DIGITAL PROGRAMME BOOKLET

International Conference on Cultural Heritage and New Technologies
2.-4. November 2021 I Vienne City Hall

CHNT
ICOMOS AUSTRIA

Stadt
Wien

CHNT MISSION STATEMENT

The first Cultural Heritage and New Technologies (CHNT) conference took place in Vienna in November 1996, at that time still under the name "Workshop Archaeology & Computers", with 60 participants from Austria, Germany and Switzerland.

The mission of the conference was and still is to bring together in Vienna scholars from all over the world covering a wide range of disciplines and using the latest technologies for prospection, research, documentation, conservation and presentation and management of the world's cultural heritage. A particular concern is to make the conference usable as a platform to exchange ideas on the agendas of cultural property protection. Discussion among colleagues from a wide range of disciplines is a major focus of the event. Sessions, round tables, advanced trainings, applications and poster presentations present the latest approaches to researching, managing and monitoring archaeological monuments, world heritage sites and cultural objects

These objectives, which CHNT has pursued for over 25 years, are now complemented by those of ICOMOS (International Council on Monuments and Sites). ICOMOS is an NGO for the protection and conservation of the world's monuments and sites of outstanding value. Conscientious, independent and solution-oriented monitoring of UNESCO World Heritage sites is the duty of everyone. ICOMOS understands that transfer of knowledge needs to be comprehensible and that discussion with experts from diverse disciplines is a mandate to support the concerns of all stakeholders.

TABLE OF CONTENTS

1   Conference Theme

The World's Heritage in the Digital Age

New Technologies towards sustainable research, conservation and communication

The 26th CHNT will be held under the motto The World's Heritage in the Digital Age – New Technologies towards Sustainable Research, Conservation and Communication.

All cultural heritage is part of the World's Heritage. The World Heritage Convention provides a clear framework for the conservation of sites on the World Heritage List. In this way many innovations are developed in particular for the research, conservation and communication of those sites. Still there are many challenging tasks that can be met with innovative technologies and new interdisciplinary methods.

The conference aims to bring together international scientists from all over the world who are involved in research, conservation and management of the world's cultural heritage. Innovative measuring, data management and processing tools are requested as well as the methods and approaches for the research, management and monitoring of sites and objects.
After a year of challenges due to the global COVID 19 pandemic, this conference aims to provide innovative ideas for the sustainable preservation of the world's cultural heritage.
We look forward to your contributions and participation in the 26th CHNT from November 2-4 in person at the Vienna City Hall or online via our conference portal. The final decision on whether a hybrid format is possible will be made in early September.

Language	English	
Sessions	10	
Round Tables	4	
Trainings	3	
Awards	3	
Participants on site	120	*from 20 different nations*
Participants virtual	150	*from 35 different nations*

CHNT 26

26th Conference on Cultural Heritage and New Technologies

Venue   Vienna City Hall
Wappensaalgruppe

1 Felderstraße
1010 Vienna
Austria

Date   November , 2 - 4 2021

Tuesday, November 2:	9 am - 6 pm
Opening Event:	6 pm -10 pm
Wednesday, November 3:	9 am - 6 pm
Conference Dinner:	7.30 pm - 11 pm
Thursday, November 4:	9 am - 6 pm
Informal Closing:	7.30 pm - 11 pm

Please note: Due to the construction of the new underground line U5, the underground stations arround the Vienna Cit Hall (U2 - Rathaus) are closed. Alternatively, you can use the tram lines (D, 1, 71, U2Z).

3   **Conference Organisation**

CHNT-ICOMOS Austria

Conference on Cultural Heritage and New Technologies by International Council forMonuments and Sites Austria

After 25 years of successful management of the CHNT by Stadtarchäologie Vienna, the organization of the conference is under new management. From 2021 onwards, the conference on cultural heritage and new technologies will be organized by CHNT-ICOMOS Austria a sister association of the Austrian National Committee of ICOMOS.

ICOMOS Austria

ICOMOS stands for "International Council on Monuments and Sites" and is an NGO that works worldwide for the protection, care and preservation of historic cultural heritage. ICOMOS was founded in 1965 in Krakow, Poland, following the adoption of the Venice Charter in 1964 at the Second Congress of Architects and Specialists of Historic Buildings.

ICOMOS is involved as advisor and evaluator in the work of the World Heritage Committee and in the fulfilment of the UNESCO Convention on World Heritage. ICOMOS is organised into over 120 National Committees, which can be joined as individual members. In addition, ICOMOS has 28 International Scientific Committees that deal with specific topics of research, heritage conservation and heritage management. The national committee ICOMOS Austria currently has more than 80 individual members whose mandate is based on proven expertise in all disciplines related to heritage protection (architecture, history of art, archaeology, jurisprudence, restoration, material sciences, etc.). ICOMOS Austria is committed to the conservation of monuments, ensembles and cultural landscapes at national and international level. In order to advise experts and the public and to promote public interest in monument protection and conservation, ICOMOS Austria is active in the following areas, among others:

- Monitoring and information on monuments on the World Heritage List
- Preparation and organisation of international colloquia and conferences on issues of monument protection and conservation
- Publication of conference results and important policy papers on heritage conservation
- Cooperation with other National Committees as well as with various national bodies (Association of State Monument Conservators, Austrian UNESCO Commission, BDA) and with international organisations (UNESCO, ICCROM, Council of Europe)

4   Committees

Local Organising Committee (LOC)

Ulrike HERBIG I Presdient CHNT-ICOMOS Austria

Irmengard MAYER I Vice President CHNT-ICOMOS Austria

Wolfgang BÖRNER I Long-time Organiser CHNT & Member CHNT-ICOMOS Austria

Lina KARNER I Secretariat CHNT-ICOMOS Austria

Scientific Committee (SC)

Nadine ALPINO	Cristina MOSCONI
David BIBBY	Franz Xaver PFAFFENBICHLER
Marco BLOCK-BERLITZ	Martina POLIG
Lorenzo CECCON	Apostolos SARRIS
Ann DEGRAEVE	Claudiu SILVESTRU
Benjamin DUCKE	Gilbert SOETERS
Peter DORNINGER	Stephen STEAD
Jay CARVER	Friedrich SCHIPPER
Saadet GUNER	Johannes TINTNER
Irmela HERZOG	Giorgio VERDIANI
Piotr KUROCZYŃSKI	

Organisation Committee (OC)

Noor ALSOUKHNI	Elisabeth MONAMY
Bert BROUWENSTIJN	Theodora MOUTSIOU
Alexandru HEGYI	Hendrik ROHLAND
Christina KRAL-BÖRNER	Rob VAN HAARLEM
Melda KÜÇÜKDEMİRCİ	

Honorary Committee (HC)

Willem BEEX †	Samuel M. PALEY †
Michael DONEUS	Raphaël PANHUYSEN
Peter FERSCHIN	Benno RIDDERHOF
Bernhard FRISCHER	Benjamin STANGL
Carmen LÖW	Hansjörg THALER
Axel POSLUSCHNY	

Visit our *homepage* to read more about the committee members.

5   Sponsorship for cultural heriatge

Archaeological Heritage Network

Project: KulturGutRetter

In order to stimulate active participation in the round table discussion Digital Tools for the Emergency Rescue of Cultural Heritage, the Archaeological Heritage Network with the project KulturGutRetter have agreed to sponsor the online registration fee for cultural heritage students, professionals and researchers from low and middle income countries.

The Archaeological Heritage Network was founded in 2016 in the presence of Frank Walter Steinmeier, now President of the German Federal Republic. ArcHerNet pools the expertise that exists in Germany and makes it available internationally via a network of contacts.

The experience gained through the project "Zero Hour – A Future for the Time after the Crisis" and the modules it comprised were then used to further develop ArcHerNet's approaches and objectives. Its scope has expanded to encompass new regions. In the framework of the Archaeological Heritage Network (ArcHerNet), the project "KulturGutRetter (KGR) – An emergency mechanism for cultural heritage in crisis situations" was initiated. The intention behind it is for the expertise that exists in Germany to be concentrated in a team of experts that can act quickly in the event of a crisis to provide assistance in securing, preserving and if need be salvaging objects and buildings. The project is supported by the Federal Foreign Office and the German Bundestag.
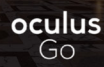

**We would like to thank our colleagues from ArcHerNet
for their generous support.**

6   Conference Programm

TIME (CET)	WAPPENSAAL	TIME (CET)	TOP 319
09:00-09:30	Opening	09:00-09:30	
09:30-10:00	Keynote 1 Would Digital Technologies allow the Conservation of the Outstanding Universal Value (OUV) of World Heritage Properties in a post-pandemic time Mario SANTANA QUINTERO, CAN	09:30-10:00	
10:00-10:20	COFFEE BREAK	10:00-10:20	COFFEE BREAK
10:20-12:40	World Heritage Management and New Technologies Chairs: Ulrike HERBIG, AUT	Bernd PAULOWITZ, GER	10:20-12:20	Cultural Heritage and the Semantic Web: Capture of Rich Semantic Data Chairs: Piotr KUROCZYŃSKI, GER	Stephen STEAD, UK
12:40-14:00	LUNCH BREAK	12:40-14:00	LUNCH BREAK
14:00-15:00	World Heritage Management and New Technologies Chairs: Ulrike HERBIG, AUT	Bernd PAULOWITZ, GER	14:00-15:00	Cultural Heritage and the Semantic Web: Exploitation of Rich Semantic Data Chair: Lorenzo CECCON, ITA
15:00-15:20	COFFEE BREAK	15:00-15:20	COFFEE BREAK
15:20-16:00	Sponsored Keynote Virtual Tourism: From Version 1.0 to 2.0 Bernhard FRISCHER, Founder and President, Flyover Zone, USA	15:20-16:00	
16:00-17:40	Computational methods for exploring visual aspects of cultural heritage sites Chairs: Irmela HERZOG	Eleftheria PALIOU, GER	16:00-17:40	Seeing in the dark Chairs: Jay CARVER, UK	Ann DEGRAEVE, BEL
18:00-22:00	OPENING EVENT	18:00-22:00	

Tuesday, November 2

| TIME (CET)	WAPPENSAAL	TIME (CET)	TOP 319
09:00-09:30	Keynote 2 Digital Cities, NeuroArchaeology and Cyberarchaeology Maurizio FORTE, USA	09:00-09:30	
09:30-10:00	COFFEE BREAK	09:30-10:00	COFFEE BREAK
10:00-12:00	Empowering heritage sites through knowledge. Chair: Cristina MOSCONI, UK	10:00-10:20	Poster AWARD Presentation Peter DORNINGER, 4D-IT, AUT
12:00-14:00	LUNCH BREAK	10:20-12:00	Digital Tools for the Emergency Rescue of Cultural Heritage Chairs: Tobias BUSEN	Bernhard FRITSCH, GER
14:00-15:20	In the air, under water, and ashore Chairs: Marco BLOCK-BERLITZ	Hendrik ROHLAND, GER	12:00-13:30	LUNCH BREAK
15:20-15:40	COFFEE BREAK	13:30-15:40	Scientific work and citizen participation in cultural heritage during Covid-19 Chairs: Elisabeth MONAMY	Sigrid PETER, Wolfgang BÖRNER, AUT	Alessandro CAMIZ, TUR	Cristiana BARANDONI	Paolo GIULIERINI, ITA
15:40-18:00	In the air, under water, and ashore Chairs: Marco BLOCK-BERLITZ	Hendrik ROHLAND, GER	15:40-18:00	World Heritage Documentation and Monitoring with New Technologies Chairs: Mario SANTANA, Canada	Ulrike HERBIG, Austria

Wednesday, November 3

TIME (CET)	WAPPENSAAL	TIME (CET)	TOP 319
09:00-09:30	Virtualization against the World's End Chair: Giorgio VERDIANI, ITA	09:00-09:30	PhD/Master Session 2021 Chairs: Martina POLIG, CYP	Nadine ALPINO, LUX
10:00-10:30	COFFEE BREAK	10:00-10:30	COFFEE BREAK
10:30-12:10	Virtualization against the World's End Chair: Giorgio VERDIANI, ITA	10:00-10:20	PhD/Master Session 2021 Chairs: Martina POLIG, CYP	Nadine ALPINO, LUX
12:10-14:00	LUNCH BREAK	12:00-14:00	LUNCH BREAK
14:00-15:20	Virtualization against the World's End Chair: Giorgio VERDIANI, ITA	14:00-16:40	Bamiyan World Heritage Chairs: Alireza IBRAHIMI	Hossein REZAYE, AFG
15:00-16:40	Heritage Conservation Strategies and New Technologies Chairs: Ulrike HERBIG, AUT		
16:40-17:00	APP Award Günther WEINLINGER| Michael KLEIN, 7reasons, AUT		
17:00-17:20	Poster Award Ceremony Peter Dorninger, 4D-IT, AUT		
17:20-17:40	Best Student Paper Award Nadine ALPINO, Luxembourg	Martina POLIG, CYP| Giorgio VERDIANI, ITA		

Thursday, November 4

GeoConnexion
Leading Geospatial & GIS Technologies Magazine
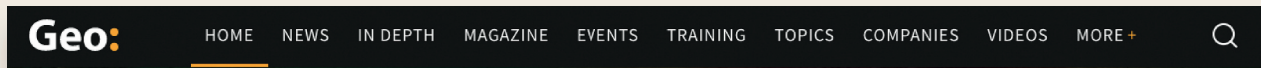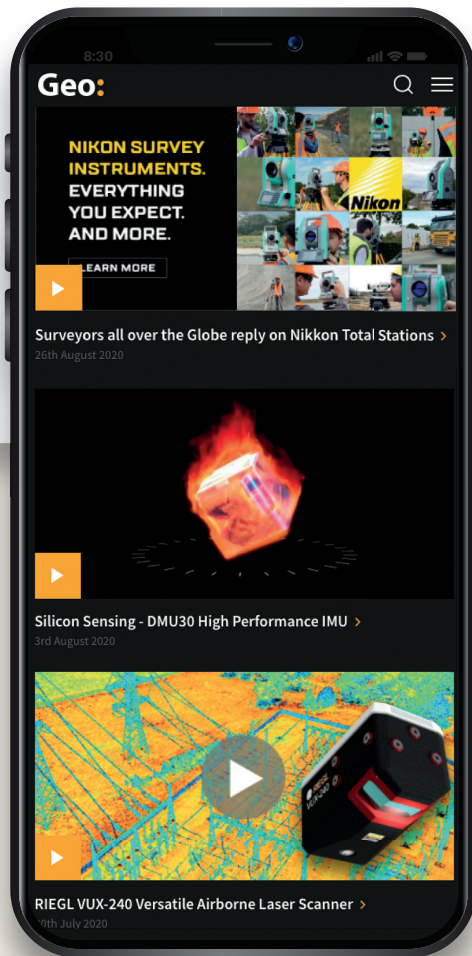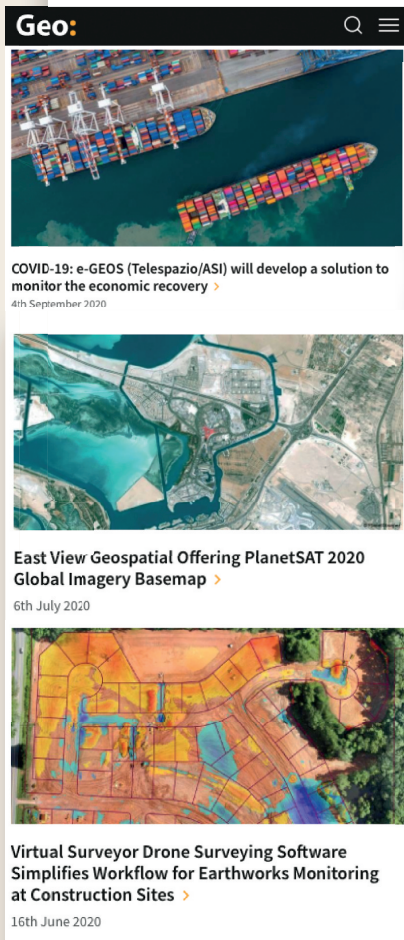
www.geoconnexion.com

World Heritage Management and New Technologies

Chairs: Ulrike HERBIG | Bernd PAULOWITZ

Keywords: World Heritage Management, Monitoring, Inventarisation, Monitoring, Planning

The World Heritage Convention, ratified in 1972 is the most significant international instrument adopted by the international community to protect its cultural and natural heritage. In linking together of nature conservation and the preservation of cultural properties it provides a framework for the interaction of people with their natural and cultural heritage for its sustainable conservation. For sites listed on the World Heritage List because of their outstanding universal values, management is required to ensure the conservation of these values over the long term. This management is a challenging task due to the constantly changing framework conditions. New technologies can help to support this framework.

In this session tools and methods can be presented that can be implemented in the manyfold tasks for the management and conservation of world heritage sites. The field of topics in this regard is wide open here some examples:

- Methods and tools for data collection and inventories
- Heritage Information Management Systems
- Monitoring tools and measures for objects, ensembles and cultural landscapes
- Workflow and communication systems between advisory bodies and authorities
- Visualization and interpretation tools
- Planning tools

6.1   Sessions

World Heritage Management and New Technologies

Chairs: Ulrike HERBIG | Bernd PAULOWITZ

Tuesday, November 2

10:20-10:40   **Venice of the North? Ten Years of World Heritage in the Amsterdam Canal District: An Exploration of Effects**
Jaap Evert ABRAHAMSE | Erik SCHMITZ, NED

10:40-11:00   **A sustainable future for world heritage? The need for more integrated approaches in heritage management**
Rowin VAN LANEN | Menne KOSIAN | Roy VAN BEEK, NED

11:00-11:20   **Structured light scanning as a monitoring method to investigate dimensional changes due to climatic changes on cultural heritage**
Kristina HOLL | Leander PALLAS | Paul BELLENDORF, GER

11:20-11:40   *A combination of 3D data to reconstruct the archaeological features: 3D models of the burials of the necropolis of Piovego (PD, Italy)*
Francesca ADESSO | Emanuela FARESIN | Giuseppe SALEMI, ITA

11:40-12:00   *The submerged archaeological sites of the Mosul Dam Reservoir Evaluating emergence patterns with a new cost-efficient tool*
Paola SCONZO | Francesca SIMI |Andrea TITOLO, GER

12:00-12:20   *Virtual reconstruction and 3D modeling for the auralization of acoustic Heritage: the case study of the Teatro del Maggio in Florence*
Stefano BERTOCCI | Federico CIOLI | Andrea LUMINI, ITA

12:20-12:40   **ISTER – Roman Roads and Roman Heritage in the Danube Region**
Manfred SCHRENK, AUT

14:00-14:20   *Challenges and opportunities for virtual archaeological data stewardship*
Holly WRIGHT | Karie GREEN, UK

14:20-14:40   *Architectural Design Solutions in the Historical Residential Context Adjacent to the Cultural Landscape of Bamiyan Buddha Statues*
Tayebeh NAZARIAN | Asadullah MOVAHEDI, AFG

14:40-15:00   *Participatory Monitoring in Cultural Heritage Conservation Case Study: The Landscape Zone of the Bisotun World Heritage Site*
Ahmad NASROLAHI | Cristina GENA | Vito MESSINA | Samet EJAREI, ITA

CULTURAL HERITAGE AND THE SEMANTIC WEB: Capture of Rich Semantic Data

Chairs: Piotr KUROCZYNSKI | Stephen STEAD

Keywords: Cultural Heritage, Artificial Intelligence, Semantic Web, Knowledge Graphs, Ontologies

This is the first of two sessions that explore the impact of twenty years of the Semantic Web on Cultural Heritage documentation. When Tim Berners-Lee laid out the foundations of the Semantic Web in 2001 his vision was of seamless integration of data across organizational, discipline, and even international borders for both humans and machine-based agents. The sessions want to capture the ideals of 2001 and transfer them to 2021, incorporating things like the FAIR-principles and the lessons learnt from visionary initiatives like Time Machine Europe.

The focus of this session is on the capture and representation of the rich semantic data necessary to enable such cross-border integration in the field of cultural heritage. Consequently, we invite both case studies and theoretical discussions of the development of human and machine-readable research data and experience in the fields of the Semantic Web, Linked Data, data modeling, and documentation standards. We welcome papers that cover any aspect of Cultural Heritage documentation including archeology, art and architecture history, conservation, and digital humanities.

We are happy to accept papers that deal with both capture and exploitation, as two linked papers split between the two sessions.

Issues of particular interest include:

- the documentation and dissemination of digital 3d cultural heritage
- human and machine-readable data models (c.f. FAIR-principles)
- standards for documentation (c.f. Linked Open Data)
- infrastructure for documentation and publication

References:

- Tim Berners-Lee, James Hendler and Ora Lassila: The Semantic Web– A new form of Web content that is meaningful to computers will unleash a revolution of new possibilities. In: Scientific American, Volume 284, Issue 5, 2001.

- Piotr Kuroczyński: Virtual Research Environment for Digital 3D Reconstructions: Standards, Thresholds and Prospects. In: Bernard Frischer, Gabriele Guidi, Wolfgang Börner (Hg.): Cultural Heritage and New Technologies 2016 Proceedings, Studies in Digital Heritage, Open Access Journal, Vol. 1, No. 2, 2017, S. 456 – 476.

- Time Machine Europe, https://www.timemachine.eu/ and ARTE production, https://www.arte.tv/de/videos/RC-017553/eine-zeitreise-die-europe-time-machine/ (accessed: 28 April 2021)

6.1   Sessions

CULTURAL HERITAGE AND THE SEMANTIC WEB: Capture of Rich Semantic Data

Chairs: Piotr KUROCZYNSKI | Stephen STEAD

Tuesday, November 2

10:20-10:40   **Metadata scheme for 3D models How to capture the source-based 3D reconstruction of Cultural Heritage?**
Igor BAJENA | Piotr KUROCZYŃSKI, GER

10:40-11:00   *Standard Dehio – On the Way from a Printed Handbook to a Knowledge Infrastructure on Art and Architectural Object*
Slawomir BRZEZICKI, GER

11:00-11:20   *Documenting and disseminating a Florentine church in 3D:*
Critical Reflections on a Case Study
Donal COOPER | Fabrizio NEVOLA, UK

11:20-11:40   **Semantic topologies for complex medieval buildings and their annotation**
Leonhard SALZER | Tobias ARERA-RÜTENIK | Alexander STENZER, GER

11:40-12:00   **Photogrammetric 3D digitisation of models from an architectural collection**
Andreas NOBACK, GER

6.1 Sessions

CULTURAL HERITAGE AND THE SEMANTIC WEB: Exploitation of Rich Semantic Data
Chair: Lorenzo CECCON

Keywords: Cultural Heritage, Artificial Intelligence, Semantic Web, Knowledge Graphs, Ontologies

This is the second of two sessions that explore the impact of twenty years of the Semantic Web on Cultural Heritage documentation. When Tim Berners-Lee laid out the foundations of the Semantic Web in 2001 his vision was of seamless integration of data across organizational, discipline, and even international borders for both humans and machine-based agents. The sessions want to capture the ideals of 2001 and transfer them to 2021, incorporating things like the FAIR-principles and the lessons learnt from visionary initiatives like Time Machine Europe.

We are happy to accept papers that deal with both capture and exploitation, as two linked papers split between the two sessions.

Issues of particular interest include:

- scaling of data exploitation efforts
- inference making and gap-filling
- pattern and style recognition and characterization
- dissemination and visualization tools and best practice

References:

- Bassier M., Bonduel M., Derdaele J., Vergauwen M. (2019) Towards the Semantic Enrichment of Existing Online 3D Building Geometry to Publish Linked Building Data. In: Villazón-Terrazas B., Hidalgo-Delgado Y. (eds) Knowledge Graphs and Semantic Web. KGSWC 2019. Communications in Computer and Information Science, vol 1029. Springer, Cham. https://doi.org/10.1007/978-3-030-21395-4_10
- Holzinger, A., Malle, B., Saranti, A., Pfeifer, B. (2021) Towards multi-modal causability with Graph Neural Networks enabling information fusion for explainable AI, Information Fusion, Volume 71, 2021, Pages 28-37, ISSN 1566-2535, https://doi.org/10.1016/j.inffus.2021.01.008.
- Norris S. (2018) Where Ontologies End and Knowledge Graphs Begin, ODSC Open Data Science, October 1, 2018, https://opendatascience.com/where-ontologies-end-and-knowledge-graphs-begin/ (accessed: February 26, 2021)
- Chaillou S., Landes, J., Dissen, H., Fure, H. (2020) Architecture as a Graph: A Computational Approach, in Towards Data Science (online magazine), 2020, https://towardsdatascience.com/architecture-as-a-graph-6a835d46f918

6.1   Sessions

CULTURAL HERITAGE AND THE SEMANTIC WEB: Exploitation of Rich Semantic Data

Chair: Lorenzo CECCON

Tuesday, November 2

14:20-14:20   *Digital Patrology: a theory and critical Database approach in Digital Libraries for converting historical scripts into texts and sources of modern perception*
Nikolaos MYRIDIS, GRE

14:20-14:40   *e-Pedalion: The transformation of a Christian cultural heritage text into a textual database of Orthodox Canon Law*
Dimitra SARAKATSIANOU | Georgia KOLONIARI, GRE

14:40-15:00   *FederationExpert System & Thesaurus of Concepts and Terms «Byzantine Law and Acts»*
Yury VIN | Dmitry Kondratiev KONDRATIEV, RUS

6.1   Sessions

Computational methods for exploring visual aspects of cultural heritage sites
Chairs: Irmela HERZOG | Eleftheria PALIOU

Keywords: viewshed analysis, visual prominence, visual communication networks, visibility analysis in built spaces

For a World Heritage Site, the largest buffer zone considered when assessing its quality covers every location that is in the viewshed of this site as far as the horizon. Large scale interventions are to be avoided in this buffer zone and may result in the removal from UNESCO's list of World Heritage Sites. This session aims at exploring visual aspects of cultural heritage sites and objects by applying computational methods. Currently a variety of approaches to formal visibility analysis are available to archaeologists and heritage experts for assessing visual properties of cultural landscapes and built environments. Increasingly more sophisticated methods for analysing visual aspects have been introduced in recent years. These include methods for estimating the probability and uncertainty of perceiving cultural objects, landmarks, or travellers by considering the blocking effects of vegetation cover, errors in digital elevation data, and distance decay. Viewshed analysis has been used to date to address a variety of research questions related to the choice of a site's location, the visual prominence of monuments and the structure of past visual communication networks.

An important advantage of these methods is that results can be supported by rigorous statistical testing. Besides viewshed analyses, more recently vector-based GIS methods for visibility analysis have been employed in studies that aim at taking fuller into account the three-dimensional properties of built spaces. Such methods allow the creation of more precise visibility indices of 3D reconstructed archaeological spaces that could offer insights into the visual experience of past people. Furthermore, these approaches can better support assessments of how the vertical features of a planned building impact on views from or to a heritage site.

This session invites papers that discuss applications of GIS-based visibility analysis in cultural landscapes and built environments.

We would especially like to encourage works on new approaches to the study of visual space and contributions that aim to bring to the front theoretical aspects of human visual perception in cultural heritage sites. Presentations exploring the visual properties of cultural spaces using other methods, such as space syntax (e.g. 2D or 3D isovists, visibility graphs) and formal lighting analysis, are also welcome.

Computational methods for exploring visual aspects of cultural heritage sites

Chairs: Irmela HERZOG | Eleftheria PALIOU

Tuesday, November 2

10:20-10:40   **Views on ancient lighting: Modelling lighting devices and their effects in architecture**
Lars Oliver GROBE, SUI | Andreas NOBACK | Ruth BIELFELDT | Vera HENKELMANN | Franziska LANG, GER

10:40-11:00   **Assessing Spectator Positions. A Case Study from Cochasquí, Ecuador**
Irmela HERZOG, GER | Alden YÉPEZ, ECU

11:00-11:20   **On common ground: what do Cultural Heritage Management, Landscape Archaeology and Archaeoastronomy have in common?**
Gail HIGGINBOTTOM, Spain | Vincent MOM, NED

11:20-11:40   *Shadows analysis and viewshed georeferencing for dating of historical photographs. New possibilities for chronology studies of lost built heritage*
Antonio SUAZO, CHI

6.1   Sessions

SEEING IN THE DARK. Reconnaissance and evaluation technologies for world heritage sites and major infrastructure developments

Chairs: Jay CARVER | Ann DEGRAEVE

Keywords: Recconnaisance, evaluation, predictive methods, site detection, characterisation

This session will invite papers focused on reconnaissance and evaluation methods and new technological advances for revealing the "unseen" significance of archaeological landscapes. Papers are particularly welcomed from recent work in developing technologies for remote sensing and ground-based survey techniques at world heritage sites, and other sensitive landscapes, particularly those that have been assessed and evaluated in relation to development and infrastructure schemes.

Multispectral and hyperspectral survey, aerial LIDAR, geophysical techniques, artefact density distribution and intrusive evaluation interventions, are increasingly being combined into a multi-method spectrum of surveys on the same landscape. These are proving effective at assessing and characterizing large areas quickly and cost effectively as technologies and application of predictive archaeological land models are revisited with access to modern GIS and ability to analyse multiple (often large) datasets. Additional innovation may include application of existing specialist survey techniques at a landscape scale, for example, geochemical pXRF and even canine olfactory surveys, to supplement the more traditional archaeological techniques.

It is hoped that the session will pull together several case studies that together present a statement on the current progress in combining multiple survey methods to predict the potential archaeological significance of land subject to development, and how these results may focus archaeological evaluation and investigation strategies, and provide some signals for future methodological developments.

6.1   Sessions

SEEING IN THE DARK. Reconnaissance and evaluation technologies for world heritage sites and major infrastructure developments

Chairs: Jay CARVER | Ann DEGRAEVE

Tuesday, November 2

16:00-16:20   **Illuminating the darkness: Using geochemical survey in archaeological reconnaissance and evaluation for major infrastructure developments**
Roger DOONAN | Clive WADDINGTON | Jay CARVER, UK

16:20-16:40   *Light at the End of the Tunnel – The Application of Real-World and Digital Approaches on the A303 Amesbury to Berwick Down (Stonehenge) Scheme*
Neil MACNAB | Leonora O'BRIEN, UK

16:40-17:00   **Flying High! Combining Old with New Methods for Enhanced Airborne Prospection and Characterisation**
Joel GOODCHILD, UK

17:00-17:20   **Advances in archaeological prospection: the geoarchaeological shift**
Clive WADDINGTON, UK

Empowering heritage sites through knowledge:
How to use the data to improve the management and the visitors' experience

Chair: Cristina MOSCONI

Keywords: visitor generated data collection, user profiling, real-time tracking, data analytics, visitor intelligence

Cultural and heritage institutions are in a constant strive to improve their premises and enrich their visitors' experience. When contemplating a site improvement program, a common concern for visitor attractions is that they do not have 'big' data, or even 'enough' data, to support their plans. Yet the opposite is often true. The nature of activities related to visitors' experience and how they interact with the site premises calls for an incredible data richness.

This session invites papers focusing on the use of visitor-generated data to help cultural and heritage site managers to improve the visitors' experience at their premises. The session welcomes research and case-based practices investigating the benefits and the constraints encountered in the use and/ or the development of data points gathering. Paper should be looking at practices based on the use of real-time data collection and machine learning, including, but not be limited to, traditional and online surveys/polls, web and app analytics, social media profiling, visitor heatmaps and user flow provided by IoT connected devices such as Bluetooth iBeacons, WiFi Routers, Ultra-Wideband Anchors or eye-tracking.

This session aims at opening a conversation on computational approaches for capturing and analysing visitor data that can provide site managers with a better understanding of their motivations, interactions and experiences at cultural and heritage sites.

6.1   Sessions

Empowering heritage sites through knowledge:
How to use the data to improve the management and the visitors' experience

Chair: Cristina MOSCONI

Wednesday, November 3

10:00-10:20   *Collecting activity in ancient Greece: from prehistoric times to the hellenistic era*
Eirini TSAKIRI, GRE

10:20-10:40   **Historical roof structures – How to make the forgotten masterpieces visible? – The roof cadastre of Vienna`s City Centre**
Hanna A. LIEBICH | Eleonora DE MASI, AUT

10:40-11:00   **Virtual Reality Application Keltenwelt am Glauberg – New approaches in VR for archaeological sites**
Marc GRELLERT | Axel POSLUSCHNY | Ruth BEUSING, GER

11:00-11:20   **Public works heritage: the G·O·ING pilot project**
Rita RUIZ | P. HERNÁNDEZ-LAMAS | B. CABAU, ESP

11:20-11:40   *Collaborative heritage. Validated, shared knowledge creation on cultural heritage*
Lorenza STANZIANO | Beatriz GARCÍA VIDAL | Mónica LUENGO AÑÓN
Héctor M. ALIAGA DE MIGUEL | Clara VILLALBA MONTANER, ESP

6.1 **Sessions**

In the air, under water, and ashore: 3D technology between Lidar and SfM in archaeological documentation, research, and knowledge dissemination

Chairs: Marco BLOCK-BERLITZ | Hendrik ROHLAND

Keywords: image-based 3d reconstruction, photogrammetry, sfm, aerial, maritim

Archaeology is increasingly exploring the potential of the 3D technology to improve the workflows of documentation, research and presentation of archaeological sites, objects and knowledge thereabout.

3D Scanning methods from Lidar to image-based 3D reconstruction have become standard tools used in archaeological procedures. Nevertheless, standardised workflows, established methods for the assurance of data-quality and recommendations for coping with and storing the enormous data are still under discussion. Especially in the field of underwater archaeology, practical solutions for reliable georeferencing are sought.

In this session we want to talk about practical solutions and showcase current tools in the field of image-based 3D reconstruction. We are both interested in platforms like UAVs and UUVs for the collection of image data and also in software tools for the processing, storage, retrieval and analysis of 3D-data.
We also want to discuss the potential of 3D technology to research, monitor and also present and teach archaeology.

This session invites papers dealing with topics such as:

- complete workflows and case-studies
- decision/planning support processes for – excavation campaigns
- camera and lighting solutions for underwater archaeology
- monitoring: continuous excavation and site recording for conservation and long-term studies
- data management solutions for recorded data, integration of 3D data with qualitative data and long-term accessibility of 3D data
- georeferencing and quality assurance
- innovative applications for the analysis of 3D data for archaeological research questions
- innovative approaches to deploy 3D data for the presentation and dissemination of archaeological knowledge

Contributions and perspectives are welcome and may include the topics listed above or further improve established practices and processes.

6.1 **Sessions**

In the air, under water, and ashore: 3D technology between Lidar and SfM in archaeological documentation, research, and knowledge dissemination

Chairs: Marco BLOCK-BERLITZ | Hendrik ROHLAND

Wednesday, November 3

14:00-14:20 **Roman Stone Monuments from North Dobruja, Romania: Case study the Halmyris fortification**
Cristina-Georgeta ALEXANDRESCU, ROU

14:20-14:40 **3D modelling of the castle Neu-Wildon**
Peter BAUER, AUT

14:40-15:00 **Photorealistic 3D-Roof and Façade Mapping of St. Stephen's Cathedral**
Peter DORNINGER | Nikolaus STUDNICKA, AUT

15:00-15:20 *Virtual 3D State Models of the West Pediment of the Temple of Zeus at Olympia*
Zackary HEGARTY, USA | Andras PATYAY-HORVATH, HUN

15:40-16:00 **Rapid and Reproducible Reconstruction of Ancient Architecture by Procedural Generation. Reconstruting the "Pavilion of the Rise of the Yuan Dynasty" in Karakorum, Mongolia**
Dominik KLENK | Hendrik ROHLAND | Marco BLOCK-BERLITZ
Christina FRANKEN, GER

16:00-16:20 **The Visualisation of Construction Principles of Antic Architecture**
Dominik LENGYEL | Catherine TOULOUSE, GER

16:20-16:40 **Archaeological documentation during a securing and restoration project: an example of successful approach. The case of the castle of Larciano (Pistoia-Italy)**
Lapo SOMIGLI | Chiara MARCOTULLI | Francesca CHELI, ITA

16:40-17:00 **Sonar mapping and sampling of underwater archaeological excavations**
Michael BOMMHARDT-RICHTER |Marco BLOCK-BERLITZ, GER

17:00-17:20 **Possibilities and Requirements for AR Applications in a Complex Heritage Landscape. An analysis from a technician's and a curator's perspective**
Lukas SUTHE | Hendrik ROHLAND | Marco BLOCK-BERLITZ |Christina FRANKEN, GER

17:20-17:40 *Images-based 3D documentation of a Persian garden using a low-cost technique*
Ahmad RAJABI | Mohammad Moein DANESH, IRI

17:40-18:00 *From drone to web visualisation: accessing the 3D model of the Roman thermal complex of Massaciuccoli (LU)*
Filippo SALA | Emanuele TACCOLA, ITA

PhD/Master session 2021

Chairs: Martina POLIG | Nadine ALPINO

Keywords: student, PhD/Master, Best student paper, free admission

A crucial aspect of CHNT is that it brings together researchers from different fields and backgrounds, creating a platform that enables and promotes the exchange of ideas. This discussion can only benefit from the input and perspectives of the young scientific generation. Their participation enriches the scientific ambient with their fresh views and gives them the opportunity to confront themselves with their peers in the context of an international conference. Therefore, we invite students and recent graduates to present their ongoing or finished Master or PhD thesis at the conference. New ideas, new ways of thinking, clever solutions, workarounds and critical thoughts are especially welcome.

The topic of the presentation should be within the scope of cultural heritage and new technologies. However, presentations that are within this year's main topic "The World´s Heritage in the Digital Age – New Technologies towards sustainable research, conservation and communication" will be given preference. The session wants to encourage young scientists to present for their first time at an international conference. Only presenters, who have not yet given a presentation in this session will be accepted.

To facilitate and encourage the participation, the conference organizers agreed that every presenter will get free admission to the conference. Furthermore, accepted speakers will be considered for the Best Student Paper award of CHNT and have the possibility to win the price of publishing their paper in the journal "Open Archaeology".

6.1   Sessions

PhD/Master session 2021

Chairs: Martina POLIG | Nadine ALPINO

Thursday ,November 4

14:00-14:20   **Reality VS Virtual Modeling. From Building to Landscape Heritage Representation**
Ambra BARBINI | Chiara CHION, ITA

14:20-14:40   **The Mediterranean Medinas and Cities in the Middle Ages: Urban heritage, Jurisprudence, Traditions and Built form**
Meriem BEN AMMAR, Italy

14:40-15:00   *Sacred Spaces: ELECTRONIC PLACES A hybrid methodology to read and design for historic urban religious precincts*
Anubhav BORGOHAIN, IND

15:00-15:20   **Architectural Heritage and Climate Change: Performance Prediction of Exposed Natural Building Stone to Rainfall through a Combination of Laboratory Leaching Tests and X-ray Computed Tomography**
Noemi GIOVELLI | Cristina GONZALEZ-LONGO | Christine M. DAVIDSON, UK

15:40-16:00   **Digital enhancement of African museum collections: Lessons learned from the virtual exhibition project "Heritage costumes in Cameroon: Dressing for identity"**
Jean-Paul Cypriano LAWSON, FRA

16:00-16:20   *Turning point cloud into Building Information Model (BIM): Defining and validating accuracy requirements for existing buildings*
Katja ŽAGAR | Laurens OOSTWEGEL | Katja Malovrh REBEC, SLO

16:20-16:40   *Identity and vulnerability in a port-city: architectural strategies for disaster risk reduction of the built heritage*
Steluta TOPALOV, ROU

6.1   Sessions

Virtualization against the World's End: Creating new experiences for old places

Chair: Giorgio VERDIANI

The COVID-19 pandemic event caused a great stop in cultural activities, museum, art places, exhibitions, had to stop or strongly reduce their functions for long periods to accomplish the safety rules to contain and limit the contagions. In this odd situation, the increment of Online activities rose up in a significant way, proposing a new digital environment to keep "open" the (at least virtual) access to these important places. From the virtual tour reinterpretation to new options for presenting and accessing, the world started to have an extremely enriched offer of digital twins of the world heritage with a significant increase of the digital heritage "treasure". At the end of 2021 it will be useful and pleasant, to sum up, experiences and check results and the lesson learned from this horrible, but formative, period. So, all the contributions about subjects developed and/or published during 2020 and 2021 are welcome in presenting an abstract in this session. The preferred contents will be those projects aimed to disseminate and present Cultural/Built Heritage and Museum basing their structure on Virtual Tours. Virtual Spaces, Virtual collections, Movies, MOOCs, Virtual, Augmented and Extended Realities, Websites with innovative features, and other solution mixing 3D models, graphic and quality contents.

6.1   Sessions

Virtualization against the World's End:
Creating new experiences for old places

Chair: Giorgio VERDIANI

Thursday, November 4

09:20-09:20   *Representing Cultural Heritage Places through AR in Museums*
Takehiko NAGAKURA | Wenzhe PENG | Yuxuan LEI, USA

09:20-09:40   **The integration of semantic knowledge graphs in virtual environments**
Brigit DANTHINE | Gerald HIEBEL | Erich KISTLER | Birgit ÖHLINGER
Caroline POSCH | Harald Stadler, AUT

09:40-10:00   *The underground church of Piedigrotta in Pizzo (VV). A digitalization project*
between drawing and matter
Francesco STILO | Lorella PIZZONIA, ITA

10:30-11:50   **Dante's House Museum, A Virtual Tour enabling the enjoyment of**
cultural heritage
Adele MAGNELLI | Alessandro CAVALLARO | Davide PANTILE, ITA

10:50-11:10   **Resilient Rethinking Digital Documentation and Exhibition of the '**
Salt Men of Zanjān'
Nicolas SCHIMERL | Pia Patrizia WEBER | Thomas STÖLLNER, GER

11:10-11:30   *An Architectural Metaverse that Combines Dynamic and Static 3D data in XR: a*
Case Study at the Monastery of Simonos Petra
Nikolaos VLAVIANOS | Takehiko NAGAKURA, USA

11:30-11:50   *Redesign of a Cultural Heritage Digital Experience in a Lean Approach*
Lijun MA, China

11:50-12:10   **AGora: An Augmented Reality-based Treasure Hunt Game for discovering the**
Municipal Market of Chania (Agora), Cret
Dania PANAGIOTA | Helena G. THEODOROPOULOU | Anna KARAGIANNI
Vasiliki GEROPANTA | Panagiotis PARTHENIOS, GRE

14:00-14:20   **Immersive Technologies for Education in Heritage & Design. An online program**
adapted for the Architecture track in times of COVID-19
Bruno DE ANDRADE | Marzia LODDO, ITA

14:20-14:40   *A Web App for the Documentation of Cultural Heritage*
Kornelius GÖTZ, GER

6.1   Sessions

Heritage Conservation Strategies and New Technologies

Chairs: Ulrike HERBIG, Austria

Thursday, November 4

15:00-15:20   *The eyes of the city: Historic casement windows as a threatened asset of cultural heritage*
Ulrich PONT, AUT

15:20-15:40   *New approaches toward reductive thermal insulation of Gründerzeit facades via autonomous robotics*
Bernard SOMMER | Peter BAUER I Ulrich PONT, AUT

15:40-16:00   *Building physics and the built environment: a retrospective on research driven innovation toward more sustainable building stock*
Ulrich PONT, AUT

16:00-16:20   *The masonry of three-lobed churches*
Irimia MIHAI, ROU

16:30-16:40   **X-ray radiography in conservation**
Nooralhuda ALSOUKHNII, UAE

6.2   Round Tabels

Digital Tools for the Emergency Rescue of Cultural Heritage

Chairs: Tobias Busen | Bernhard Fritsch

Keywords: disaster, cultural heritage rescue, mobile systems, data management

During the emergency rescue of built or movable cultural heritage in case of a disaster, a potentially large amount of information is collected. This includes basic information, specific types of documentation – both analogue as well as digital –, such as notes, sketches, photographs, video, audio, plans, geo- and 3D-information, furthermore damage and risk assessments, measures applied, relocation of objects, recommendations, etc. What is more, all this data is likely to be produced in a specific (short) time span by different people and teams, often simultaneously.

In order to be able to handle this data, smart infrastructures are needed which not only enable a project team to organize and access the data during the emergency operation – potentially without permanent access to electricity, internet, etc. –, but also to deliver it to stakeholders such as the entity or people responsible for the affected heritage.

This round table intends to discuss on how emergency rescue operations of cultural heritage can be supported/enhanced by intelligent data infrastructures and other digital tools in order to obtain data collections serviceable for the sustainable conservation of any type of cultural heritage affected by disaster.

Wednesday, November 3

10:20-12:00   **Digital Tools for the Emergency Rescue of Cultural Heritage**
Tobias BUSEN | Bernhard FRITSCH, GER

Preservation and Protection of Cultural Heritage Resources using Arches
Dennis WUTHRICH, USA

Challenges of Applying Reality Capturing Methods in a Post-Conflict Urban Context: The Digital Survey in the Old City of Aleppo
Rahaf ORABI, HUN

6.2   Round Tabels

Scientific work and citizen participation in cultural heritage during Covid-19
The three round tables concerning Covid-19 were combined into one.

Citizen participation science communication and world heritage
Chairs: Elisabeth MONAMY | Sigrid PETER

Keywords: Citizen participation, communication, digitalisation, COVID-19, museums

The last year had quite an impact on all our known and beloved areas of life as well as the working daily life and was especially challenging for cultural institutions like museums. However, there were also positive aspects and many innovations in the field of digitalisation. This round table will precisely discuss this aspect of new possibilities and innovations, also regarding citizen participation and science communication within the wide frame of the world's heritage.

We are looking for all contributions that address the following questions: What input did (or still does) Covid-19 have on museums? To what extent were there benefits in terms of digitisation? What role(s) do museums play regarding citizens' participation in cultural heritage? Which target groups should be reached and which target groups take advantage of the digital museum offer? How can people who do not have so many opportunities to participate in cultural heritage be reached through an online offer? Were there any learning experiences for museum staff and/or citizens through the new media? What was the practical implementation for museums in terms of technical and financial aspects, as well as accessibility to citizens? Was there a mutual influence between education, museums, and the lockdown? In which areas were new technologies used and in which areas was existing material accessed? Was there an advantage for museums to "go online"? What was the impact on the visitor group(s)? What experience do the museums have with the implementation? (Technology, costs, accessibility of citizens…) What opportunities were / are there for citizens to participate in the protection of cultural heritage in times of Covid-19? How can large museums and small heritage museums attract people to their collections and exhibitions despite the pandemic? Everyone who would like to contribute to this round table is welcome to submit a short (impulse) lecture. Present your own citizen participation project, share your experiences about involving people from different backgrounds – or point out failures.

6.2 Round Tabels

Scientific work and citizen participation in cultural heritage during Covid-19

The three round tables concerning Covid-19 were combined into one.

HOW HAS CORONA CHANGED OUR DAILY SCIENTIFIC WORK?

Chairs: Wolfgang BÖRNER | Alessandro CAMIZ

Keywords: Corona, new Technologies, scientific work, change

Who would have thought? The pandemic has held the world in its tight grip for more than one year and still with no end in sight. At the moment, we can only make the vaguest statements about the future. The worlds of science and culture as well as the economy are all depressed and will take many years to recover. Many colleagues have lost their jobs or are working on a part-time basis and many institutions and museums are closed. Can this damage ever be repaired?

- How has our scientific work changed?
- How can work on archaeological sites and other cultural heritage sites be maintained?
- How can new technologies help us?

For this Round Table we expect short papers (5-10 minutes) on topics like:

- How have we mastered the crisis so far?
- How has the way we work changed?
- Can we apply the lessons learnt to the future?

In addition to short papers, there will also be a lively and goal-oriented discussion.

In preparation for Round Table, there will be a page on the CHNT website where the community can post pictures about their impressions, experiences and adapted working methods.

6.2   Round Tabels

Scientific work and citizen participation in cultural heritage during Covid-19

The three round tables concerning Covid-19 were combined into one.

MUSEUMS IN THE ERA OF COVID

Chairs: Cristiana BARANDONI | Paolo GIULIERINI

The Round table that we are proposing this year focuses, for the second consecutive year, on 3D modeling and in particular on the use of virtual models in the communicative, didactic and pedagogical fields in the museum sector.

More and more frequently, photogrammetry and laser scanners become irreplaceable tools for the creation of virtual models of both artifacts and archaeological architectural structures.
In addition to the well-known educational purpose, the use of augmented and virtual reality is becoming increasingly popular to guarantee access to all those sites and museums that, especially following the COVID emergency, have had to resort to it in order to maintain the relationship with their audience.

This RT wants to offer these institutions the opportunity to present actions taken to face the global health emergency. Contributions that will illustrate heritage communication actions in areas of crisis and war as far as those projects that, through digital, have made their heritage permanently accessible, will also be welcome.

6.2 **Round Tables**

Scientific work and citizen participation in cultural heritage during Covid-19

Chairs: Elisabeth MONAMY | Sigrid PETER, Wolfgang BÖRNER, AUT | Alessandro CAMIZ, TUR

Cristiana BARANDONI | Paolo GIULIERINI, ITA

Wednesday, November 3

13:30-15:40   *Museums and Covid-19; adaptation of content and practice in the Trilj Regional Museum*
Sanja BUDIĆ LETO, CRO

Engagement with classical archaeology and the ethics of contemporary clothing production: exploring the interface of citizen engagement through technologies at the London Bloomsbury Festival 2020
Claire FRAMPTON, UK

"Closed but active" Archaeology at the Natural History Museum Vienna
Karina GRÖMER | Stefan EICHERT, AUT

Online or not online-that's the question! Online presence of museums and cultural institutions in times of Covid19
Elisabeth MONAMY, AUT

Zoom?!?
Wolfgang BÖRNER, AUT

Pandemics and the changing built environment Learning from history, planning our future
Alessandro CAMIZ, TUR

Will Virtual Exhibitions Remain After Covid 19 Ends?
Müge ELMAS, TUR

„Virtual Excursions" in Archaeology
Ute VERSTEGEN | Lara MÜHRENBERG, GER

6.2 Round Tabels

World Heritage Documentation and Monitoring with New Technologies

Chairs: Ulrike HERBIG | Mario SANTANA

This session brings individuals with solid trajectories in planning, developing, and implementing information technologies in monitoring World Heritage Sites. Multidisciplinary academia, not-for-profit and industry contributors will provide their opinions about how World Heritage Sites can make use of Information technologies to monitor their Outstanding Universal Value.

The group of panelists also participated in the Our World Heritage´s Transformational Impacts of Information Technology theme, where they have been developing recommendations and a toolkit for monitoring and presentation of WH sites.

Panelist will answer:

- Opportunities and challenges that information technologies for monitoring the OUV of WH sites
- Takeaways of pandemics

Conclusions will be provided at the end by the rapporteurs.

World Heritage Documentation and Monitoring with New Technologies

Chairs: Ulrike HERBIG | Mario SANTANA

Wednesday, November 3

15:40-18:00 **Opening Statement about World Heritage**
Christina CAMERON, CAN anja BUDIĆ LETO, CRO

A Digital Bridge for Collaboration in Cultural Heritage
Aristotelis ANTONIOU | Alzbeta REJENTOVA | Paolo TOTO | Antipas PAPAGEORGIOU
Angelika PSENNER | Friedrich HAUER, ITA

Panelists: Haifaa ABDULHALIM, JOR
                        Joe KALLAS, LIB
                        Rebecca NAPOLITANO, USA
                        Carmelo IGNACCOLO, USA/ITA
                        Douglas PRITCHARD, CAN

Rapporteure: Doris GRANDITS, AUT

Bamiyan World Heritage: The Present and The Future

Chairs: Alireza IBRAHIMI | Hossein REZAYE

Keywords: Bamiyan World Heritage, Buddha statues, preservation, reconstruction

Introduction:

In March 2001, the world observed the destruction of one of the greatest hits to the body of the contemporary world's heritage by the Taliban regime. UNESCO immediately condemned the deliberate destruction of Buddha statues and called on the international community to cooperate to the preservation of Bamiyan World Heritage. Many countries declared their willingness to protect and restore the statues and carried out basic works such as conserving rock fragments and documenting.

Necessity and Importance:

Unfortunately, after 20 years, the preservation and reconstruction of Bamiyan World Heritage have not progressed as expected and even these days we see many walls and caves of Buddha statues falling due to erosion by sunlight and rain. On the other hand, it is a matter of concern that in the peace negotiations between Taliban and government, there is no talk of preservation the world's heritage. The round table intends to invite researchers, experts in government and international organizations to review their role in the conservation of Bamiyan World Heritage and the following topics:

- The status of the reconstruction of the Buddha statues and future ahead
- Obstacles and problems in preservation the Bamiyan World Heritage
- New technologies towards conservation and reconstruction of Bamiyan World Heritage

6.2   Round Tables

Bamiyan World Heritage: The Present and The Future

Chairs: Alireza IBRAHIMI | Hossein REZAYE

Wednesday, November 3

Part 1: Round Table

15:40-18:00   **The high relief pattern of Bamiyan statues**
Zakaria AHMADI, AFG

Investigation of Artificial Intelligence in the Development of Tourism in Bamyan
Mohammad Reza AMIRI | Marzieh KARIMI, AFG

Assessment of the factors affecting the physical resilience of Bamiyan cultural heritage against climate change
Ateyeh HEYDARI | Mohammad Mahdi SALEHI, AFG

Investigating the Effect of Malicious Factors on Ancient Sites to Maintain and Protect Them Using the Geographic Information System (GIS); Case Study: Budda-Bamyan
Mohammad MOVAHEDI | Hossein REZAYE, AFG

Assessing the Condition and Improving the Sidewalks of the World Cultural Heritage. Case Study: Bamiyan Buddha Statues in Afghanistan
Mohammad Reza PAIMAN | Nasibe SADAFI | Tayebeh NAZARIAN, AFG

Investigation of factors and risks threatening the environmental health of natural lakes in Band-e Amir National Park, Bamyan
Marzieh KARIMI | Mohammad Reza AMIRI, AFG

Part 2: Discussion Panel

An overview of plans of the Ministry of Urban Development to protect Bamyan Cultural Heritage
Mohammad Zahir SHEWA, AFG

Zaker Hossain ERSHAD, AFG

Abdul Razaq VAHIDI, AFG

Qasim WAFAYEZADA, AFG

Can we collect an appeal worldwide to protect women and cultural property in Afghanistan? What happened to eng Pashtun?
Michael JANSEN , GER

Preservation of the Cultural Landscape of Bamiyan – A chance for peace and reconciliation
Georgios TOUBEKIS, GER

The protection of Cultural Heritage in the Bamiyan Strategic Masterplan
Mirella LODA, ITA

6.3   Advanced Archaeological Trainings

New bottles for old wine: The new CIDOC CRM and your old data

Organizer: Stephen STEAD

Wednesday, November 3

2021 saw the release of CIDOC CRM version 7.1.1, which is the new candidate release for the revision of ISO21127. This training workshop will introduce the changes in this latest version, including the enhanced handling of relative chronologies and space-time volumes (STVs). The standard is leaner, with the deprecation and replacement of a number of classes and properties. Full details of the migration of existing data encoded in the CRM will be covered in the workshop. The CRM community has also been working on new ways of handling the evidence of absence with the introduction of a new extension covering Type and Negative Type properties. This comes with a comprehensive testing data set. This will also be covered. Working on modelling and mapping data with the CRM has often been seen as a difficult task: the workshop will introduce new open-source tools that make the process easier and faster.

Who is the workshop for?
Anybody that wants to understand and work with the CRM.

Prerequisites
To get the best out of the workshop you should have watched the online CRM tutorial.

http://www.cidoc-crm.org/cidoc-crm-tutorial

You will also need a laptop on which you can install software and import datasets (NB I work on a PC so if you want to play with Linux or Mac you will need to be confident at troubleshooting on those platforms).

What do you get?
Four hours of fun with data, using fresh, easy-to-use tools and the latest semantic representation of Cultural Heritage data: plus a bunch of bad puns and cool challenges.

6.3   **Advanced Archaeological Trainings**

The Roman Life – Game around the Roman Gallery in the Kunsthistorische Museum

Organizer: Shani ZIV | Talila YEHIEL

Thursday, November 4

Location: Kunsthistorische Museum | Meeting Point: will be announced

Mr. Georg Plattner, director of the Antikensammlung, will lead the participants around the Roman Gallery . He will shed a light on unique exhibits that later participants would integrate into our experimental learning game.

Then, we will introduce the experimental learning approach in-front of one cabinet. The fruit of our brainstorming will be a reservoir of experiential learning activities that can be experienced in the archaeology gallery.

In the third phase participants will deconstract games that were created in the museum by Christina Kral-Börner in a booklet and converted to the digital to enhance learning. When participants will be familiar with the Wandering technology they will add their own activity .

Participants: Curators and interpreters, Education professionals & Marketing team

6.3   Advanced Archaeological Trainings

Geospatial Analysis and Simulation in Archeology using Open Tools

Organizer: Christian NEUWIRTH

Thursday, November 4

The systematic analysis of geodata opens great opportunities for archeologist who are interested in quantitative hypothesis testing and analytics. In this training session, we will give an overview of geocomputational concepts and their application in the field of archeology. In order to deepen the practical understanding of participants, we will introduce methods such as high-resolution LIDAR data manipulation, spatial analysis and spatial simulation in a guided hands-on session.

Participants have the opportunity to get to know these methods by performing geospatial operations to investigate three different use cases:

· Querying the spatial distribution of charcoal hearths in the Blue Mountain region, Pennsylvania
· Visibility analysis of Fortress Hohensalzburg
· Examining the potential irrigation function of a canal-shaped landform in Upper Austria

The free and open tools QGIS and GAMA are used to perform the respective tasks. The training session covers comparably simple geospatial operations (e.g. database querying and pre-processing) as well as the more advanced topics of spatial simulation. Accordingly, the proposed event equally addresses geospatial newbies and more experienced participants.

Number of participants: No specific limitation on the number of participants (except for limitations imposed by the available physical infrastructure)

Software Requirements: QGIS 3.16 (64bit Long term release)
By default, QGIS installs QGIS Desktop 3.10.11 and QGIS Desktop 3.10.11 with Grass 7.8.4. Please use the latter one during the training session!

Gama 1.8.1 (with JDK):
Save the Gama download in your program files. There is no installation required. You may create a shortcut on your desktop.

(UNIGIS Distance Learning in Geoinformatics University of Salzburg)

7 **Awards**

Poster Presentation

Chairs: Peter DORNINGER, 4D-IT, AUT

Wednesday, November 3

10:00-10:20 **Obsidian Maritime Interconnections in Early Holocene Eastern Mediterranean**
Theodora MOUTSIOU, CYP

Radiographic Imaging Technique applied on conservation archeaological metals:
The case of Saruq al Hadid
Nooralhuda ALSOUKHNI, UAE

Adaptive and transformative visitor management applying the World Heritage Visitor Management Assessment and Strategy Tool (VMAST)
Cecilie SMITH-CHRISTENSEN, NOR

Turning point cloud into Building Information Model (BIM): Defining and validating accuracy requirements for existing buildings
Katja ŽAGAR | Laurens OOSTWEGEL | Katja MALOVRH REBEC, SLO

Augmented Reality (AR) Technology-based Digital Restoration of the Middle Gate in Hwangnyongsa Temple Site of the 8th Century Silla Dynasty Period
Heungsun KWON | Wook HAN | Hyowon SEO, KOR

The eyes of the city: Historic casement windows as a threatened asset of cultural heritage
Ulrich PONT, AUT

River Musi As a Living Heritage
Vedakumar MANIKONDA, IND

Ancient mounds in the developed urban structure of the city of Kherson
Sergiy NIEMTSEV I Andriy LUTSYK I Andriy LOPUSHYNSKYY I Natalie YURCHAK, UKR

Poster Award Ceremony: Thursday, November 4: 17:00-17:20

APP Award Presentation

Günther WEINLINGER| Michael KLEIN, 7reasons, AUT

Thursday November 4

16:40-17:00   *Hyderabad Heritage Ar Madhu*   *Tod im Salz*
                VOTTERY, IND   *Nicolas SCHIMERL, GER*

                Baker House AR (2021)   *AUGTRAVELER*
                Takehiko NAGAKU-RA, USA   *Pankaj MANCHNANDA, IND*

Best App Award

Günther WEINLINGER & Michael KLEIN I 7reasons Medien GmbH, Austria

Best Poster Award

Peter Dorninger I 4D-IT, Austria

Best Student Paper Award

Nadine ALPINO, Luxembourg, Martina POLIG, Cypris & Giorgio VERDIANI, Italy

Opening Event

Date: Tuesday, November 2 I 6 pm - 10 pm

Location: TOP 317 I Vienna City Hall

Catering: Weingut Weinlinger

                 www.weinlinger.at

Conference Dinner

Date: Wednesday, November 3 I 7.30 pm - 11 pm

Location: Wiener Rathauskeller

                 1 Rathausplatz, 1010 Vienna

                 www.wiener-rathauskeller.at

Opening: DI Omar ALRAWI (Municipal Council)

Informal Closing

Date: Thursday, November 4 I 7.30 pm - 11 pm

Location: Blunznstricker

                 71 Ottakringerstraße, 1160 Vienna

                 www.blunzenstricker.at

Opening: DI Roland LÖFFLER (City Council Ottakring)

9   **Exhibitors**

Exhibitors on site

Exhibitors are located in the conference break room (TOP 317).

Exhibition stand 01

7reasons Medien GmbH
www.7reasons.net

Exhibition stand 04
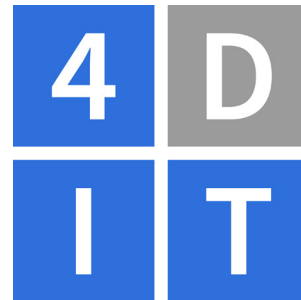
4D-IT GmbH
www.4d-it.com

Exhibition stand 03

RIEGL Laser Measurement Systems GmbH
www.riegl.com

Exhibition stand 05

ETT s.p.a.
www.ettsolutions.com

Exhibitors online

All virtual participants can visit the exhibitors on the HOPIN platform.

Flyover Zone
www.flyoverzone.com

10   Contact Details

Contact Deatails

CHNT26

Organiser

CHNT-ICOMOS Austria
ZVR-Zahl: 1164499200
Karlsplatz 13
1040 Wien

Cooperation partner

Stadt Wien, MA 7 - Kulturabteilung
Friedrich-Schmidt-Platz 5
1080 Wien

Organisers on site

Wolfgang BÖRNER
info@chnt.at
+43 676 599 26 54

Lina KARNER
info@chnt.at
+43 660 81 41 809

Covid-19 representative

Elisabeth MONAMY
info@chnt.at

The CHNT26 Covid-19 Prevention measures can be find on our *homepage*.

#CHNT26

SCHEDULE I Tuesday, 2 November 2021

CHNT ICOMOS AUSTRIA | Stadt Wien

Location: WAPPENSAAL

Time	Session
09:00-09:30	**Opening** Ruth PRÖCKL, Bundesministerium für Kunst, Kultur, öffentlicher Dienst und Sport Ulrike HERBIG, Technische Universität Wien I CHNT-ICOMOS Austria Wolfgang BÖRNER, Museen der Stadt Wien-Stadtarchäologie I CHNT-ICOMOS Austria
09:30-10:00	Keynote 1 **Would Digital Technologies allow the Conservation of the Outstanding Universal Value (OUV) of World Heritage Properties in a post-pandemic time** Mario SANTANA QUINTERO, CAN
10:00-10:20	*COFFEE BREAK*
	World Heritage Management and New Technologies Chairs: Ulrike HERBIG, AUT I Bernd PAULOWITZ, GER
10:20-10:40	Venice of the North? Ten Years of World Heritage in the Amsterdam Canal District: An Exploration of Effects Jaap Evert ABRAHAMSE I Erik SCHMITZ, NED
10:40-11:00	A sustainable future for world heritage? The need for more integrated approaches in heritage management Rowin VAN LANEN I Menne KOSIAN I Roy VAN BEEK, NED
11:00-11:20	Structured light scanning as a monitoring method to investigate dimensional changes due to climatic changes on cultural heritage Kristina HOLL I Leander PALLAS I Paul BELLENDORF, GER
11:20-11:40	*A combination of 3D data to reconstruct the archaeological features: 3D models of the burials of the necropolis of Piovego (PD, Italy)* Francesca ADESSO I Emanuela FARESIN I Giuseppe SALEMI, ITA
11:40-12:00	*The submerged archaeological sites of the Mosul Dam Reservoir Evaluating emergence patterns with a new cost-efficient tool* Paola SCONZO I Francesca SIMI I Andrea TITOLO, GER
12:00-12:20	*Virtual reconstruction and 3D modeling for the auralization of acoustic Heritage: the case study of the Teatro del Maggio in Florence* Stefano BERTOCCI I Federico CIOLI I Andrea LUMINI, ITA
12:20-12:40	ISTER – Roman Roads and Roman Heritage in the Danube Region Manfred SCHRENK, AUT
12:40-14:00	*LUNCH BREAK*
14:00-14:20	*Challenges and opportunities for virtual archaeological data stewardship* Holly WRIGHT I Karie GREEN, UK
14:20-14:40	*Architectural Design Solutions in the Historical Residential Context Adjacent to the Cultural Landscape of Bamiyan Buddha Statues* Tayebeh NAZARIAN I Asadullah MOVAHEDI, AFG
14:40-15:00	*Participatory Monitoring in Cultural Heritage Conservation Case Study: The Landscape Zone of the Bisotun World Heritage Site* Ahmad NASROLAHI I Cristina GENA I Vito MESSINA I Samet EJAREI, ITA
15:00-15:20	*COFFEE BREAK*
15:20-16:00	Sponsored Keynote *Virtual Tourism: From Version 1.0 to 2.0* Bernhard FRISCHER, Founder and President, Flyover Zone, USA
	Computational methods for exploring visual aspects of cultural heritage sites Chairs: Irmela HERZOG I Eleftheria PALIOU, GER
16:00-16:20	Views on ancient lighting: Modelling lighting devices and their effects in architecture Lars Oliver GROBE, SUI I Andreas NOBACK I Ruth BIELFELDT I Vera HENKELMANN I Franziska LANG, GER
16:20-16:40	Assessing Spectator Positions. A Case Study from Cochasquí, Ecuador Irmela HERZOG, GER I Alden YÉPEZ, ECU
16:40-17:00	On common ground: what do Cultural Heritage Management, Landscape Archaeology and Archaeoastronomy have in common? Gail HIGGINBOTTOM, Spain I Vincent MOM, NED
17:00-17:20	*Shadows analysis and viewshed georeferencing for dating of historical photographs. New possibilities for chronology studies of lost built heritage* Antonio SUAZO, CHI
17:20-17:40	Discussion
	Opening Event
18:00-22:00	Evening Event

Location: TOP 319

Time	Session
09:00-09:30	X
09:30-10:00	X
10:00-10:20	*COFFEE BREAK*
	Cultural Heritage and the Semantic Web: Capture of Rich Semantic Data Chairs: Piotr KUROCZYŃSKI, GER I Stephen STEAD, UK
10:20-10:40	Metadata scheme for 3D models How to capture the source-based 3D reconstruction of Cultural Heritage? Igor BAJENA I Piotr KUROCZYŃSKI, GER
10:40-11:00	*Standard Dehio – On the Way from a Printed Handbook to a Knowledge Infrastructure on Art and Architectural Object* Slawomir BRZEZICKI, GER
11:00-11:20	*Documenting and disseminating a Florentine church in 3D: Critical Reflections on a Case Study* Donal COOPER I Fabrizio NEVOLA, UK
11:20-11:40	Semantic topologies for complex medieval buildings and their annotation Leonhard SALZER I Tobias ARERA-RÜTENIK I Alexander STENZER, GER
11.40-12.00	Photogrammetric 3D digitisation of models from an architectural collection Andreas NOBACK, GER
12:00-12:20	Discussion
12:20-14:00	*LUNCH BREAK*
	Cultural Heritage and the Semantic Web: Exploitation of Rich Semantic Data Chair: Lorenzo CECCON, ITA
14:00-14:20	*Digital Patrology: a theory and critical Database approach in Digital Libraries for converting historical scripts into texts and sources of modern perception* Nikolaos MYRIDIS, GRE
14:20-14:40	*e-Pedalion: The transformation of a Christian cultural heritage text into a textual database of Orthodox Canon Law* Dimitra SARAKATSIANOU I Georgia KOLONIARI, GRE
14:40-15:00	*FederationExpert System & Thesaurus of Concepts and Terms «Byzantine Law and Acts»* Yury VIN I Dmitry Kondratiev KONDRATIEV, RUS
15:00-15:20	*COFFEE BREAK*
15:20-16:00	X
	Seeing in the dark - reconnaissance and evaluation technologies for world heritage sites and major infrastructure develpoments Chairs: Jay CARVER, UK I Ann DEGRAEVE, BEL
16:00-16:20	Illuminating the darkness: Using geochemical survey in archaeological reconnaissance and evaluation for major infrastructure developments Roger DOONAN I Clive WADDINGTON I Jay CARVER, UK
16:20-16:40	*Light at the End of the Tunnel – The Application of Real-World and Digital Approaches on the A303 Amesbury to Berwick Down (Stonehenge) Scheme* Neil MACNAB I Leonora O'BRIEN, UK
16:40-17:00	Flying High! Combining Old with New Methods for Enhanced Airborne Prospection and Characterisation Joel GOODCHILD, UK
17:00-17:20	Advances in archaeological prospection: the geoarchaeological shift Clive WADDINGTON, UK
17:20-17:40	Discussion

SCHEDULE I Wednesday, 3 November 2021

CHNT ICOMOS AUSTRIA — Stadt Wien

Location: WAPPENSAAL

Time	Session
09:00-09:30	Keynote 2 *Digital Cities, NeuroArchaeology and Cyberarchaeology* Maurizio FORTE, USA
09:30-10:00	*COFFEE BREAK*

Empowering heritage sites through knowledge. How to use the data to improve the management and the visitors' experience
Chair: Cristina MOSCONI, UK

Time	Session
10:00-10:20	*Collecting activity in ancient Greece: from prehistoric times to the hellenistic era* Eirini TSAKIRI, GRE
10:20-10:40	Historical roof structures – How to make the forgotten masterpieces visible? – The roof cadastre of Vienna`s City Centre Hanna A. LIEBICH	Eleonora DE MASI, AUT
10:40-11:00	Virtual Reality Application Keltenwelt am Glauberg – New approaches in VR for archaeological sites Marc GRELLERT	Axel POSLUSCHNY	Ruth BEUSING, GER
11:00-11:20	Public works heritage: the G·O·ING pilot project Rita RUIZ	P. HERNÁNDEZ-LAMAS	B. CABAU, ESP
11:20-11:40	*Collaborative heritage. Validated, shared knowledge creation on cultural heritage* Lorenza STANZIANO	Beatriz GARCÍA VIDAL	Mónica LUENGO AÑÓN	Héctor M. ALIAGA DE MIGUEL	Clara VILLALBA MONTANER, ESP
11.40-12.00	Discussion
12:00-14:00	*LUNCH BREAK*

In the air, under water, and ashore
Chairs: Marco BLOCK-BERLITZ | Hendrik ROHLAND, GER

Time	Session
14:00-14:20	Roman Stone Monuments from North Dobruja, Romania: Case study the Halmyris fortification Cristina-Georgeta ALEXANDRESCU, ROU
14:20-14:40	3D modelling of the castle Neu-Wildon Peter BAUER, AUT
14:40-15:00	Photorealistic 3D-Roof and Façade Mapping of St. Stephen's Cathedral Peter DORNINGER	Nikolaus STUDNICKA, AUT
15:00-15:20	*Virtual 3D State Models of the West Pediment of the Temple of Zeus at Olympia* Zackary HEGARTY, USA	Andras PATYAY-HORVATH, HUN
15:20-15:40	*COFFEE BREAK*
15:40-16:00	Rapid and Reproducible Reconstruction of Ancient Architecture by Procedural Generation.Reconstruting the "Pavilion of the Rise of the Yuan Dynasty" in Karakorum, Mongolia Dominik KLENK	Hendrik ROHLAND	Marco BLOCK-BERLITZ	Christina FRANKEN, GER
16:00-16:20	The Visualisation of Construction Principles of Antic Architecture Dominik LENGYEL	Catherine TOULOUSE, GER
16:20-16:40	Archaeological documentation during a securing and restoration project: an example of successful approach. The case of the castle of Larciano (Pistoia – Italy) Lapo SOMIGLI	Chiara MARCOTULLI	Francesca CHELI, ITA
16:40-17:00	Sonar mapping and sampling of underwater archaeological excavations Michael BOMMHARDT-RICHTER	Marco BLOCK-BERLITZ, GER
17:00-17:20	Possibilities and Requirements for AR Applications in a Complex Heritage Landscape. An analysis from a technician's and a curator's perspective Lukas André SUTHE	Hendrik ROHLAND	Marco BLOCK-BERLITZ	Christina FRANKEN, GER
17:20-17:40	*Images-based 3D documentation of a Persian garden using a low-cost technique* Ahmad RAJABI	Mohammad Moein DANESH, IRI
17:40-18:00	*From drone to web visualisation: accessing the 3D model of the Roman thermal complex of Massaciuccoli (LU)* Filippo SALA	Emanuele TACCOLA, ITA

Location: TOP 319

Time	Session
09:30-10:00	*COFFEE BREAK*

Poster AWARD Presentation
Peter DORNINGER, 4D-IT, AUT

Time	Session
10:00-10:20	Obsidian Maritime Interconnections in Early Holocene Eastern Mediterranean Theodora MOUTSIOU, CYP Radiographic Imaging Technique applied on conservation archaeological metals: The case of Saruq al Hadid Nooralhuda ALSOUKHNI, UAE *Adaptive and transformative visitor management applying the World Heritage Visitor Management Assessment and Strategy Tool (VMAST)* Cecilie SMITH-CHRISTENSEN, NOR *Turning point cloud into Building Information Model (BIM): Defining and validating accuracy requirements for existing buildings* Katja ŽAGAR	Laurens OOSTWEGEL	Katja MALOVRH REBEC, SLO *Augmented Reality (AR) Technology-based Digital Restoration of the Middle Gate in Hwangnyongsa Temple Site of the 8th Century Silla Dynasty Period* Heungsun KWON	Wook HAN	Hyowon SEO, KOR *The eyes of the city: Historic casement windows as a threatened asset of cultural heritage* Ulrich PONT, AUT *River Musi As a Living Heritage* Vedakumar MANIKONDA, IND *Ancient mounds in the developed urban structure of the city of Kherson* Sergiy NIEMTSEV I Andriy LUTSYK I Andriy LOPUSHYNSKYY I Natalie YURCHAK, UKR

Digital Tools for the Emergency Rescue of Cultural Heritage
Chairs: Tobias BUSEN | Bernhard FRITSCH, GER

Time	Session
10:20-12:00	Digital Tools for the Emergency Rescue of Cultural Heritage Tobias BUSEN	Bernhard FRITSCH, GER *Preservation and Protection of Cultural Heritage Resources using Arches* Dennis WUTHRICH, USA *Challenges of Applying Reality Capturing Methods in a Post-Conflict Urban Context: The Digital Survey in the Old City of Aleppo* Rahaf ORABI, HUN
12:00-13:30	LUNCH BREAK

Scientific work and citizen participation in cultural heritage during Covid-19
Chairs: Elisabeth MONAMY | Sigrid PETER, Wolfgang BÖRNER, AUT | Alessandro CAMIZ, TUR | Cristiana BARANDONI | Paolo GIULIERINI, ITA

Time	Session
13:30-15:40	*Museums and Covid-19; adaptation of content and practice in the Trilj Regional Museum* Sanja BUDIĆ LETO, CRO *Engagement with classical archaeology and the ethics of contemporary clothing production: exploring the interface of citizen engagement through technologies at the London Bloomsbury Festival 2020* Claire FRAMPTON, UK "Closed but active" Archaeology at the Natural History Museum Vienna Karina GRÖMER	Stefan EICHERT, AUT Online or not online-that's the question! Online presence of museums and cultural institutions in times of Covid19 Elisabeth MONAMY, AUT Zoom?!? Wolfgang BÖRNER, AUT *Pandemics and the changing built environment Learning from history, planning our future* Alessandro CAMIZ, TUR Will Virtual Exhibitions Remain After Covid 19 Ends? Müge ELMAS, TUR *"Virtual Excursions" in Archaeology* Ute VERSTEGEN	Lara MÜHRENBERG, GER

World Heritage Documentation and Monitoring with New Technologies
Chairs: Mario SANTANA, Canada | Ulrike HERBIG, Austria

Time	Session
15:40-18:00	*Opening Statement about World Heritage* Christina CAMERON, CAN A Digital Bridge for Collaboration in Cultural Heritage Aristotelis ANTONIOU	Alzbeta REJENTOVA	Paolo TOTO	Antipas PAPAGEORGIOU	Angelika PSENNER	Friedrich HAUER, ITA *Panelists:* Haifaa ABDULHALIM, JOR I Joe KALLAS, LIB I Rebecca NAPOLITANO, USA I Carmelo IGNACCOLO, USA/ITA I Douglas PRITCHARD, CAN **Rapporteure:** Doris GRANDITS, AUT

Location: WIENER PLANUNGSWERKSTATT

New bottles for old wine: The new CIDOC CRM and your old data
Organizer: Stephen STEAD, UK

Time	Session
13:00-16:30	Advanced Archaeological Training

Location: WIENER RATHAUSKELLER

Conference Dinner

Time	Session
19:30-23:00	Mayor's Cocktail Opening: DI Omar AL-RAWI (Municipal Council)

SCHEDULE I Thursday, 4 November 2021

CHNT ICOMOS AUSTRIA · Stadt Wien

Location: WAPPENSAAL

Virtualization against the World's End: Creating new experiences for old places
Chair: Giorgio VERDIANI, ITA

Time	Session
09:00-09:20	*Representing Cultural Heritage Places through AR in Museums* Takehiko NAGAKURA | Wenzhe PENG | Yuxuan LEI, USA
09:20-09:40	The integration of semantic knowledge graphs in virtual environments Brigit DANTHINE | Gerald HIEBEL | Erich KISTLER | Birgit ÖHLINGER | Caroline POSCH | Harald Stadler, AUT
09:40-10:00	*The underground church of Piedigrotta in Pizzo (VV). A digitalization project between drawing and matter.* Francesco STILO | Lorella PIZZONIA, ITA
10:00-10:30	*COFFEE BREAK*
10:30-10:50	Dante's House Museum, A Virtual Tour enabling the enjoyment of cultural heritage Adele MAGNELLI | Alessandro CAVALLARO | Davide PANTILE, ITA
10:50-11:10	Resilient Rethinking Digital Documentation and Exhibition of the 'Salt Men of Zanjān' Nicolas SCHIMERL | Pia Patrizia WEBER | Thomas STÖLLNER, GER
11.10-11.30	*An Architectural Metaverse that Combines Dynamic and Static 3D data in XR: a Case Study at the Monastery of Simonos Petra* Nikolaos VLAVIANOS | Takehiko NAGAKURA, USA
11:30-11:50	*Redesign of a Cultural Heritage Digital Experience in a Lean Approach* Lijun MA, China
11:50-12:10	AGora: An Augmented Reality-based Treasure Hunt Game for discovering the Municipal Market of Chania (Agora), Crete Dania PANAGIOTA | Helena G. THEODOROPOULOU | Anna KARAGIANNI | Vasiliki GEROPANTA | Panagiotis PARTHENIOS, GRE
12:10-14:00	*LUNCH BREAK*
14:00-14:20	Immersive Technologies for Education in Heritage & Design. An online program adapted for the Architecture track in times of COVID-19 Bruno DE ANDRADE | Marzia LODDO, ITA
14:20-14:40	*A Web App for the Documentation of Cultural Heritage* Kornelius GÖTZ, GER
14:40-15:00	*COFFEE BREAK*

Heritage Conservation Strategies and New Technologies
Chairs: Ulrike HERBIG, AUT

Time	Session
15:00-15:20	*The eyes of the city: Historic casement windows as a threatened asset of cultural heritage* Ulrich PONT, AUT
15:20-15:40	*New approaches toward reductive thermal insulation of Gründerzeit facades via autonomous robotics* Bernard SOMMER | Peter BAUER I Ulrich PONT, AUT
15:40-16:00	*Building physics and the built environment: a retrospective on research driven innovation toward more sustainable building stock* Ulrich PONT, AUT
16:00-16:20	*The masonry of three-lobed churches* Irimia MIHAI, ROU
16:20-16:40	X-ray radiography in conservation Nooralhuda ALSOUKHNII, UAE

APP Award
Günther WEINLINGER \| Michael KLEIN, 7reasons, AUT

Time	Session	
16:40-17:00	*Hyderabad Heritage* Ar Madhu VOTTERY, IND	*Baker House AR (2021)* Takehiko NAGAKURA, USA
	Tod im Salz Nicolas SCHIMERL, GER	*AUGTRAVELER* Pankaj MANCHNANDA, IND

Poster Award Ceremony
Peter Dorninger, 4D-IT, AUT

Time	
17:00-17:20	

Best Student Paper Award
Nadine ALPINO, Luxembourg \| Martina POLIG, CYP\| Giorgio VERDIANI, ITA

Time	
17:20-17:40	

Location: TOP 319

PhD/Master Session 2021
Chairs: Martina POLIG, CYP \| Nadine ALPINO, LUX

Time	Session
09:00-09:20	Reality VS Virtual Modeling. From Building to Landscape Heritage Representation Ambra BARBINI | Chiara CHION, ITA
09:20-09:40	The Mediterranean Medinas and Cities in the Middle Ages: Urban heritage, Jurisprudence, Traditions and Built form Meriem BEN AMMAR, Italy
09:40-10:00	*Sacred Spaces: ELECTRONIC PLACES A hybrid methodology to read and design for historic urban religious precincts* Anubhav BORGOHAIN, IND
10:00-10:30	*COFFEE BREAK*
10:30-10:50	Architectural Heritage and Climate Change: Performance Prediction of Exposed Natural Building Stone to Rainfall through a Combination of Laboratory Leaching Tests and X-ray Computed Tomography Noemi GIOVELLI | Cristina GONZALEZ-LONGO | Christine M. DAVIDSON, UK
10:50-11:10	Digital enhancement of African museum collections: Lessons learned from the virtual exhibition project "Heritage costumes in Cameroon: Dressing for identity" Jean-Paul Cypriano LAWSON, FRA
11:10-11:30	*Turning point cloud into Building Information Model (BIM): Defining and validating accuracy requirements for existing buildings* Katja ŽAGAR | Laurens OOSTWEGEL | Katja Malovrh REBEC, SLO
11:30-11:50	*Identity and vulnerability in a port-city: architectural strategies for disaster risk reduction of the built heritage* Steluta TOPALOV, ROU
12:00-14:00	*LUNCH BREAK*

Bamiyan World Heritage: The Present and The Future
Chairs: Alireza IBRAHIMI \| Hossein REZAYE, AFG

Time	Session
14:00-16:40	*Part 1: Round Table*
	The high relief pattern of Bamiyan statues Zakaria AHMADI, AFG
	Investigation of Artificial Intelligence in the Development of Tourism in Bamyan Mohammad Reza AMIRI | Marzieh KARIMI, AFG
	Assessment of the factors affecting the physical resilience of Bamiyan cultural heritage against climate change Ateyeh HEYDARI | Mohammad Mahdi SALEHI, AFG
	Investigating the Effect of Malicious Factors on Ancient Sites to Maintain and Protect Them Using the Geographic Information System (GIS); Case Study: Budda-Bamyan Mohammad MOVAHEDI | Hossein REZAYE, AFG
	Assessing the Condition and Improving the Sidewalks of the World Cultural Heritage. Case Study: Bamiyan Buddha Statues in Afghanistan Mohammad Reza PAIMAN | Nasibe SADAFI | Tayebeh NAZARIAN, AFG
	Investigation of factors and risks threatening the environmental health of natural lakes in Band-e Amir National Park, Bamyan Mohammad Marzieh KARIMI | | Mohammad Reza AMIRI, Afghanistan
	Part 2: Discussion Panel
	An overview of plans of the Ministry of Urban Development to protect Bamyan Cultural Heritage Mohammad Zahir SHEWA, AFG
	Zaker Hossain ERSHAD, AFG
	Abdul Razaq VAHIDI, AFG
	Qasim WAFAYEZADA, AFG
	Can we collect an appeal worldwide to protect women and cultural property in Afghanistan? What happened to eng Pashtun? Michael JANSEN , GER
	Preservation of the Cultural Landscape of Bamyan: A chance for peace and reconciliation Georgios TOUBEKIS, GER
	The protection of Cultural Heritage in the Bamiyan Strategic Masterplan Mirella LODA, ITA
	Conclusion

Location: Kunsthistorisches Museum

The Roman Life - Game around the Roman Gallery in the Kunsthistorische Museum
Organiser: Shani ZIV \| Talila YEHIEL, Israel

Time	
10:00-13:00	Advanced Archaeological Training

Location: WIENER PLANUNGSWERKSTATT

Geospatial Analysis and Simulation in Archeology using Open Tools
Organizer: Christian NEUWIRTH, Austria

Time	
13:30-16:00	Advanced Archaeological Training

Location: Restaurant Blunznstricker

Informal Closing

Time	
19:30-23:00	Evening Event Opening: DI LÖFFLER (City Council Ottakring)