
YOCOCU
ISTANBUL 2024

Ancient traditions, conservation challenges and future scenarios for the innovative and green protection, enhancement and fruition of cultural heritage

YOCOCU APS

A Decade of Preserving the Past, Shaping the Future

10 years of connecting culture and innovation: celebrating a decade of growth, research, and conservation in service to the cultural community.

Ancient traditions, conservation challenges and future scenarios for the innovative and green protection, enhancement and fruition of cultural heritage

Edited by
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FOREWORD 9TH YOCOCU CONFERENCE, ISTANBUL, OCTOBER 2024

It is with great pleasure that we welcome you to the YOCOCU 2024 Conference which, in its 9th edition, this year takes place from 15th to 17th October in the vibrant and attractive city of Istanbul. We are grateful to our activity partners from Istanbul, Kültürel Mirasın Dostları Derneği – KUMID (Friends of Cultural Heritage Association – FOCUH), Konservatör ve Restoratörler Derneği – KRD (Association of Conservators and Restorers – KRD) and Istanbul University (IU), who made voluntary contributions to the organization of the 9th YOCOCU 2024 in Istanbul, Türkiye.

Conference will be organized at İstanbul University Prof. Dr. Fuat Sezgin Congress and Cultural Centre, İstanbul, Türkiye, with courtesy and kind support of Istanbul University Rector, Prof. Dr. Osman Bülent Zülfikar.

The 9th YOCOCU 2024 in İstanbul is financially supported by the European Union within the framework of European Union Sivil Düşün Programme and is also honoured by the moral support of the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM). This valuable collaboration will enable us to organize an event that will resonate successfully on the national and international stage.

Istanbul, a unique city where East meets West, serves as the perfect backdrop for our biennial meeting, symbolising the convergence of ancient traditions and modern innovations in the field of cultural heritage conservation and protection.

The YOCOCU Conference, since its first edition held in 2008 at the Sapienza University of Rome, has been a platform for young professionals and researchers to share their latest findings, exchange ideas and promote collaborations with the constant support and guidance of senior professionals.

YOCOCU 2024 aspires to be a source of inspiration and ideas, supported by a wealth of experiences, evidence and good practices from, at different levels, all heritage sectors, from academic professionals and researchers to engaged citizens. Our aim is to facilitate the integration of knowledge and methodologies, taking advantage of the diversity of perspectives and thus creating a comprehensive matrix of experiences. We have always believed in the power of collaboration and worked towards sharing of knowledge. YOCOCU conferences have always acted as a bridge between cultures and realities that are sometimes very different from each other, transcending geographical, political, ideological and religious divisions.

We firmly believe that this collective effort will help turn cultural heritage into a unified voice and viable strategies not only for its preservation but also for peace perspectives.

This year we are particularly excited to explore the diverse approaches and cutting-edge technologies that are shaping and transforming the future of our discipline.

The abstracts collected in this book will allow you to discover a wealth of knowledge and inspiration. Each contribution reflects the dedication and passion of our cultural heritage community, committed to preserving our shared cultural heritage for future generations.

It is with great pleasure that we have found different research projects in which Turkish and Italian researchers have been collaborating for years, as well as other countries from the West with as many from the East.

We hope that this conference will not only broaden your understanding, but also inspire new perspectives and solutions.

We embrace the spirit of Istanbul, a city that has thrived through the fusion of cultures, and apply this ethos to our heritage work.
We thank you for your participation and look forward to the fruitful discussions and collaborations that will emerge from this 2024 edition of the conference.

Rome, October 2024

Fernanda Prestileo, Andrea Macchia, and Lisa Maria Schuberthan
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15th-17th October 2024

Istanbul University Prof. Dr. Fuat Sezgin Congress and Culture Centre

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To all of you gathered here today, we raise our glasses in celebration of a remarkable journey—10 years of YOCOCU!

A decade ago, YOCOCU began as an ambitious dream: to unite young professionals, researchers, and enthusiasts passionate about the preservation of our shared cultural heritage. Today, we are not only celebrating ten years of that vision, but also the impact we have made together. Over the years, YOCOCU has become a community—a living network of ideas, innovation, and collaboration—where knowledge is passed down, skills are shared, and new solutions are born to safeguard our identity

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Ancient traditions, conservation challenges and future scenarios for the innovative and green protection, enhancement and fruition of cultural heritage

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EXPERIENCES IN THE MUSEUM

15-17 October 2024

DECOR OF ARCHITECTURAL MONUMENTS IN AZERBAIJAN: SAMPLES OF INSCRIBED GLAZED TILE IN LOCAL AND WORLD MUSEUMS

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Introduction

While studying the formation and development process of the artistic peculiarities of Azerbaijani ceramics, we deal with the traditions of establishment and decorative of architectural ceramics production. Besides historical facts, this is also confirmed by examples of glazed tile art discovered during archaeological excavations.

Methods

The article deals with 1. *Com*parison of epigraphic inscribed glazed tiles belonging to Pir-Huseyn Khanaghah in Shirvan (12th-14th), Karabaglar Tomb in Nakhchivan (12th-14th), Nushaba Castle in Barda (1322), Jafar Imamzadeh Mausoleum (13th century), Goy Mosques in Tabriz (15th), in Irevan (1764/68) and in Baku (1912-1913) with inscribed glazed tiles used in other architectural monuments.

Results

Research and Development Project (topic and aim): 1. Azerbaijan's inscribed glazed tile art – scientific research and *com*piling of catalogue of Azerbaijani glazed tile samples exhibited in local and world museums in several languages; 2. National peculiarities and writing style of glazed tile samples in Azerbaijani architectural monuments.

Conclusions

3. International promotion of the cultural heritage that includes Azerbaijani and world art; and 4. Presentation of the catalogue.

THE ROLE OF THE ORGANISATION OF MUSEUM WORK IN THE NAKHCHIVAN REGION OF AZERBAIJAN IN THE PROTECTION OF THE NATIONAL CULTURAL HERITAGE

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Introduction

Even in the years before the establishment of Soviet power in Azerbaijan, museums, which were created as cultural centres reflecting the centuries-old history, material and spiritual wealth of our people, played a great role. Thus, the establishment of the first museum in Azerbaijan coincides with the establishment of a school museum in the village of Nehram in Nakhchivan at the end of the 19th c.

Methods

As in all parts of Azerbaijan, great importance has been given to cultural construction works in the Nakhchivan region since the 1920s of the 20th century. Thus, the Museum of History and Geography was established in Nakhchivan by the decision of the Council of People's Commissars of the Nakhchivan MSSR dated October 30, 1924.

Results

In 1930, a second museum was established in the city of Nakhchivan – the Agricultural Museum of the National Economy Commissariat of the Nakhchivan Autonomous Republic. In October 1932, with the assistance of the Soviet authorities and public organizations, the State Historical and Local History Museum, rich in new exhibits, was established in Nakhchivan.

Conclusions

During these years, the museum network in the Nakhchivan region expanded even more. As a result of the work done, there are 222 museums operating in Azerbaijan today. History shows that the museums that were created have played a major role in preserving our national, cultural and spiritual heritage and bringing it to the present day.

MUD VOLCANO TOURISM COMPLEX AS THE FIRST MUD VOLCANO MUSEUM IN AZERBAIJAN

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Introduction

Azerbaijan is known as a region of rare and classical development of mud volcanoes. More than 350 of the more than 2,000 mud volcanoes known on Earth are located in the east of Azerbaijan and in the Caspian water area. The Mud Volcanoes Tourism Complex, built on an area of 12 hectares, exhibits mineralogy, volcanoes, geology and history of nature.

Methods

The museum in this context, which is the first in Azerbaijan, will discuss about the methodology of its establishment and the demonstration of exhibits.

Results

98 skeletons of animals belonging to the fauna of Azerbaijan and the world, 870 different species of dried insects, 57 creatures displayed in a special solution, a number of reptiles and amphibians, as well as paleontological exhibits were created to arouse childrens', schoolchildrens', and tourists' curiosity about Azerbaijan and the surrounding world.

Conclusions

This museum, the first in the Azerbaijani experience, was met with great interest by everyone and there is a need to build such museums in the future.

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CASE STUDY OF "SPIETTE, 36": PAOLO ICARO'S ENVIRONMENTAL INSTALLATION. CONSERVATION STRATEGIES AND DIALOGUE WITH ARTIST AND MUSEUM

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Introduction

This research explores the experience of Paolo Icaro's environmental installation "Spiette, 36" in the "senzamargine" exhibition at MAXXI (Oct 2020-Apr 2022), Rome. It examines the artist's role in exhibiting and conserving the artwork, the challenges of preserving an installation that interacts with the public, and the importance of a preservation plan.

Methods

The conservation project involved meeting the artist in his studio, interviewing museum visitors who can freely move within the artwork's spatial confines, and staff to analyse interactions with the public and conservation challenges. After this phase, the project proceeded restoring damaged components and developing long-term conservation strategies.

Results

The study highlighted the artist's active involvement as crucial not only for the presentation of the artwork but also for some restoration phases. Interviews revealed the public's curiosity and the difficulty in comprehending a highly conceptual environmental work. Finally, the restoration and the creation of exhibition copies enabled the development of a sustainable conservation plan.

Conclusions

This research emphasised aspects related to the exhibition, visitors' experience, and the conservation of contemporary installations. Key points include the importance of the artist's dialogue with museum curators and conservators, the interactions that environmental art creates with the public, and the conservation challenges that arise from such interactions.

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MUSEUM OF GREEK FOLK MUSICAL INSTRUMENTS: A HOLISTIC CONSERVATION APPROACH

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Introduction

Our team of conservators is responsible for the conservation of the exhibited and stored collection of the only state museum of folk musical instruments, a task with many challenges posed by the museum's premises and the nature of the collection. This paper presents our overall approach of interventive and preventive conservation enriched with educational and public dissemination events.

Methods

Our effort was directed to the improvement of the collections exhibition, to the conservation and functional restoration of instruments and finally to the reform of storages. Collaboration with specialists and experts was our key mechanism. In parallel, capacity building and training of conservation professionals and several public awareness events were organised.

Results

The Museum collection both in storage and in exhibition benefited considerably. Principles and best practices of conservation were applied unconditionally. Conservators and museum professionals learnt by working, exploring new potentials, on a demanding collection. The project was presented through open public events.

Conclusions

Working with the collection of folk musical instruments was a demanding but rewarding process. Our holistic approach involved mobilisation of funds, collaboration, team work and creative

synthesis of specialist inputs in order to achieve the set goals for the conservation and enhancement of the collection.

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THE PROBLEM OF IRON BURN IN WATERCOLOUR PAINTING - EXAMPLE OF SABRI BERKEL'S WORK

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Introduction

Iron-gall inks are an important element of written cultural heritage that is at risk of being completely lost due to deterioration. Several investigations have been carried out into the causes of iron-gall ink corrosion and to solve the problem of so-called "ink burn" in cultural heritage institutions. We came across the ink burn in Sabri Berkel's work, which was painted on tracing paper.

Methods

During the restoration process, FTIR analysis was performed to determine the type of ink in the work. The broken paper surface was reinforced and acid removal processes were carried out.

Results

As a result; the problems in the work of Sabri Berkel occurred as a result of the ambient conditions of the materials used. FTIR analysis was performed to determine the problems. As a result of the analysis, the fractures were fixed, the missing parts were integrated and coloured with watercolour. It is not deemed suitable for exhibition and is stored under appropriate storage conditions.

Conclusions

Iron-gall ink is doomed to deteriorate when in unsuitable environmental conditions. For this reason, after the work carried out on this artefact, it was decided to store the artefact in storage under the necessary climatic conditions.

RECONSTRUCTION OF MUSEUMS IN THE LIBERATED REGIONS (BASED ON THE EXAMPLE OF SHUSHA MUSEUMS)

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Introduction

The restoration and preservation of cultural heritage in the liberated regions are of great importance. It is known that the Heydar Aliyev Foundation has started the implementation of projects for the restoration of cultural and religious monuments and mosques in the liberated territories, especially in Shusha, since December 8, 2020. Alongside local experts, foreign specialists have also been involved in the large-scale works carried out. In addition to our cultural capital, all projects implemented in other regions are based on the unity of history and modernity. The reconstruction of museums in the liberated regions forms the basis for the restoration of historical and cultural heritage. This project includes not only the restoration of the museums to their previous state but also their equipment with modern technologies. This process will enable the transmission of cultural heritage to future generations and enhance the tourism potential of the region.

Methods

Historical documents and archival materials are being researched for the reconstruction of Shusha museums. Traditional restoration methods and modern technologies are being applied comparatively. The results obtained in this experience will be used as a model for the reconstruction of museums in other liberated regions.

Results

The presence of museums in society and the public's attitude towards them allow for a good assessment of the cultural level. At the same time, the role of museums in the correct upbringing of the younger generation based on national and universal values is undeniable. The article will analyse the past, present, and future of museums reflecting the history, culture, and traditions of Karabakh.

Conclusions

In a short period, we are witnessing significant cultural processes in the modern history of Shusha. The city, which was destroyed by the enemy, is being completely rebuilt, and all ancient buildings are being restored. Naturally, as the Department of Work with Museum Centres, we have a lot of work ahead of us. We are fortunate to be part of the revival of Shusha. One of our goals is to cooperate with local and international specialists and benefit from their experience.

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APPLICATION OF A MULTI-ANALYTICAL APPROACH FOR THE STUDY OF SELECTIVE DEGRADATION PHENOMENA RESULTING IN LAS MENINAS BY PABLO PICASSO

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Introduction

This research focuses on the development of a hybrid experimental approach to better understand the degradation phenomena observed in Las Meninas (Cannes, 1957) by Pablo Picasso, conserved in the Museu Picasso of Barcelona (Spain). The observation of selective crack patterns in specific colour areas (e.g. unconnected random cracks in the black areas next to vertical and semi-connected crack networks in the blue ones) informed the analytical strategy carried out to the understanding of the chemical and mechanical aspects behind the alterations observed.

Methods

Multiband imaging techniques, (VIS, TI, UVR, UVL, UVFC, IR, IRT, IRL or VIL, IRFC) coupled with XRF, µ-Raman, ATR-FTIR and GC- MS analysis were carried out to document both the artist's materials and the condition of the paintings, but also to gain an insight into the failure mechanisms involved.

Results

The results obtained suggest that degradation phenomena are closely linked to the chemical interaction between pigment and lipidic medium that triggers the failure mechanisms responsible for the selective cracking. It is from these observations that the research was born under the framework of MIMO project (Metal Ion Migration mechanisms in Oil paints drying and degradation) which aims to connect the chemical nature of oil paint colours with specific degradation phenomena.

Conclusions

This research does not merely describe degradation phenomena, but focuses on the importance of the interdisciplinary approach and the dialogue between different professionals for the development of specific analytical methodologies that bridge the gap between scientific knowledge and conservation practice.

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MUSEUM EDUCATION AND EARLY CHILDHOOD EDUCATION. A CASE STUDY APPLIED TO PATRAS UNIVERSITY MUSEUM OF SCIENCE AND TECHNOLOGY

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Introduction

Nowadays, the integration of Museum Education in Early Childhood Education is a crucial, international practice. In Greek reality, however, museum education for kindergarten children is often approached in pedagogically outdated ways. As a result, the children's construction of learning in museums is incorrect and it may negatively affect their future perception about the museums.

Our research tried to approach through modern pedagogical principles and practices the way that kindergarten children learn in museums. We designed and implemented experiential activities within the Patras University museum of Science and Technology that aimed at bringing out the feeling of joy. The students that followed our special educational program, came into contact with selected exhibits, learning in an active and joyful way and simultaneously constructing a positive attitude towards the museum in general.

Our research highlighted that a museum is able to offer innovative learning experiences to the students as far as it enables them in active and experimental learning processes. If such strategies are followed it is more possible for our future citizens to choose a museum as a lifelong learning method.

Methods

Our methodology combined parameters of a case study and an action research. The researchers designed and implemented an educational program of four experimental activities based on exhibits of the Patras University Science and Technology Museum. Eighteen kindergarten children visited the museum and took part in the research process. The activities aimed at enhancing the construction of children towards the direction that they can learn in a joyful way in a museum. After the conclusion of the educational program, children evaluated their experiences answering individual questions about how the museum made them feel.

Results

Our research aimed to enhance the feeling of joy while learning in a museum. Every participant was asked two questions: 1. How was your day, today?, 2. How did you feel today in the museum? The answers were in total positive and recorded that learning in a museum can be a really fun experience. Answers of the first question (How was your day, today?): 28% nice, 17% excellent, 11% super, 11% one of my favourite days, 5% very nice. Answers of the second question (How did you feel today in the museum?): 33% good, 17% joy, 17% very good, 11% good, 11% perfect/favourite day, 5% I don't know, 5% I was sleepy and I woke up, 5% better.

Conclusions

Museums are able to offer a non-typical, attractive learning environment, which enhances learning and forms the perception of the museum as a long-life learning means. The fact that students are not appreciating the museums and they don’t choose them in their life lies on the fact that we apply outdated practices when visiting during the school years. Our educational program highlighted that museums are able to offer joyful learning as far as we focus in designing proper educational programs. In our perspective, during the Early Childhood Education students should construct through such programs the proper representations about the museums in order to embrace them as lifelong learning environments.

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COMMUNICATE HISTORICAL VALUES THROUGH THE DIGITIZATION AND PROTOTYPING OF MUSEUMS HERITAGE

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Introduction

The contribution provides some results of a broader research, which addresses the issue of digitization strategies of minor museums and their collections. In particular, the activities presented here focus on the research for the definition of methodologies for digitization and interaction and fruition of the collection constituted by some case studies on Italian territory.

Methods

Digital fast survey campaigns were carried in different contexts, to document museums environments and findings using integrated digital tools. A 360° camera has been mainly used for the museum environment, while structured light lasers and Structure from Motion (SfM) photogrammetry techniques to digitally reproduce objects in the collections.

Results

The processing of the acquired data made it possible to generate an online virtual tour of museums, and detailed three-dimensional models of the objects for an innovative and inclusive use of the local heritage. The two digital systems could be linked together to allow greater “user-virtual museum” interaction, in which add 3D printings collections findings for a tactile and AR/VR fruition.

Conclusions

The research activities made it possible to develop a strategy to build a dynamic digital duplicate of minor museums. This offers new and attractive possibilities of use, reactivating interest in an unknown heritage with alternative fruition of museum and collections.

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INTEGRATING ADVANCED IMAGING TECHNIQUES IN THE CONSERVATION OF CULTURAL HERITAGE – A CASE STUDY

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Introduction

This paper presents an in-depth remedial conservation report on an 18th-century oil on canvas painting, portraying a monk who is potentially a saint of the Roman Catholic Church. Through multispectral imaging, we analyse the painting before and after conservation and aesthetic restoration interventions, offering a comparative perspective. The subject of the painting, a Carmelite monk holding an icon of the Virgin Mary, suggests an association with the representations of the Roman Catholic Saint Simon Stock. The artwork belongs to the European Art collection of the National Art Museum in Timișoara, Romania. Its provenance traces back to a donation in 1876 by priest Antal Schäffer from Zădăreni to Zsigmond Ormós, the founder of the museum's collection. Despite its unknown authorship, stylistic elements hint at a Spanish, French or Italian devotional origin.

Methods

Our study encompasses both non-invasive and micro-invasive technical analyses, combining visual inspections, multispectral imaging, digital platforms, optical microscopy, and SEM-EDX analysis on micro samples. These investigations aim to thoroughly assess the painting's condition and inform the subsequent conservation treatment. The conservation process addressed both structural and aesthetic needs. Key actions included aqueous cleaning methods, localised stabilisation, and structural conservation of the canvas. The treatment involved temperature-controlled pressure and a low-pressure table for planar deformations, strip lining of degraded margins, adjustment of the original strainer, and standard visual compensation procedures such as infilling, retouching, and varnishing.

Results

Preliminary results from multispectral imaging and computer-processed analysis revealed questionable elements and materials within the paint layer. To clarify these findings, further analysis using Scanning Electron Microscopy was performed on targeted samples. Post-intervention, multispectral imaging was repeated to gather additional data, facilitating a comprehensive assessment of the conservation work.

Conclusions

This study underscores the importance of integrating advanced imaging techniques and thorough technical analysis in the conservation of cultural heritage. By providing detailed insights into the material composition and condition of the artwork, we aim to enhance the understanding and preservation of historical paintings within museum collections.

YOCOCU ISTANBUL 2024

15-17 October 2024

THE FIESCHI MONUMENT AT THE DIOCESAN MUSEUM OF GENOA: THE STORY OF THE RECOVERY OF A FORGOTTEN ARCHITECTURAL STRUCTURE PRESENTED TO THE PUBLIC WITH A NEW MUSEUM LAYOUT AND NEW STUDY OPPORTUNITIES FOR THE FUTURE

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Introduction

We will try to tell the story of the funerary monument of Cardinal Luca Fieschi, made in Carrara marble, so massive and rich as the historical figure for whom it was created, between 1336 and 1340. There are no documents or drawings, but ongoing studies hypothesise that it was between 12 and 15 metres in height, placed in a position of honour in the Cathedral of San Lorenzo in Genoa, in front of the altar of San Giovanni Battista. About two hundred years later, along with the loss of power of the Fieschi family, the monument was dismantled and only the main sculptures initially were placed on a side of the church, and during the last century in the Diocesan Museum. In 2020, thanks to the perseverance of the director of the Diocesan Museum of Genoa, Paola Martini, together with architect Giovanni Tortelli, art historian Professor Clario di Fabio and a scientific committee, the economic resources were found. Numerous architectural fragments (124) scattered in various storage rooms of the Diocese and the municipality of Genoa, together with 15 sculptures and high reliefs, were gathered to undertake an ambitious but exciting challenge: to restore and set up a “reborn” Fieschi monument in the museum.

Methods

The difficult task to solve all the technical issues was assigned to a team of specialised restorers. The rediscovered monument, now exhibited in a room eight metres high, is the result of detailed research and study. It was taken care of the shapes and possible attachments, of the characteristics of the marble, of the signs of processing left by the tools on the marble surfaces, and of the state of conservation of the material. But above all, it is the result of a continuous comparison and exchange of opinions between the entire team (restores, art historians, architects).

Results

The reassembly of some fragments with curved shapes, quite unusual and enigmatic, was carried out with a traditional and effective technique for the composition of these particular reliefs. Furthermore, the presence of traces of original paint on the sculptural group and reliefs required low-impact cleaning systems on the surfaces.

Conclusions

The new installation displays all the remaining parts of the monument, brought back to light from the storage rooms where testimonies of the past often remain buried and forgotten. And, in its fragmentary nature, it allows the visitor to imagine its majesty and the researcher to carry out new studies on the lost architectural project.

2

TRADITIONAL AND INNOVATIVE PRODUCTS IN TERMS OF METHODOLOGIES, APPLICATIONS AND MATERIALS FOR THE CONSERVATION OF CULTURAL HERITAGE

TRADITIONAL CRAFTSMANSHIP IN CREATIVE ECONOMIES: THE VISWAKARMA TRADITION OF METAL CRAFTS OF INDIA AND THE BATIK TRADITION OF DESIGN CRAFTS OF INDONESIA

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Introduction

Local Context: Viswakarma Craftsmanship in Kerala, India and the Batik Artistry in Surabaya, Indonesia.
Thematic Cluster: Creative Economies.
Arts And Crafts: Metal Crafts in Kerala, India; Batik Arts in Surabaya, Indonesia

Methods

The study aims at examining the importance of creative economy sectors namely creative crafts of India and creative arts of Indonesia. The creative artistry related to creative industries or enterprises abide by creative economies of select arts and craft of India and Indonesia are explored in the forefront of the cultural expression of “thematic clusters” in the “local context” perspective. We identified the Viswakarma Tradition of Bell Metal craftsmanship in Kerala, India and the Batik fabric design artistry of Surabaya, Indonesia for analysing contextual conglomerates of artisanal creative industries. The methodology adopted in the study is analytical and descriptive based on primary and secondary sources of information with greater emphasis on case study methods.

Results

The creative economy is a concept that evolved over the ideas and knowledge from human resources as the main production factors. The creative industries, which fostered in the hand weave of the human resources, include advertising, architecture, arts and crafts, design, fashion in films, video, photography, music, performing arts, publishing, research and development, software, computer game, electronic publishing and TV and Radio form the lifeblood of the creative economy.
The creative economy is the sum of all the segments of the creative industries, including trade, labour and production. Today, the creative industries are the most dynamic sectors in the world economy providing new opportunities for developing countries to leapfrog into enjoying high growth areas of the world economy.

Conclusions

Artistry (the art work), which reflects creativity and the artefacts (the objects) that reveal the skills of the artists are the thematic expressions of the cultural heritage of the region and the nation. The artwork of the artists exposes his /her creative thinking and the artefacts or the objects of the artistry informs the tangible or intangible cultural heritage. Cultural objects (cagar budaya) of the artistry and the cultural heritage (warisan budaya) form the embodiment of creative skills and the creative ideas envisioned by the craftspeople. Artefacts in every geographical space become the local heritage as time passes by and before long, they rise to become the national heritage of tangible or intangible cultures. Surabaya's cultural heritage of the Batik arts, thus, rise to be in the forefront of Indonesia's national cultural heritage. Likewise, Aranmula Metal Mirror of Kerala now reached the zenith of its glory as national heritage of India and reached to the hands of global leaders. This is the thematic narration of local reality, which underscore the local creative industrial hubs tend to reach the place of the highest ladders of the creative crafts as the national pride. The craft stories of India and Indonesia are their respective national prides. Artistry and artefacts are the cultural theatres of every nation, so as India and Indonesia.

YOCOCU ISTANBUL 2024

15-17 October 2024

ANALYTICAL STUDY OF A MASK FROM THE CARTONNAGE – GRECO-ROMAN PERIOD – COLLECTIONS OF EXCAVATIONS AT SAQQARA

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Introduction

The current study aims to recognize the pigments components and detect their degrading on one of the cartonnage masks extracted from the excavations of the Saqqara region, according to a scientific analytical study.
The study represents an important step in studying the nature of ancient Pharaonic pigments and their relationship to degradation

Methods

Digital microscopy examination, microbial isolation, analysis of the medium using infrared spectroscopy, analysis of pigments using X-ray fluorescence analysis and finally examination by scanning electron microscope Based on these results of those examinations and analyses, treatment operations were carried out as required by the cartonnage condition. The piece represents a human face consisting of a support of linen and topped with a preparatory layer of gypsum, often coloured in blue, gold and black. Contains cracks, corrosion, and lost in colours it was found in the Saqqara area.

Results

The examination with digital microscope showed separations, and surface cracks the flax layer, the colouring layers, The results of X-ray fluorescence showed that the blue coloured pigment is Egyptian blue, and the red coloured pigment is hematite, whereas the golden colour is orpiment, and the black colour is manganese black. Moisture content analysis showed that the water content is 8%. Where electron microscope examination showed there are deep holes, gaps and cracks in Egyptian blue, golden an a red pigment furthermore; SEM micrographs showed the typical shape of flax fibres as well as showed the extent of deterioration in the linen; the FTIR results confirmed that the binder used is gum Arabic According to these results, maintenance operations were carried out.

Conclusions

A study of one of the cartonnage masks extracted from the excavations concluded a number of results. As the following:

-The results of the examination by light microscope showed the extent of the damage caused to the mask, and it showed the linen layer, the colouring layer, separations, and surface cracks.

– The results of the electronic microscope examination showed that the blue colour in the chin area is Egyptian blue and is full of holes, gaps and cracks, and the presence of holes in the gum layer under the influence of natural ageing in the Egyptian blue colour. It showed cracking and crumbling of the paint layers and surfaces in golden colour.

– The results of the infrared analysis also showed that the resin used was gum Arabic.

– The results of X-ray fluorescence show that the blue coloured substance is Egyptian blue, the red coloured substance is hematite, the golden colour is orpiment, and the black colour is manganese black.

– The Rota meter Mini showed that the water content of the cartonnage is 8.

– It appears through the isolation that the carton did not show any microbiological infection due to the good preservation process that was in the cemetery at the time of the discovery and the high drought.

15-17 October 2024

ECOMUSEUMS AND GREENWAYS IN SOLVING GLOBAL PROBLEMS

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Introduction

The article analyses the global problems of our time, studies the role of Azerbaijan in solving these problems, and emphasizes the importance of declaring 2024 in the republic the “Year of Solidarity for a Green World”. The role of ecomuseums and Greenways in solving global problems is brought to the fore. The creation of ecomuseums will contribute to environmental education , the development of “green” technologies, the preservation and propagation of the heritage of local communities, the development of tourism and the well-being of the population. The creation of ecomuseums will play a major role in the formation of a knowledge society and creative economics in Azerbaijan.

Methods

We used a variety of scientific methods, including a review of scientific literature to understand theoretical approaches and previous research on the subject; analysis of statistical data; historical analysis that allows us to trace the evolution of ecomuseums and their characteristic features.

Results

It is impossible to cover all physical and geographical regions of Azerbaijan at once. From this point of view, the specialists of the relevant fields should first of all determine where the organisation of Greenways will be more efficient, and take into account the villages located on these routes, the population and the infrastructure, and decide in which areas the ecomuseums will be created.

Conclusions

“The basis of the ecomuseum is heritage, saved from neglect and vandalism...” (Querrien, M.). From this point of view, the creation of museums of this type in Azerbaijan is a necessary and urgent issue.

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ISTANBUL 2024

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FUSING EDUCATIONAL EMPOWERMENT WITH CONSERVATION STRATEGIES IN THE LIGHT OF THE MOROSINI FOUNTAIN

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Introduction

This paper discusses integration of community engagement with development of a conservation plan in the light of the Morosini fountain on the island of Crete, Greece. This iconic monument, a symbol of the architectural brilliance of the Venetian period, is a protagonist in the social and economic aspects of the local society's lives. From a conservation point of view, it is a great challenge.

Methods

The conservation plan proposal was based on thorough documentation and comprehension of the deterioration causes and mechanisms, achieved by analytical methods, digital imaging and archival research. All data was combined towards the development of several conservation and management options, among which relocation and substitution by a replica, fulfilling the need to think outside the box.

Results

Responding to the needs of monuments arising from community interaction, an educational program seemed ideal. Its goal is to ensure long-term protection through preventive and interventive conservation and stimulate a sense of stewardship towards cultural heritage. Through this synergy, the project seeks to establish an innovative conservation model with national scale dynamics.

Conclusions

Critical preservation state and extreme conservation treatments scientifically documented lead to a broader perspective. Team work, collaboration with a scientific team, modern technologies put to the service of conservation, and an educational campaign to communicate the values of the monument are vital.

15-17 October 2024

THE USAGE OF 3D DIGITAL TECHNOLOGIES IN CERAMIC CONSERVATION

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Introduction

Ceramic artefacts constitute the majority of excavation finds and since they are usually found in fragments, they are bonded and completed. Completion is one of the most commonly used conservation and restoration applications in ceramics. Within the scope of the study, it is aimed to determine the applicability of the completion application on ceramics with 3D digital technologies.

Methods

Glazed and unglazed ceramic vessels were produced by traditional methods for experimental applications. In order to treat the vessels as ceramic finds with missing parts, some parts were broken, taken and bonded. The vessels with missing parts were created ready for completion with 3D technologies.

Results

The ceramic vessels with missing parts were first scanned with a 3D scanner to obtain digital data. Using this data, 3D modelling of the missing areas, physical completion of the vessels with 3D prints and virtual completion processes were carried out. In the physical completion application using 3D prints, decorative completion was also performed.

Conclusions

At the end of the study, it was determined that both physical and virtual completion with 3D digital technologies can be applied to ceramic artefacts. It is suggested that filaments or resins to be used as completion materials should be tested before being applied to historical ceramic artefacts.

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AN EXPERIMENTAL STUDY ON THE PRODUCTION TECHNIQUE OF ARTS OF PAPER: KALENDER PASHA'S PAPER-JOINING TECHNIQUE

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Introduction

This paper describes the experimental study of the paper-joining techniques in an album dedicated to the Ottoman Sultan, Ahmed I made by the artist Kalender Pasha. In his album, Kalender used a particular type of inner border made of strips of different colours of paper. This study was undertaken to determine and practically carry out the hypothetical procedures needed to make these borders.

Methods

The general features of these borders were described in a thesis written about the album. Additionally, high-quality photographs of the album pages were consulted. Based on experience gained during studies of conservation and traditional Islamic arts, methods were identified to use as a starting point for further experimentation.

Results

The important characteristics of the paper that had to be considered during experimental trials were identified. There were a few important points that needed to be taken into account to execute the experiment successfully: The grain direction of the paper, differential expansion of paper layers, limited time available when placing the strips, and controlling the movement of paper while drying.

Conclusions

This study showed that replicating historical techniques using traditional and natural materials is highly challenging since there is limited knowledge about them. A background in conservation studies and knowledge of traditional art techniques were key to being able to execute the research. This emphasizes the importance of the role of conservators since they have this background and knowledge.

YOCOCU ISTANBUL 2024

15-17 October 2024

CREATION OF AN EXEMPLARY FORMAT OF MUNICIPAL SUPPORT IN THE STUDY, PROTECTION AND PROMOTION OF CULTURAL HERITAGE

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Introduction

MIRAS implements "Creation of an Exemplary Format of Municipal Support in the Study, Protection and Promotion of Cultural Heritage" project with the financial support of Azerbaijan State Agency for Support to NGOs, to create an exemplary format for municipal support in the study, protection and promotion of cultural heritage, study international practice, set guidelines, and conduct training.

Methods

The set of guidelines which was prepared on the basis of the comparative analysis method is presented in an appropriate format by adapting normative-legal documents, international conventions, international protocols and regulations on the protection of cultural heritage, as well as Turkish and International practice to local legislation.

Results

An instruction book is being prepared that includes international experience, scientific-methodical information, scientific knowledge, and tasks collected within the framework of the project. At the same time, a sample conservation agreement, online scientific passports, a separate proposal package for each municipality are presented, and municipalities are assisted in the preparation of projects.

Conclusions

The project brings innovation to the study, preservation and promotion of cultural heritage, and strengthens the municipal integration. Local and international experience, documents, normative acts, scientific knowledge are analysed. The prepared guidelines and documents are a road map for municipalities in dealing with cultural heritage.

YOCOCU ISTANBUL 2024

15-17 October 2024

CULTURAL ROUTES AS A CURRENT APPROACH IN THE CONSERVATION OF CULTURAL HERITAGE: CULTURAL ROUTE STUDIES FOR OTTOMAN COMPLEXES IN AND AROUND DIVANYOLU AVENUE

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Introduction

The cultural route approach, which makes intercultural dialogue sustainable, will be interpreted and planned in the context of Ottoman complexes, one of the culturally important groups on Divanyolu Avenue in Istanbul. The main goal of the routes is to contribute to the protection of Divanyolu Street and the cultural areas in its immediate vicinity by strengthening public awareness.

Methods

In line with the theoretical background of the cultural route concept, the development process of Divanyolu Avenue will be analysed with written and visual sources, and routes supported by narrative and visual materials that will reveal the heritage values of Ottoman complexes will be presented.

Results

One main and two alternative three walking routes will be proposed to address the cultural values of Divanyolu Avenue. For the routes' continuity, promotional suggestions such as technological applications, workshops, activity tours and visits to cultural elements in the area will be presented, as well as suggestions such as the creation of a graphic identity and the use of audio-visual guides.

Conclusions

The heritage elements on Divanyolu Avenue have deteriorated and not sufficiently recognised by visitors. It is thought that by addressing the traces of collective memory in spaces with routes, it will create a revitalising effect on the memory of the society and reinforce the instinct of protection.

15-17 October 2024

ARCHAEOMETRIC ANALYSES OF BUILDING MATERIALS OF ISACCEA MAHMUT YAZICI MOSQUE IN ROMANIA

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Introduction

In order to protect and restore historical buildings, it is necessary to first analyse the building materials. For this purpose, the properties and the composite levels of traditional materials can be characterised with different archaeometric analyses. With this study, the structural materials of the Isaccea Mosque were analysed for the first time and suggestions were made for the restoration works.

Methods

Within the scope of archaeometric studies, physical tests for stone, brick/tile samples, compositional aggregate/binder analysis for mortar and plaster samples were applied. The chemical and petrographical properties of the stone, brick mortar, plaster and soil samples were determined by XRF and thin section optical microscopy analyses. Pigment samples were also analysed by XRF methods.

Results

Physical, chemical, and petrographical properties of structural (stone, brick/tile, mortar, plaster, and soil) and decorative (pigment) materials belonging to Isaccea Mahmut Yazıcı Mosque were specified through archaeometric analyses. The stones used in the bondings of the mosque are sandstones and limestones. The mortars and plasters are lime based.

Conclusions

The equivalent rocks to be used in the restoration of stones should be supplied from the regions suitable to the local formation. The bricks belonging to the mosque and the minaret have original and the tile sample which is one of the renewed roof elements with recent time restorations have restoration quality. The use of cement containing material is not recommended in restoration.

FORTY YEARS OF ARTIFICIAL INTELLIGENCE IN CULTURAL HERITAGE STUDIES

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Introduction

With the proliferation of digital technologies, artificial intelligence (AI) has gained significant momentum in various application sectors in recent years, provided it is appropriately utilised. Although the origins of artificial intelligence date back several decades, it has now begun to occupy a central position in many fields embracing information technologies.

Methods

This paper encompasses a bibliometric analysis of documents on artificial intelligence in cultural heritage indexed in the Web of Science Core Collection from 1984 to 2023. The study includes author-dependent and keyword-dependent distributions through the bibliometric analysis tool VOSviewer, an analysis application used for data visualisation, bibliometric analysis and bibliometric networks.

Results

It is seen that 70% of the top ten countries according to the total number of publications on artificial intelligence in cultural heritage between 1984-2023 are from countries in the developed countries category. The countries that contribute the most to the literature are located in Europe and Asia.

Conclusions

The research topic addressed in academic studies should be supported in underdeveloped and developing countries as well as developed countries. This study is the first bibliometric analysis in the academic literature on artificial intelligence in cultural heritage and it is expected that the study will encourage researchers to conduct more studies on this subject and contribute to the literature.

15-17 October 2024

LOCAL INTERVENTIONS TO CONSERVE THE RURAL HERITAGE AT RISK IN IZNIK

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Introduction

The traditional architectural heritage in villages that have become depopulated and left to the destruction of natural factors is disappearing over time. The lack of a policy to conserve the houses in these regions accelerates the loss. Local people try to repair their homes with their own techniques. This study aims to evaluate and discuss the qualifications of local interventions.

Methods:

This study includes the analysis of the surveys carried out at various times during the surface surveys carried out in the villages in the Iznik countryside. The analyses are based on field observations and interviews with local people. Interventions regarding construction systems and materials were evaluated based on the regulations in the conservation area.

Results

Structural interventions involve the integration of wooden support elements into adobe walls in vertical and horizontal planes to save the construction system. Material interventions are the regular applications of plaster or 'things' to protect the adobe wall. Lime plasters are unique and sustainable, cement is a form of intervention that is unqualified and has a negative impact on the material.

Conclusions

Local interventions are practices whose primary aim is to 'save the day' and are far from the expertise required by the regulations. These are important in terms of saving the building from destruction. Positive interventions should be supported, and local guidance should be given regarding negative practices such as the use of materials that are not suitable for tissue.

15-17 October 2024

POLYESTER FIBRE (PES): AN INNOVATIVE MATERIAL FOR APPLYING EXTRACTIVE POULTICE AGAINST SOLUBLE SALTS IN THE HYPOGEA CONTEXT

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Introduction

This study evaluates conservation materials for soluble salt extraction in hypogea environments, focusing on minimizing the use of organic compounds and increasing extraction capacity. The research tested a new poultice component: polyester fibre. The correct application methodology was verified on mocks-up to identify the best combination for application on the S. Augustine mural painting (MT).

Methods

The poultice included extractive materials (sepiolite, bentonite, attapulgite), thickeners (cellulose, polyester), and interlayer (tulle, TNT, felt, Japanese, English paper), which were evaluated for µS/cm, pH, gravity resistance, residue (VIS; UV), extraction on Na2SO4 mock-ups. Then applied on Saint Augustine mural monitoring 17 zones.

Results

Japanese paper performed as the best interlayer material for poultice application purposes. Attapulgite clay with PES resulted the most useful for salt extraction. Attapulgite surpassed the other two clays (sepiolite and bentonite) in performance when used with PES. Nevertheless, when applied with cellulose powder, sepiolite yielded the best results, followed by attapulgite and bentonite.

Conclusions

This study presents an innovative proposal for poultice formulation for removing soluble salts, it combines PES fibbers, attapulgite clay, and Japanese paper for enhancing salt extraction efficiency. Furthermore, the reusability of the fibres makes this formulation a valuable tool for sustainable conservation.

15-17 October 2024

COMBINED EFFECT OF SALT AND TEMPERATURE ON HETEROGENEOUS ALGERIAN STONES DURABILITY

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Introduction

The aim of this study is to evaluate the durability of three different varieties of Algerian limestones by the combined effect of sodium sulphate crystallisation (Na2 SO4. 10 H2O, 14%), thermal shocks and freeze thaw tests. Water capillary uptake, P-wave velocity and residual deformation were used to assess the deterioration of the stones after the tests.

Methods

The study of the combined effect of salt and temperature was performed by four durability tests adapted from the standards of salt crystallisation (EN 12370: 2020 Natural stone test methods – Determination of resistance to salt crystallisation.) and freeze-thaw durability (EN 12371: 2003 Natural Stone tests methods: determination of frost resistance).

Results

The combined effect of thermal shock, salt crystallisation, and freeze thaw test modify the stone's porous network by opening and creating new fractures. The use of strain gauges allowed to quantify the surface deformation that corresponds to the damage of the bulk rock. This technique has the advantage of continuously monitoring the stone deformation during the test, at short time intervals.

Conclusions

The relation between the structure and the durability of three varieties of ornamental limestones used in the Algerian cultural heritage was analysed. The use of strain gauges allowed to quantify the surface deformation that corresponds to the damage of the bulk rock. This technique has the advantage of continuously monitoring the stone deformation during the test.

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AN OVERVIEW OF 3D MODELLING STUDIES OF YENIKAPI SHIPWRECKS WITH THE EXAMPLE OF YENIKAPI 16

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Introduction

The Yenikapı Shipwrecks constitute the world's largest collection of mediaeval ships. The Yenikapı 16 shipwreck is a rowing warship, also called a galley, dated to the 9th century AD. There is no other archaeological example in the world in such a well-preserved condition dating to the 9th century. For this reason, the detailed documentation of the galley and the creation of 3D images and obtaining visual data about the wreck in an understandable way are of great importance for the preservation and transfer of underwater cultural heritage to future generations.

Methods

Ship elements were documented in 3D with FaroArm, a 3D contact digitizer device within the scope of the study. For maximum accuracy, the Fusion model was used with an accuracy of up to 0.051 mm. 3D solid models were created with the help of Rhinoceros software for each ship element documented linearly (wireframe). These models will be used as the basic element of the reconstruction works to be carried out later.

Results

Within the device, 25 different elements such as tool marks, section and plan views, wood and metal fasteners, wood grain, damaged parts, original joints, which can be a reference for determining shipbuilding techniques on wooden elements, were evaluated and recorded in different colours in the Rhinoceros program. 208 ship elements of the Yenikapı 16 shipwreck were drawn and models were created within the scope of the study. Nine of the frames with high water content and intense deterioration could not be modelled due to this deterioration.

Conclusions

The 3D models obtained from the 1:1 scale drawings made with the FaroArm device were placed on the drawing obtained with the in situ Total Station drawing. With the data generated, a 3D model of the in situ Yenikapı 16 shipwreck with a length of 22.5 m and a width of 2.40 was obtained. A scaled physical research model of the original boat form can be made by using the digital solid model obtained by creating comprehensive and detailed digital data.

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NATURAL AND SYNTHETIC ADHESIVES FOR THE CONSOLIDATION OF MATTE DISTEMPER PAINTINGS. ASSESSMENT OF EFFICIENCY VS. COLOUR ALTERATION

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Introduction

The following study aims to present an assessment concerning the adhesives suitable for the consolidation treatments applied for decohesive painting layers belonging to distemper paintings. The original polychrome wood painting technique implied the usage of animal glues, in the structure of the preparatory and painting layers often in low concentrations, that are subjected to humidity sensitivity, high porosity hygroscopicity and matte appearance of the overall aspect.

Methods

An adhesive required for the treatment of distemper painting layers should possess properties linked with minimal change in the of the artwork s visual qualities, the opaque and matte colours that are specific to the original technique; in this matter, a good consolidant must compile a balance between viscosity at a certain concentration, surface tension, polymer formation and the aspect of the superficial film after drying. As a strategy for the selection of a suitable treatment, several ground layer samples using different preparations/ formulations were created for the further testing with different types of consolidants: isinglass, hydrolysed collagen, Paraloid B72, Funori, Aquazol 500, in low concentrations (5%). The samples were then subjected to a series of tests using analytical investigations: optical microscopy, 3D Microscopy and XRD spectrum for the identification of organic elements in the original ground's composition.

Results

The evaluation of the series of 3D microscopy images and optical microscopy showed the

particularity of the interaction between the sample components and the adhesives tested. Results of both the preliminary tests on the ground layer samples and the original painting reveal the fact that there is a slight modification in the matte appearance of the painted surface once the consolidant is applied. In all the analysed cases, the 3D imaging method showed the different degrees of viscosity of the coatings formed on the surface of the preparatory layer; The 3D mapping of the surface of the ground layers also reveal the distribution of the solid crystallised fragments of the consolidant. Concerning the optical microscopy analysis, the Funori and isinglass based consolidant was stable concerning the colour modification and the mattness of the surface. The Aquazol and Paraloid B72 coatings showed a particular modification in the surface appearance, during the drying process; enhanced the original colours and dramatically modified the overall matte aspect of the original hues.

Conclusions

The tests on the samples and on the original were conducted for surface characterization and the impact that each consolidant has on the surface on which it is applied. In all cases, the 3D microscopy imaging revealed the modification of the surface porosity to some degree and the type of adherence that each coating established in relation to the preparatory layer samples. The optical microscopy carried out revealed the overall aspect modification before and after the application of the consolidant, concerning the mattness versus gloss.

YOCOCU ISTANBUL 2024

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THE PAST AND FUTURE OF RESTORATION TECHNIQUES: HISTORICAL AND INNOVATIVE APPROACHES

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Introduction

The development of restoration techniques used for the preservation and restoration of cultural heritage is essential. A comparative analysis of traditional and modern technologies for the preservation of historical monuments will identify their strengths and weaknesses, supporting the formation of more efficient strategies in the future. Additionally, this analysis will facilitate the sustainable preservation of cultural heritage and its transmission to future generations.

Methods

A comparative analysis of traditional and modern restoration methods will be conducted. Historical documents, archival materials, international conventions, and modern technologies will be examined. Furthermore, observations on restoration projects and interviews with experts will be carried out. The use of these methods will allow for the evaluation of their impact effectiveness and sustainability.

Results

The comparative analysis will reveal the advantages and disadvantages of traditional and modern restoration methods. Strategic recommendations will be made for the integration of historical methods with modern technologies. The obtained results will ensure the implementation of innovative approaches that can be used in future restoration works. These approaches will also enable more efficient use of financial and material resources.

Conclusions

The article will emphasise the importance of combining historical and modern approaches in the development of restoration techniques. This will facilitate more effective preservation and restoration of cultural heritage, providing direction for specialists in the field. Additionally, this approach will contribute to the wider dissemination and improvement of technologies used in restoration works.

15-17 October 2024

ARTIFICIAL INTELLIGENCE FOR ARCHITECTURAL CONSERVATION: A CASE STUDY OF A RESTITUTION PROCESS

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Introduction

Accurate documentation of historical artefacts has always been a very significant part of architectural conservation work. This study aims to create new forms of restitution documentation in an image-based form using artificial intelligence. It aims to answer the question, “Could AI assist in producing alternative restitution proposal documentation to supplement the traditional project drawings?”.

Methods

Using Prome AI as the selected image generator artificial intelligence tool, the deterioration and unqualified interventions apparent on one of the façades of the case study building were aimed and successfully applied to a degree to be reversed back to the original form of the historical building.

Results

Reversing the deterioration visible on the façade wall with image generation practices proved to produce successful results. Changing the modernised window on the façade to its original version failed when using general prompts to describe the original window type but was applied with a rather successful result when the original window data was gathered from another window visible on the image. This study can be expanded if fine-tuning/training of an AI tool is applied to the process.

Conclusions

It was observed that AI tools produce consistent results, providing prompt data for the desired results from the given image proved to be a successful application. AI can aid in testing out multiple restitution scenarios much more quickly and image results become understandable to a bigger audience.

15-17 October 2024

CONSERVATION, RESTORATION, AND STORAGE PRACTICES FOR TEXTILE ARTEFACTS OF MUSTAFA KEMAL ATATÜRK

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Introduction

Throughout human history, textiles have played a very important role in human life. Initially used as clothing, textiles later appeared in the living areas as carpets and rugs. Conservation and restoration practices on textile artefacts, which are part of cultural heritage, have been applied worldwide for many years. In recent years, works on textile restoration have been accelerated in Türkiye.

The restoration, conservation, and exhibition preparation practices of three textile artefacts belonging to Atatürk registered in the inventory of the Ankara Republic Museum and planned to be displayed in the Atatürk House in Thessaloniki, were carried out by the Istanbul Restoration and Conservation Centre and Regional Laboratory (IRCCRL).

Methods

This study investigates the necessity of washing textile artefacts and the criteria that need to be considered during this process. The effects and results of the chemicals used for wet cleaning on the artefacts were examined.

Results

In this case, as a specific approach the wet cleaning method was applied on the cotton woven artefacts. A detailed examination was conducted on the removal of high acid content from the artefacts through washing. Despite washing is an irreversible process that might cause irreparable damage, it was applied to these artefacts by taking into consideration the necessary criteria. There was a noticeable reduction in acidic stains, and successful results were achieved. In addition to these efforts, protective methods for transportation were also applied to ensure the artefacts reached their destination without any damage.

Conclusions

Wet cleaning in historical textiles is generally a method applied to stop the deterioration process of the artefact. Due to its irreversible and uncontrollable nature, it is necessary to decide based on the condition and integrity of the artefact. In this study, certain criteria were considered when

deciding on wet cleaning for historical textiles. The foremost criteria included the good tensile strength of the artefact and it being an undyed raw fabric. The most important reason was to eliminate the negative effects caused by the high acid content on the artefact. Typically, non-ionic detergents prepared in specific ratios are used in wet cleaning of textile artefacts. However, in this study, a different method was sought since the non-ionic detergent did not effectively reduce the high acid content of the artefact. A formula consisting of pure water, CMC (Carboxymethyl cellulose), Alpha Sulfonate, and Fatty Acid Methyl Ester was applied for heavily soiled and acidic textiles. The method, which was applied for the first time, yielded much better results in trying to remove the yellow stains seen on textiles due to high acid content compared to non-ionic detergents. After completing all the work, the artefacts need to be stored with appropriate materials to prolong their preservation period. During the storage process of the completed artefacts, using suitable materials and maintaining appropriate storage conditions will extend the preservation period of the artefacts, making it easier to pass them on to future generations.

While restoration practices aim to improve the condition of the artefact, they can potentially cause damage. Therefore, it is of great importance to apply passive conservation methods to the artefacts and maximise their preservation condition to prevent deterioration.

15-17 October 2024

MULTI-ANALYTICAL APPROACH FOR THE STUDY AND RESTORATION SUPPORT OF A 14TH-CENTURY ILLUMINATED MANUSCRIPT

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Introduction

In this work, a mediaeval manuscript — one of the most important examples of an illuminated laudario — was studied using non-invasive techniques. The diagnostic campaign focused on examining several miniatures to compare the methods of the two masters to whom they are attributed, analysing the inks to make historiographical observations and support the restoration work. Reflectance Vis-NIR multispectral image data were processed with Spectral Correlation Mapper (SCM) and Principal Component Analysis (PCA) to provide insights into the materials and techniques used. Infrared Thermography was used to detect structural features and monitor the conservation process.

Results

Infrared reflectography highlighted differences in the use of underdrawings between the two masters, while SC maps helped partially reconstruct their colour palettes. PCA enhanced hidden details within the miniatures and discriminated inks with similar spectroscopic responses in the Vis-NIR range. Thermograms revealed a loss of adhesion in the gilded areas and possible structural discontinuities. It also showed how they re-adhered to the substrate after the consolidation treatment.

Conclusions

Therefore, the combination of these analyses provided a better understanding of how these objects were produced and served as a valuable tool for the restoration process, both for evaluating the state of conservation and assessing the efficacy of the consolidation treatment.

15-17 October 2024

RESTORATION OF EREN EYÜBOĞLU'S ADAM AND EVE PAINTING AND ANALYSIS OF THE PIGMENTS USED

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Introduction

Eren Eyüboğlu's painting dated 1929, made with oil painting technique on chipboard, is one of the artist's early works. In this study, the problems caused by the previous restoration applications and the new restoration applications made on the painting are explained. Pigment analysis was used to understand the palette used by the artist in her early period.

Methods

Visible, ultraviolet and oblique light were used for the documentation and technical examination of the artefact. Non-destructive Raman and XRF spectroscopy were used for pigment analysis. The restoration of the work was carried out with modern methods and materials.

Results

Visual examinations revealed that the main reason for the deterioration of the paint layer was the wrong filling material used in the previous restoration. In some areas where paint was lost in the previous application, glue was used as a filling material and retouched over. During the restoration, the yellowed varnish layer and old retouching were removed from the surface. In areas with paint loss, texture imitation and retouching were made in harmony with the original surface.

Conclusions

This study is important because it deals with one of the artist's early works and is the first technical examination of the artist's works. It also brings contemporary solutions to the problems caused by the use of wrong materials and techniques in restoration.

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STUDY OF A FLUORINATED BINDER FOR FILLING OPERATIONS OF CANVAS PAINTINGS

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Introduction

During the restoration of Giovanni Patricolo's canvas painting, adverse thermo-hygrometric conditions raised concerns about using protein-based stucco due to biological risks. A synthetic binder was considered as an alternative for plastic reintegration. The study assessed Fluoline ST, which proved promising for its elasticity, chemical inertness, and resistance to environmental agents.

Methods

The first phase of the study involved an analytical-comparative assessment of 16 fluorinated pastes, ultimately reducing the samples to 5. In the second phase, these were compared with reference standards (protein-based paste and Plextol B550 stucco) and subjected to mechanical tests, contact angle measurements, and SEM analysis.

Results

A significant issue involved the rapid evaporation of the solvent in the mixture, acetone, which caused various operational challenges. In the first part of the study, adding less volatile solvents (Methyl Ethyl Ketone and Ethyl L-lactate) and the thickener Ethylcellulose N-300 improved the pastes. In the second part, the fluorinated stuccos showed good surface hydrophilicity and mechanical performance, but the Scotch Tape Test revealed a tendency for the stucco to powder and a surface unsuitable for painting reintegration, whereas the reference samples performed better.

Conclusions

The experimentation highlighted the limitations of the fluorinated polymer in formulating stuccos suitable for the plastic reintegration of paintings on textile supports, but it offered interesting insights for continuing the work, thanks to the stucco's plasticity and ductility, which are useful for developing more durable materials.

AN EXAMPLE OF MOSAIC CONSERVATION: INSCRIBED WALL MOSAIC FROM ANTAKYA

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Introduction

In this study, conservation works of glass mosaic with Latin inscription found in plot no 4642, in Antakya borders, Hatay province will be explained. Wall mosaic fragments were recovered in five pieces from a demolished wall in the cultural levels defined by Pamir as the 5th and 6th layers dating back to the 6th centuries AD and layers belonging to the transition period.

Methods

Detection of deterioration structures for glass tesserae, observations on construction techniques, cleaning, restoration and aesthetic completion works.

Results

In the conservation studies, the reasons for the deteriorations seen in the glass *tessera* were emphasised and observations regarding the construction techniques of the wall mosaic were also included.

Conclusions

Research should be carried out to investigate the construction techniques of the unique wall-vault mosaics, which have survived to the present day in the form of very damaged and small ruins, and to ensure that conservation techniques are developed and delivered to future generations.

15-17 October 2024

PROSPECTS OF CONSERVING AND CAPITALISING RARE ARTEFACTS. A 19TH CENTURY ARCHITECTURAL PAPIER-MÂCHÉ

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Introduction

In recent decades, research on the deacidification and consolidation of paper supports has intensified, focusing on finding effective solutions and optimal new materials. However, many methods remain empirical, leading to unsatisfactory outcomes or deterioration of cultural assets. Treatments are often conducted independently without considering their interdependencies and consequences. Architectural papier-mâché artefacts open the perspective of interesting discussions for conservators and their methodological approach.

Methods

Currently, there is a strong emphasis on using greener products for both the environment and restorers. A promising new material is kudzu starch, derived from *Pueraria lobata*. Nearly pure and naturally processed, kudzu starch is moisture-resistant, forming water-resistant gels and films that adhere well to cellulose fibres in paper. Evaluation methods for kudzu starch focused on adhesion, cohesion, and the chemical and optical characteristics of paper. Tests included sturgeon glue, rabbit skin glue, acrylic dispersions, and cellulose ethers.

Results

Cellulose ethers in concentrations of 1%, 2%, and 3% formed elastic films but altered the tonal quality of the support. Acrylic dispersions in concentrations of 5% and 10% led to the saturation of the support and tonal shifting of the original material, negatively impacting the experimental results. The optimum choice was a 2% sturgeon glue in a 3% kudzu solution, forming an optimal solution without altering the paper's chromatic support, positively impacting the consolidation and aesthetic finish of the papier-mâché ornament. Additionally, kudzu starch was tested on the pictorial stratigraphy and the preparatory priming layers of the architectural element to fix powderiness. SEM-EDX analysis confirmed the materials' presence and provided detailed insights into the layers composition and structure. It also documented the oxidation of brass leaf used in localised gilding, revealing Verdigris formation due to water damage.

Conclusions

This research asserts the importance of using natural and green materials in cultural heritage restoration and highlights, as a continuation of previous YOCOCU research, the efficiency of kudzu starch recipes in the treatment of paper artefacts.

CULTURAL HERITAGE PROTECTION PROBLEMS AND ITS PROTECTION METHODOLOGY

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Introduction

The problem of protecting the cultural heritage that we have inherited from the past and that we want to leave as a legacy for the future for various reasons is increasingly causing the civilised world to think more and more. The main goal of cultural heritage protection is to introduce to the world the cultural and natural entities that constitute human values, which are accepted as the common heritage of all mankind, to form the thinking that will take ownership of the human heritage, which is the subject of discussion in the society, and to preserve the cultural and natural values.

Methods

Azerbaijan's multiculturalism is a shining example of a society based on the principles of peace, cooperation and mutual understanding.
Chiraggala monument is included in the list of cultural heritage of Azerbaijan.

Results

Undoubtedly, every monument containing historical memory should be protected by relevant cultural heritage laws and conventions. For this reason, in 2019, with the order signed by President Ilham Aliyev, restoration and conservation works were carried out by the state to protect the monument, and samples of material culture from the oldest periods were discovered. The work to be done after the restoration will contribute to the efficient use and promotion of the monument from the point of view of economy and tourism.

Conclusions

The protection of the Chiraggala monument is of great importance for the protection of the cultural heritage of Azerbaijan and its transmission to future generations. These methodologies can help preserve the monument in a sustainable and efficient manner.

15-17 October 2024

FILLING GAPS IN TEXTILES BY BUTT - JOINING YARNS USING ADHESIVE METHODS- CASE STUDY

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Introduction

This study delves into the innovative use of adhesives in textile conservation, exploring their potential to supplant traditional stitching methods for gap-filling in degraded fabrics. The research meticulously evaluates both the advantages and challenges of adhesive-based techniques, offering a comprehensive comparison of different adhesives' properties.

Methods

The experimental framework was applied to a historically significant but previously degraded jacquard fabric. The adhesives were carefully applied to individual yarns, followed by the precision use of a thermostated thermal needle to ensure optimal adhesion. This meticulous process involved alternating warm and cold pressing techniques to achieve the best possible bond between the threads.

Results

The findings reveal that certain adhesives exhibited robust adhesion and a desirable matte finish, although some resulted in slight colour tone variations. Other adhesives maintained excellent adhesion without altering the yarns' original colours, while some formulations, despite offering superior elasticity, fell short in adhesion and presented a glossy finish upon drying.

One of the primary advantages identified with this adhesive method is the significant increase in tensile strength within the treated areas, attributed to the protective layer formed as the adhesive stiffens. However, this method is not without its drawbacks, including the extended working time required and uncertainties regarding the adhesive's long-term stability and performance. Notably, among the adhesives tested, specific formulations emerged as particularly well-suited for this conservation technique, balancing adhesion strength and aesthetic integrity.

Conclusions

This research significantly contributes to the evolving field of textile conservation, highlighting the promise of adhesives as viable alternatives to conventional stitching methods. By advancing the discourse on sustainable and effective conservation practices, this study underscores the potential for adhesives to play a critical role in the preservation of textile heritage, aligning with contemporary conservation ethics and methodologies.

15-17 October 2024

USING METALS IN TURKISH ART AND CONSERVATION AND RESTORATION OF METAL ARTWORKS

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Introduction

Gold, silver and similar metals were used in many areas in Turkish Art. In this study, studies on the use of metal on decorations in architectural structures and materials such as textiles and mural works will be evaluated. During the evaluations, the tombstones exhibited in the Istanbul Tombs and the examples seen in the Topkapı Palace and Yıldız Palace will be explained in detail. These studies will be carried out by taking into account the analysis reports of the Istanbul Restoration and Conservation Central and Regional Laboratory Directorate.

Methods

In the conservation and restoration works carried out, in addition to traditional methods, the works are intervened in line with the analyses made. The data obtained as a result of the analyses carried out during the conservation of the work are evaluated and the appropriate technique, method and material are determined. Studies are carried out.

Results

Important data was obtained by investigating the characteristics of the decorations found in movable and immovable works of art in Turkish Art. The usage areas and techniques of gold, silver and similar metals used as ornamental elements in historical buildings and artefacts have an important place in the protection of the artefacts during the conservation and repair phase. In these studies, restoration works were carried out by preserving traditional methods and traditional texture.

Conclusions

As a result, traditional methods and techniques in the maintenance and repair of historical monuments should be evaluated in the light of scientific data and conservation and restoration works should be carried out. In the studies carried out, the original texture of the work and the materials used should be evaluated and the work should be protected.

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FROM TRADITION TO THE FUTURE, PAPER ARTWORK CONSERVATION IN TÜRKIYE

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Introduction

Paper conservation studies in Türkiye were initiated with the aim of preserving and transferring to the future manuscripts that were worn out due to constant use, and are far from today's conservation ethics. The librarianship approach that has existed in the Turks for centuries has led to the existence of individuals in libraries who are assigned to deal with the preservation and repair of books and a budget allocated for this work. Some special methods and materials have been used for the preservation and repair of books and other paper documents. As a result of the respect and care felt for books in the Turks, it is seen that there has been an effort towards preservation almost since Islam. Scientific paper conservation studies in Türkiye first began in the 1960s in the Pathology Department in the Süleymaniye Library Complex, and manuscripts were repaired by a team established by a chemical engineer who received conservation training in Italy. Today, there are paper conservation workshops and analysis laboratories in many museums, archives, libraries and universities. A sufficiently comprehensive study has not yet been conducted on the history of paper conservation in Türkiye. In this ever-developing field, showing the journey from traditional conservation methods to the conservation approach of the future will be a guide for today's conservation students and young conservators.

Methods

In this study, library and archive research will be conducted. Information will be obtained from old and well-established institutions in Türkiye working in the field of paper conservation.

Results

The history of paper conservation studies in Türkiye is a comprehensive subject. It is known that many wrong and right practices have been carried out in this field. However, it has been seen that all these practices and precautions are well-intentioned conservation efforts. It is a fact that with today's conservation ethics and the data of developing conservation science, studies in Türkiye are carried out much more accurately and that we have the potential to train conservators worldwide.

Conclusions

The conservation of paper works in Türkiye still does not have the capacity to meet the country's needs. Although the number of conservators working on this subject and having the necessary equipment has increased, it is not sufficient. Türkiye is one of the most important countries in

the world in terms of the number and quality of manuscripts and documents. In this regard, conservators working especially on the conservation of Islamic manuscripts should come together and share their knowledge and experiences, and ensure that they have up-to-date information through workshops and meetings. As academics who educate students, we will be happy to carry out the necessary studies on this cooperation. Turkish conservators have the chance to work with works with many different problems, and this situation makes it easier for them in practice. Sharing their experiences with conservators in different countries will be beneficial for both parties.

15-17 October 2024

EXPLORING FATTY ACID METHYL ESTERS AS CORROSION INHIBITORS FOR COPPER PROTECTION

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Introduction

The corrosion inhibition efficiency and protection of methyl oleate and methyl palmitate for the corrosion of copper in acid condition was investigated. The fatty acid methyl ester can be a green and environmentally safe alternative as corrosion inhibitors used to replace most used armfull benzotriazole and azoles as copper corrosion inhibitors.

Methods

Application of fatty acid methyl esters was done on oxidised copper samples to simulate a real case object. Protective capacity and inhibition capacity were studied using tafel and electrochemical impedance. Colour changes and surface composition were investigated by colorimetric, Raman and FT-IR analyses.

Results

Both Methyl Esters Fatty Acid esters, used in this study, demonstrated the ability to form a homogeneous protective film with good adhesion to the substrate. The behaviour of the methyl ester fatty acid chosen and subjected to degradation under severe conditions showed different behaviour and ability to protect and inhibit corrosion. Methyl oleate showed an inhibition ability comparable to cysteine and an ability to form a protective coating comparable to benzotriazole.

Conclusions

Fatty acid methyl esters offer a promising, eco-friendly alternative to conventional corrosion inhibitors, which are often harmful. Further studies are needed to fully understand and optimise the potential of these materials for corrosion inhibition in various applications.

3

APPLICATION OF THE PHYSICAL AND BIOLOGICAL SCIENCES TO ARCHAEOLOGY, ANTHROPOLOGY AND ART HISTORY

YOCOCU ISTANBUL 2024

15-17 October 2024

ARCHAEOMETRIC ANALYSES FOR THE CONSERVATION AND RESTORATION OF ARCHAEOLOGICAL TEXTILES FROM THE BAŞUR HÖYÜK

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Introduction

Archaeometric analyses provide analytical data while revealing properties such as raw material, age, dyestuff in textile artefacts. In this sense, they become important for archaeological textiles. The main subject of this study is the morphological examinations (Optical Microscope) and archaeometric analyses on a group of archaeological textile samples from Başur Höyük dating to ca. 3000 BC. Thus, a characterisation study was carried out on these samples.

Methods

Two different archaeometric analysis methods were used. These are HPLC and SEM-EDX. Apart from archaeometric analyses, morphological examinations were carried out with an optical microscope.

Results

Based on the results of the SEM analyses, the displayed fibres are thought to be flax or hemp. It is not possible to distinguish between the two without cross-sectional analyses because the two plant forms are very similar. However, mineralisation does not allow cross-sectional analyses. EDX and HPLC analyses revealed elements such as carbon, oxygen, silicon, calcium, phosphor, magnesium, sulphur, potassium, iron, aluminium, copper and arsenic, and substances such as tannin, rubia, alizarin and gallic acid.

Conclusions

Archaeometric analyses have made it possible to conduct research on these highly mineralized, morphologically unobservable archaeological textiles. The presence of various dyes such as red and red, mordants to fix the colours, well-twisted fibres and complex knot structures indicate that the mound dwellers combined great knowledge about weaving techniques and performed

according to complex weaving techniques. These findings, dated to the Late Chalcolithic period, provided important data on the textile technology of the period.

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AESTHETIC COMPLETION APPLICATIONS IN TEXTILE ARTEFACT CONSERVATION

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Introduction

The preservation of historical textile works without losing their original structure and function is an important principle. The subject of this study is the evaluation of the aesthetic completion method applied in the conservation process of textile prayer rugs. The purpose of the study is to determine the methodology used in the completion intervention, such as pattern taking, pattern transfer, sewing technique, dyeing technique, and fixing process.

Methods

The current condition of the artefact was examined visually and with an optical microscope. The detected deteriorations were documented using photographic techniques and prepared legends. Based on the damages identified in the preliminary examination of the artefact, it was decided to apply active conservation methods, and the conservation process was planned.

Results

In the damaged artefact, dust, dirt, missing pieces, dismantling, and tears were detected. There are missing pieces on the front surface. Due to the wear of the fabric, the lower support material is exposed and vulnerable to potential damage. The conservation process consists of examination, documentation, planning and implementation stages. The artefact was treated with cleaning, reinforcement and completion techniques. In addition to structural completion, aesthetic completion techniques were also applied.

Conclusions

Completion in artefacts is done for aesthetic, functional or structural reasons. For this artefact, it is possible to perform structural or aesthetic completion. The difference between the two techniques is whether the upper fabric is separated from the lower components or if the missing areas are completed without separating the components of the artefact. In this artefact, the pattern design was completed entirely (mimetic) using appropriate materials and techniques suitable for the intended use, ensuring visual continuity.

CONSERVATION AND RESTORATION OF NEOLITHIC PERIOD URNS IN YENIKAPI EXCAVATIONS

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Introduction

The subject of this study is the restoration and conservation practices applied to six ceramic cremation burial vessels (urns) and gift pots found in certain graves, located approximately 6.80 metres below the current sea level, aligned in a northwest-southeast direction, at the data uncovered in the archaeological rescue excavations conducted by the Istanbul Archaeological Museums in Yenikapı.

Methods

Neolithic ceramic vessels fired at low temperatures and found in clayey soil, require special techniques of conservation. Since the cremation urns have sensitive contents, the conservation works and the 'internal excavation' of the artefacts were carried out simultaneously with the anthropologists.

Results

This study presents the conservation practices applied to three of the six cremation vessels found at the Yenikapı excavations, whose internal excavation was completed, as well as to five gift containers. It also describes the consolidation and restoration procedures performed on bone fragments that were unearthed during the internal excavation of the urns which will not undergo biological analysis.

Conclusions

In the conservation work conducted on the finds from the time-sensitive Yenikapı rescue excavations, the formation of skilled teams and collaboration with relevant scientific fields, when necessary, have ensured the proper preservation of both the artefacts and the scientific data.

YOCOCU ISTANBUL 2024

15-17 October 2024

GOING DIGITAL: THE USE OF DIGITAL DOCUMENTATION TECHNIQUES AND VISUAL POST PROCESSING OF SPECTROSCOPIC DATA IN SUPPLEMENTING MULTI-DISCIPLINARY METHODOLOGIES FOR THE ARCHAEOMETRIC ANALYSIS OF BYZANTINE MURAL PAINTINGS

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Introduction

In the documentation and scientific analysis of cultural heritage, multi-disciplinary approaches and methodologies yield new insights for our better understanding of the material characteristics and history of archaeological materials. CH analytical procedures can be assembled using techniques from multiple disciplines and the use of digital documentation techniques and digital post processing tools yield new horizons in CH research.

Methods

In supplementing the traditional archaeometric aspect of the project consisting of pXRF, OM, SEM and FORS, the architectural plan of the churches were documented using AutoCAD and 3D models were constructed using photogrammetry. Furthermore, photogrammetric reconstruction of the surface topography of the mural paintings were possible with the use of vis-macro images. In addition, the elemental composition data of the pXRF measurements were post processed using the SmArt Scan software to link the RGB data of the images with the elemental data, yielding the spatial distribution of elements hence, the pigments.

Results

In addition to the material characterisation and execution technique study of the mural paintings, the general scope and purpose of this PhD project have been the construction of a comprehensive database that includes the information and context of these mural paintings in a holistic approach. To this aim, the architectural drawings, 3D modelling of internal spaces and surface topography of the mural paintings have been captured, for providing crucial data for

future researchers and possible conservation interventions, which, given the current state of the mural paintings, is crucial. In this context, the digital documentation techniques have been a tremendously useful tool for their efficiency and ease of use and sharing with other researchers.

Conclusions

While the utilised methodology provided crucial insights for analytical purposes and a rich documentation resource, formation of good-practice guidelines and streamlined methodologies in this topic are crucial. In this view, in addition to the scientific data acquired and its subsequent interpretations within the context of Heritage Science and Byzantine Technical Art History, it is hoped that, as a case study, this project will be a useful tool for future research projects, especially in the context of running research in remote locations and small scale institutions.

4

INNOVATION AND RESEARCH IN THE FIELD OF CONSERVATION AND RECOVERY OF ARCHAEOLOGICAL AND ARCHITECTURAL HERITAGE

15-17 October 2024

EXAMINATION OF STRATONIKEIA ANCIENT CITY, ESKIHISAR VILLAGE HOUSES IN THE CONTEXT OF CONSTRUCTION SYSTEM AND MATERIALS

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Introduction

Stratonikeia Ancient City, one of the important cities of Caria region, has a deep-rooted identity that has witnessed many periods throughout history. In the building design of the city, materials and techniques from different periods are seen in the same buildings, and the city also gains importance because it has a unique texture in terms of materials and techniques.

Methods

In this study, the history of the settlement area is examined by scanning the literature. In this study, the construction system and materials of 30 surviving residential buildings in Eskihisar Village, located within the city, were examined using visual documentation and fieldwork.

Results

Within the scope of the study, 30 houses in Eskihisar Village, one- and two-storey houses that have survived to the present day were examined. The ground floors of the buildings are constructed with the masonry rubble stone wall construction system. The upper floors are constructed with walls filled with rubble stone and brick between wooden frames. Reused stone and lime plaster were used in the buildings.

Conclusions

Periodic differences in buildings from many periods that have survived to the present day can be observed in terms of materials in a single building, and it is necessary to ensure that the differences are preserved for future generations as a unique texture and cultural heritage created as a whole.

15-17 October 2024

REMOVAL AND RESTORATION WORKS OF THE TOKALASMA RELIEF COLUMN IN THE KARAKUŞ TUMULU DESTROYED IN THE MARAŞ EARTHQUAKE OF 6 FEBRUARY 2023

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Introduction

After the twin earthquakes that took place in Kahramanmaraş on February 6, 2023, the Handshake Column, located to the west of the Karakuş Tumulus, within the borders of the Kâhta District of Adıyaman Province, collapsed.

Methods

Thanks to the work carried out, the restoration of the collapsed column and the relief stele on it was completed, and the fragmented stone block that caused the collapse of the podium on which the column body and base sit was completed, and the column and relief were raised.

Results

The study stands out as an exemplary intervention in the field of cultural assets for healing the wounds carried out in many areas after the Kahramanmaraş Earthquakes, one of the most important disasters Türkiye has experienced in recent years.

Conclusions

International conservation principles were adhered to in the necessary interventions on the parts of the column, the work was limited to consolidation, reinforcement and completion of the part, and the aim was to preserve the current situation.

YOCOCU ISTANBUL 2024

15-17 October 2024

CONSERVATION PROBLEMS AND SOLUTION PROPOSALS OF ISTANBUL HISTORICAL BATHS

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Introduction

In early periods, people often preferred to use water sources at the edges of settlements to meet their cleaning needs. However, with urbanisation, population growth, climatic conditions, and the need for privacy, the construction of bath structures became necessary. In Türkiye, many baths have been constructed using local materials and techniques from ancient times to the present day.

Methods

The study will address the deterioration problems of baths and propose solutions in two parts. The data will be supported with examples specific to Istanbul's historic baths. The baths within the scope of the study will be presented with written, drawing, and visual data based on literature review and on-site examinations.

Results

To prevent the deterioration of baths, they should be preserved and used in accordance with their original function and architectural features, including their plan, construction system, and functional systems such as heating, water transmission and drainage, and acoustics. Restoration and conservation practices should be carried out under the guidance of relevant experts.

Conclusions

This study addresses the conservation challenges of historical bath buildings, focusing on examples from Istanbul's hamams, and proposes solutions. It is hoped that this study will significantly contribute to the conservation and transmission of baths, which embody the cleansing and social customs of our cultural heritage rooted in traditional life, to future generations.

15-17 October 2024

"ARCHAEOLOGICAL EXCAVATIONS AND SUMMER SCHOOLS IN KESHIKCHIDAGH" AND THE IMPORTANCE OF THIS PROJECT

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Introduction

Since the day the reserve was created, scientific research and multidisciplinary research, which has been continuously continued in the territory of the Keshikchidagh caves complex, has recently become more widespread, and valuable information and rich artefacts have been obtained. During the conducted investigations, it was determined that there are about 150 mounds covered with earth and stone.

Methods

Conducting geodetic measurements on mounds, preparing a topographic map of the area, carrying out drone (photogrammetry) and laser scanning measurements, restoring and restoring one of the mounds during archaeological excavations while preserving the historicity, etc. such activities are planned.

Results

During the archaeological excavations conducted in the territory of the reserve, new material and cultural samples were discovered and included in the fund of the reserve, in the process of direct participation in the exploration and excavation of archaeological sites located in the territory of the reserve, project participants learn the features of organising and conducting field expeditions.

Conclusions

The project can be considered as a preparatory course for future historians, archaeologists and geographers.

Acquiring the ability of reserve employees and participants to use special methods, tools and equipment during field archaeological research.

15-17 October 2024

A UNIQUE HOUSE IN THE RURAL PARTS OF SİNOP: AHMET MUHIP DIRANAS' SUMMER HOUSE

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Introduction

The renowned Turkish poet Ahmet Muhip Dıranas' summer house in the rural part of Sinop is a remarkable example that combines vernacular knowledge and contemporary design, built in the 1960s when traditional architectural production was rapidly declining. This study aims to present the building according to recent documentation conducted on-site and information gathered from written documents.

Methods

The study uses qualitative research methods. Following thorough research at the state archives, the house was documented in detail during the spring and early summer of 2023. In addition to traditional survey and photographic documentation techniques, it was transferred to the virtual environment using LIDAR technology. Then, survey drawings were developed reflecting evidential information.

Results

Dıranas is among the most eminent figures of Turkish literature during the 1940-1970s. The timber house in his hometown, Karaoğlu Village, is located beside the woods and differs from the existing traditional residential architecture of the region with its spatial organisation, terraces, and balconies. It reflects the new approach of the 1960's, which will be discussed as a unique case for this study.

Conclusions

The house can be considered as a heritage linked to Dıranas' legacy. It was built above ground to protect it from moisture and used timber supplied from chestnut trees in the region. It introduced an innovative solution for the Sinop countryside in terms of its planimetric organisation and use of traditional techniques. Thus, it can be a model for future structures to be built on the same land.

15-17 October 2024

ADAPTIVE REUSE OF INDUSTRIAL HERITAGE: A CASE STUDY OF THE CHITSAZI FACTORY IN TEHRAN, IRAN

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Introduction

Adaptive reuse of industrial heritage is a comprehensive strategy of integrated conservation and development that derived from the environmental reactions of the 1970s and follows the initial deindustrialization of cities in the 1960s. In the post-industrial era, adaptive reuse of brownfields has become a key urban policy. This research aims to explore how to revitalise urban life in industrial heritage and achieve sustainable development to ensure the preservation of its values.

Methods

In this paper, a mixed-method approach, including reviewing documents, analysing the perspectives of theorists, site inspections, interviews with experts, and the local community, was used to develop a conceptual framework for the adaptive reuse of industrial heritage. Subsequently, the explanatory components of this conceptual framework have been examined and explained in the case study of the ChitSazi Factory.

Results

This study highlights the importance of key components such as environmental, physical, social, and identity values in the successful adaptive reuse of industrial heritage. The socio-cultural and economic components have the highest impact on selecting the best use for the complex. Besides functional-structural adaptability, the complex engages in reconstruction and value creation.

Conclusions

By providing security and creating employment, it also prevents the displacement of the resident population. Consequently, the factory has contributed to improving the quality of life and revitalising the social life of the region.

15-17 October 2024

DATA BANK “HISTORICAL-CULTURAL MONUMENTS OF KARABAKH”: CREATION, INNOVATIVE ANALYSIS, AND CONSERVATION PROPOSALS

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Introduction

According to Faig Ismayilov, Chairman of the Organization for the Protection of Cultural Monuments, in his "Report on the Destruction of Azerbaijani Historical and Cultural Monuments by Armenians," a staggering 2,645 historical and cultural sites, 1,814 architectural structures, and 747 archaeological monuments have been either damaged or completely destroyed in Karabakh. The Data Bank “Historical-Cultural Monuments of Karabakh”, which thoroughly documents the systematic erasure of cultural heritage, provides detailed information on over 100 sites, including their names, types, locations, dates of creation and occupation, dates of liberation, usage during the occupation, historical significance, cultural importance before the conflict, the remnants post-occupation, and the current state of preservation or destruction.

Methods

The study employed a mixed-methods design, combining quantitative and qualitative approaches. Data collection involved experts' archival materials and interviews, archaeological reports, site surveys, community info. Analytical techniques included GIS mapping and comparative analysis. Outcome measures focused on the extent of damage, conservation status, and restoration potential of the monuments.

Results

According to experts’ data, the study reveals extensive damage to Karabakh’s historical-cultural monuments due to the Armenian occupation. The damage is categorized as follows: 80% are significantly destroyed, with only their locations remaining; 10% are partly affected with altered original forms; and 10% have been Armenianized, reflecting acts of vandalism.

Conclusions

Preliminary results indicate that targeted restoration strategies could mitigate further degradation and promote heritage preservation. Recommended actions include urgent restoration projects, community-driven conservation efforts, and the integrating of innovative technologies for preservation. These initiatives have begun, fostering heritage conservation in Karabakh.

15-17 October 2024

BURIALS IN THE NECROPOLIS BELONGING TO THE NARGIZAVA ARCHAEOLOGICAL COMPLEX – CUSTOMS, RITES, RITUALS

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Introduction

Nargizava Archaeological Complex is one of the newest archaeological monuments of Caucasian Albania. The necropolis of the settlement, which was discovered by an archaeological expedition organised in the 2000s, allows to analyse the graves of the ancient and early mediaeval period.

Methods

The investigations carried out so far in the archaeological area have been examined. A summary was made based on the reports of archaeological expeditions organised to the monument in 2008, 2009, 2010, 2018, 2023.

Results

The results of the research conducted in the necropolis show that burials were carried out in simple earthen, stone box, jug, and tank type graves and various burial rituals, customs and traditions belonging to Nargizava were performed.

Conclusions

Future research will bring innovations. Therefore, it is of great importance to conserve and protect the graves belonging to the Albanian period located in the backyards of the residents.

15-17 October 2024

HISTORICAL AND ARCHITECTURAL CHARACTERISTICS OF MEMORIAL MONUMENTS – TOMBS LOCATED IN THE TERRITORY OF MOUNTAINOUS SHIRVAN IN AZERBAIJAN

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Introduction

A large part of Azerbaijan's architectural heritage consists of memorial monuments – tombs. These monuments, which were widely built since the Seljuk period, can be found in most regions of the historical territories of Azerbaijan. A large part of the memorial monuments is located in the territory of Mountainous Shirvan. In this geographical area connecting Shamakhi, Ismayilli, Agsu, Gobustan regions, up to 25 tombs have been registered. One of the main factors characterising the relevance of the topic is the deplorable condition of most of the mentioned monuments. Another factor is that some of the tombs registered in the region have been studied superficially, and no comparative research has been conducted on their architectural features.

Methods

The research methods of the subject mainly consist of the acquisition of field-research materials – visual observation, measurement and photo fixation materials from the area where the monuments are located, and the analysis of those materials. At the same time, the method of comparative and systematic approach of archaeological and bibliographic materials was used to determine the historical and architectural features of the monuments.

Results

The scientific novelty of the researched topic is the fact that the historical and architectural features of the memorials located in the territory of Mountainous Shirvan are systematically and comprehensively studied for the first time. Also, specific proposals are given for their restoration, conservation and use in accordance with the technical condition of the mentioned monuments.

Conclusions

In conclusion, the construction dates of the memorial monuments located in the territory of Mountainous Shirvan was determined starting from the 13th century. It should be noted that the

construction of the tombs coincides with the Seljuk period. During those times, the construction of such buildings was widespread in the territory of Azerbaijan, which was part of the empire. In the early days, the construction of these buildings, which were traditional in the territory of South Azerbaijan, Nakhchivan, gradually began to spread in the Shirvan-Absheron territories. According to the architecture and construction method, construction materials, the tombs in the studied area bear the characteristics of the Shirvan-Absheron school of architecture. From a geometric point of view, the variety of plans, simple but harmonious facade arrangement, interesting light-shadow solution are the characteristics that are specific for these monuments. It is proposed to restore those monuments and use them according to their function.

15-17 October 2024

ARCHITECTURAL EVALUATION OF THE HISTORICAL CITADEL WALLS OF KONYA SURROUNDING ALÂEDDIN HILL WITH REFERENCE TO THE RECENT ARCHAEOLOGICAL EXCAVATIONS

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Introduction

Dating back to 2000 BC, Alâeddin Hill consists of archaeological layers from different periods. A castle, palace and tomb were built during the reign of Kılıçarslan II, and outer walls were added during the reign of Sultan Alâeddin. The structural integrity of the buildings was largely destroyed in the 1600s. With the excavations carried out between 2018-2020, the site took its present form.

Methods

This study focuses on architectural documentation and analytical survey of the excavation site. 3-dimensional models were created using photogrammetry. Furthermore, the site was evaluated in terms of material, construction technique and architectural aspects.

Results

In the recent excavations conducted by the Directorate of Museums, 6 bastions excluding Kılıçarslan II and 6 bastions excluding Köşk Bastion and a part of the inner fortress walls were exposed. The focus is on a comprehensive architectural analysis of the site with a holistic approach. Various structural and conservation problems were observed in the area and accordingly, conservation needs in the area were discussed.

Conclusions

The archaeological excavations carried out on Alâeddin Hill reveal the historical and cultural texture of the region and make important contributions to Konya's urban memory. These excavations help to provide historical information and protect cultural heritage by revealing the city’s past.

15-17 October 2024

EARTHQUAKE BEHAVIOUR OF TRADITIONAL BUILDINGS IN DENİZLİ REGION. EARTHQUAKE RESISTANCE OF WOODEN, ADOBE AND STONE MATERIAL BUILDINGS IN DENIZLI: ACIPAYAM 2019 EARTHQUAKE EXAMPLE

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Introduction

In Denizli and its surroundings (in the Aegean Region), there are houses with wooden beams, thick stone or adobe walls, and a carrier system with wooden poles that continue in rows from the bottom of the wall, inside or outside, sometimes in both directions. In this study, findings regarding the historical background of the building system are also included to be used for more comprehensive studies in the future.

Methods

Preliminary work on the carrier system, ground properties and ground water is almost never done. Observations during field studies, some structures built in different systems other than the known masonry and frame building systems were observed, differences in their damage were observed, and they were seen to be resistant to earthquake effects and weak ground problems. This was the impetus for doing this study. Field work was carried out by visiting the buildings, taking photographs, drawings of characteristic examples and preparing three-dimensional visuals.

Results

The material and workmanship properties of the buildings in the region and their structural system classification were identified and their changes in the historical process were observed. How the investigated system behaves in an earthquake is explained from an architectural and engineering perspective.

Conclusions

While the process of an extremely current issue, earthquakes, demolitions, restorations, in short, continues, it will be useful to be involved in the process in an interactive way without any further delay.

15-17 October 2024

THE RED FORD IN NEW DELHI (INDIA): A PRELIMINARY EXAMINATION OF THE IMPACT OF POLLUTION ON RED SANDSTONE (MAECI PROJECT - ITALY INDIA JOINT SCIENCES AND TECHNOLOGY COOPERATION CALL FOR JOINT PROJECT PROPOSALS FOR THE YEARS 2021-2023)

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Introduction

Air pollution's effects on cultural heritage buildings are a well-known global concern. However, studies on silicate stones are limited, and research on Delhi's Red Fort, one of India's most important monuments and symbols, is almost non-existent. This preliminary study evaluates the Red Fort's degradation phenomena, particularly the black crust, and its relation with the surrounding environment.

Methods

The research started with a detailed study on the conservative state and interventions done on the Red Fort, New Delhi, India. Representative samples were then collected from the fortification wall and a building inside the complex. The samples were analysed with XRF, XRD, FTIR, SEM-EDS, ICP-MS and CHNS analyser.

Results

The formation of a thick black crust on the fortification walls and, to a lesser extent, on the building inside the complex is the main cause of degradation and delamination of the red sandstone, where Si is the main element present with a negligible presence of calcium. The black crusts are mainly composed of gypsum, with carbonaceous particles responsible for the dark colour, majorly from automobile emissions. Hydrocarbons and nitrates, most probably related to pollution and agriculture, were also detected.

Conclusions

The black gypsum crusts degrading the Red Fort are not due to sulfation by the atmospheric SO_2, as the stone's calcium content is insufficient for such thick crusts. Our results suggest the gypsum is of depositional origin, likely from nearby cement factories and construction industries.

15-17 October 2024

RESTORATION OF THE FRESCOES OF TRABZON KÜÇÜK AYVASIL CHURCH

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Introduction

Küçük Ayvasıl Church is one of the important historical monuments from the Byzantine period located in Ortahisar, Central district of Trabzon province. Its name in the Byzantine period; it is known as the Saint Anna Church, as can be understood from the words written in the second inscription on the door at the southern entrance of the church: 'St. Anna Church was renovated during the reigns of Emperor Basil, Leo and Alexander' (884/885 A.D.). The church continued its existence as a cemetery church where important people were buried, such as Hagia Sophia, one of the other important temples in Trabzon, and it is documented that its crypt is located in the ground section of the church. The church, which was in active use until 1923, was abandoned after this year due to population exchange.

Methods

In the restoration of the church, first of all, the plaster that was applied to the frescoes on the interior walls was scraped over time. The boundaries of the frescoes exposed under the scraping were determined and consolidation processes were carried out. Then, the laguna fillings and some missing parts were completed with undertone and watercolour using the aqua sporca method.

Results

The church, which was registered as a cultural asset in 1974, has been used as a residence, blacksmith's forge, etc. over the years. It has been documented that it was used as a building and the frescoes inside were severely damaged. In 2020, it entered the restoration process regarding its exterior, and in these repairs, applications were made on the stone masonry, roof and windows of the exterior. At the end of 2021, the interior restoration of the building started, and in addition to the work on the discovery and conservation of the murals, applications were also made on the vaults, interior wall braiding and joints.

Conclusions

A few scenes known to exist during the interior restoration process of Saint Anna Church in 2022, as well as our work on the discovery and conservation of previously unknown and undocumented frescoes. In line with the frescoes unearthed, the transformation process of the Küçük Ayvasıl Church (Saint Anna Church) will be evaluated with photographs and documents.

YOCOCU ISTANBUL 2024

15-17 October 2024

TOKALI PROJECT: KNOWLEDGE AND CONSERVATION OF WALL PAINTINGS

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Introduction

The paper aims to present the 'Tokali project', which focuses on the knowledge and conservation of the extraordinary painting complex of the New Church of Tokali, dating back to the mid-10th century. It stems from the experience focuses on the knowledge of the numerous mural paintings in Cappadocia (6th-13th cent.), based on the surveys in the region and on another conservation projects undertaken at the Church of the Forty Martyrs in Şahinefendi.

Methods

Knowledge and restoration are connected with the characterising aspect of the monument that is the relationship exists between art-historical features of its wall paintings in the context of the rock-cut. This approach is based on an integrated and interdisciplinary system of research and investigation and necessarily demands the collaboration of the historical, humanistic and techniques disciplines together with the hard science.

Results

In the Tokali project, an important line of our work focuses on painting techniques and materials in the context of Cappadocian painting production. The peculiarities of the dry technique and the complex methods of execution will be highlighted through the approaches of autoptic analysis and scientific investigations conducted so far. These aspects determined the choices of methodology and materials used in the conservation intervention and, in particular, the aesthetic presentation of the paintings.

Conclusions

The study of the materials and technique of the paintings of the New Tokali has increased the knowledge of the workshop that painted them in tempera with a very rich palette (e.g. ultramarine blue, red lacquer, gold and silver) in the 10th century. While the restoration (70% of the paintings) made it possible to ensure the delicate painting and improve the legibility of the images.

TUMULUS OF MOUNT NEMRUT COLOSSAL STATUES CONSOLIDATION PROJECT

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Introduction

Within the scope of the Mount Nemrut Tumulus Restoration Project, consolidation works are carried out on limestone colossal statues and sandstone stelae. In line with the research results developed by METU Archaeometry Department researchers, the applications were carried out under the leadership of Gaziantep Restoration and Conservation Regional Laboratory Directorate.

Methods

In July 2022, consolidation works were carried out as a trial and aimed to observe how the applied methods would react to the atmospheric conditions of the tumulus. On the East and West terraces of the Tumulus of Mount Nemrut, trace body fragments of limestone and sandstone were identified.

Results

The consolidation works carried out in July 2022 for the colossal statues in the Mount of Nemrut Tumulus are of a trial nature and are intended to monitor how the applied methods will react to the atmospheric conditions of the tumulus.

Conclusions

In this study, the results of the consolidation studies on limestone artefacts with intense formation fractures and sandstone artefacts with plate weathering will be discussed.

15-17 October 2024

"MINOR" CULTURAL HERITAGE AS MONITORING TOOL FOR ENVIRONMENTAL AND ANTHROPIC IMPACT IN THE CITY OF VENICE

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Introduction

Air quality and climate significantly impact outdoor cultural heritage, accelerating degradation phenomena such as erosion, detachment, and biological growth. This project aims to use "minor" cultural heritage, including small statues, reliefs, and coats of arms that adorn the historical centre of Venice, to evaluate urban decay trends related to the city's environment, aiding the municipality in prioritising interventions.

Methods

Recent and archival photographs were compared to evaluate the decay evolution of these heritage items over time. In situ Raman spectroscopy analyses were used to detect degradation products occurring on the heritage. Art-Risk 1 methodology was used to assess the vulnerability of 30 selected heritage sites, and the Art-Risk 5.0 Atlas allows to correlate degradation patterns with the climatic hazard characteristics of the Venetian environment.

Results

Despite the observed decrease in black crusts on several heritage sites, related to the reduced presence of SOx compared to the past, gypsum was still detected by Raman spectroscopy analyses. 14 of the 30 heritage items selected for vulnerability assessment exhibited high vulnerability indices, indicating severe to poor conditions. The influence of various factors (distance from canals, orientation, exposure) is under investigation. Additionally, the use of QGIS Geographic Information System allows to visually emphasise the main degradation forms occurring on Venetian heritage.

Conclusions

In conclusion, this study correlates degradation patterns with the climatic characteristics of the Venetian environment, creates geo-localised impact maps to distinguish between climatic and anthropogenic contributions to degradation, highlights the most affected areas, and identifies potential decay trends in buildings.

YOCOCU ISTANBUL 2024

15-17 October 2024

DOCUMENTATION AND CONSERVATION OF VERONA'S WALLS. AN INTEGRATED 3D MODEL FOR THE ENHANCEMENT OF CULTURAL AND NATURAL HERITAGE

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Introduction

A historical environment captures key aspects of cultural heritage, linking with the past and implementing evolutionary, cultural, and social processes. Verona Municipality, the UNESCO office, and the University of Pavia have collaborated to document the Verona Walls heritage, which is endangered by decay, neglect, and improper use. This paper aims to carry out the digital documentation of San Procolo Bastion.

Methods

The research aims to optimise and validate integrated survey methods for the fortified system by assessing point cloud data's potential, limitations, and accuracy (MLS, TLS, UAVs). The processed data are collected in a single geo-referenced database, supporting two and three-dimensional representation.

Results

The model is intended to be a tool that combines and synthesises the components of the fortified system with those of the landscape/environmental system. The project uses the spaces of the walls to create the digital route. To this end, a graphic line has been designed to recognise and promote the project. Organising temporary and permanent exhibitions on the ramparts and gates of the city becomes a helpful way of reopening the spaces currently closed to citizens and visitors.

Conclusions

The 3D model is designed to integrate and synthesise the components of the walls. Processes that aim to enhance collective memory and identity to create a new understanding of the cultural and natural heritage. The research will establish a valuable methodology for documenting the artefact.

15-17 October 2024

DOCUMENTATION STUDIES OF THE HELLENISTIC BRONZE FEMALE STATUE FOUND OFF THE AEGEAN SEA

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Introduction

A bronze woman statue from the Hellenistic Period was found off the coast of Marmaris, Muğla on November 16, 2020. The statue was caught in the nets of local fishermen fishing off the coast of Bozburun and Selimiye. The fishermen who noticed the situation handed the statue over to the Coast Guard and the Marmaris Museum Directorate intervened. This statue, which is approximately 2 metres tall and weighs 300 kilograms, was transported to the Marmaris Museum Directorate and taken under protection there.

Methods

In order to protect and restore the statue, the Ministry of Culture and Tourism contacted the İzmir Restoration and Conservation Regional Laboratory. In order to prevent the statue from drying out, it was wrapped in wet fabrics and periodically moistened with sea water. In addition, a stainless steel pool was built for the statue and fresh water was added by checking the salt content. The statue was then transported to the laboratory in Izmir, gradually dried and documentation studies were initiated. During this process, photographs of the work were taken, survey drawings were made and a 3D scan was performed. Corrosion cleaning was done with mechanical methods and the work was kept under observation for a while.

Results

The examinations conducted on the statue provide important information about the production techniques and the period. Clay mould material was detected on the broken arm of the statue, a wooden piece on its skirt and various welding traces were detected. These data will be examined with analysis methods such as p-XRF, XRD and portable X-ray and evaluated by experts.

Conclusions

The preservation process of this bronze statue reveals the difficulties encountered in underwater archaeology and conservation studies. Long-term interaction with seawater causes salt and corrosion accumulation in bronze works, threatening the physical integrity of the work. The analyses conducted in Izmir emphasise how important it is to preserve such works with scientific methods. The bronze female statue found off the coast of Marmaris once again reveals the importance of the methods used in this process.

5

NEW STRATEGIES IN CONSERVATION AND VALORISATION OF ARCHAEOLOGICAL SITES AND BUILDINGS

15-17 October 2024

ADAPTING THE "ITALIAN CARABINIERI" SYSTEM TO TÜRKIYE FOR THE PREVENTION OF LOOTING

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Introduction

The aim of this study is to propose measures to prevent the destruction of archaeological cultural assets in Türkiye through illegal excavations. The rationale for this study is the increasing number of destruction incidents each year. The intensive use of detectors and other technological devices in illegal excavations contributes to the increase in incidents of historical artefact smuggling.

Methods

Our study has several important parts. The first part is the objective and hypothesis. The objective is to create good strategies to stop illegal excavations that destroy archaeological sites in Türkiye. The hypothesis is that using technology and the internet increases illegal excavations and artefact smuggling. If we control these factors, the destruction will decrease.

Results

The findings will be used to inform policymakers, law enforcement agencies, and cultural heritage organisations, helping them to implement more effective prevention and enforcement strategies. The Carabinieri system in Italy could indeed provide valuable insights and lessons for your study on preventing illegal excavations and artefact smuggling in Türkiye.

Conclusions

And also I would like to introduce a solar-powered camera system at ancient sites to protect cultural heritage offers several benefits. The main reason for the increase in cultural heritage smuggling and its destruction in Türkiye is traced back to the legalisation of cultural heritage trade in 1973 with the enactment of Law No. 1710, as acknowledged.

AGSU RESERVE: THE PRESENTATION OF ARCHAEOLOGICAL HERITAGE

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Introduction

There exist a number of specific directions for archaeological site preservation to identify the most effective communication factors. The archaeological heritage constitutes the main record of past human activities. The protection of archaeological heritage is therefore essential to enable archaeologists and other scholars to study it for future generations, whereas cannot be based upon the application of archaeological techniques. "Archaeological heritage" is that part of the material heritage. It comprises places like abandoned structures, the remains of all kinds (including subterranean and underwater sites), together with cultural material associated.

Created in 2019, the "Medieval Agsu City" State Historical-Cultural Reserve of the State Service of Cultural Heritage Conservation, Development and Rehabilitation under the Ministry of Culture of the Republic of Azerbaijan, is located in Agsu district, Azerbaijan. The reserve features 19 historical monuments. All of them are of local importance. Three of them are architectural monuments, while others are archaeological monuments. These monuments include large public buildings with interesting architectural solutions like the "Ancient Bath Complex", the "Juma Mosque", the "Main Square", the "Buzkhana (ice house)" and the "Handicrafts Quarter", as well as other monuments in the area. There are large cemetery remains on 3 sides of the city.

Methods

Archaeological explorations have been conducted in Medieval Agsu City in October 2023. A small part of the main square adjacent to Juma Mosque from the west side was displayed. Having such a large square in a mediaeval Eastern city is a unique case. First, cleaning work was launched on 5x5 square metres of the main square.

Results

Total area of the relatively large building, which was discovered in excavation site V of mediaeval Agsu city and conventionally called the city's Juma Mosque is 576 square metres (36×16 m). This is the most spectacular building remains discovered in Agsu so far. The foundation part of the walls of the mosque is made of river stone and the walls are made of clay bricks. The size of clay bricks used in construction is 20x20x5 cm. A large number of wooden materials were also used in the construction of the mosque. The remains of numerous wooden materials, which consisted of the residues of wooden columns, door bases and stools were fixed during the research. The wooden materials are fastened to each other mainly by means of large iron nails and hooks. The

mosque building is erected on wooden pillars, 2.5 m apart, along with magnificent walls. This is also confirmed by the stone column bases found inside the mosque. Based on the experts' fixing, it was determined that the pillars of the mosque are made of oak. Residents use more oak material even now as columns when building individual houses in Shirvan region. A large amount of tile remains were displayed along the outer walls of the building during the excavations.

Conclusions

The preservation of the archaeological heritage must be based on effective cooperation of academic researchers, private or public enterprises, and the general public. Professional performance of inventory, survey, excavation, documentation, research, maintenance, conservation, preservation, reconstruction processes, as well as information, presentation, public access and use of the heritage should play an enormous role in archaeological site preservation.

15-17 October 2024

EXHIBITION AND RESTORATION IN SARAYBURNU PARK OF ARCHITECTURAL REMAINS FOUND IN THE MARMARAY PROJECT SIRKECI HOCAPASA METRO EXCAVATIONS

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Introduction

Interventions such as subways, water lines, tunnels and road works, which are indispensable investments of cities in the modern world, pose a risk for the protection of cultural assets. While people living in cities benefit from modern technology, an example of the protection of cultural assets and the creation of modern urban life together with cultural assets has been realised.

Methods

In 2009 and 2011, a project was prepared by the Istanbul Metropolitan Municipality to exhibit the Byzantine walls and late Roman building foundations excavated from the Sirkeci shaft in Istanbul in situ in the Sarayburnu archaeo park area.

Results

The findings obtained as a result of the excavations were unearthed and exhibited in the in-situ position with all its identity preserved in a way to provide all the information about the building in all its details and as it was found in the excavation so that visitors can visit the site.

Conclusions

In cases of necessity, artefacts were exhibited with a major conservation project in order to carry them from the past to the future without losing their value. Although the method mentioned above is the last method to be preferred, it was presented to the attention of visitors in the archaeological park created as a result of the conditions that emerged.

YOCOCU
ISTANBUL 2024

15-17 October 2024

APPEARANCE OF WAR-BUILT HERITAGE: ITS IMPACT ON URBAN CONTEXT PERCEPTION FROM THE LESSON LEARNED IN TRONDHEIM, NORWAY

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Introduction

War heritage refers to traces of armed conflicts (e.g., fortifications, bunkers, military camps, and facilities […]) with great historical, cultural, and social significance. Often seen as "difficult" or "dark" due to their traumatic nature, these structures face challenges in public perception and conservation, especially when deteriorating. This research explores how visual appearance of war heritage sites can affect urban contexts perception, including a real case-study.

Methods

A comprehensive literature review was conducted, and relevant papers were selected to understand the challenges and implications of the appearance of war heritage buildings. The theoretical framework was then compared with the analysis of WWII bunker "DORA I" located in the Nyhavna district (Trondheim, Norway). The historical timeline of the main interventions has been reconstructed and the urban layout changes over time have been evaluated.

Results

Literature findings indicate that various architectural and urban aspects are influenced by war-built heritage, with aesthetic appeal and urban design involvement as the most significant regarding appearance. The Dora I has undergone notable post-war interventions affecting its colour, texture, geometry, and size, particularly on the south façade. Key changes include a new building added above the original bunker in 1979 and the connection of another construction through a hole in the concrete wall. Over time, the urban layout of the Nyhavna district has evolved, with new constructions surrounding the bunker, thereby reducing observer points for DORA I.

Conclusions

The ongoing development in the Nyhavna district poses a significant risk of further isolating the DORA I war heritage site, potentially making it anonymous. To preserve its historical and cultural significance, it is crucial to implement targeted strategies that enhance visibility and foster community engagement, ensuring that this important site remains a recognized part of the urban landscape.

15-17 October 2024

THE PRESERVATION AND MORTAR REPAIR WORK OF THE ŞANLIURFA HALEPLIBAHÇE MOSAICS

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Introduction

Following the flood disaster on March 15, 2023, in Şanlıurfa, the mosaics in the Haleplibahçe Mosaic Museum, which are in situ, were submerged.

Methods

Cleaning operations have been carried out on the mosaics submerged by floodwaters, the dislocated tesserae in the edge borders have been reassembled, and work has been done on the aesthetic mortars of the mosaics.

Results

The cleaning of the mosaics and the aesthetic mortar repair done with a different approach have made the mosaics more striking.

Conclusions

With the repair work carried out, the mosaics have become more aesthetically striking and more robust.

YOCOCU ISTANBUL 2024
15-17 October 2024

STRATEGIES AND TOOLS FOR THE VALORIZATION OF MINOR CULTURAL HERITAGE

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Introduction

Cultural heritage valorisation has become a more inclusive and collaborative process, with policies increasingly favouring citizen participation. Minor cultural heritage holds significant value and potential. Engaging citizens in identifying and raising awareness of this heritage can promote its preservation and enhancement. We propose a new strategy for minor cultural heritage valorisation using co-design and digital tools to increase collaboration among stakeholders.

Methods

We refer to the Historic Urban Landscape (HUL) approach to underline active community participation. Co-design is employed to valorise minor cultural heritage, as activities like interviews, discussions, workshops, events, and surveys allow communities to preserve, promote, and utilise their heritage. These activities also employ digital tools.

Results

This new strategy for valorizing minor cultural heritage, developed from theory and practice, includes gathering information on the minor heritage site, exploring and initiating design activities, conducting co-design workshops, suggesting and evaluating proposals through physical and digital prototyping of solutions. Though promising, this strategy requires more real-world testing. Challenges include limited knowledge of minor heritage sites, difficulty of involving non-experts, and restricted digital access, but these can be overcome with continuous development.

Conclusions

In conclusion, Cultural heritage holds significant potential in addressing challenges of diverse natures. Minor cultural heritage can be valorised through a flexible and accessible approach which includes non-experts, offering them straightforward strategies and tools, as well as expert know-how to facilitate their contribution in the process.

6

CONSERVATION OF URBAN ART AND DESIGN MATERIALS

15-17 October 2024

A STRATIGRAPHIC INVESTIGATION OF THE CASAMASSIMA TOWN HALL DOOR WITH THE AIM OF STUDYING THE HISTORY OF ITS APPEARANCE TO DETERMINE THE BEST WAY TO PRESERVE ITS HISTORICAL AND ARTISTIC VALUE

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Introduction

The stratigraphic examination offers essential insights for planning an effective restoration. It facilitates the identification of the original materials and construction techniques, ensuring the preservation of its authenticity and integrity.

This study aims to investigate whether the paint layers on the wood and metal were executed simultaneously or whether the metal plates were added at a later stage to protect the wood. In addition, the blue colour, which emerges as the main colour layer, will be analysed in detail. Historical documents suggest that the city was covered in blue lime, which may have influenced the choice of colour.

Methods

Visual study and photographic reportage complemented the stratigraphic investigations. Before the operations started, the surface was documented and delimited. The use of gel and the mechanical action of the scalpel made it possible to selectively separate the overlapping colours from the original ones.

Results

The stratigraphy found by the execution of the tests unites the wooden part and the metal part: the layers on both materials correspond in terms of characteristics and solubility. In order to investigate the state of preservation of the wooden matrix, the Officials of the High

Superintendency for the Metropolitan City of Bari requested to lift a portion of the metal panel. This specific operation revealed that the wooden matrix is free of paint and decorations.

Conclusions

These results converge in a common hypothesis: the design of the metal cladding in the original idea of the main door of the Casamassima town hall building. By knowing and identifying the layers, stratigraphic investigations can motivate the idea of conservation linked to the original design.

15-17 October 2024

DOCUMENTS RELATED TO WEAVING RESTORATION IN THE PRESIDENTIAL OTTOMAN ARCHIVE

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Introduction

Weaving has an important place in Turkish culture. Turks have been interested in weaving as a national art throughout history. They took this art with them wherever they went. From Central Asia to Anatolia and even the Balkans, traces of the weaving-related productions of the Turks have survived to this day.

Weavings such as fabric, carpets and rugs, which are important textile products, can wear out over time. It is understood from the Ottoman Archive documents that some important textile products were restored during the Ottoman period, and that their repairs and maintenance were carried out from time to time in facilities such as textile producing factories and workshops.

Methods

In the paper, information will be given about some documents in the state archives related to the restoration of textile products, which are very important for humanity, during the Ottoman Empire.

Results

The history of restoration of worn-out antiquities in Türkiye is quite old. It is seen that restoration activities, which are defined as renovation works carried out in accordance with the original for the purpose of transferring works from the past to future generations due to factors arising from geography and climate and biological reasons, were successfully implemented especially in the field of textiles during the Ottoman Empire period.

Conclusions

Again, it is clear from archive documents that state-owned textile factories in the Ottoman geography were repaired both structurally and technically by giving the necessary permissions from time to time.

7

INTERPRETATION AND PRESENTATION OF CULTURAL HERITAGE (EXHIBITION DESIGN)

YOCOCU ISTANBUL 2024

15-17 October 2024

REFLECTION OF INTANGIBLE CULTURAL HERITAGE IN SPACE: A DOCUMENTATION PROPOSAL

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Introduction

Tangible and intangible heritage that societies have accumulated, enriched, and passed on to future generations through experience from the past to the present is called cultural heritage. Living cultural phenomena resulting from needs are defined by UNESCO as "Intangible Cultural Heritage". Intangible cultural elements, which are also indicators of tradition, also contain the components of "continuity and sustainability" and are important for cultural transmission. This study focuses on the production of quilts, pewter foundry, wooden tools, etc. in Bedesten, the historical trade centre of Konya. It aims to look at the crafts in terms of action, equipment, and space and to document the intangible cultural assets exhibited and realised in these places within the framework of a living museum/model in order to document them for the future and make them a part of education.

Methods

The study includes literature and archival research, meetings with professionals and interview studies to show the details of crafts such as quilting, pewter casting and the making of wooden tools as examples of intangible cultural heritage from the past to the present in the context of needs. It also includes the identification of the actions, equipment and space for architectural documentation for the practice of the crafts and trades in question, as well as documentation with technical drawings and photographs. In this sense, the study includes the objective of creating an inventory/documentation record. This record, which can be used and developed as a basis for documenting the intangible cultural heritage that we encounter throughout Anatolia, has the potential to be used in digital exhibition platforms. In addition, the project results are used as a teaching tool for first-year architecture students.

Results

The elements of intangible cultural heritage that are being forgotten every day are important to ensure that our tourism and traditions are preserved and that generations are informed about traditions. Both the production environments and the professions that still exist, albeit in limited numbers, have unique characteristics. Perhaps it would be beneficial to document and share

these spaces that we will no longer see in the near future, in terms of area of activity, equipment, and spatial qualities, also by exhibiting them as models.

Conclusions

As a result, a documentation study was carried out on the places, actions and equipment of the intangible cultural heritage. This study is necessary and important to ensure the survival of these places that are in danger of disappearing and the elements of intangible cultural heritage that they contain.

15-17 October 2024

«LOCAL HEROES» OF RUHR: THE MEDIATING ROLE OF DIGITAL NARRATIVES

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Introduction

Traditional representational methods have been criticised for selectively presenting industrial heritage narratives in the Ruhr region by focusing on aesthetics and leisure while neglecting the broader historical and social meanings. The aim of the research is to explore the overlooked narratives of the key actors in the region's history, challenging the dominant discourse and enriching our understanding of the cultural heritage of the Ruhr.

Methods

Critical Discourse Analysis (CDA) provides a framework for interpreting the meaning of signs and symbols within the social and cultural context by shedding light on how working class narratives and experiences can be interpreted over time from the perspective of ordinary people to an increasingly institutionalised practice of industrial heritage.

Results

The permanent exhibition at the Ruhr Museum presents the region's natural and cultural history, from coal formation to the present-day Ruhr metropolis. Community efforts aim to include underprivileged perspectives in the industrial narrative and change historical culture, countering the prevalent nostalgia for the industrial past. This suggests a shift toward less-represented narratives that reconcile seemingly contradictory elements in the creation of post-industrial space.

Conclusions

An authentic portrayal of the experiences of miners, migrants, and other underrepresented groups in heritage discourse can be achieved through participatory processes, digital storytelling, community engagement, and the inclusion of immigrant narratives in cultural heritage.

15-17 October 2024

EXAMINING THE RESIDUALS OF PAST IN CONTEMPORARY URBAN CONTEXTS: MORPHOLOGICAL ANALYSIS OF ICHRA BAZAAR, LAHORE

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Introduction

The research asserts past leftovers via historic facades, streets, Havelis, religious sites and cultural practices in the case of Ichra Bazaar, Lahore. What challenges Bazaar faced in the vernacular setting of tangible and intangible characters while navigating urban alterations? How can residuals of the past be adapted into modern urban networks of Bazaar to revive cultural identity, in light of Genius Loci?

Methods

Data is collected via 1947 partition archives of the Indian Subcontinent, oral and written literature, documentaries, physical surveys of the current site and detailed historic maps. The physical characters, spatial organisation and cultural behaviours are outlined in the form of comparative analysis within urban layers, through layouts, tables and sketches comprehensively.

Results

Pre-independence era reveals Bazaar as a walkable street with women's roles, green spaces, limited vehicles, and courtyard houses with old underground storage spaces. Post-independence began with migrants altering spaces as per their needs. Social, religious and political activities were observed. Contemporary urban projects led to deteriorating historic sites and fragmentation in social setups.

Conclusions

Reviving and respecting the identity of historic sites parallel to urban transformations is essential. Structures need to be restored as memory via public art, documentation or redesigning landmarks with defining routes and nodes. By involving professionals with the local community, tangible and intangible residuals can foster positive character in light of Genius Loci.

15-17 October 2024

ROME'S PANTHEON AND ARCHITECTURE OF NIZAMI MUSEUM

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Introduction

The Pantheon is one of the most important and best-preserved monuments of ancient Rome. The Pantheon's design has influenced countless buildings in the world throughout history. One of such buildings is the National Museum of Azerbaijan literature named after Nizami Ganjevi located in the capital of Azerbaijan.

Methods

Comparative analysis.

Results

The comparative study was dedicated to the problem of revealing similarities and differences between classical Pantheon in Italy and the building of Nizami museum in Baku. The parallels between these two historical monuments were presented.

Conclusions

The building of the National Museum of Azerbaijani Literature named after Nizami Ganjevi is one of the visit cards of modern Baku. It is known that Pantheon's design has influenced countless buildings throughout history in Europe and in America but there is no information about this monument of Azerbaijan.

15-17 October 2024

THE ROLE OF NIZAMI MUSEUM IN PROMOTION OF AZERBAIJANI CULTURE

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Introduction

Modern museums is research and scientific organisation for the public interest which serve to increase the aesthetic taste and upbringing of society.

Methods

Systematic and analytic methods are used in the paper that is very important because it is about the unique museum of history of Azerbaijani literature.

Results

The main traditional functions of Nizami museum include communication with public, promotion the contact between tourists and museum, expansion educational cooperation , organization exhibition and etc. Modern exhibition and new types of work implemented at Nizami museum need to be studied more carefully.

Conclusions

Nizami museum is the rare institution where visitors of each age can find interesting information. From this point of view it should be noticed that the modern museum is not only a place where pieces of art are exhibited to the public and kept in repositories. It is also important organisation that influence the development of literature and culture of the country.

15-17 October 2024

SOURCES OF MODERN ART OF AZERBAIJAN. GORKHMAZ EFENDIYEV

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Introduction

Although it has been said that the roots of the Azerbaijani modern art phenomenon date back to the 1990s, I can say that the Azerbaijani modern art developed on two vectors in the 70s. Illumination of this issue The fact that the starting point of Azerbaijan's contemporary art began precisely with the work of G. Efendiyev is a novelty for Azerbaijani art studies.

Methods

The study consists of an introduction, an examination of the topic and the results obtained. The article consists of analysis, an approach from the historical aspect and finally the organisation of an online exhibition-presentation as a visual element.

Results

According to the preliminary research, although there were about 8 articles and two films about G. Efendiyev until the early 2000s, it is not mentioned that he is one of the founders of contemporary art of Azerbaijan. It is written that he is just a representative of the Absheron school.

Conclusions

The article, enriched with information obtained from the family archive, will be presented in an online exhibition format through photographic materials obtained from that archive.

15-17 October 2024

CURATORIAL PRACTISES IN UNIVERSITY MUSEUMS OF PAKISTAN: BALANCING ACADEMIC AND PUBLIC INTERESTS

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Introduction
University museums in Pakistan play a crucial role in preserving cultural heritage and supporting education while balancing academic needs with public engagement. Facing challenges like limited funding, this research explores curatorial practices in museums such as Lahore Museum and University of Karachi Museum, aiming to enhance their effectiveness and sustainability.

Methods
This study employs qualitative methods, combining semi-structured interviews with curators, museum directors, and academic staff from key university museums in Pakistan like Lahore and Karachi. Participant observation during museum visits and a literature review on museum studies provide insights into curatorial practices, aiming for a comprehensive understanding of academic and public engagement.

Results
Curators in Pakistani university museums integrate interdisciplinary approaches, interactive exhibits, and community programs to balance academic and public interests. Challenges include funding and infrastructure limitations, addressed through partnerships and digital innovations, while professional development enhances curatorial expertise and innovation.

Conclusions
Curatorial practices in Pakistani university museums navigate academic rigor and public engagement adeptly through interdisciplinary collaborations and interactive exhibits. Despite challenges like funding and infrastructure, museums innovate with digital tools and community programs, highlighting the importance of ongoing professional development and support for sustainability and preservation.

CULTURAL HERITAGE IN THE INTERPRETATION AND PRESENTATION OF THE CAMERA ARTIST

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Introduction

A modern operator must have a good knowledge of world artistic culture and be fluent in complex camera equipment. Imaginative and analytical thinking are equivalent in the art of the cameraman, for whom his film camera, film, and optics are tools for screen creativity. The cameraman is the same artist who creates masterpieces with his creative ideas.

Methods

A professional operator has excellent command of technology. A technique that seems to always give a true picture of the world around us. The results of the shooting can be very different, depending on the intention, ability and methodology of the camera artist. The subject can be shown in a series of frames that create a clear and truthful picture of the world.

Results

A camera artist is someone who is able to reach the heights of Art and interpret it. The operator as an artist must be a true interpreter of nature, a sensitive mediator between the perfect Ideal and people. To awaken the soul of viewers, to inspire and bring them closer to art and cultural heritage and not just to arouse their admiration – this is his mission.

Conclusions

Preservation and transmission of cultural heritage to generations is the biggest problem in the modern world. Camera artists are able to leave in the memory of millions of people the great creations of the people and their cultural heritage. The operator is the one who is capable of achieving the heights of Art, and he should not call any activity or so-called creativity “art.”

15-17 October 2024

MAUSOLEUM IN SURAKHANI AND ITS ENIGMATIC HISTORY

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Introduction

Architectural monuments hold significant importance in the study of the historical and cultural heritage of Azerbaijan. The examination of memorial monuments could provide insight into the interactions and influences of different religions and cultures over the centuries. Several old mausoleums dated from the 14th to 19th centuries have been preserved on Absheron peninsula around the city of Baku. This study explores the enigmatic history of one of the oldest mausoleums situated in the village of Surakhani.

Methods

The research methodology involved a comprehensive review of written sources on the subject. Additionally, a detailed analysis of the mausoleum itself was conducted, examining its architectural features and construction details. This was complemented by a comparative study of similar monuments found on the Absheron Peninsula to identify common characteristics and historical context.

Results

Although the mausoleum in Surakhani itself dates back over seven centuries, the foundation rock has been a revered site for several millennia. During the Middle Ages, it was common practice to build temples and mausoleums for emerging religions at ancient pilgrimage locations. This particular mausoleum was constructed for a Christian in the 14th century, but the site has been considered a sacred sanctuary since the Bronze Age.

Conclusions

According to a tradition established over thousands of years, the sacred rock in Surakhani with the mausoleum installed on it, were revered by various religions and this practice continues to this day. The research indicates that the monument should be recognized not only as a mediaeval mausoleum, as listed in official records, but also as a pre-millenium archaeological site.

YOCOCU ISTANBUL 2024

15-17 October 2024

AN ATTEMPT TO CREATE PRESENTATIONS USING ARTIFICIAL INTELLIGENCE FOR DIFFERENT COMMUNITIES WITHIN THE FRAMEWORK OF ICOMOS CHARTER ON THE INTERPRETATION AND PRESENTATION OF CULTURAL HERITAGE SITES

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Introduction

In order to increase “awareness”, which is one of the important actors of conservation, it is important to transfer the expert interpretation into an understandable presentation. The fact that these presentations are understandable and attract the attention of the audience increases willingness to be involved in the conservation of cultural values of heritage and ensures inclusiveness. In this regard, the possibilities of artificial intelligence hold great potential.

Methods

It is prompted to ChatGPT how the heritage should be explained to the communities with different status, and the principle knowledge of artificial intelligence is tried to be understood. As a second step, a text prepared according to ICOMOS principles is given to the AI, and it is prompted to re-edit the text for different status definitions. As a last step, it was prompted to re-edit the same text by explaining the presentation principles of ICOMOS.

Results

In the first step it was observed that artificial intelligence is aware that different communities need different experiences and can develop suggestions accordingly. In the second stage, the results suggested that its abilities in this regard were limited and unsatisfactory. In the third step, the texts it prepared responded to the different narrative needs of the different communities. Part by part, there were attempts to provide actions in accordance with the principles mentioned through the text. At this step, artificial intelligence provided results in line with the expectations of the study.

Conclusions

Since the manipulation of information by artificial intelligence is not under control, the realisation of the study should be considered with caution. It is possible to develop and use it in areas for cultural heritage communication, such as apps and websites. It is suitable for use as an tool to increase comprehensibility and accessibility in activities to increase awareness. Especially in civil architecture, for people who live in it or own it and are not aware of the cultural significance of it.

15-17 October 2024

A STUDY OF THE IRAN NATIONAL CARPET MUSEUM FROM THE STANDPOINT OF FORMATION AND GOALS

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Introduction

The vital role of museums in human societies is a novel, enduring and promoting the purest cultural phenomena. Museums are one of the few centres for preserving the heritage. National Museum Carpet, was opened in 1977. The carpets exhibited in this museum belong to the 9th century AH and the oldest carpet belongs to the Safavid era. There are differences between a carpet museum according to anthropological dimension and archaeological aspects.

Methods

The research has been done by library and field studies. The research was conducted by presenting 200 photographs of artistic works, filling 240 questionnaires between visitors, and interviewing visitors, museum staff, and observations.

Results

The carpet museum is designed to display small pieces of carpets. Therefore, the largest carpet in the museum, with an area of about 140 metres belonging to Tehran, cannot be displayed. The central part of the museum has the possibility of displaying 7 rugs of 20 to 24 metres. The architectural style of the carpet Museum building is such that minimal light shines into the exhibition. In the carpet museum,3 types of subtitles can be seen. The variety of the number of carpets in the carpet museum is large, which can be displayed and studied both in terms of subject, dimensions and historical period.

Conclusions

The carpet museum is not just a gallery of exquisite carpets. Design, hand-woven characters, colouring and geography of weaving should be introduced. About the results, the attractiveness of the museum is more important than collecting more carpets. Advancement of technology and museum standards such as museum virtual visiting must be used.

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15-17 October 2024

HEALTHY LIFESTYLE AND NATIONAL GAMES

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Introduction

Trainings and promotional tours of Azerbaijan were held for young people from Belgium and Azerbaijan within the framework of the project funded by the European Commission "ERASMUS+" program of the "MIRAS" Cultural Heritage Learning Support Public Union and the Belgian Turkish Education Foundation. The main goal of the project was to educate Belgian and Azerbaijan youth on topics such as sports, healthy life, and motivation. At the same time, local youth and guests mingled and exchanged ideas and experiences. Young people visited sights, historical and natural monuments in Baku, Agsu and Ganja cities and got acquainted with national games.

Methods

The presentation of the work carried out on the project was developed by the method of description, analysis and comparison. All the works done in Baku, Agsu, Ganja during the project are described. The impact of the project on young people, the quality of their exchange of experience was analysed. It was compared with the results of previous projects of this type.

Results

Within the framework of the project, young people played the national game "Chilingagaj". After the extensive presentation of "National Sports Games" by Khayyam Orujov, master of zorkhana in Ganja, young people played ethnographic games such as zorkhana and archery in Goygol ethno centre.

Conclusions

The knowledge about our national games among the youth is poor, and we young people do not have many opportunities to play such games. In this sense, Chilingagaj camp is relevant. Thanks to such games, respect for our national and moral values of young people can be created and developed. My suggestion is to study one of the games of the transhumance – Chilingagaj, determine the basics of the game for the camp and conduct a competition within the camp.

THE PROBLEMS AND PROSPECTS OF THE TRAVELLING EXHIBITIONS OF HISTORICAL MUSEUMS

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Introduction

While the problem of combining national historical narratives have usually been a major barrier to the organization of international exhibitions and implementation of co-operative projects, that face the historical museums, their travelling exhibitions, including ones targeting an international audience, are becoming a trend. This trend can be interpreted in terms of the response to the challenges of COVID 19 pandemic and the strategy to increase the involvement of the potential audience in the theme of the museum and to attract an additional stream of visitors.

Methods

Content analysis of the documents of government departments and agencies, reports and submissions from museum associations, official museum sites, specialized publications on museum and historical issues – for reviewing and evaluating of current Russian and Western approaches aimed to develop and professionalize the historical museums.

- Case study method.
- A comparative analysis and methods of historical research.
- Model-based approach.

Results

It would be often meaningless to talk of fixed boundaries between travelling exhibitions of historical interest and international ones. But the international project is always a matter of diplomacy, public or cultural, or even museum and a matter of encounters of historical discourses.

The most important challenge for such projects is the problem of combining national historical narratives. All this requires a very serious selection of items and narratives, referring to commemorative practices, understanding specific target audience, balancing between development international museum cooperation and diplomatic efforts.

Conclusions

Mainstreaming the phenomenon of cultural memory engages museums and complicates their communication model. Since the turn of 20-21 centuries digitalization open new avenues for audiences, increased the forms of cooperation, expanded the reach of interpersonal contact.

In the face of rising international tension and growing role of country's past as a tool for political socialization one can notice certain tendencies in exhibition projects at the history museums. The museums' expositions continue being transformed in accordance with current trends in national historiographies and through the implementation of the principle of anthropocentrism. The contemporary exhibition on history is becoming an important form of commemoration of historical events, memorial of particular persons, communicative message.

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EDUCATION AND CULTURAL HERITAGE

15-17 October 2024

"ECO-SUSTAINABLE CONSERVATION: EXPLORING TRADITIONAL PAKISTANI MATERIALS FOR HERITAGE PRESERVATION OF THE GREAT BATH (WORLD HERITAGE SITE)"

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Introduction

The study explores the eco-sustainable conservation of The Great Bath in Mohenjo-Daro using traditional Pakistani materials. This significant Indus Valley site faces environmental and structural degradation. Integrating eco-friendly methods and indigenous materials aims to preserve the site, ensuring its longevity for future generations and promoting sustainable heritage practices globally.

Methods

The study used a mixed-method approach with qualitative site assessments, interviews, and quantitative SPSS analysis. Site visits evaluated environmental impacts and material conditions, while statistical analysis measured the effectiveness of conservation techniques, emphasising sustainability and structural integrity improvements.

Results

Quantitative findings show a significant correlation between traditional conservation methods and long-term preservation of The Great Bath, with 95% confidence intervals and a p-value <0.05. Qualitative results from expert interviews and site assessments highlight the positive impact of community involvement and indigenous materials.

Conclusions

Data-supported conclusions indicate that eco-sustainable methods using traditional Pakistani materials like lime plaster, burnt brick, and natural pigments are viable for preserving The Great Bath. Recommendations include community involvement, adaptive reuse, and preventive maintenance to mitigate water, salt, and tourism impacts, ensuring long-term preservation.

15-17 October 2024

MUSEUM EDUCATION IN THE INTERPRETATION OF MUSEOLOGISTS

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Introduction

Working in museums requires deep scientific knowledge. The basis of this knowledge is transmitted by the science of museology. That is why specialists—museum experts—are trained. Practice shows that museums employ specialists from various fields. The ongoing research provides an opportunity to clarify the importance of the role of museologists in the museum field.

Methods

The scientific structure of museology is based in museum history and theory. Museum theorists study a comprehensive curriculum that has its own methodology and is applied in practice. And therefore, every museologist can conduct any museum work.

Results

Museum studies as a science integrates many sciences, and therefore graduate museologists undergo a full course linking information from different sciences to each other. The scientific structure of museology takes its basis from the history of museum work. According to the facts, there are very few museum specialists among museum workers.

Conclusions

In the modern world, museums must radically change their attitude towards museologists and trust their scientific potential. Sometimes you rarely see graduates of museologists in museums. Museums should have a similar approach to museum specialists. Since museologists are real intermediaries between museums and society.

15-17 October 2024

TURKIC-LANGUAGE MANUSCRIPTS OF THE 15TH-18TH CENTURIES KEPT IN THE INSTITUTE OF MANUSCRIPTS NAMED AFTER M. FUZULI OF ANAS AS A MONUMENT OF CULTURAL HERITAGE

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Introduction

More than 40,000 manuscript books are stored in the fund of the Institute of Manuscripts named after M. Fuzuli of ANAS. 4461 of them are Turkic language manuscripts. 1,200 manuscripts are in mixed languages (Arabic, Persian, Turkish), and 3,200 manuscripts are purely in Turkic. Turkic language manuscripts preserved in the institute cover various areas: history, literature, medicine, astronomy, etc.

Methods

The comparative analysis method is used in the research. Textological analysis, graphic-orthographic features, general palaeographical description of manuscripts are provided.

Results

As a result of the comparison, it was determined that the area of creation and distribution of manuscripts is wide. To create a manuscript we need: 1. Paper, 2. Ink, 3. Binding, etc. The spread of manuscript books also led to the progress and development of Turkic languages.

Conclusions

These analysed manuscripts are irreplaceable sources for studying the history, science and culture of the Turkic peoples, regardless of their language, content, volume, and layout.

15-17 October 2024

PROMOTING CULTURAL HERITAGE IN SCHOOLS

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Introduction

Cultural heritage is a collection of cultural values and traditions created and passed down from generation to generation throughout human history. This heritage reflects the identity and cultural richness of nations. Promoting cultural heritage in schools is essential for young generations to understand and preserve this heritage

Methods

National dances, play folk musical instruments, and get acquainted with the art of carpet weaving, national holidays should be celebrated, excursions to historical and art museums

Results

To understand their national identity, grow up with a sense of patriotism, and preserve cultural richness.

Conclusions

To understand their national identity, grow up with a sense of patriotism, and preserve cultural richness.

15-17 October 2024

THE ROLE OF THE PICASP PROJECT ("PILOT COURSES FOR INDUSTRIAL ENTERPRISES TO IMPLEMENT UNIVERSITY-ENTERPRISE COOPERATION IN THE DEVELOPMENT OF THE CASPIAN REGION") IN THE CULTURAL HERITAGE PROTECTION

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Introduction

MIRAS Social Organization is a partner of the PICASP project funded under the ERASMUS+ Program of the European Commission since 2021. The main goal of the project is to increase the competencies of the teachers in the small and medium business field, to introduce new methodologies and teaching tools, to raise the level of personnel training in the field of cultural heritage protection.

Methods

MIRAS organises seminars, fame tours, trainings and expeditions for the teachers and students, provides expert support for the implementation of the MOOCs (free open online courses), keeps bilateral relations with the different educational institutions and international organisations. The programs of the events are prepared by the MIRAS experts according to the PICASP project.

Results

The book dedicated to the "Description of the educational, cultural heritage and tourism institutions in the Caspian region (Azerbaijan and Kazakhstan)" will be published, reports on the realised activities will be presented to the European Commission, MOOCs (free online courses) on different themes in the cultural heritage sphere will be shared on the relevant internet platforms.

Conclusions

The project will benefit the study, preservation and promotion of cultural heritage, will raise the level of personnel training and the awareness in the field of cultural heritage, will increase university-enterprise cooperation, as well as will enhance bilateral cooperation between MIRAS and relevant national and international institutions in this sphere besides the partners of the projects.

REVIEW OF ERASMUS+ "TRACCE DI MEMORIA" (TRAME) PROJECT IN TERMS OF PROMOTING THE EDUCATIONAL VALUE OF CULTURAL HERITAGE

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Introduction

This article presents the methodology applied by "Tracce di Memoria" Erasmus + project as a good practice. The project focuses on the educational value of cultural heritage and dynamic relationship between identity and diversity, represents an enormous potential for the construction of European citizenship, allowing secondary school students to discover the value of cultural diversity.

Methods

The TRAME educational methodology is based on a multidisciplinary and participatory approach to heritage to foster the active participation of pupils in interpretation of cultural heritage. Research of best practices at national level, Analysis of connections with school curricula, pilot implementation and TRAME Manual for teachers and educators.

Results

The project work plan involves a wide range of results, which are strictly interconnected between them and functional to the achievement of the specific objectives. The most important tangible result envisaged by the project is the TRAME Manual for teachers and educators, containing the description of the educational methodology targeted to high school pupils.

Conclusions

The project will contribute to positive changes in various spheres of society at all scales. In particular, the project is expected to generate a better awareness on the value of cultural diversity and the power of cultural heritage in terms of social cohesion and well-being. At the same time, it is expected to reinforce the connection between archaeological sites and the local communities.

15-17 October 2024

BEYOND DESTRUCTION: UNDERSTANDING THE MOTIVATIONS AND TRACES OF HISTORICAL VANDALISM

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Introduction

This study focuses on various instances of vandalism that reached the mass scale and affected societies along history. In this context, it aims to highlight the importance of conservation education in examining the complex reasons behind acts of vandalism and their lasting consequences that echo over time.

Methods

This study will reveal the preventive role of conservation education in the multidisciplinary literature by addressing various examples of vandalism that have reached mass scales and affected societies throughout history.

Results

Cultural heritage, a fundamental element of society, conveys more than just historical memory, artistic origins, spirituality, economic power, or monumental symbols. Attacks on cultural properties, which are central to social identity, and their widespread repercussions can lead to the obliteration of that identity.

Conclusions

In some periods of history, the cumulative effects of collapse caused by the loss or destruction of targeted cultural property have led to global changes that have spread from human communities to societies. The universalization of conservation education will be one of the most effective ways to counteract risk factors.

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SHIRVAN AND SUFI LODGES

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Introduction

The Shirvanshah governors paid great attention to the town-building, including construction and decoration of a number of khanakahs in Shirvan.

Methods

The method of historical and logical analysis, architectural and applied analysis of buildings, as well as analysis of historical and literary sources was used.

Results

The rebirth of Sufism at the state level can help us improve the spiritual life of our society, which is affected by various defects: alcoholism, drug addiction, criminality, religious fanaticism and extremism.

Conclusions

Rehabilitation and combatting alcoholism and drug addiction centres on the basis of Sufi lodges is proposed.

YOCOCU ISTANBUL 2024

15-17 October 2024

MAECI PROJECT -ITALY INDIA JOINT SCIENCES AND TECHNOLOGY COOPERATION CALL FOR JOINT PROJECT PROPOSALS FOR THE YEARS 2021-2023: THE EXPERIENCE OF THE "INDO-ITALIAN CENTRE OF EXCELLENCE FOR RESTORATION AND ASSESSMENT OF ENVIRONMENTAL IMPACTS ON CULTURAL HERITAGE MONUMENTS"

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Introduction

MAECI project focuses on the collaboration between Indian and Italian institutions to explore and compare the management, conservation assets, scientific approach, and practical skills for the preservation of Cultural Heritage. The institutions involved are: Universities IIT Kanpur, Ca' Foscari University Venice, Archaeological Survey of India, Italian Ministry of Culture Institutes (SABAP, ICR).

Methods

The project aims to exchange information between the two countries regarding cultural heritage enhancement, knowledge, and conservation methodologies based on on-site workshops and visits, lectures for students, and joint scientific research.

Results

The organisation of visits and workshops to landmark monuments in India (Red Fort, Taj Mahal), Venice (Palazzo Ducale, S. Mark Cathedral), and Rome (Vatican Museum, Colosseum) gave the opportunity to discuss and present the two countries' approaches to conservation, intervention, and administration of the patrimony. The comparison highlighted a different approach to Heritage conservation where traditional knowledge and new technologies still can be a common field of work.

Conclusions

The project showed differences between the two countries in relation to the management and conservation approach. Nevertheless, thanks to the combination of technical and traditional knowledge, there are clearly open routes to explore and share technical, scientific, and practical aspects for the preservation of Heritage assets.

BACK TO THE FUTURE: CULTURAL HERITAGE FOR A RISK-RESILIENT NEXT GENERATION SOCIETY

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Introduction

Cultural heritage can help society establish a risk-resilient culture by enhancing its ability to withstand unfavourable circumstances. However, despite the relationship between heritage, society, and territory is recognised by international frameworks and strategies, a shared and sustainable vision of participatory conservation and safeguarding is still required on a local level.

Methods

The development of awareness-raising activities for a range of age groups – with a focus on young citizens – is being implemented within SIRIUS and RESTART projects. The activities are based on co-participatory strategies, considering everything from language to interaction strategies to contents.

Results

An Educational Laboratory for kids, a Pathway for Transversal and Orientation Skills for high school students, and an Educational Workshop for university students were set up to encourage active citizen engagement in the protection of cultural assets. Cooperative learning exercises and instructional games (as the InSIGHT game) were conducted, with very positive feedback: a will to learn more about cultural heritage at risk emerged, and the teamwork stimulated sense of belonging and cooperation.

Conclusions

A mindset shift in terms of participatory conservation cannot ignore the active involvement of the next generation. Long-term, an aware society of the possible effects of adverse events can contribute to unlock the potential of cultural heritage in enhancing resilience and supporting the localization of the SDGs.

15-17 October 2024

CREATING A COMMUNITY TO PROTECT THE DIGITAL CULTURAL HERITAGE: DIGITALCULTURAL HERITAGE NETWORK OF TÜRKİYE (DİJİTAL KÜLTÜREL MİRAS AĞI – DKM AĞI)

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Introduction

Digital Cultural Heritage Network (DKM Ağı) brings people to create awareness for protecting the digital cultural heritage. This presentation will give examples of two projects funded by the Wikimedia Foundation and the European Union in 2024, to increase societal awareness about data creation, curation, management and open access, Wikimedia tools and creative commons.

Methods

In person and online events, workshops organised using participatory methods during the two projects. Both projects helped the reach the different groups such as students, cultural heritage professionals, volunteers from different NGO's and municipalities and academics.

Results

Our project's aim was to meet with people in different regions in person or online. The Wiki-Editathon events had 135 participants in Istanbul, in Ankara, and 3 online, significantly enhancing Wikipedia content on post-earthquake cultural heritage. 184 were people interested to attend the European Union funded project meetings and 85 people attended. They discussed the digital cultural heritage, open access, access to information and created videos, mind maps and posters.

Conclusions

With these projects different stakeholders came together. People attending the workshops were from different age groups. In the coming years, the aim is to organise more workshops, trainings and engage with young people to provide more information to protect the digital cultural heritage.

15-17 October 2024

ASSESSING THE VIABILITY OF INTEGRATING CULTURAL HERITAGE AS A NEW CENTRAL PILLAR OF FUTURE LARGE- AND MEGA-EVENT DESIGN, IN ORDER TO ACHIEVE GOALS OF RAISING CONSERVATION PRIORITISATION, ADVANCING LOCAL STEWARDSHIP, AND CREATING AFFILIATED ECONOMIC POTENTIAL OPPORTUNITY

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Introduction

Events such as Olympics and World Expositions are often pursued by destination leadership as catalysts for growth and regeneration. However, these events struggle to fulfil promises to local communities while also introducing dilemmas of over tourism. This research considers the value-add of cultural heritage as a new central component within large-event planning to create new ventures that reinforce local and visitor awareness of cultural heritage's value.

Methods

Research methods are a combination of literature analysis and consultation with culture or governance experts within the field of event management. Goals of analysis are to identify the current prioritisation of cultural heritage within bid planning, assess perceived value of its inclusion, and identify gaps, which may currently limit integration.

Results

Consultation with experts and literature reveals a recognition of the importance of cultural heritage to place identity and its potential economic value. The example of the European Capital of Culture (CoC) model is pointed to as a best practice in the use of heritage to generate community ventures, which raise and reinforce its perceived importance. However, preliminary findings suggest that few takeaways from the CoC model have been applied to large events beyond the use of symbols, and that the role of heritage sites as a connective thread to events remains underdeveloped.

Conclusions

Though large events are understood to possess innate cultural heritage traits, financial and political factors have limited their use beyond symbols to date. Similarly, community-led ventures which take advantage of regional cultural identity remain underdeveloped, but hold promise as a means of achieving local impact and heritage conservation.

15-17 October 2024

MICROBIOME ANALYSIS AND BIODETERIORATION MONITORIZATION USING CITIZEN SCIENCE AS AN EDUCATION AND ENGAGEMENT TOOL FOR HERITAGE CONSERVATION

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Introduction

Microbiome study related to heritage conservation has been slowly growing. The application of metagenomics is driven by the decreasing price for now easily available sequencing services and work that can be done in basic microbiology laboratories. As a complement, recently emphasis has been also attributed to bottom-up initiatives involving citizens such as citizen science to engage and educate about for example to climate change impact.

Methods

This research paper will discuss Portuguese heritage study cases from BIONANOSCULP, BIO4MURAL and HAC4CG projects, allowing the discussion on the validity, advantages, disadvantages, and usefulness of microbiome studies in heritage as well as the complementary application of biodeterioration research with citizen science approaches for monitorization.

Results

The research presented will include microbiome data from several research projects and debates the usefulness of metagenomic as meaning to the presence of different species on the surfaces and its relation to biodeterioration that many times is missing. Furthermore, the paper discusses the potential improvement of the monitorization of outdoor heritage by active citizen involvement while simultaneously increasing public awareness of climate change and heritage protection including details on the project's citizen science approaches.

Conclusions

Biodeterioration studies and microbiome analysis for heritage conservation and restoration are important tools that are slowly getting usage traction on research projects but still present several challenges, namely lack of interdisciplinary collaboration and overall expertise and research interest. Citizen science is an approach that can help involve citizens while gathering important data for biodeterioration and directly connecting to microbiome studies.

DEVELOPMENT OF EDUCATION AND CULTURE IN THE QUBA DISTRICT OF AZERBAIJAN IN THE SECOND HALF OF THE 19TH CENTURY AND THE EARLY 20TH CENTURY

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Introduction

Scientific Background and Rationale: This study examines the development of education and culture in the Quba district during the late 19th and early 20th centuries, influenced by Russian expansion and local enlightenment movements. It highlights the shift from traditional madrasahs to Russian secular schools and the role of local intellectuals and benefactors. The study preserves cultural heritage, offers educational models, and reinforces cultural identity, addressing key historical and cultural questions.

Methods

The study employs a historical-analytical design, utilising archival research, document analysis, and oral histories to examine educational and cultural developments. Outcome measures include the identification of key reforms, influential figures, and the impact of non local and local efforts on the Quba district's cultural heritage.

Results

The study reveals significant educational reforms in the Quba district, including the establishment of Russian secular schools and intellectual societies. Key figures and benefactors facilitated these changes, enhancing literacy and cultural awareness. Qualitative analysis shows a positive shift in cultural identity and community engagement. The results underscore the impact of both Russian and local efforts on preserving cultural heritage and promoting education.

Conclusions

Quantitative data indicates increased school enrolments and cultural activities, affirming the success of these initiatives.

15-17 October 2024

NEW APPROACHES IN EDUCATION FOR CHILDREN TO RAISE AWARENESS OF ENVIRONMENTAL VALUES AND CULTURAL CONSERVATION

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Introduction

In recent years, understanding the importance of preserving the values of the living environment has remained crucial, encompassing various aspects. One main query is how this can be achieved and how education can practically address this issue. The prominent role of education can be seen during childhood. Among all educational approaches, Reggio Emilia has gained attention alongside the humanistic approach.

Methodology

This research utilises a qualitative design to gain deeper insights into the target group. Following this, storytelling is a new and practical urban study method and can be considered a form of narrative study or beyond it. This study involved a group of children aged 7 to 12, with one session a week of workshops lasting for nine months.

Results

The project started with the researcher's guidance but continued with the children's leadership. During all sessions, we discovered many tangible and intangible values in various city spaces, and a strong sense of belonging was evident after each session. The results of this research show a significant impact. Creating an appropriate environment to enhance children's observation skills, enabling them to participate in workshop activities, and empowering them to serve as community guides for their neighbourhood helps them develop a stronger connection with their environment.

Conclusion

This research indicates that a new approach to preservation requires communication with the local community. If the users of the spaces know the values, there will be better collaboration to preserve them. Children are a potential group on this path and can be influential. This study proposes a framework for understanding the value of spaces, which can be achieved by integrating new educational approaches and targeting children as activists.

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NATURAL RISK ASSESSMENT FOR THE PROTECTION OF CULTURAL HERITAGE

YOCOCU ISTANBUL 2024

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CULTURAL HERITAGE AND CLIMATE CHANGE IN THE URBAN CONTEXT. THE ROLE OF WATER IN THE SHAPING OF THE EVOLVING CITY: ADAPTATION STRATEGIES, CLIMATE MITIGATION, SUSTAINABLE FUTURES

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Introduction

Climate change is having a growing negative impact on cultural heritage, both tangible and intangible, and research is investigating the extent of this impact. However, the relationship between climate change and cultural heritage is not unidirectional. Rather, the challenge is to understand how cultural heritage can contribute to climate solutions.

Methods

Cities have evolved through the relationship between natural and anthropogenic elements, and the water element has played a significant role in this process. Investigating the role of water routes and hydraulic structures in historic urban landscapes and the relationship between the city and water resources could shed light on how to address climate change in a more holistic manner.

Results

This research is organised in 4 core actions and aims to highlight the strategic importance of programming interventions of restoration, functional rehabilitation, as well as water resource management and enhancement, and to ensure the survival of signs of the organicity between city and landscape.

Conclusions

Different communities are reacting in different ways to the effects of climate change, and a global approach may not be suitable. The application to case study of Salerno city (Italy) enables the identification of the first qualitative and quantitative results of research that aims first to know and then to intervene.

15-17 October 2024

THE ROLE OF CLIMATE FACTORS IN THE ECOLOGICAL SUSTAINABILITY OF THE SOUTHERN SLOPE OF THE GREAT CAUCASUS

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Introduction

The southern slope of the Greater Caucasus includes the administrative regions of Shaki, Oguz and Gabala. The southern slope of the Greater Caucasus is bordered by the Republic of Dagestan from the north, Gakh district from the west, Ismailli district from the east, Eyuchay and Adash from the southeast.

Methods:

In the literature on soil science – soils as the subject of soil science, their vegetation (genesis), structure, composition and properties; laws of geographical distribution; the formation of soil, which is a basic property of soil, and its interaction with the environment, which determines the development of soils.

Conclusions

Within the region, the amount of sunshine varies between 2,200 and 2,500 hours during the year, which can be considered a typical indicator for that region. Climatic conditions are of great importance in the process of soil cultivation.

15-17 October 2024

PROTECTION OF CULTURAL HERITAGE AND NATURAL DISASTER RISK ASSESSMENT: AN EXAMINATION OF THE FEBRUARY 6TH, 2023 KAHRAMANMARAŞ EARTHQUAKES

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Introduction

The earthquakes centered in Kahramanmaraş on February 6, 2023 affected many provinces of Türkiye and caused serious damage to historical structures and sites. This event once again revealed how difficult and important it is to protect cultural heritage. This situation clearly shows that new strategies need to be developed for the protection and restoration of cultural heritage. In this context, in light of similar disasters experienced in the past, effective protection and intervention strategies are suggested for possible situations that may be encountered in the future.

Methods

In this study, the methods to be followed to examine the effects of the February 6 Kahramanmaraş earthquakes on cultural heritage and protection strategies are explained in the following items:

1. Literature Review

2. Damage Assessment and Assessment

3. Protection and Restoration Strategies

4. Technological and Scientific Approaches

5. Education and Awareness

Results

In the damage assessments, it was determined that most of the historical buildings and sites in the 11 provinces affected by the earthquake had serious structural and superficial damage. In particular, historical mosques, castles and ancient cities were severely damaged. The difficulties of protecting cultural heritage in the face of earthquakes were identified and risk reduction strategies were developed.

Conclusions

The results of this study have comprehensively revealed the extent of the damage to our cultural heritage caused by the February 6 Kahramanmaraş earthquakes and the steps that need to be taken to minimize this damage. Short-Term Measures: Establishing emergency response teams and temporarily protecting damaged historical structures. Medium-Term Measures: Conducting risk analyses and implementing structural reinforcement projects. Long-Term Measures: Making education and awareness programs permanent and developing policies for the protection of cultural heritage.

15-17 October 2024

ADVANCES IN THE TEXTILE DAMAGE TO BE UNDERSTANDABLE

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Introduction

Checking the preservation of the items is one of the main stages, where it is necessary to indicate the condition of the item according to the characteristic features of the damage on it. Hence when it is decided to carry out restoration work on the object, it is essential to number its damage and take a photo.

Methods

As a result of the numbering of damages of all sizes during the protection of the item, even the smallest damages can be easily detected later, and thanks to this, each damage is treated individually. Moreover, information is given about the size of the damage and in what ways it was done. Numbered damages are measured, as well as photographed and special notes are made.

Results

In order to make the damage of museum exhibits easily comprehensible by other people, it is more appropriate to specify the damage by number.

Conclusions

The main goal of advancing in this project is to obtain more accurate information about the state of cultural heritage over time and to pass it on to future generations.

15-17 October 2024

MONUMENTS EXPOSED TO CLIMATE CHANGE IN THE GAZAKH-AGHSTAFA REGION OF AZERBAIJAN AND WAYS OF THEIR PROTECTION

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Introduction

Climate changes have a negative impact on cultural heritage and historical monuments, and these international organizations worry the world community more and more. The article talks about monument affected by climate change and ways to protect them for this process.

Methods

The changing structure of the soil, erosions, and landslides affect the Albanian temples, natural and artificial caves in the Gazakh-Aghstafa region. As a result, the process of cracks in temples, erosion and subsidence in natural caves accelerates.

Results

We are doing the following in order to prevent the damage caused by climate change and its negative consequences to our monuments. Every year tree planting actions are carried out by the reserve and these works are continued and other works.

Conclusions

In conclusion, the impact of climate change on monuments is undeniable, and it is important to take necessary steps to pass these values on to future generations.

15-17 October 2024

RISK AND VULNERABILITY ASSESSMENT FOR INCREASING RESILIENCE OF CULTURAL HERITAGE FROM NATURAL AND HUMAN MADE HAZARDS IN NORTHERN ITALY

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Introduction

Natural and human made hazards linked to climate global changes are increasingly threating cultural and natural heritage worldwide. The impact of sea level rise, flooding, heavy rain, prolonged droughts, as well as changes in atmospheric pollutants definitively impose the need to develop sustainable solutions and tools for conservation and safeguarding.

Methods

The "Risk Mapping Tool for Cultural Heritage Protection" (WGT, https://www.protecht2save-wgt.eu), set up within the Interreg CE projects ProteCHt2save and STRENCH and currently under further upgrade in the framework of the projects Interreg CE INACO and PNRR ECOSISTER, allows end-users to assess the risks induced by hydrometeorological hazards and pollution on cultural heritage at European and Mediterranean scale.

Results

The analysis carried out by using this Web-GIS platform on two case studies in the Emilia Romagna Region in Italy (Parco Villa Ghigi and Parco del Delta del Po) evidenced first of all that both heritage areas will undergo in the near (2021-2050) and future (2071-2100) an increase in the frequency of events of heavy rain and drought both under RCP4.5 and 8.5. The evaluation of the projected impact of hazards in combination with the vulnerability assessment, currently

under implementation on the selected sites by using a methodology included in the WGT, results to be of paramount importance for the overall risk assessment of the analysed sites.

Conclusions

The application of the WGT, by integrating outputs from climate modelling, data from Earth Observation domain, damage functions and vulnerability indices, turned out to be an outstanding tool for supporting the definition of priorities for heritage managers and the development of strategies by decision and policy makers for the prevention and safeguarding of cultural heritage at risk.

15-17 October 2024

IMPACT OF CLIMATE CHANGE ON CYANOBACTERIA GROWTH AND PRESERVATION OF MAJELLA MASSIF ROCK PAINTINGS (ABRUZZO REGION, ITALY)

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Introduction

In the territories of the Majella National Park there is the highest concentration of examples of rock art of the entire Italian Apennines Mountain chain. The largest catalogue on the rock art of central Italy provides a first chronological and typological overview of over 30 sites documented in Abruzzo, placing it in the context of the post-paleolithic schematic art of the Mediterranean.

Methods

At the Lama dei Peligni (Abruzzo) site, a black material was sampled near red rock paintings. Laboratory analyses revealed the presence of organic substance. Tests related to the average atmospheric temperature, which has increased over time due to climate change, were performed.

Results

Laboratory analysis revealed the presence of cyanobacteria colonies near the rock paintings. Their impact on the paintings prompted growth tests, which were conducted in relation to the average atmospheric temperature. These tests showed that the temperature, which has increased over time due to climate change, significantly influences the growth of cyanobacteria.

Conclusions

In conclusion the obtained results show how the effect of climate change has an impact on the growth of bacterial colonies and consequently on heritage conservation.

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THE STRATEGY OF USING GEOGRAPHY TECHNIQUE TO DETERMINE AND PREVENTION OF CULTURAL HERITAGE FROM THE NATURAL RISK

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Introduction

Through the analysis of historical regional climate data and the usage of geographic information systems (GIS) to assess the impact of natural disasters, this study aims to evaluate the disaster resilience of sites containing cultural heritage and artefacts. By understanding the vulnerability of our cultural heritage to various hazards, we can develop feasible strategies to enhance their capacity to withstand disasters.

Methods

1. Data Collection and Analysis

– Gather historical climate data for the regions of interest.

– Collate records of past natural disasters that have occurred in the vicinity of the cultural heritage sites.

– Utilize GIS software to map the locations of cultural heritage sites and overlay this information with the climate and disaster data.

2. Hazard Assessment

– Analyse the intensity and frequency of natural disasters in relation to the cultural heritage sites.

– Evaluate the potential impact of these hazards on the structural integrity, preservation, and accessibility of the cultural heritage sites.

3. Disaster Resilience Evaluation

– Assess the current disaster preparedness and response capabilities of the cultural heritage sites.

– Propose strategies to enhance the disaster resilience of the cultural heritage sites, taking into account the unique characteristics and challenges of each location.

Results

The analysis of the climate and disaster data reveals that the cultural heritage sites in the region face a range of natural hazards, including typhoons, floods, and landslides, as well as the hot and humid weather. Some sites are more vulnerable than others due to terrain and location.

The GIS-based assessment indicates that the disaster resilience of the cultural heritage sites is influenced by factors such as the structural integrity of the buildings, and the construction quantity of disaster mitigation measures around the sites. Those which are located in low-lying areas or on unstable terrain are particularly susceptible to the impacts of natural disasters. Based on the findings, we have developed a set of strategies to enhance the disaster resilience of the cultural heritage sites. These include:

1. Strengthening the structural integrity of the buildings through the use of appropriate construction materials and techniques which is qualified with the conservation ethics.

2. Implementing early warning systems and emergency evacuation plans, not only to ensure the safety of visitors and staff, but also for setting up temporary protection facilities and evacuating movable culture relics.

3. Establishing disaster response and recovery protocols, including the provision of emergency practice and the training of personnel.

4. Properly store and manage the digital information of cultural heritage itself to facilitate restoration in the unavoidable situation.

5. Fostering collaboration between relevant stakeholders, such as government agencies, cultural heritage organizations, and local communities, to ensure a coordinated and comprehensive approach to disaster resilience.

Conclusions

This study demonstrates the importance of integrating climate and hazard data analysis with cultural heritage preservation efforts to enhance the disaster resilience of cultural heritage. By adopting a comprehensive approach that considers the unique challenges and opportunities of each location, we can better safeguard our irreplaceable cultural heritage against the increasing threats posed by natural risk.

FROM THE LATE 15TH CENTURY TO THE MID-19TH CENTURY, LACQUERED BINDINGS KNOWN AS "QALAMDANI" IN AZERBAIJAN AND "RUQANI" IN THE OTTOMAN EMPIRE WERE DEVELOPED IN TURKISH-ISLAMIC BOOKBINDING ART. THE SYNTHESIS OF EASTERN MOTIFS WITH THE INFLUENCE OF WESTERN ART IN A NATURALISTIC STYLE GAVE THESE LACQUERED BINDINGS A UNIQUE CHARACTER

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Introduction

Lacquered bindings have been seen in Azerbaijan since the 15th century. Each period of the Safavid, Qajar, and Afshar eras had its stylistic features. While different motifs stood out in each period, there was always a general stylistic consistency.

Methods

The treasury of the Institute of Manuscripts contains numerous lacquered bindings from various periods and regions. Their degrees of damage also vary. In this article, we have described and analysed these manuscripts.

Results

The degrees of damage and causes of deterioration in lacquered bindings are varied. If we broadly categorize these causes, they can be divided into two main groups. The first is internal - causes that have developed over the years due to the composition of the lacquer and the binding. The second is external - causes formed by external influences.

Conclusions

From the Soviet era to the present, there has been no restoration of lacquered bindings damaged for any reason. During restoration, severely damaged lacquered bindings were either replaced with new bindings or partially preserved and affixed to a new binding. However, the restoration of the lacquered portion has never been carried out.

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GREEN CHEMISTRY AND SUSTAINABLE CONSERVATION AND VALORISATION

15-17 October 2024

A "NATURAL BIOCIDE COCKTAIL" FOR THE PREVENTION OF BIODETERIORATION IN STONE MATERIALS

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Introduction

The PNRR TECH4YOU project aims to develop a "Natural Biocide Cocktail" for historical and artistic stone surfaces. Biological colonization by cyanobacteria, algae, lichens, and bacteria forms an ecological niche on stone, traditionally removed using Quaternary Ammonium Compounds (QACs), which have environmental and health concerns. The project explores using essential oils and biosurfactants, focusing on microbial biosurfactants like rhamnolipids for their anti-biofilm and antimicrobial properties, and essential oils with biocidal properties from Calabrian agriculture by-products. Key challenges include ensuring product stability and effectiveness under varying environmental conditions and optimising the composition of essential oils based on plant growth factors.

Methods

Biosurfactants from various strains, including Pseudomonas aeruginosa (mono-rhamnolipids), Pseudomonas glycinis (di-rhamnolipids), and Rhodococcus qingshengi (trehalolipids), were produced and tested for stability and efficacy. Essential oils from Calabrian agriculture were selected based on their biocidal properties. Key tests conducted included: Drop Collapsing Test: To measure surface activity.

In Vitro Biocidal Activity: Tested against Pseudomonas aeruginosa and Staphylococcus aureus to determine the minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC). Essential oils like Thymus vulgaris, Bergamot, Orange, Geranium, Mentha, and Lavandula angustifolia were analysed for their main constituents, contributing to their antimicrobial properties.

In situ, biosurfactants were applied to artificial stone materials, and their biocidal efficacy was evaluated through macroscopic and microscopic observations under visible light, as well as ATP

analysis using a bioluminometer. The strains Rhodococcus qingshengi and Pseudomonas glycinis exhibited the highest biocidal efficacy.

Results

All formulated biosurfactant products contained three types of molecules: anionic, non-ionic, and cationic. Anionic molecules exhibited detergent properties, non-ionic molecules served as emulsifying agents, and cationic molecules had potential biocidal properties. Rhodococcus qingshengi showed a higher concentration of cationic molecules compared to the others. Filtration increased the anionic (detergent) component in all biosurfactants, reducing the cationic (biocidal) component.

Microbiological tests against Pseudomonas aeruginosa and Staphylococcus aureus revealed two classes of biosurfactants based on their minimum inhibitory concentration (MIC): high efficacy (≤50 mg/ml) and low efficacy (>50 mg/ml). Biosurfactants Rhodococcus qingshengi and Pseudomonas glycinis showed good biocidal action. Unfiltered biosurfactants were more effective, suggesting that biocidal molecules reside mainly within the microorganism cell walls used in biosurfactant production.

Abou essential oils, at 4% dispersion, Thymus vulgaris and Orange demonstrated the highest biocidal efficacy due to higher concentrations of terpenic and phenolic.

Conclusions

The best results were achieved with Thymus vulgaris, Orange, and Lavandula angustifolia. Among the biosurfactants, Rhodococcus qingshengi showed higher efficacy.

15-17 October 2024

GREEN CONSERVATION FOR RESTORATION OF HISTORICAL TEXTILES

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Introduction

Textiles enter the ageing process from the moment they are produced. This process, improper conservation and restoration interventions, environmental conditions, etc. accelerated by other factors. Chemical knowledge of restoration materials is an important starting point for accurately planning conservation interventions by selecting appropriate materials and practices.

Methods

In this study, they were used that a polarised optical microscope for technical analysis of textiles, a CIEL*a*b* spectrophotometer, a scanning electron microscope with energy-dispersive X-ray spectrometry (SEM-EDX) for identification of the type of fibres and chemical composition, and a high-performance liquid chromatography-diode array detection (HPLC-DAD) for identification of dyestuffs.

Results

The fibre type, weaving quality, yarn twist directions, detection of natural or synthetic dyes, and the elemental composition and degradation products of metallic yarns determined at the end of all analyses provided information on both the conditions under which textiles should be stored for preventive conservation and the restoration materials to be used.

Conclusions

It is crucial that the analyses and restoration procedures be carried out in a way that does not damage the historical textiles, is not too invasive, provides the greatest benefit with the least number of operations, is reversible, uses clean technology, and is environmentally friendly.

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15-17 October 2024

THE EVALUATION OF THE RESTORATION WORKS OF MERZIFON KIZLAR MEKTEBI USING THE GREEN BUILDING CERTIFICATION SYSTEM

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Introduction

Historic buildings are significant assets that bear witness to humanity's past and represent cultural heritage. The risk of damage or loss of these structures underscores the necessity of preserving them and passing them on to future generations. In this context, the restoration work on Merzifon Kızlar Mektebi aims to protect and preserve the historic building for the future. The primary goal of this project is to restore Merzifon Kızlar Mektebi using original materials and techniques, thereby preserving its historical fabric and ensuring it can be handed down to future generations.

Methods

The restoration works were carried out in five main stages: historical documentation, material selection, structural repairs, aesthetic adjustments, and landscaping. Historical Documentation: Before the restoration, the building was thoroughly documented, and the current state was analysed to plan the restoration process.

Material Selection: Original materials were identified, and the compatibility of materials used in the restoration with the historical fabric was ensured. Building materials such as wood, stone, and tiles were carefully selected.

Structural Repairs: The structural integrity of the building was enhanced, and existing structural issues were addressed. Reinforcement works were carried out on the foundation and walls.

Aesthetic Adjustments: The original architectural details of the mansion were preserved, and restoration works were carried out to match its historical character aesthetically. The facade, interior arrangements, and decorative elements were renovated to reflect their original design.

Landscaping: Landscaping was done on the parcel where the mansion is located, making the surrounding landscape compatible with the historical context.

Results

As a result of the restoration of the Merzifon Kızlar Mektebi, the building’s historical and cultural

value has been preserved, its structural integrity has been enhanced, and it has been aesthetically renovated in a manner consistent with its historical character. The use of original materials has maintained the building's authentic character and ensured the successful completion of the restoration process. The landscaping has been adjusted to align with the historical context of the area, creating a harmonious integration with the building's surroundings.

Conclusions

The restoration works of Merzifon Kızlar Mektebi have been evaluated using green building certification systems such as BREEAM, LEED, DGNB, and YES TR. Recyclable materials were preferred for interventions within the scope of restoration ethics. Additionally, measures were taken to improve indoor air quality to enhance energy efficiency and integrate the new function.

15-17 October 2024

GLOBAL APPROACHES ON CULTURAL HERITAGE AND PROPOSAL: SUSTAINABLE LIME MORTARS

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Introduction

Historical buildings are common heritage of humankind, in context with unique knowledge about social, cultural and industrial. Conservation should be planned according to sustainable principles with a sense of responsibility about future generations. This study proposes a new approach for restoration mortars, in accordance with circular economy and sustainable development goals.

Methods

Scopus, Web of Science, Science Direct, Google Scholar databases reviewed chronological order with following key words; lime mortars, lime mortars additives, waste additives, circular economy, sustainable restoration, SDG, green restoration, green strategy. Literature synthesis of 11 years of TR/EN experimental studies and traditional sources from the Ottoman Period was evaluated.

Results

Cultural heritage engaged with three pillars of sustainability and development goals. It is clear that heritage management plans need new participant policies. The fact that lime mortars are environmentally friendly materials and improving their properties with additives is a subject of research not only in restoration but also in different disciplines.

Conclusions

It is seen that experimental studies focus on the usability of organic wastes as additives in lime mortars. This review presents the synthesis of the literature research conducted for the doctoral thesis, and the feasibility of the proposal presented in line with the sustainable development goals will be discussed after the material analysis.

YOCOCU ISTANBUL 2024

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AN EXAMINATION OF MODERN/SMART STORAGE SYSTEMS OF THE TURKISH INSTITUTION FOR MANUSCRIPTS

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Introduction

Storage systems and preservation methods are crucial for extending material lifespans. Over time, artefact storage areas have evolved, and modern solutions have been developed to prolong their longevity. This study aims to reveal the role of the Directorate of the Turkish Institution for Manuscripts, Department of Conservation and Archive, in ensuring that manuscript and rare printed collections are passed on to future generations in good condition.

Methods

The study will provide detailed information on the smart storage systems employed by the Directorate, as well as on the qualitative research methods utilised, including literature reviews and field studies.

Results

Information will be provided on components of smart storage systems, including fire-resistant, low-energy electric argon gas fire extinguishers and precision climate control devices. The storage standards used by the Directorate will be compared with international storage standards established by organisations such as ICOM, UNESCO, and IFLA. The contributions of the storage facilities managed by the Department of Conservation and Archive,, which serve as a model for other institutions, to global efforts in protecting tangible cultural heritage will be highlighted.

Conclusions

In conclusion, the development of storage areas for manuscripts and rare printed artefacts will be detailed, emphasising their critical roles in the preservation of cultural heritage.

15-17 October 2024

INNOVATIVE GREEN NANOCOMPOSITE MATERIALS FOR ANCIENT POLYCHROMY CONSERVATION AND VALORIZATION. THE NATURAL PLANT EXTRACTS AS GREEN MOLECULAR TEMPLATE FOR NANOPARTICLES BASED FILLER COMPOSITE-MATERIAL: ORIENTED SYNTHESIS

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Introduction

Although not widely known, antiquities were coloured, and polychromy was a property of the ancient sculpture. Research of polychromy provides a more comprehensive knowledge of how one product could contain all the characteristics for pigment preservation. The aim of the work is to manufacture a unique compound having consolidation properties, mechanical stability and antibacterial features.

Methods

Experimental design involves a green chemistry approach for nanocomposites mass production, in which natural plant extracts serve for nanofiller fabrication, and UV-curing is used to obtain the hydrophobic polymer. Optical, mechanical, and antibacterial tests were also carried out.

Results

Application of nanoparticles dispersed in alcoholic solution on laboratory pigmented samples demonstrated that calcium carbonate shows better mechanical and optical results. Specifically, analyses highlight smaller chromatic variation with CaCO3 (ΔE^* =2.21; SD=0.39), compared to that obtained with SiO2 (ΔE^* =6.12; SD=1.999) and TiO2 (ΔE^* =12,47 SD=0.43). These preliminary results were fundamental for deciding the inorganic nanofiller to incorporate into the polymer during the subsequent steps.

Conclusions

In conclusion, the study is aimed at identifying a nanocomposite that is eco-sustainable, scalable, low-cost, and that meets all the requirements needed for the protection of polychrome surfaces.

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INVESTIGATION OF THE POTENTIAL OF *OPUNTIA FICUS-INDICA* AS A POSSIBLE NEW CLEANING AND PRESERVATION AGENT FOR ARCHAEOLOGICAL CULTURAL HERITAGE DUE TO ITS ANTI-BIOFILM EFFECT ON MICROBIOLOGICAL CORROSION BEFORE AND AFTER MICROBIOLOGICAL CORROSION OCCURRENCE

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Introduction

Recently, mechanical and chemical methods are frequently used in the biorestoration and regeneration of metallic archaeological cultural heritage subjected to microbiological corrosion. It is aimed to use plant extracts as *Opuntia Ficus-Indica L.* as a more environmental method for cleaning microbiological corrosion, preventing its recurrence and especially to protect health, of cultural heritage.

Methods

The anti-biofilm effect of *Opuntia Ficus-Indica L.* on copper, brass and bronze metals against *Escherichia coli* bacteria was analysed by colony counting method in microscope observation. Positive control: Bacteria, Negative control: Bacterium+Antibiotic, Test: Cactus extr.+Bacterium.

Results

Opuntia Ficus-Indica L. has shown strong anti-biofilm properties. When placed on the metal surface at the same time with the bacteria, it kills the bacteria at the antibiotic level and no biofilm layer is formed. At the end of 72 hours, extract killed 80% of the bacteria in the biofilm layer proving that it is a potential tool for the protection of cultural heritage. The extract did not leave any traces of deforming effect on the surface of the metal materials after 24 hours of incubation.

Conclusions

The high potential of *Opuntia Ficus-Indica L.* shows that biorestoration agent and a different natural way of safely passing cultural heritage to future generations. The unique value of extract and our results is that they do not harm nature, the economy, and most importantly, cultural heritage.

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ARCHAEOMETRIC RESEARCHES FOR THE CONSERVATION OF STONES FROM ANKARA CASTLE

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Introduction

Stone is the first raw material in the history of technology and industry since the existence of mankind. This study covers archaeometric investigations to be carried out on stone materials in Ankara Castle walls. The study was conducted to characterise the stone materials, to document the existing deterioration types and to investigate these deteriorations by archaeometric analyses.

Methods

Archaeometric analyses were carried out on the walls of Ankara Castle by using visual inspection, microscopic analyses, petrographic analyses, physical and spot tests, XRF analyses and SEM-EDX analysis methods to investigate, diagnose and determine the deteriorations of the stones in the walls.

Results

Visual inspections were performed to determine the current condition of the stones. Petrographic analyses were used to characterise the stones. Physical and spot tests were used to determine the salts and pH levels of the stones. XRF analyses provided information about the elements and deterioration of the stones and SEM-EDX analyses examined the morphology of stones deterioration on a micro scale.

Conclusions

Archaeometric analyses of the stones in Ankara Castle provided important data. By evaluating these data together with the literature studies, possible origins and characterisation of the stones, categorisation of stone deterioration, causes of stone deterioration were investigated and determined.

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