CHNT 25
Conference on Cultural Heritage and New Technologies
November 4–6, 2020 | Vienna, Austria
VIRTUAL

WIEN MUSEUM
STADT ARCHÄOLOGIE WIEN

CHNT 2020 Digital Conference Programme Book

International Conference on
Cultural Heritage and New Technologies
November 4-6, 2020

Artificial Intelligence

New pathways towards Cultural Heritage

We know how to digitize our heritage, so what is the next step: making our Cultural Heritage more accessible to the general public / researchers, and even accessible when it is not there anymore.

In recent years, the application of Artificial Intelligence (AI) approaches has increased rapidly in cultural heritage (CH) management and research. A main driver is the availa bility of remote sensing data, allowing to detect new archaeological sites and to monitor the preservation of known monuments. Due to advances in computer power and a wide range of free machine learning tools, large amounts of remote sensing data can be processed automatically for CH purposes instead of covering only small areas by expert inspection.

But AI may also be applied for other tasks in cultural heritage research including automated classification of archaeological pottery or bones from excavations, classification of object images in CH collections, symbol and text recognition in ancient inscriptions, detecting relevant terms (often consisting of several words) in site report repositories with limited metadata, mining historical texts, expert systems in restoration, knowledge representation by ontologies, simulation of crowds in buildings (past and present: e.g. museums, prehistoric caves, palaces). Mixed reality apps using AI technology as well as Ambient Intelligence approaches support the creation of new pathways towards CH for the public. CH may also benefit from robotics with integrated AI applications, e.g. vehicles searching for sites in inaccessible areas such as unmanned submarines used for detecting archaeological remains in lakes and the sea.

"Is it possible to build a machine to do archaeology? Will this machine be capable of "interpreting" and "explaining" cultural heritage?" (Juan A. Barceló, Computational Intelligence in Archaeology. State of the Art, CAA 2009)

This conference will showcase best-practice AI applications but also discuss the potential and limits of various AI approaches such as the amount of labelled data required.

The CHNT Scientific Committee

WELCOME ADRESSES

UNESCO AUSTRIA

The combination of new scientific knowledge and innovative technologies is not only a fundamental contribution to research and thus also to the sustainable protection of cultural heritage. It also reflects substantial aims of the UNESCO, which has always fostered not only the protection of cultural assets but also scientific cooperation.

Exchange and networking form an essential basis in meeting the challenges of protecting cultural heritage. In this sense and in the name of the Austrian UNESCO Commission I thank the Viennese city Archaeology for organising the CHNT and wish you a successful conference.

Dr. Sabine Haag, Präsidentin der Österreichischen UNESCO-Kommission

ICOMOS AUSTRIA

ICOMOS Austria widely welcomes the 25-year long efforts of the city of Vienna to use the Cultural Heritage and New Technologies-Conferences as platform to promote our common cultural heritage issues. Bringing together different disciplines from the fields of natural, technical and cultural sciences like archaeology, architecture, computer graphics, geodesy etc. is one of the most important strategies to protect our cultural heritage.

The ongoing developments in the computer and natural sciences are not only crucial for our modern society but will also help us to understand our common past and to learn from the successes and failures of our ancestors. It is only a logical consequence that this conference is held annually in the City of Vienna with its enormous tangible and intangible cultural heritage. With the PhD/Master Session, including a Best Student Paper Award, the urgently needed foundation is laid for the formation of the next generation of scientists in the protection of our heritage.

ICOMOS (International Council on Monuments and Sites) is an independent, international, non-governmental organisation dedicated to the protection and preservation of cultural heritage worldwide. Its experts, just like the participants of the CHNT, come from the most diverse disciplines and use their joint knowledge in the best way possible.

ICOMOS would greatly appreciate if the City of Vienna could provide for this conference to be continued for many years to come. This year in particular the traditional way with its exhibition format will be missed by its participants and we hope to return to the regular course as soon as the current pandemia allows this. ICOMOS Austria pledges its support in all possible ways to continue the conference for at least another 25 years!

LOCAL ORGANIZATION COMMITTEE

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Mag. Karin FISCHER AUSSERER, Museen der Stadt Wien – Stadtarchäologie, CHNT President

Welcome to CHNT 25, the 25th International Conference on Cultural Heritage and New Technologies. In many ways, this year's conference presents a special challenge. The world has changed considerably since our last conference in November 2019. In order to cope with the new conditions, physical distancing is a necessary requirement. Therefore, for this year's CHNT 25, meeting our international colleagues in the Vienna City Hall, as we have been used to during the previous years, is not possible. However, for two reasons we have decided to make the best of this difficult situation. On the one hand, there are the scientific contents which are the focus of this long-term conference and which we are still able and willing to convey virtually with our modern technical means. On the other hand, it is this new reality which we all will be confronted with in our daily life for a long time and to which we will have to react with a wider perspective. It is now more important than ever to look forward and to discover new ways into the future.

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Dr. Christoph OELLERER, Museen der Stadt Wien – Stadtarchäologie, CHNT Vice President

Selecting the topic 'Artificial Intelligence-New pathways towards Cultural Heritage' seems almost prophetic when looking at the extraordinary circumstances in which we find ourselves at this point.

The contributions deal with the question to what extent archaeological work can be taken over by AI and Machine Learning, the new digital learning programs. Even though many are concerned with the increase in technology, recent history shows that our cultural heritage, when facing wars, environmental adversity and current pandemics, can be better documented and preserved with the use of new developments in computer science - for example, the automation of intelligent behavior and digital learning - than with traditional means. This year's event shows once again that CHNT stays true to its pioneering role by exploring ways that seem visionary now but will be common practice in the near future.

Mag. Wolfgang BÖRNER, Museen der Stadt Wien – Stadtarchäologie, CHNT Organization

If someone had told me in 1996 that CHNT will still exist in 2020, I would not have believed it. 24 Years - Cultural Heritage and New Technologies. It has been a challenge every year and especially in this year. In the past years, participants from more than 80 nations attended the conference, presented, discussed and went back home with new ideas and often with new friends as well. But the tasks of documenting, investigating, presenting and protecting the Cultural Heritage for future generations are not yet finished. Let's continue to work together towards these aims.

DI Susanne UHLIRZ, Museen der Stadt Wien - Stadtarchäologie, CHNT Technics

I am working in the IT team for Stadtarchäologie since 2004 and since then I am also involved in the organization of the conference, especially taking care of technical problems (if any☺). This year's conference is a special challenge for all of us as it is for the first time fully virtual! We are dying to make it as pleasant as possible for you under these new circumstances, together with a strong team of supporters. We count on your forgiving for all incufficiencies and wish us all an inspiring and stimulating conference.

Mag. Ingeborg GAISBAUER, Museen der Stadt Wien – Stadtarchäologie, CHNT Support

Always dedicated to the archaeological research done on the beginning and the changing structures of medieval settlement – especially in Vienna – I developed soon enough a keen further interest in presenting research results to the public. Communicating with interested non-archaeologists, lead to working with school classes as well as playing a part in our volunteer initiative ("Initiative Seniorarchaeologie"), consisting mostly of retired laymen. CHNT on the other hand, offered fascinating ways to communicate with colleagues from literally all over the world, so over the years I participated in a lot of events, and brought some of them to life myself.

CHNT Schedule Wednesday, November 4, 2020

CET - Time	**Channel 1**
9:00 am - 9:30 am	Opening: Matti BUNZL, Director of the Wien Museum
9:30 am - 10:00 am	Keynote 1 - Eslam NOFAL, The Netherlands: Phygital Heritage
10:00 am - 10:30 am	Break
10:30 am - 12:10 pm	Session - AI methods for digital humanities – New pathways towards Cultural Heritage
12:10 pm - 1:30 pm	Lunch Break
1:30 pm - 2:30 pm	Session - Machine Learning In Archaeometry
2:30 pm - 3:00 pm	Break
3:00 pm- 4:30 pm	Session - AI, ML and DL in satellite, aerial and ground based remote sensing

CET - Time	**Channel 2**
10:00 am - 11:30 am	Round Table 1 - Citizen Science Go! Taking citizen participation (one step) further
11:30 am - 12:10 pm	Session - Architecture and Heritage
12:10 pm - 1:30 pm	Lunch Break
1:30 pm - 2:30 pm	Round Table 2 - Educating Archaeologists for a Digital Era
2:30 pm- 3:00 pm	Break
3:00 pm - 4:30 pm	Round Table 3 - Documenting Digital Restoring (Comparing experiences)

CET - Time	**Channel 3**
1:30 pm - 3:00 pm	Training 1 - 3D impact from Archaeologist perspective

CHNT Schedule Thursday, November 5, 2020

CET - Time	**Channel 1**
9:00 am - 9:30 am	Poster session
9:30 am -10:00 am	Keynote 2 - Fotis LIAROKAPIS, Cyprus: Virtual and Augmented Reality for Maritime Archaeology
10:00 am- 10:30 am	Break
10:30 am- 12:10 pm	Session - Digital evolutions of the City of Vienna
12:10 am - 1:30 pm	Lunch Break
1:30 pm - 2:30 pm	Session - Nuclear Techniques in cultural heritage
2:30 pm - 3:00 pm	Break
3 pm - 4:30 pm	Session - CHNT 25 the success story continues

CET - Time	**Channel 2**
10:30 am -12:10 pm	Session - Image-based 3D Documentation Aerial and Underwater
12:10 pm - 1:30 pm	Lunch Break
1:30 pm - 2:30 pm	Round Table 4 - Digital perspectives for the post-crisis recovery
2:30 pm - 3:30 pm	Session - Machine visions. Learning systems in cultural heritage research
3:30 pm- 4:30 pm	Round Table 5 - Integrating Artificial Intelligence in Cultural Heritage sites' audience research

CHNT Schedule Friday, November 6, 2020

CET - Time	**Channel 1**
9:00 am - 9:30 am	Keynote 3: Cyril DWORSKY- From Intelligence to Interpretation. A World Heritage perspective to calibrate the (un)certainty
9:30 am- 10:30 am	Session - Modelling the Unseen (Part 1)
10:30 am - 11:00 am	Break
11:00 am - 12:00 am	Session - Modelling the Unseen (Part 2)
12:00 am - 1:30 pm	Lunch Break
1:30 pm - 2:30 pm	Session - Modelling the Unseen (Part 3)
2:30 pm - 3:00 pm	Break
3:00 pm - 4:00 pm	App Award
4:00 pm - 4:30 pm	Closing (Poster / Student Award)

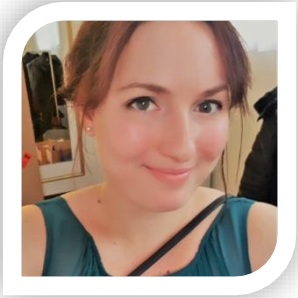
CET - Time	**Channel 2**
9:30 am - 10:30 am	Round Table 6 - HERITAGE BIM – Process Optimization within Digitization Strategies
10:30 am - 11:00 am	Break
11:00 am - 12:00 am	Round Table 7 - The Power of Big Data of the Past – Building Blocks towards a virtual Time Machine
12:00 am - 1:30 pm	Lunch Break
1:30 pm - 3:00 pm	Session - PhDMaster session 2020

CET - Time	**Channel 3**
09:30 - 12:00	Training 3 - Geospatial Analysis

CONFERENCE PARTNER

ADV Austrian Digital Value

ADV ensures the necessary transfer of knowledge for the meaningful application of technology and methods of information processing and promote this in all areas of society. Currently about 400 experts from business, administration and science as well as 350 renowned companies and public institutions belong to the ADV network.
For about 60 years ADV has been the first address for communication between interested parties and experts. This creates a network of specialists and top managers in the industry, which is constantly growing and creates an information forum for our members.



Mag[a]. Janine OLF

Mag[a]. Monika SCHEICHELBAUER

Janine Olf and Monika Scheichelbauer are event and marketing managers at corporate identity prihoda. As project managers, they are mainly responsible for all ADV projects and events. Within only a few weeks, due to the Corona Pandemic, they acquired the knowledge and skills necessary to conduct online events. By the end of April the first online conference was held successfully. Since then, numerous other events have been "digitalized", including a conference of the MA11 of the City of Vienna. They take care of all organizational matters, programs, coordination of all participants and the technical component with a lot of heart and patience.

Magistratsabteilung 01 – Wien Digital

Mag. Wolfgang JÖRG, City of Vienna, Austria

Wolfgang Jörg as ViennaGIS coordinator, he has his main focus of work on geodata and geoinfrastructure as well as related cooperations between Austrian administrations such as geoland.at, the geodata network of Austrian federal states. He is responsible for basemap.at, the leading Open Data product of Austria and is member of numerous associations, like for example AGEO, the national INSPIRE committee or the Austrian standardization institute.

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Ing. Werner NABICHT, City of Vienna, Austria

Vienna Digital is an innovative, service-oriented IT department focusing on the digitalization of the City of Vienna. Vienna Digital guarantees the secure operation of IT in Vienna's hospitals, nursing homes and within the city administration. The primary goal is to enable Vienna as "city of short distances"

Vienna Digital also acts as a service provider for national eGovernment Services.

Peter HOFECKER, City of Vienna, Austria

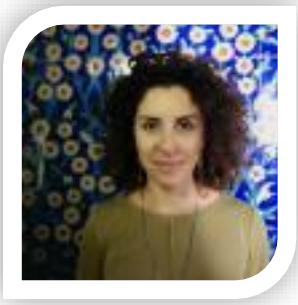
Peter Hofecker, IT-Key Account Manager for City of Vienna departements belonging to science, museums and school system. Supports the Museen der Stadt Wien – Stadtarchäologie for several years.

Archaeological Heritage Network (ArcHerNet)

ArcHerNet
Archaeological Heritage Network

The Archaeological Heritage Network (ArcHerNet) is a network of German cultural heritage institutions that aims at pooling their wide range of expertise in the protection and conservation of heritage, and at building a platform for collaboration and exchange on both the national and international levels. ArcHerNet was officially founded in April 2016, is supported by the German Foreign Office, and coordinated by the German Archaeological Institute. The experts' network brings together 18 members, including universities, museums, research institutions, professional organisations, academic foundations, the federal associations of Germany's state departments for archaeology and heritage conservation, and the national committees of international heritage organisations. The partners of ArcHerNet aim to make their competences more internationally accessible, and create synergies, international co-production and collaborative solutions that are needed to rise up to the growing challenges in the preservation of cultural heritage worldwide.
The network's activities combine innovative research, sustainable education, and practical work intending to boost economic potential and thereby foster stability in host and partner countries. These will on the long term contribute to increased awareness of Germany's cultural and education policy abroad.
The Archaeological Heritage Network has provided CHNT with funds to sponsor cultural heritage students, professionals and researchers from low & middle income countries.

Dr. Alexandra RIEDEL, Deutsches Archäologisches Institut (DAI), Berlin, Germany
Alexandra Riedel is an architect and architectural historian/ Bauforscher with a special interest in cultural heritage preservation and site management, building history and documentation as well as Roman and Meroitic architecture. She is based in Berlin, Germany, and works at the German Archaeological Institute as coordinator of the Archaeological Heritage Network (ArcHerNet).



Nathalie KALLAS Phd., Deutsches Archäologisches Institut (DAI), Berlin, Germany
Nathalie Kallas is a computer scientist and a Near Eastern archaeologist. She works at the German Archaeological Institute since 2015, first in the framework for several Scientific Computing projects and since 2019 as the Coordinator of the "Stunde Null: A Future for the Time after the Crisis" projects. She is also a team member in several excavation projects in the Levant.

Dr. Benjamin DUCKE, Deutsches Archäologisches Institut (DAI), Berlin, Germany

Benjamin Ducke studied archaeology and computer sciences at Berlin's Freie Universität, where he graduated with a master's thesis on "GIS-based sediment transport and predictive models for heritage management" in 2003. Following a one-year PhD grant (by the German Gerda Henkel Stiftung) at University College London, he worked as a lecturer in computational archaeology at Christian-Albrechts-Universität in Kiel (Germany), where he also received his PhD degree in natural sciences for his thesis on "spatio-temporal analysis of archaeological data".

Currently, Benjamin Ducke is an independent researcher, software developer and consultant in the field of GIS-based data analysis for multiple fields of research and application, including digital site recording, image-based 3D reconstruction (http://www.archaeocopter.de) and geophysical data analysis. He is the lead developer of the free and open source desktop GIS "gvSIG CE" (http://www.gvsigce.org).

His professional experience to date includes development and research of IT solutions for Oxford Archaeology and the German Archaeological Institute (DAI), several land-use related missions to Kosovo for the European Commission, lecturerships in spatial crime statistics, work for the alternative energies sector and, of course, archaeological excavations and survey projects around the globe.

Federal Monuments Authority Austria

BDA

The Federal Monuments Authority Austria is pleased to be a partner in a conference that deals not only with digital possibilities, but uses them also in an exemplary manner to hold the conference.

As a monument authority, it is important to observe the unexpectedly increased possibilities of finding, recording, characterizing and, in particular, mediating (archaeological) monuments, to use them in the right way and in guidelines concerning the practice and routine of monument conservation and archaeology. In this sense, the Federal Monuments Authority Austria benefits from the ongoing conference events with their ever new focus on current topics.

Dr. Bernhard Hebert

CHNT SCIENTIFIC COMMITTEE

Nadine ALPINO, DOKU PLUS S.à r.l., Luxembourg
This year will be the 25th edition of the CHNT! Congratulation!!!
…and it will be my 10th CHNT. Since my first one in 2011 I have come back every year. I find the combination of an international, well-attended conference, which is at the same time fascinating with its informal, cordial and open atmosphere, extraordinary. Not least because of the beautiful evening events. Even if I was alone at the first meeting, it has become a sort of family meeting over the years. When I leave Vienna, I take a lot of new knowledge, inspiration, motivation and the feeling like having had a good time with me. … and look forward to the next time.

Marco BLOCK-BERLITZ, University of Applied Sciences, Dresden, Germany
The CHNT has accompanied me for many years and offers scientists from all over the world a good opportunity to exchange ideas and results in a very pleasant atmosphere.
Since 2015 I have been allowed to participate and actively shape the conference as a member of the scientific committee. This makes me very proud.
I am happy that in 2020 we will be able to set up a virtual conference and thus maintain scientific exchange despite the current pandemic.

Ann DEGRAEVE, Heritage Direction, Ministry of the Brussels Capital Region, Belgium

Benjamin DUCKE, Deutsches Archäologisches Institut (DAI), Berlin, Germany
Benjamin Ducke is based in Berlin, Germany, where he works for the German Archaeological Institute. As Head of Scientific Computing, he supports the design and development of open source software for the DAI's online research data infrastructure (iDAI.world). He also provides consulting services and IT training to DAI staff, project partners and international beneficiaries. His main area of technological and scientific expertise is that of spatial data processing and statistics, including geoinformation systems (GIS), spatial data infrastructures (SDI), remote sensing, image-based (SfM/MVS) 3D reconstruction, sensor data processing and archaeological predictive mapping.

Peter DORNINGER, 4D-IT GmbH, Austria
I participated at the CHNT for the first time in 2009. I was encouraged by Prof. Peter Waldhäusl to submit a poster to the respective session. I was impressed by the warm and familiar atmosphere at the conference as well as by the interesting topics of the community with which I was not so familiar so far being a surveyor. I'm not sure if it happened earlier, but latest after being awarded for the best paper of this conference, I was definitely infected by the CHNT-Virus – ok, not the best comparison. However, since then, participating at the CHNT became a regular commitment. While getting friends among the participants, the annual possibility for scientific exchange with colleagues from all over the world became an import part of my life.

Jay CARVER, 4AD Consultants Ltd, UK

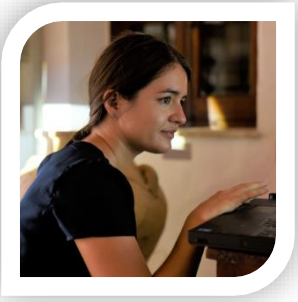
Bernhard FRISCHER, University of Virginia, USA

Saadet GUNER, Friends of Cultural Heritage – FOCUH, Istanbul, Turkey

Irmela HERZOG, Rhineland Commission for Archaeological Monuments and Sites, Bonn, Germany
Irmela Herzog is a mathematician who works at the services and publication department at the Rhineland Commission for Archaeological Monuments and Sites. During office hours the focus of her work is on databases and GIS software for recording archaeological and museum data, including teaching and advising the colleagues on these subjects. Beyond that her interests are in analysing archaeological data by statistical and GIS methods, and in stratigraphic analysis including the development of software for these purposes. In 1999, she attended the CHNT predecessor conference "Archäologie and Computer" for the first time and has been a regular participant ever since

Piotr KUROCZYŃSKI, Hochschule Mainz — University of Applied Sciences, Germany
Piotr Kuroczyński is an architect specializing in the field of digital 3D reconstruction, documentation and visualization of cultural heritage. He is co-founder and convenor of the Digital 3D-Reconstruction Working Group in the Digital Humanities in German-speaking Region Association. Since 2017 he has been Professor for Computer Science and Visualization in Architecture at the Hochschule Mainz – University of Applied Sciences Mainz. Since 2018 he is the head of the Institute of Architecture and the chief-in-editor of the bookseries Computing in Art and Architecture at the Heidelberg University Library.

Cristina MOSCONI, University of Exeter, UK
I am a Postdoctoral Research Associate of the EU funded INTERREG project VISTA-AR, at the University of Exeter, Business School. The project explores visitor experience at cultural heritage sites, creating new VR and AR digital interpretations and exploring the new business models they enable. I am particularly interested into the user experience design of the digital implementations, with a particular focus on the management of the impact of immersive technologies onto the existing interpretative programme.
My first participation at CHNT dates back to 2017, when I was awarded with the 'Special App Award for Young Researchers'. Since then, I have been participating in quality of session chair and as member of the Scientific Committee.



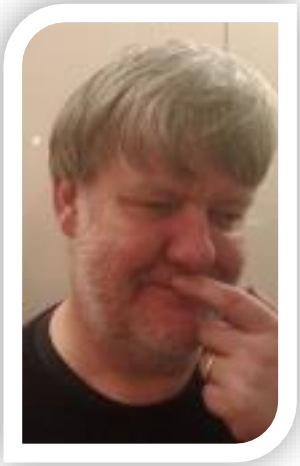
Martina POLIG, Cyprus Institute in Nicosia,Cyprus
Five years ago, I participated for the first time at CHNT, presenting my Master Thesis and since 2017 I am part of the Scientific Committee as the student representative and chair of the PhD and Master Session. I think that at the beginning of my career participating in conferences has been particularly important because it helped me put my work into context and to see that there is a place for me and what I do in the research community. I still consider visiting conferences as an integral part of my work to be informed about the current and most important topics in research right now and new directions as well as to meet colleagues and make new contacts. I particularly cherish CHNT because of its "familiar" atmosphere given by its wonderful location, its medium size and long tradition and because of some innovative aspects such as the App-Award.

Benno RIDDERHOF, Vrije Universiteit Amsterdam, The Netherlands

Apostolos SARRIS, F.O.R.T.H., Geece
Apostolos Sarris is Professor of the "Sylvia Ioannou" Chair on Digital Humanities at the Archaeological Research Unit, University of Cyprus and Research Director at F.O.R.T.H. - Head of the GeoSat ReSeArch Lab. He is an Adjunct/Affiliate Professor of Cyprus University of Technology and a Research Associate of the Dept. of Anthropology, the Field Museum of Natural History of Chicago, Illinois, USA. He has been a Senior MC Fellow at FRIAS/Freiburg University, a DLR-DAAD Research Fellow and a visiting senior researcher at the University of Leiden. His research is focused on Geophysical Prospection, GIS spatial modeling and satellite remote sensing.in Archaeology.

Claudiu SILVESTRU, Cultural Heritage Integration Lab, Austria

Gilbert SOETERS, Municipality of Maastricht, The Netherlands
I studied Archaeology of the Roman and medieval times in Amsterdam (UvA) and Art History in Utrecht (RUU). After graduating in both studies, I worked as an archaeologist on a large excavation in Meerbusch-Strümp (NRW, Germany) in 1991/1992. After that, I was one of the archaeologists/project leaders in the German excavation firm LAND GmbH (1992/1999). I had several excavations in North Rhine Westphalia and in Brandenburg, covering almost every archaeological period. Then I returned to my homeland The Netherlands and became one of the archaeologists in a large infrastructural project called RWS De Maaswerken (1999/2004). The last 2 years I was Head of the archaeological team. Finally, I found my dream job becoming the municipal archeologists of my hometown Maastricht in 2005. At first, my main task was that of an archaeological policy adviser. In 2007, we became the competent authority for archaeology in our municipality, taking care of our archaeological heritage in municipal planning developments. Since 2 years, I have become Head of our small Cultural Heritage cluster. My main task is managing all aspects of archaeology in Maastricht: being competent authority and therefor keeping contacts with developers, public administrations, stakeholders and archaeological firms, but also presenting the results of our research.
It is this last part that makes CHNT for me the place to be once a year: hearing about new inspiring developments in presenting our results in heritage research to the public.



Stephen STEAD, Paveprime Ltd., UK
Stephen Stead was a founder member of CIDOC Conceptual Reference Model Special Interest Group (CRM-SIG). He has worked on the CRM since 2000 and is one of the editing team that guided the standard through the ISO standardization process. He has delivered tutorials on the CRM in more than a dozen countries, including Korea, Brazil, Greece, Russia, and the USA. He is also active in the FRBR harmonization process. He is a graduate in Archaeological Science from the Institute of Archaeology, University of London and has worked as an independent consultant in the Heritage sector since 1991. He comes to CHNT to meet a different community of computer use in Cultural Heritage plus Vienna in November is such a fun time!

Giorgio VERDIANI, University of Florence, Italy.

ORGANISATION COMMITTEE

Bert BROUWENSTIJN, VU University Amsterdam, The Netherlands

Alexandru HEGYI , University of Cyprus, Cyprus

Christina KRAL-BÖRNER, Vienna, Austria
The first CHNT I attended was in 2004 – as an archaeology student who just started, entering the scientific world outside of the University setting. Since then I am a regular participant and background worker at the Conference. CHNT means to me getting new insights into the huge spectrum of research and innovation in Cultural Heritage and New Technologies and being a member of a community that has passion and energy for what they are doing.

Melda KÜÇÜKDEMİRCİ, Istanbul University Cerrahpasa, Turkey
Dr. Melda KÜÇÜKDEMİRCİ is currently working as an Assistant Professor in Geophysical Engineering Department at Istanbul University. She received her Ph.D. degree in 2014 from the same department. During Ph.D studies, she engaged in research projects in Istituto per le Tecnologie Applicate ai Beni Culturali (ITABC-CNR-Italy) between 2011-2012 and in 2014. She worked as a Post-Doctoral Researcher at the Laboratory of Geophysical-Remote Sensing & Archaeoenvironment (Geo Sat ReSeArch Lab (FORTH-Greece). Her research focuses on geophysical prospection for archaeology, ground-penetrating radar, magnetometry, data fusion and integration techniques on archaeo-geophysical data. Recently she is working on a research project on deep learning based analysis for remote sensing archaeology in Lund University, Sweden.

Elisabeth MONAMY, ARCHEOMUSE Vienna, Austria
Elisabeth Monamy is an archaeologist since 2003. She specialized in the Near and Middle East and the Arabian Peninsula. In 2015 she founded the company "Archeomuse e.U." to reach with her passions cooking and archaeology people who are looking for a culinary challenge or who prefer an innovative approach to archaeology and history.
Besides the ancient cooking workshops Elisabeth Monamy also gives scientific lectures about cooking and eating habits.

Theodora MOUTSIOU, University of Cyprus, Cyprus

2020 marks my first official involvement with CHNT!

My recent research interests have taken me to a more technological direction and being part of the organizing committee of such an internationally significant event seemed very fitting. Over the past few months I have had the opportunity to interact and work alongside the extraordinary CHNT community in the planning of the 25th Conference on Cultural Heritage and New Technologies.

It is unfortunate that the ongoing global pandemic crisis will prevent us from meeting and greeting everyone in person. We are going fully digital this year but we look forward to welcoming you to another fascinating event - the first virtual CHNT - in November 4-6th!

Hendrik ROHLAND, Hochschule für Technik und Wirtschaft Dresden, Germany

I am an archaeologist studying the history and culture of the Eurasian steppes and its interactions with neighbouring regions, in particular the development of urbanity in the context of steppe empires. I am always curious to explore and use technology in excavating, documenting, studying and presenting the past of these sites and about technology in archaeology in general. Being part of the CHNT editorial team gives me the opportunity to get the newest and most exciting developments in the field right on my desk. Additionally, I love clear and well-arranged layout.

Rob VAN HAARLEM, TIJD LAB Deventer, The Netherlands

KEYNOTE SPEAKERS

Dr. Nofal ESLAM, Maastrich University, The Netherlands

Currently Postdoctoral Researcher in Digital Heritage at Maastricht University (Netherlands). He is also affiliated to the Department of Architecture at Assiut University (Egypt). His main research interests are related to digital heritage, interaction design, emerging technologies (e.g. AR, VR, and tangible interaction), human-computer interaction; focusing on designing, implementing and evaluating interactive systems that help users to gain insights and knowledge, in particular the communication of heritage information and visitors' engagement in museums and beyond. Dr. Nofal holds a five-year bachelor's degree in Architectural Engineering from Assiut University (Egypt). In 2011, he obtained a joint Master Degree in Management of Cultural Heritage and Landscapes as an Erasmus Mundus scholarship (Université Jean Monnet, France – Università Federico II, Italy – Universität Stuttgart, Germany). In June 2019, he received his PhD degree from KU Leuven (Belgium) in Architecture, where he introduced the approach of "Phygital Heritage", which entails how heritage information can be disclosed via simultaneous and integrated physical and digital means, as a potential medium for engaging and meaningful communication of heritage to the broader public. Dr. Nofal has published more than 20 peer-refereed papers; most of them are in the field of digital applications on cultural heritage, including both international journal articles and conference papers.

Dr. Fotis LIAROKAPIS, Research Centre on Interactive media, Smart systems, and Emerging technologies, Cyprus

He is currently a senior researcher with the Cyprus University of Technology, Limassol, Cyprus as well as with the Research Centre on Interactive media, Smart systems, and Emerging technologies (RISE), Nicosia, Cyprus. He received the PhD degree from the University of Sussex, U.K., has worked as a Research Fellow with City University, London, U.K., Coventry University, U.K., and most recently at Masaryk University, Czech Republic, where he was an Associate Professor and Director of the HCI Lab. Dr. Fotis Liarokapis has contributed to more than 130 refereed publications with more than 3900 citations (h-index: 30 and i10-index: 70). He has organised multiple conferences and workshops and he is the co-founder of the International Conference on Virtual Worlds and Games for Serious Applications (VS-Games). Currently, he is the co-chair of IEEE CoG 2020 and he is a member of IEEE.

Cyril DWORSKY, Vienna, Austria
Cyril Dworsky is archaeologist and cultural heritage manager. As an expert for underwater archaeology he successfully coordinated the Austrian part of the nomination of the UNESCO World Heritage Prehistoric Pile Dwellings around the Alps and is responsible for the management of the Austrian components of this serial UNESCO World Heritage since 2012. A current focus in his work is to develop sustainable structures for citizen science programmes for children, young people and adults and open innovation in cultural heritage management. He is currently the president of the International Coordination Group of the Pile Dwelling World Heritage and a member of various advisory and scientific boards and published various articles about science communication and archaeological research.

He also works at the Vienna University Children's Office as a project developer and manager for international programmes in science communication and science engagement. He is the International Liaison Coordinator and member of the executive board of the European Children's Universities Network."

SESSION CHAIRS

AI methods for digital humanities – New pathways towards Cultural Heritage

Piotr KUROCZYNSKI; Hochschule Mainz — University of Applied Sciences, Germany

Günther GÖRZ, FAU Erlangen-Nürnberg, Germany
Guenther Goerz, Dipl.-Math., Dr.-ing. (1988), is Professor emeritus of Computer Science at the University of Erlangen-Nuremberg and head of the Digital Humanities research group. He is also a member of the school of Humanities, visiting scholar the Bibliotheca Hertziana (Max-Planck Institute for Art History) in Rome, and principal investigator of the DFG funded project "Wissenschaftliche Kommunikations-Infrastruktur" (WissKI).

Christoph SCHLIEDER, Otto-Friedrich-Universität Bamberg, Germany
Christoph Schlieder is Professor for Cultural Informatics at the University of Bamberg, Germany. He is managing director of ZIAI, the university's interdisciplinary research center for computing applications in the humanities and the social sciences. His research aims at developing and applying methods from semantic information processing to problems from the humanities. Applications areas include GIS and CAD for built heritage as well as digital archives and libraries. He also studies the design of location-based game in the context of science education. Christoph Schlieder was involved in several national and international research projects in the area of knowledge-based systems.

Machine Learning In Archaeometry

"CHNT is pioneer conference with the outmost important topics for the future work of scientists in the field of heritage science. Modern archaeometric analyses lead to huge data sets. Visualization of results on a spatial range for scientific examinations but also for the public representation become more and more important. New technologies are of systematic relevance for all the demands. These topics are specifically adressed by CHNT since 25 years."

Johannes TINTNER, University of Natural Resources and Life Sciences, Vienna, Austria

Johannes Tintner is a senior researcher at the Institute Physics and Material Sciences (BOKU). The transformation of biogenic materials under environmental conditions is a main topic of his research activities. Recently he performed studies on the taphonomic processes of prehistoric bark and leaves stored in a salt environment, wood including dating tools based on the molecular decay, aging of newspaper in an archive, aging of prehistoric charcoal and artificial aging of biochar. The preferred methods for his studies are FTIR spectroscopy and thermal analysis. He has profound knowledge in statistics and statistical design of experiments. He is member of the Center of Experimental Design of the University of Natural Resources and Life Sciences (BOKU), Vienna.

Bernhard SPANGL, University of Natural Resources and Life Sciences, Vienna, Austria

AI, ML and DL in satellite, aerial and ground based remote sensing

"One of the most popular topics of CHNT conference has been on satellite, aerial and ground-based remote sensing. It is them that combined with GIS spatial analyses play a vital role in landscape archaeology. The recent Artificial Intelligence (AI), but in particular the Machine Learning (ML) and Deep Learning (DL) developments are bringing a new turn in the processing and analysis of large volumes of landscape data. The particular session has been inspired by this challenge and aims to contribute to our understanding of the next steps that have to be followed to bring the whole approach in a more mature stage."

Apostolos SARRIS, University of Cyprus, Cyprus & Foundation for Research & Technology, Greece

Melda KÜÇÜKDEMİRCİ, Istanbul University Cerrahpasa, Turkey

Tuna KALAYCI, Faculty of Archaeology, Leiden University, The Netherlands

Tuna Kalayci is an assistant professor of Archaeological Computer Sciences at Leiden University. He is also a part of Leiden University's SAILS initiative: Society (Social & Behavioural Sciences, Humanities, Law, Archaeology, Governance & Global Affaires) Artificial Intelligence and Life Sciences. His research interests include mathematical modelling in archaeology, remote sensing, urbanism, and archaeologies of movement. Previously, he was a Marie Skłodowska-Curie fellow at the ISPC-CNR (Italy) and Durham University (UK) and a post-doctoral fellow at the Institute for Mediterranean Studies (IMS-FORTH) in Greece.

Digital evolutions of the City of Vienna (Special Session)

Franz Xaver PFAFFENBICHLER, City of Vienna, Austria

Franz Xaver Pfaffenbichler is at the ICT Department of the City of Vienna since 2014. Starting in the domain trust and identity he is working in the field of eGovernment and SmartCity for a few years now. This background is also shown in his current main focus areas. He regularly works on national and international cooperation between public authorities (keywords Portalverbund, Once-Only-Principle, E-ID) and currently focuses on Urban Data Platforms (smartdata.wien).

Lothar EYSN, City of Vienna, Austria
Lothar Eysn is with the Department of Surveying and Mapping (MA41) and leads the Section "Innovation and IT". He is working in several digitization Topics, as for example Mobile Mapping and image based feature extraction with artificial intelligence. His Innovation group Pi-Novation helps to develop and establish innovation topics in MA41. He holds a PhD in Photogrammetry and Remote Sensing from the Technical University of Vienna

Nuclear Techniques in cultural heritage artefacts investigations

Dinara ABBASOVA

CHNT 25 – the success story continues (Special Session)

In 1996, the name of the conference was "Archäologie & Computer", and in the proceedings of the first conference, Ortolf Harl, the head of the Vienna's Urban Archaeology department at that time, wrote: "To master the plenitude of the archaeological material it is inevitable to use a computer. Well, a computer is a must! … However: with the meal the appetite grows. Well: a conference is a must!"
These statements are still valid, although computers have changed a lot, and are nowadays often integrated in smart phones or tablets. The latter can be used to control drone flights with digital cameras taking pictures of cultural heritage sites. Modern technology allows creating a 3D model based on these pictures, and this is only one of many innovative approaches that appeared during the past 24 years

Wolfgang BÖRNER, Museen der Stadt Wien – Stadtarchäologie, Austria

Irmela HERZOG, Rhineland Commission for Archaeological Monuments and Sites, Bonn, Germany
Irmela Herzog was a newly elected speaker of what would become the German CAA chapter later on when she attended the CHNT predecessor conference "Archäologie and Computer" for the first time in 1999. At that time the venue was in a grey modern building south of the Town Hall, with lively discussions in the crammed hall during the breaks. The conference attracted more and more international participants, and Irmela Herzog was overwhelmed by the move to the palatial rooms in the Town Hall in 2001. She has returned regularly for enjoying the inspiring talks and discussions with colleagues in this phantastic atmosphere.

Image-based 3D Documentation Aerial and Underwater

Image based 3D-reconstruction is becoming one of the main tools for the acquisition of 3D models in cultural heritage. Because of the relative ease and robustness and also the low cost at which the method can be applied, it is used more and more throughout the field and opens up unprecedent possibilities for quick and exact documentation of ever larger features. This session will showcase current tools, workflows an initiative to further improve the gathering, processing, analysis, storage and presentation of image-based 3D-data.

Marco BLOCK-BERLITZ, University of Applied Sciences, Dresden, Germany

Martin OCZIPKA, University of Applied Sciences, Dresden, Germany

Hendrick ROHLAND, University of Applied Sciences, Dresden, Germany

Machine visions. Learning systems in cultural heritage research

Jaap Evert ABRAHAMSE, Cultural Heritage Agency of the Netherlands
Jaap Evert Abrahamse studied history of architecture and urban planning at the University of Groningen, the Netherlands. His graduation placement was at the Atelier parisien d'urbanisme, where he worked out a thesis on urban development in Paris. On 2010 he received his doctorate cum laude at the University of Amsterdam for his thesis De grote uitleg van Amsterdam. Stadsontwikkeling in de zeventiende eeuw (Metropolis in the Making. A Planning History of Amsterdam in the Dutch Golden Age). He is a senior researcher for the Cultural Heritage Agency of the Netherlands, publishing on the history of urban planning, architecture, infrastructure, and landscape

Erik SCHMITZ, Amsterdam City Archives, The Netherlands
Erik Schmitz is a researcher and curator at the Amsterdam City Archives. He wrote on the depiction of the Amsterdam cityscape and on landscape history, and curated exhibitions on medieval history, urban planning and photography. He co-authored several computer animated flights showing the development of Amsterdam and its airport Schiphol. Currently he is researching the archaeology of burial in pre-modern Amsterdam.

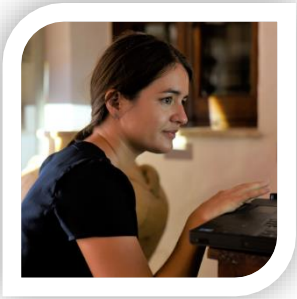
Rowin VAN LANEN, Cultural Heritage Agency of the Netherlands + Wageningen University and Research, The Netherlands

Modelling the Unseen

Daniele VILLA, Politecnico di Milano, Italy
Assistant Professor, Politecnico di Milano. MA in Architecture and PhD in Urban Planning at Politecnico di Milano. Currently Assistant Professor at the at DASTU, Politecnico di Milano, teaching Fundamentals of Representation and Representation and Urban Planning. National qualification as Associate Professor. Main research interests related to the study of visual cultures in the field of the built environment, specifically: urban and landscape wide-ranging representation and analysis, computer applications to visual simulation, relational geography, drawing theory, GIS, Cultural Heritage Information and Communication, Open data and place-based digital humanities. Part of the editorial staff of the academic journal Territorio.

Lorenzo CECCON, Politecnico di Milano, Italy
Main research interests at the crossroad between the use of computational design and the field of Architecture and Urban Planning, especially as regards the use of predictive modelling based on digital data – data and knowledge bases – also through AI and agent-based modelling. Focus both on the architectural field, BIM and H-BIM model fitting and predictive features, and urban planning themes, especially Digital Twin and relational space and the impact thereon by converging technologies such as 5G, IoT and AI.

PhD/Master session 2020



Martina POLIG, Cyprus Institute in Nicosia,Cyprus
Like every year I am excited to be the chair of the PhD/Master session to give fellow young researchers the opportunity to present their work in an international conference and to be inspired by their work. I am particularly pleased that we have our second "Best Student Paper Award" this year, which will give the winner the opportunity to publish in the journal "Open Archaeology".

Nadine ALPINO, DOKU PLUS S.à r.l., Luxembourg
This year I've got the pleasure to be co-chair of the PhD/Master Session. I think it's the most important session of the conference and should be part of every conference. Young researchers have got the possibility to present their work in a relaxed, benevolent but nevertheless professional atmosphere. It's an enrichment for both sides. Speaker and audience can benefit from new ideas, perceptions plus constructive criticism.
Last but not least the Best Student Paper award of CHNT offers an brill incentive for young researchers to present their work.

ROUND TABLE CHAIRS

Citizen Science Go! Taking citizen participation (one step) further

How can citizen participation help counteract fake news? Or how can citizen scientists be encouraged to dare to submit a project although the administrative steps seem discouraging? How can citizen participation in archaeology be a way of political commitment and trying to make a change? To what extend can open data and online communication between archaeologists and interested parties function when the world is at a standstill? How can networked research and interaction with lay people be successful using new technologies?
During the round table we would like to show on one hand that citizen participation in archaeology can be channelled to reach a common goal or interest but on the other hand that interested citizens should stop moaning and stand up.

Elisabeth MONAMY, Archeomuse + Universität Bern; Austria

Sigrid PETER, Association for preservation and research of castle „Ried am Riederberg + Archeopublica

Educating Archaeologists for a Digital Era

While digital technologies and little helpers are everywhere around us in archaeology, the integration of the diverse technological aspects into the academic curricula lags often behind. During this round table, we will discuss how the digitzation changes the occupational profile of archaeologists in different employments and what this means for the education of the academic offspring. What are the basic technology-related skills archaeologists need to be thaught to be fit for the academic, institutional and private job markets?

Hendrick ROHLAND, Hochschule für Technik und Wirtschaft Dresden, Germany

Marco BLOCK-BERLITZ, University of Applied Sciences, Dresden, Germany

Benjamin DUCKE, Deutsches Archäologisches Institut (DAI), Berlin, Germany

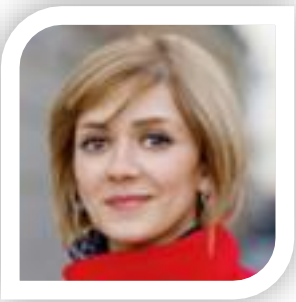
Documenting, Digital Restoring and Recontextualizing. (Comparing experiences)

Cristiana BARANDONI, Museo Archeologico Nazionale di Napoli, Italy
Archaeologist, museums and cultural institutions project manager (communication strategies, scientific activities, digital media / web developer).
Since July 2018 Scientific Director of "MannInColours" National Archaeological Museum of Naples
- Since 2018 Adjunct Professor at School of Specialization in Archaeological Heritage, SAGAS Department, University of Florence
- Since May 2016 Research fellow Indiana University and and Project manager of The **Uffizi** Digitization Project, Uffizi Gallery

Paolo GIULIERINI, Museo Archeologico Nazionale di Napoli, Italy
Director of the National Archaeological Museum of Naples since 2015. Born in Cortona, he graduated in archeology and specialized in Etruscology at the University of Florence. He was director of the Museum of the Etruscan Academy and of the city of Cortona, where he had been working since 2001. Author of various publications and speaker at numerous conferences in Italy and abroad, he has gained a long experience in museum management and in the management of relationships between the various public and private institutions.

Digital perspectives for the post-crisis recovery of cultural heritage

Benjamin DUCKE, Deutsches Archäologisches Institut (DAI), Berlin, Germany



Nura IBOLD, Brandenburg University of Technology Cottbus-Senftenberg (BTU), Germany

Nura Ibold is a postdoctoral research associate at the Brandenburg University of Technology Cottbus-Senftenberg (BTU), Germany. She received her doctoral degree from the Faculty of Architecture, Civil Engineering and Urban Planning at BTU, with specialization in Architectural Conservation. Her research focuses on heritage, collective identity and memory, and post-conflict reconstruction of cultural heritage.

She is affiliated with ICOMOS Germany; Salzburg Global Seminar: UNESCO Young Experts Forum on the Safeguarding of Syrian Cultural Heritage; UNESCO Expert Roster for Heritage in Syria; ArcHerNet 'Zero Hour: A Future for the Time after the Crisis'; DFG Research Training Group 1913 'Cultural and Technological Significance of Historic Buildings.'

Nura Ibold has gained teaching experience at BTU and Helwan University/Cairo. She received several research awards including the Gerda Henkel Foundation research grant; Friedrich-Ebert-Stiftung research grant; DAAD student grant; Grad-V scholarship from the Graduate Research School, BTU Cottbus-Senftenberg.

General research interests: Cultural heritage, identity politics, digital recovery of heritage assets, post-conflict rebuilding, migration and integration policies..

Integrating Artificial Intelligence in Cultural Heritage sites' audience research

The aim of the Round Table 'Integrating Artificial Intelligence in Cultural Heritage Sites' Audience Research' is to encourage a conversation about the emerging adoption of Artificial Intelligence technologies when applied for conducting audience research for implementation at Cultural Heritage sites. In particular, we welcome a discussion on the main issues faced, and opportunities encountered, when exploring the implementation of such digital technologies

Cristina MOSCONI, University of Exeter, United Kingdom

Pikakshi MANCHANDA, University of Exeter, United Kingdom
Pikakshi Manchanda is a Postdoctoral Research Fellow working as the lead Natural Language Processing (NLP) Researcher within the VISTA-AR project – a European Union INTERREG project at the University of Exeter, Business School. The project explores visitor experience at cultural heritage sites in England and France, creating new VR and AR digital interpretations and exploring the new business models they enable. Pikakshi is leading the Data Science team responsible for designing data-driven dashboards and improving existing Business Models using NLP techniques. Her research interests include Natural Language Processing, Operational Research, and Customer Experience Analytics.

HERITAGE BIM – Process Optimization within Digitization Strategies

Claudiu SILVESTRU, Cultural Heritage Integration Lab, Austria

Piotr KUROCZYNSKI, Hochschule Mainz — University of Applied Sciences, Germany

The Power of Big Data of the Past – Building Blocks towards a virtual Time Machine

Andreas MAIER, Pattern Recognition Lab, FAU Erlangen-Nürnberg, Germany

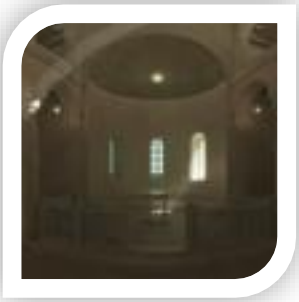
Prof. Dr. Andreas Maier was born on 26th of November 1980 in Erlangen. He studied Computer Science, graduated in 2005, and received his PhD in 2009. From 2005 to 2009 he was working at the Pattern Recognition Lab at the Computer Science Department of the University of Erlangen-Nuremberg. His major research subject was medical signal processing in speech data. From 2009 to 2010, he started working on flat-panel C-arm CT as post-doctoral fellow at the Radiological Sciences Laboratory in the Department of Radiology at the Stanford University. From 2011 to 2012 he joined Siemens Healthcare as innovation project manager. In 2012, he returned the University of Erlangen-Nuremberg as head of the Medical Reconstruction Group at the Pattern Recognition lab. In 2015 he became professor and head of the Pattern Recognition Lab. Since 2016, he is member of the steering committee of the European Time Machine Consortium. In 2018, he was awarded an ERC Synergy Grant "4D nanoscope".

Sander MÜNSTER, Digital Humanities, Universität Jena, Germany

Sander Münster is junior professor for Digital Humanities (images/objects) at the Friedrich Schiller University Jena. He received his PhD in educational technology from the TU Dresden, where he studied history, education and business. Until 2019 he headed the Department for Media Design at the Media Center at the TU Dresden and the junior research group UrbanHistory4D and has been a Young Investigator at the Faculty of Education at the TU Dresden. From 2018 to 2019 he was visiting professor for the didactics of computing science. His main research topics are in the visual digital humanities about interdisciplinary teamwork, 4D information systems, information behaviour, methodologies and scientific communities.

ADVANCED ARCHAEOLOGICAL TRAININGS

3D impact from Archaeologist perspective



Why did we choose to conduct this workshop?
Our calling is to spread out significant humanistic and scientific insight based on archaeological research . We perceive this mature technology as an enabling tool that bridges academic gaps in addition to sharing their Archaeologist perspective. Maturity means the wider and wiser implementation.
We have developed knowledge, skills and technology to implement a scalable solution for archaeological research proper visualization. This solution also enhances audience engagement especially in the covid19 age.
We can help implement the following moto ¨ *Simulations are for creating insights not images. these insights lead to discovery, interpretations and decisions"*

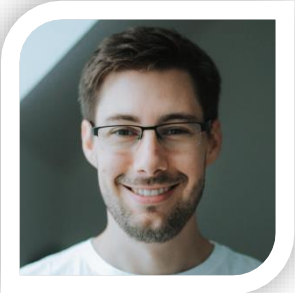
Stuart K. Card

Roy ALBAG, Archaeologist and architect, Israel
I am an architect and archaeologist who is fascinated with history and archaeology. This fascination has led me to narrow down my focus on 3D reconstructions of archaeological and heritage sites and structures.
Using our present scientific knowledge and modern technology, I am able to reach back in time and bring back to life what has been lost long ago. By doing so, we can more easily understand how ancient structures were designed and constructed, what tools and methods ancient builders used and how they looked like once finally completed. I have been working on a variety of projects since 2010. Through cooperation with many universities, museums, national parks, and scholars, my work has allowed numerous individuals to see, without any need to imagine, Solomon's Temple, Herod's Palace in Jerusalem, Nymphaeum at Beit Shean and so much more.

Shani ZIV, experiental learning technology expert, Israel
Shani Ziv is an Instructional design expert in the field of situated learning . As founder of Wandering he is the architect of a technology aimed at integrating structuralized content data sets into visual user oriented environments. In the recent 10 years he has been involved in research development and implementation of visitor experience and educational mobile web apps in museums and open air sites and integrating virtual 360 environments into them.

Geospatial Analysis in Archaeology using Open Tools

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 geo-computational 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.
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.



Christian NEUWIRTH, UNIGIS Distance Learning in Geoinformatics, Austria
Christian Neuwirth is director of studies of the UNIGIS distance-learning master study in Geographical Information Science & Systems at the Interfaculty Department of Geoinformatics, University of Salzburg. He has a background in geoinformatics and specializes in computational simulation modeling. His research focuses on the further development of simulation methodology with an aim to extend its application beyond traditional boundaries. He is particularly interested in systems analysis and in the combination of scientific modeling and gaming.

CHNT AWARDS

11th CHNT POSTER AWARD

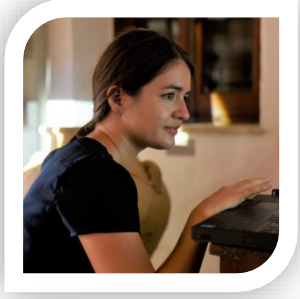
Peter DORNINGER, 4D-IT, Austria

The "1st CHNT Poster Award" was awarded in 2009. And the proud winner was … me! Since then, a lot has happened. The poster award has become a regular institution at the CHNT and I have the honor to be the chair of this interesting session giving especially young scientists the opportunity to perform their "first steps" into the scientific community. Every year, the scientific committee of CHNT is looking forward to the great and outstanding posters and we are glad to honor the "best poster" as one of the highlights of the conference. The winner of this year's award is allowed to publish the proposed work as long paper to be published in the conference's proceedings.

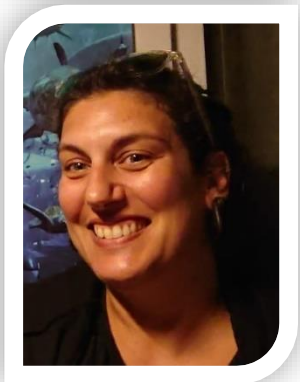
5th CHNT APP AWARD

Günther WEINLINGER, 7reasons, Vienna, Austria
Michael KLEIN, 7reasons, Vienna, Austria

2nd CHNT Best Student Paper AWARD



Martina POLIG , Cyprus Institute in Nicosia,Cyprus



Nadine ALPINO, DOKU PLUS S.à r.l., Luxembourg

Giorgio VERDIANI, University of Florence, Italy.

VIRTUAL EXHIBITORS

Gold Virtual Exhibitor

7reasons Medien GmbH, Vienna, Austria

4D-IT GmbH, Pfaffstätten, Austria

Silver Virtual Exhibitor

RIEGL Laser Measurement Systems GmbH, Horn, Austria

SynerGIS Informationssysteme GmbH

Bronze Virtual Exhibitors

LIBRUM Publishers & Editors LLC, Basel, Switzerland

Verlag Holzhausen GmbH, Vienna, Austria

Visit our virtual exhibition room on
https://www.chnt.at/wp-content/uploads/Virtual_Exhibition_Room3.pdf