for remote visitors. These technologies would allow users to virtually explore the conservation process, interact with digital recreations of artifacts, and learn about textile preservation techniques in an engaging and accessible way. This would not only democratize access to the Lab's educational content but also position the museum as a pioneer in the use of cutting-edge digital tools for heritage education.

Expanded educational programming: Another key strategy is expanding the educational offerings of the Open Lab, particularly for school groups. By developing age-specific workshops, the Lab could cater to the needs and learning levels of different student groups, offering a more tailored experience. Additionally, providing pre-visit and post-visit materials—such as activity sheets, lesson plans, and multimedia content—could help reinforce the lessons learned during the tours. For educators, the Lab could offer teacher training programs on conservation topics, equipping them with the tools and knowledge to extend these lessons into their classrooms. Such programs would enhance the educational reach of the Open Lab and help integrate conservation topics into broader curricula.

Increased professional development opportunities: The Open Lab could further establish itself as a hub for professional development within the field of textile conservation. By offering specialized workshops and training programs tailored to conservators and heritage professionals, the Lab could foster skill development and knowledge exchange. Partnering with universities and research institutions would allow for a collaborative approach to training the next generation of conservators while also advancing the field of textile conservation through research initiatives. By providing continuous learning opportunities, the Open Lab could play a key role in elevating professional standards and best practices in the field.

Enhanced social media presence: Strengthening the Open Lab's presence on social media platforms could attract a broader audience and encourage greater public engagement. Regular updates on ongoing conservation projects, behind-the-scenes content, and interactive Q&A sessions with conservators would create opportunities for the public to connect with the Lab in new ways. By sharing time-lapse videos of conservation work, interviews with experts, and conservation tips, the Lab could build a larger online community interested in cultural heritage preservation. This strategy would not only raise awareness of the Lab's activities but also foster a sense of community among followers, promoting long-term engagement with the museum.

The Open Fabric Conservation Workshop (Open Lab) has successfully engaged a diverse audience in the conservation of fabric artifacts through its participatory model. By allowing visitors to witness—and, in some cases, participate in—conservation work, the Lab offers a forward-thinking approach to museum education. This immersive experience fosters a deeper understanding of the conservation process and helps bridge the gap between conservators and the public, creating a shared sense of responsibility for preserving cultural heritage.

Looking to the future, the Open Lab has immense potential to expand its educational and outreach efforts. By incorporating digital tools, offering professional development programs, and fostering increased community engagement, the Lab can continue to set a precedent for how conservation work can be made accessible, interactive, and educational. As museums increasingly evolve into spaces of learning and interaction, the Open Lab provides a valuable model for how conservation efforts can be made visible and engaging for all, ensuring that the public plays an active role in safeguarding cultural heritage for future generations.

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