

Needs for Digital Recording and Documentation of Ecclesiastical Cultural Treasures in Monasteries and Temples



WP5-R5.3: Educational Workshop

# **Project Information**

Project Title:	Needs	for	Digital	Recording	and	Documentation	of
	Ecclesia	astica	l Cultural	Treasures in	Mona	asteries and Temp	oles

Programme/Action Type/Call: ERASMUS+ / KA220-HED - Cooperation partnerships in higher education / 2022

Contract Number: 2022-1-EL01-KA220-HED-000089867

Start date: 29/12/2022

Duration in months: 24

Project Coordinator: ARISTOTLE UNIVERSITY OF THESSALONIKI

The purpose of NARRATE project is to codify the actual recording and documentation needs for the ecclesiastical cultural treasures, through a systematic study of the users' needs.

## **Consortium partners**









cognitiveux







WP5-R5.3: Educational Workshop

## **Document Information**

Title	R5.3. Report of the Educational Workshop held in Istanbul December 9-11, 2024.						
Deliverable No.	R5.3						
Version	v.1						
Туре	⊠Report □	Demonstrator	□ORDP	□Ethics	□Other		
Work Package	WP5-Impact and	Dissemination					
Work Package Leader	Co-lead by Cognitive UX GmbH (CUX), Aristotle University of Thessaloniki						
	(AUTH), and Association for the Protection of Cultural Heritage (KMKD)						
Issued by	ASSOCIATION FOR THE PROTECTION OF CULTURAL HERITAGE (KMKD)						
Issued date	29.12.2024						
Due date	29.12.2024						
Dissemination Level	⊠Public			□Confidential			

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# **Abbreviations**

CH Cultural Heritage

VR Virtual Reality

AR Augmented Reality

XR Extended Reality

GIS Geographic Information Systems

WP5-R5.3: Educational Workshop



# **Executive Summary**

The EU Erasmus+ "NARRATE: Needs for Digital Recording and Documentation of Ecclesiastical Cultural Treasures in Monasteries and Temples" (2022-1-EL01-KA220-HED-000089867) aims at identifying and promoting the needs and priorities concerning ecclesiastical Cultural Heritage (CH) documentation.

This study seeks to organize and address the specific requirements for recording and documenting ecclesiastical cultural treasures by thoroughly analyzing user needs. NARRATE focuses on capturing ecclesiastical cultural heritage in a way that allows stakeholders to convey their interconnected histories, roles, and spiritual significance over time.

The current report, *R5.3: Report of the Educational Workshop held in Istanbul on December 9–11, 2024,* is part of Work Package WP5 - Impact and Dissemination. This report summarizes and provides an overview of the workshop, which focused on promoting the preservation and reinterpretation of cultural heritage through digital innovation. Panel discussions complemented these workshops, addressing methodologies and challenges in documenting and digitizing cultural assets.



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#### 1. Introduction

The workshop bridged cultural and technical disciplines, equipping participants with tools and knowledge to address contemporary challenges in heritage documentation while fostering a shared appreciation for diverse cultural narratives. It brought together experts, practitioners, and stakeholders to explore new approaches to cultural heritage preservation and digitization. The event served as a unique platform for interdisciplinary collaboration and hands-on learning, encouraging dialogue and mutual understanding across cultural and religious boundaries. Participants, including architects, academics, urban planners, students, and NGO representatives, actively engaged in discussions and activities focused on addressing challenges in preserving cultural heritage.

The core of the workshop consisted of six specialized sessions that integrated technical expertise with cultural heritage insights. Participants learned how augmented reality (AR) can transform 3D models of heritage into interactive storytelling experiences, explored the potential of digital twins for reimagining urban heritage, and experienced the immersive use of virtual reality in presenting historical sites. The workshop also provided hands-on training in photogrammetry, topographic surveying, and 3D modeling techniques for documenting complex architectural structures. Additionally, participants explored the acoustic environments of historical churches through sound documentation and improvisation. Lastly, they were introduced to spatial historiography and mapping, gaining practical skills in creating Geographic Information Systems (GIS)-based visualizations for historical research.

The event concluded with participants equipped with practical skills and digital tools to apply to future cultural heritage projects. Feedback highlighted the workshop's interdisciplinary approach, its practical relevance, and its role in establishing a sustainable framework for cultural heritage preservation and innovation.

# 1. Overview of the Workshop Content

Dates: 9-11 December 2024

**Location:** Galata Rum School, Istanbul

The Istanbul Educational Workshop, an initiative of the Narrate Project, took place from December 9th to 11th, 2024, at the Galata Rum School, Istanbul. The event provided participants with a unique opportunity for face-to-face interaction and hands-on learning, fostering collaboration and the exchange of expertise.



As part of the Narrate Project, six distinct workshops were held with the aim of imparting essential skills related to documentation and digitization processes. These workshops sought to merge diverse perspectives, exploring the broad potential of digital tools while integrating technical expertise with social and cultural insights.

Each workshop facilitated knowledge exchange among instructors and participants from various disciplines, fostering the creation of innovative results and the development of problem-solving strategies. Additionally, the workshops cultivated an educational and skill-enhancing environment, promoting collaboration and communication to support a collective learning experience for all involved stakeholders.

The workshop aimed to promote intercultural dialogue and mutual understanding, particularly across religious and cultural boundaries. It sought to enhance participants' appreciation of cultural achievements, while extending its relevance to broader themes in digital humanities and cultural heritage preservation.

The event brought together a diverse audience, cultural heritage stakeholders such as architects, academicians, urban planners, students and Non-Governmental Organization members. This interdisciplinary gathering facilitated meaningful interactions between all stakeholders, fostering a shared vision for cultural preservation and innovation.

The workshop featured a series of interactive sessions, roundtable discussions, and practical demonstrations led by a distinguished team of professors and experts. The program emphasized hands-on training in advanced techniques for the documentation and digitization of cultural heritage assets. To ensure the sustainability and accessibility of the knowledge imparted, hands-on examples enabling participants to revisit and apply the methodologies introduced.

The event brought together a diverse group of participants, with a total of 66 attendees at the Panel. The workshop sessions saw varying levels of participation, with Workshop Session I and Session II attracting a combined total of 39 participants, while Session III had 40 participants. Session IV hosted 31 participants, Session V was attended by 18, and Session VI welcomed 30 participants. It is important to note that some participants took part in multiple sessions, enriching the overall exchange of ideas and fostering a deeper engagement with the topics presented.





Figure 1: The dissemination flyer of the Educational Workshop

# 2. Day One: Monday, 9 December 2024

The opening event was open to all, with no pre-registration necessary. Simultaneous translation was provided in both English and Turkish.



**Opening Speeches:** Participants were greeted with welcoming speeches from the Narrate Organizing Team. The opening speeches were moderated by Dr. Aikaterini Stamou, an Adjunct Lecturer and Post-Doctoral Researcher at the Laboratory of Geo Informatics, Aristotle University of Thessaloniki.

The speakers included Prof. Dr. Efstratios Stylianidis, the Project Coordinator and Vice President of CIPA-Heritage Documentation, who is also a Member of the Board of Directors and former Vice-Rector of the Center for Research and Lifelong Learning. He is the Director of the Laboratory of Geoinformatics at the Faculty of Engineering, School of Spatial Planning and Development at Aristotle University of Thessaloniki.

Followed by, Prof. Dr. Evangelia Şarlak, the Founding President of the Association for the Protection of Cultural Heritage (KMKD), and a Faculty Member at Işık University's Faculty of Art, Design, and Architecture, Dr. Stella Sylaiou, an Assistant Professor in the Department of Surveying Engineering and Geoinformatics at the International Hellenic University and Dr. Polina Spirova, a Senior Lecturer in Religious Pedagogy at St. Kliment Ohridski University of Sofia, provided valuable insights on the Narrate Project.

The opening remarks were also presented through a recorded video by Ecumenical Patriarch Bartholomew.

**Panel**: The panel, titled "Documenting and Digitizing Cultural Assets," brought together experts to discuss methodologies and challenges in preserving cultural heritage. The panel was chaired by Prof. Dr. Evangelia Şarlak. The panel featured a series of presentations from distinguished experts in the field.

Assoc. Prof. Dr. Umut Almaç, President of the International Council on Monuments and Sites (ICOMOS) Turkey National Committee and Faculty of Architecture lecturer at Istanbul Technical University, discussed the significant contribution of documentation to architectural preservation during times of crisis, emphasizing its critical role in safeguarding cultural heritage.

Prof. Dr. Nevra Ertürk Güngör, a faculty member at Yıldız Technical University specializing in the Conservation and Restoration of Cultural Property, presented on the intersection of museums and digital technology. Her talk focused on the processes and practices that enable the effective use of digital tools for the preservation and accessibility of cultural artifacts.

Yeliz Can, an urban planner and GIS specialist from Istanbul Metropolitan Municipality's Directorate of Cultural Heritage, shared her expertise on mapping heritage and creating



spatial databases for cultural assets in Istanbul. She highlighted the importance of digital mapping in documenting and preserving the city's rich cultural heritage.

Lastly, Laki Vingas, a founding member of the Association for the Protection of Cultural Heritage (KMKD) and the Association for the Support of Rum Community Foundations, emphasized the necessity of recording the legacy of Istanbul's Rum Community institutions. He discussed the importance of digitizing the remaining archives to ensure their preservation for future generations.

#### **Workshop Sessions:**

The workshops required prior registration, which was facilitated through an event form. Following the registration, participants received a personal follow-up to confirm their attendance. Detailed information regarding the workshops, including any prerequisites such as the necessity to use specific software, was provided in advance. Participants were instructed to bring their personal computers. There were extra computers available for those who either did not have access to personal devices or required assistance.

Workshop Sessions I-II: The workshop sessions began with "Storytelling with Digitized Cultural Heritage and Extended Reality," led by Asım Evren Yantaç, Vahide Sena Çoban, and Alp Efe Esassolak. With Session II the focus shifted to "Speculating the Creative Future of Urban Digital Twins for Cultural Heritage," with insights shared by Yantaç and Çoban.

The sessions focused on the use of 3D scanning, modeling, and augmented reality (AR) to create interactive storytelling experiences based on digitized cultural heritage. Participants learned how AR can transform 3D models of heritage artifacts into filters or holograms for projection in real spaces. The session included a theoretical overview of XR in heritage digitization followed by practical activities on designing AR filters. Participants gained an understanding of XR (Extended Reality) technologies in cultural heritage digitization, developed AR filters, and explored AR's applications in education and heritage preservation.

**Workshop Session III:** The day concluded with a session on "Time-Travel VR," presented by Esra Akdere and Ayşegül Karaman.

The workshop focused on the innovative use of virtual reality (VR) technology in tourism, with a particular emphasis on the Time Travel VR Tour project. Participants experienced a live demonstration of the VR tour, exploring historical sites in Istanbul from an immersive perspective. The session also covered the technical and design aspects involved in creating such VR experiences. Participants gained an understanding of VR's





application in tourism, experienced an immersive VR tour, learned about the technical components of VR development, and explored future innovations in VR.

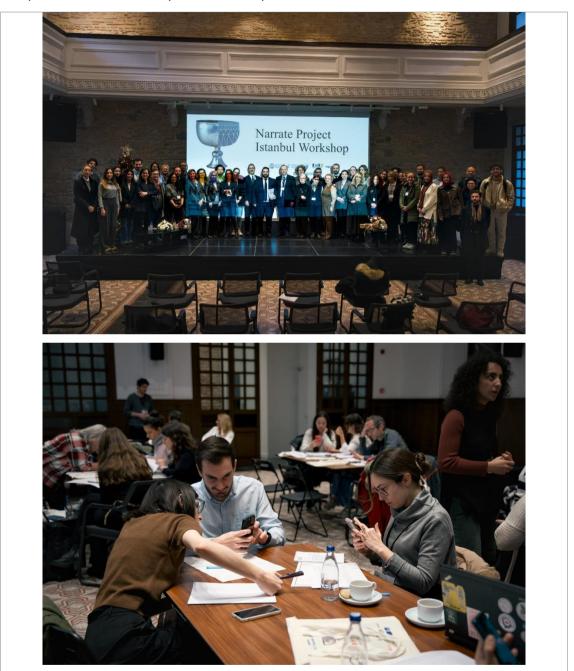








Figure 2: Photos from the first day of the educational workshop





### 3. Day Two: Tuesday, 10 December 2024

**Workshop Session IV:** "Topographic and Photogrammetric Techniques for Ecclesiastical Heritage Documentation," conducted by Prof. Efstratios Stylianidis, Dr. Aikaterini Stamou, and Zoi-Eirini Tsifodimou.

In the session "Photogrammetric Techniques for 3D Documentation," participants gained practical knowledge of advanced 3D modeling tools, with a focus on photogrammetry and 3D reconstruction using Agisoft Metashape. The session provided a comprehensive overview of techniques for documenting cultural heritage, combining topographic surveying, photogrammetry, and 3D modeling.

The workshop began with an introduction to topographic surveying, highlighting its importance in accurately documenting heritage sites, particularly ecclesiastical structures. Participants learned about essential tools such as theodolites, total stations, and GNSS, and discussed the challenges of documenting complex heritage buildings. A case study illustrated the application of topography in heritage documentation.

The session then shifted to photogrammetry, emphasizing its significance in capturing detailed features of heritage structures. Participants learned the process of planning a photogrammetric survey, acquiring high-quality images, and converting 2D photos into 3D models, with a case study on a monument.

The hands-on portion focused on using Agisoft Metashape for 3D reconstruction. Participants followed a step-by-step guide to import images, generate point clouds, create 3D meshes, and apply textures, using a pre-captured dataset of an ecclesiastical object or building. By the end of the session, participants had practical experience in both topographic and photogrammetric techniques for cultural heritage documentation. They successfully created 3D models using Agisoft Metashape and understood the integrated workflow for transforming photographic data into digital 3D objects, crucial for preserving and reconstructing cultural heritage.











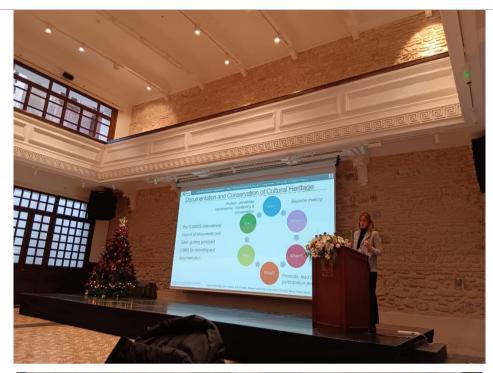




Figure 3: Photos from the second day of the educational workshop





### 4. Day Three: Wednesday, 11 December 2024

**Workshop Session V:** The final day of the workshop began with a session on "Soundscape", accompanied by a site visit led by instructor Oğuz Öner. The session examined the relationship between soundscapes and heritage documentation, providing participants with a deeper insight into this crucial element of cultural preservation. The workshop started in the meeting hall of the Greek Orthodox Church of Panagia Paramythia, also known as the Vlach-Sarai (Palace of the Vlads) in the historic Fener district. Participants then walked to the Aya Yorgi Patriarchal Church, where religious hymns were performed by two Mugannies (Psaltis) specifically for the workshop participants. After the event, the participants returned to their activities, concentrating on recording and documenting the sound memory of the site.

The "Soundscape" workshop focused on preserving and reimagining the cultural heritage of churches, particularly through the exploration of the sounds within ecclesiastical spaces and their environments. Participants had the opportunity to experience both the historical and current acoustic landscapes of the site, discovering how the architecture's acoustics blended with the surrounding neighbourhood sounds. This fusion of sound and space led to the creation of cognitive and perceptual maps, shaped by the emotions and impressions evoked by the environment. The workshop concluded with a group sound improvisation, where participants, drawing on their sound experiences, created rhythms, melodies, and tones, culminating in a collective composition. The session highlighted innovative ways of listening and sound-making in cultural spaces.

At the conclusion of Session V, the NARRATE team had the privilege of meeting His All-Holiness Patriarch Bartholomew in his office. During the meeting, the team presented the work of NARRATE, and His All Holiness expressed keen interest in the project's outcomes, while also discussing the potential for future collaboration with the Patriarchate.

**Workshop VI:** Firuzan Melike Sümertaş introduced the concept of "Spatial Historiography & Mapping".

The workshop on Spatial Historiography introduced mapping and spatialization methods for historical data. Designed for beginners with no prior technical knowledge, it aimed to familiarize participants with spatial concepts and analysis tools. The first part of the workshop covered the theoretical background, discussing Spatial Historiography, the Spatial Turn, and Historical GIS through examples. It also introduced GIS and mapping



basics. The second part focused on practical applications, guiding participants to identify and coordinate historical data, and match it with historical layers.

By the end of the session, participants understood how data visualization and spatialization could enhance historical research. They gained insights into how maps and visuals shape historical narratives and open new avenues for inquiry. Additionally, participants learned how to georeferenced historical maps, use GIS as a database, and critically analyze spatialized historical data. Hands-on experience with visualization and spatialization techniques allowed them to create clear and legible visuals, fostering new perspectives on historical research through spatial patterns and collaborative projects.



Figure 4: Photo from the third day of the educational workshop







Figure 5: Photos from the visit to the Partriachy and the meeting with His All Holiness, the Patriarch

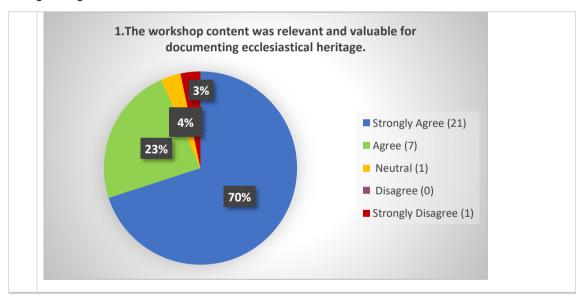


## 5. Narrate Project Istanbul Workshop Feedback

The feedback provided by workshop participants offers valuable insights into their overall experience and the effectiveness of each session. A total of 30 individuals contributed to the feedback by completing the evaluation forms.

## General Workshop Feedback

In terms of general feedback, 70% of participants strongly agreed that the content was relevant and valuable, 23% agreed, and only 4% were neutral. Additionally, 79% strongly agreed that the sessions were well-organized, with 14% agreeing and 7% remaining neutral. Furthermore, 75% strongly agreed that the environment encouraged active participation, while 18% agreed, and 3% were neutral. Additionally, 78% of participants strongly agreed that they gained new insights and skills, with 18% agreeing and 4% disagreeing.





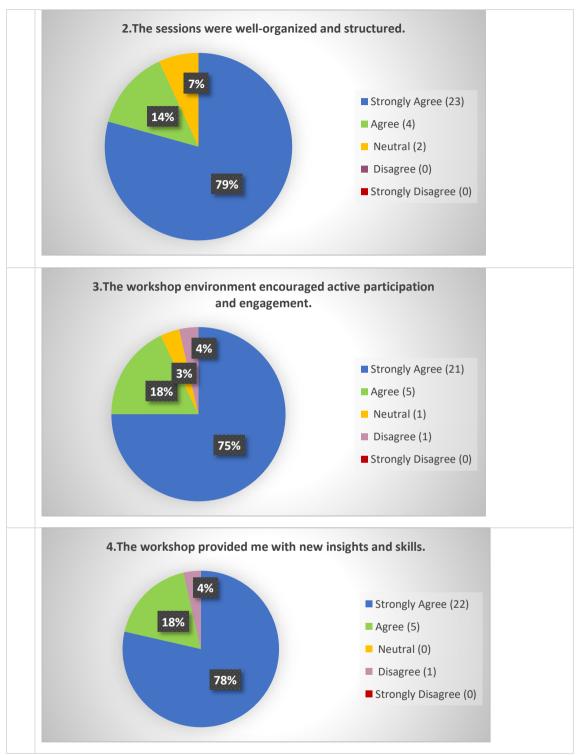


Figure 6: Graphs depicting the General Workshop Feedback



### Session-Specific Feedback

According to Session-specific feedback, in the storytelling session, 63% of participants strongly agreed it enhanced their understanding, 30% agreed, and 7% were neutral. The practical activities received favorable feedback, with 64% strongly agreeing, 32% agreeing, and 4% neutral. Confidence in applying the techniques was similarly high, with 64% strongly agreeing, 32% agreeing, and 4% disagreeing.

For the design-fiction session, 48% of participants strongly agreed it was valuable, 31% agreed, 17% were neutral, and 4% disagreed. The creativity exercises were well-received by 55%, with 36% agreeing, 4% neutral, and 5% disagreeing. Additionally, 63% strongly agreed the session added value to heritage projects, 25% agreed, 8% were neutral, and 4% disagreed.

The VR session was rated with 50% strongly agreeing it provided an immersive experience, 30% agreeing, 10% neutral, and 10% disagreeing. Usability was rated positively by 45%, with 35% agreeing, 5% neutral, and 15% disagreeing. The session inspired heritage work, with 53% strongly agreeing, 32% agreeing, 10% neutral, and 5% disagreeing.

The topographic surveying session received 85% strongly agreeing that applications were explained effectively and 15% agreeing. Photogrammetry techniques were appreciated by 80%, with 15% agreeing, and 5% neutral. The 3D reconstruction component received 76% strong agreement, 10% agreement, and 14% neutrality.

The soundscape session received 100% strongly agreeing it provided new perspectives on heritage documentation. The site visit complemented the session content effectively, with 75% of participants strongly agreeing and 25% agreeing. Additionally, 78% strongly agreed it inspired future projects, while 22% agreed.

The mapping session showed 65% strong agreement in effectively introducing spatial concepts, 30% agreement, and 5% neutrality. Visualization techniques were highly rated, with 75% strongly agreeing, 15% agreeing, 5% neutral, and 5% disagreeing. The session inspired new perspectives for 74%, with 5% agreeing, 16% neutral, and 5% disagreeing.



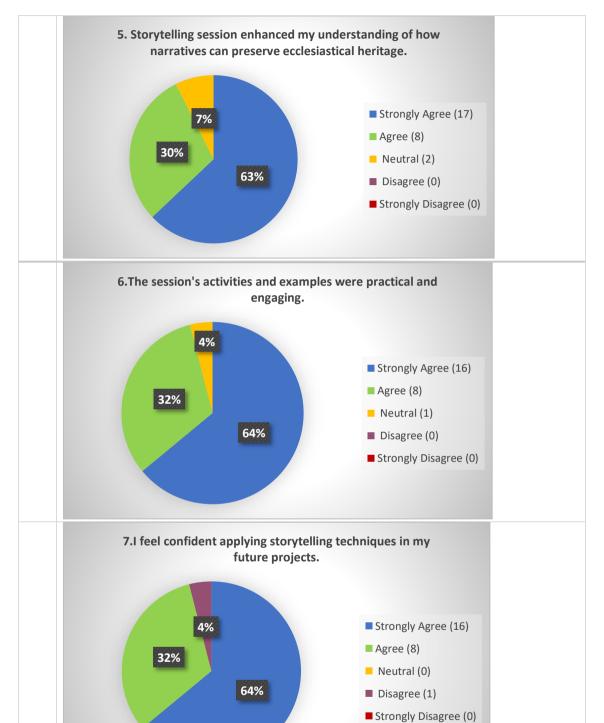


Figure 7: Graphs depicting the Storytelling session Feedback



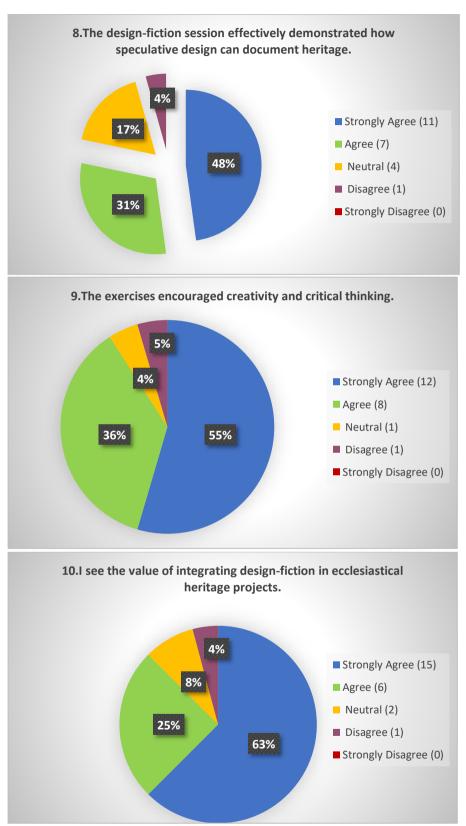


Figure 8: Graphs depicting the Design-fiction session Feedback



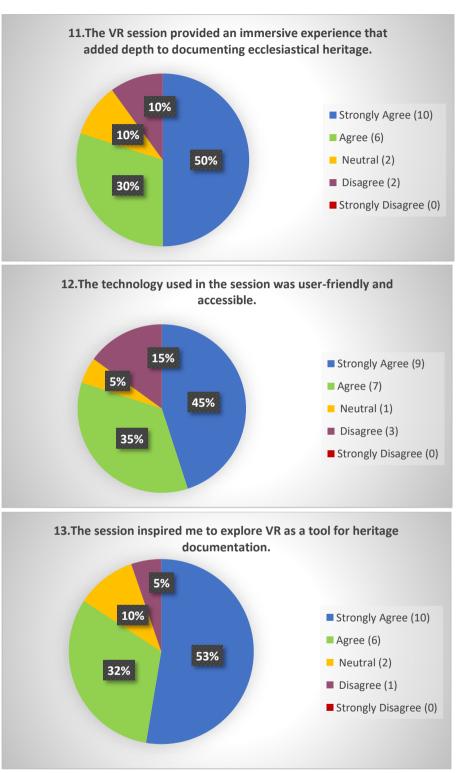


Figure 9: Graphs depicting the VR session Feedback



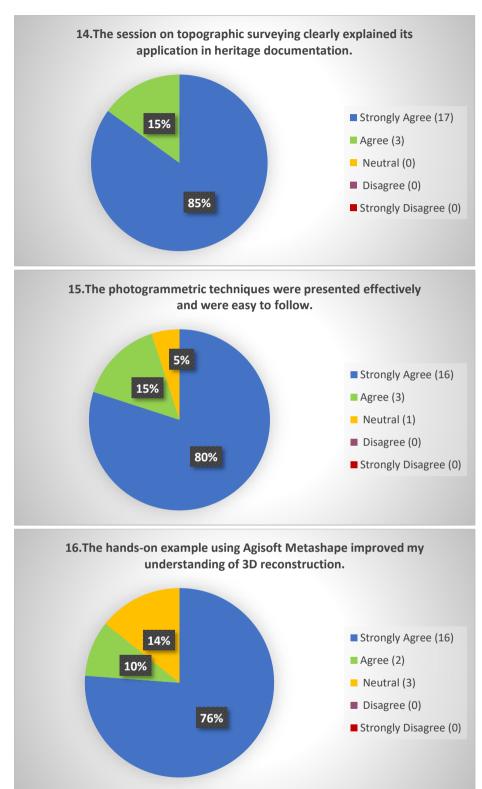


Figure 10: Graphs depicting the Topographic & Photogrammetric techniques session Feedback



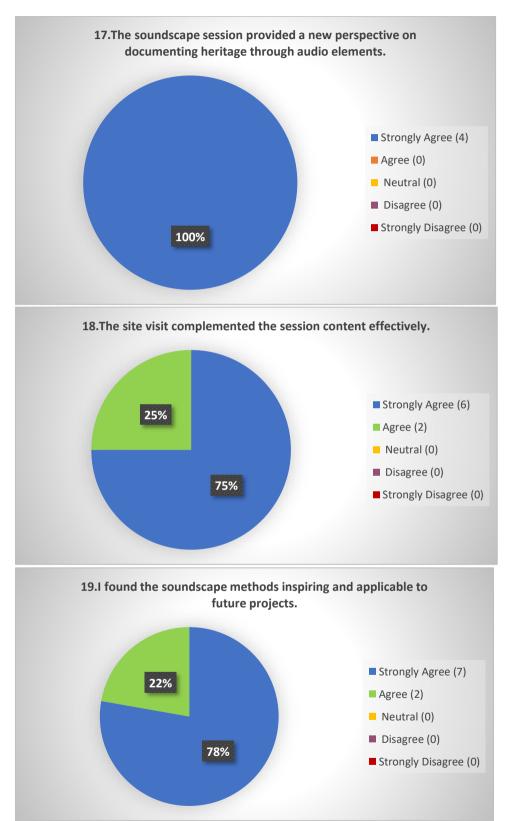
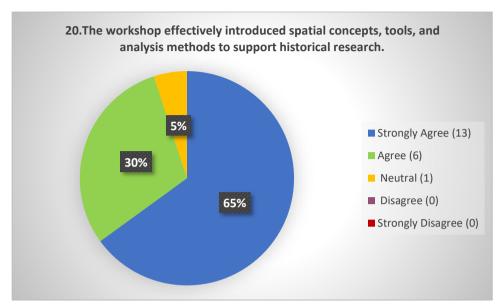
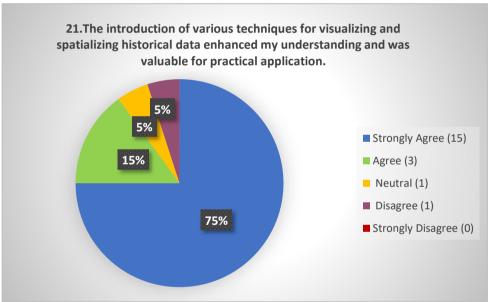


Figure 11: Graphs depicting the Soundscape session Feedback









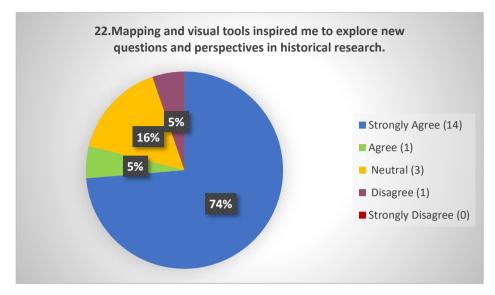
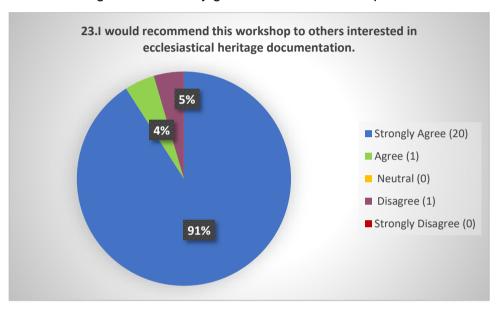


Figure 12: Graphs depicting the Mapping and Visual Tools session Feedback



## Overall experience feedback

Overall, 91% of participants would recommend the workshop to others, and 82% are likely to use the knowledge and skills they gained from the workshop.



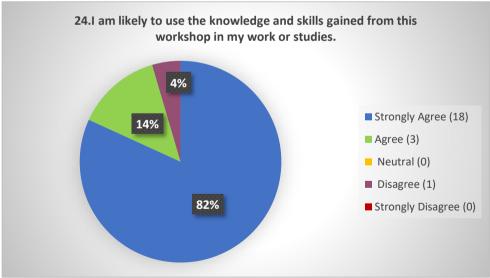


Figure 13: Graphs depicting the overall experience feedbac





#### 6. Conclusion

The Narrate Project Istanbul Workshop offered a diverse blend of theoretical insights and practical experiences, equipping participants with advanced tools and methods for documenting, preserving, and narrating cultural heritage in innovative ways.

The Workshop achieved its objectives of fostering mutual understanding, interdisciplinary collaboration and innovation in cultural heritage studies. By bringing together a diverse group of professionals, heritage stakeholders and academics, the event emphasized the significance of dialogue and shared expertise in addressing the challenges of preserving and interpreting cultural assets. Through dynamic roundtable discussions and hands-on sessions, participants were able to engage with diverse perspectives and receive constructive feedback, which enriched the learning experience. By emphasizing the importance of bridging cultural and religious differences, the workshop promoted mutual understanding and deepened the appreciation of diverse heritage.

This workshop not only advanced the goals of the Narrate Project but also provided a sustainable framework for future collaborations and the continued exploration of cultural heritage through the perspective of digital innovation.

Annex: The attendance for each panel and session was documented and archived. Participants provided their consent by signing a Photo, Video, and Audio Consent Form. Additionally, the evaluation forms completed at the end of the workshop were gathered, compiled and summarized as follows.