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Telefon: +49 (0) 355 694114 | E-Mail: lengyel@b-tu.de

www.eva-berlin-conference.de | www.b-tu.de

KONFERENZBAND | CONFERENCE PROCEEDINGS

Herausgegeben von

Univ.-Prof. Dipl.-Ing. Dominik Lengyel | BTU Cottbus-Senftenberg, LS Architektur und Visualisierung

Prof. Dr. Andreas Bienert | Staatliche Museen zu Berlin – Preußischer Kulturbesitz

Redaktion: Univ.-Prof. Dipl.-Ing. Dominik Lengyel, Jessika Krüger, Jonas Görke M.Sc. |

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Digital renaissance. The Calabrian coast towers depicted in the Codex Romano Carratelli.

Francesca Fatta^a, Marinella Arena^a, Daniele Colistra^a, Domenico Mediati^a, Paola Raffa^a

^aDepartment of Architecture and Territory, Mediterranean University of Reggio Calabria, Italy, ffatta@unirc.it, marinella.arena@unirc.it, daniele.colistra@unirc.it, domenico.mediati@unirc.it, paola.raffa@unirc.it

ABSTRACT: The contribution describes a research project aimed at creating a multimedia platform capable of connecting significant places in the Calabrian coastal landscape with the surrounding area: the architecture depicted in the sixteenth-century *Codice Romano Carratelli*, 99 coastal towers built in Calabria by the Spanish government with the aim of controlling invasions from the sea by Saracens and pirates. Having lost their original lookout function, the towers can become the nodes of a network of coastal routes, a digital network for "slow" tourism that is attentive to environmental issues, the valorization of local resources and the cultural regeneration of the territory.

The research phases are as follows:

- survey of existing towers (via laser scanner and aerial and terrestrial photogrammetry), 3D modeling of the actual state;
- morphological and typological analysis, abacus of elements;
- project of a network of routes that connects the towers to each other and interfaces with the other points of cultural interest;
- development of multimodal devices for the analysis and enhancement of architecture, including the extensive use of ICT (3DMapping, Virtual Reality, Augmented Reality, holograms, 360° shooting);
- 3D printing for museum education and for disadvantaged users;
- creation of a multimedia platform in which all the contents described in the previous points can be consulted interactively.

1. INTRODUCTION

For some years our studies have been focusing on an ancient manuscript from the end of the 16th century called the *Codice Romano-Carratelli* from the name of the owner family. It is a document composed of 99 watercolours depicting fortified cities, castles, defensive structures placed in the Calabria Ultra territories. The *Codice* is protected by the Italian Ministry of Cultural Heritage (MIBAC) and it is in excellent state of conservation.

The set of tables is extremely interesting because it illustrates the theme of the defence refers to coastal area of Catanzaro, Crotona, Vibo Valentia and Reggio Calabria provinces by presenting the fortified cities, castles and the territory.

In particular, the typologies and characteristics of the existing towers are reported, identifying the places where the new towers built was necessary for the design of new towers the construction cost is indicated.

The *Codice Romano Carratelli* can be defined as a fundamental anthropo-geographical document of Calabria Ultra, the oldest and most complete known. In the representation of the tables, a new aspect takes shape, that is an order of signs and a graphic methodology that determine a unique communicative elegance.

The descriptive method, the coordination of colours, few but intense, the composition of the tables, gives the document the definition of "Code". The colour describes the transition between the survey of what exists and the design of new architecture to be built: existing architecture is represented in red-ochre, everything that needs to be designed is represented in grey-blue.

The choice of colour is consequent to a modern thought: the colour of the existing towers reflects the sedimentation of anthropic signs, the blue-grey colour is the sign of modernity which is insert into the context in a coherent way.

In the *Codice*, the places are represented with mixed systems, between perspective and axonometric schemes, due to the clear military setting; the point of view is placed high up, a bird's eye view, with a prevailing view from the sea towards the costs.



Figure 1: A page from the *Codex*: Capo Rizzuto's Tower

2. ON-SITE DISSEMINATION OF THE MONUMENTAL HERITAGE OF THE CALABRIAN COAST.

This research project is a part of the large *Tech4you* project (PNRR), and specifically fits into Spoke 4 relating to *Technologies for resilient and accessible cultural and natural heritage*. The research elaborates a strategy for communication and definition of real paths that lead to the knowledge and perception of the historic architectural heritage that punctuates the Calabrian Coast. The development of new channels for the enhancement and communication of tangible and intangible heritage in the Calabrian territory contributes to the awareness of the value of heritage in the local population. Awareness is the first step to conservation. Furthermore, the diffusion of this heritage can increase the tourist flow and contribute to the economic recovery of the area. The Project workflow (fig. 3) returns the structure and components of the analyses that will complete the final picture.

The first aspect that characterizes the research is a wide-ranging analysis of the *Codice Romano-Carratelli*: its diffusion, the meaning that this document has for Calabria Region and for the entire South of Italy.



Figure 2: A page from the *Codex*: Cavallara's Tower

The historical and documentary value relating to the Calabrian land scape of the XVI Century. In fact, in the *Codice* there are 99 watercolour papers in which the geographical data characterizing the most significant stretches of the Calabrian coasts are distinguished: watercourses, coastlines, altimetric variations and compact urban aggregates: walls, bell towers, towers, architectures emerging. The resulting picture can be defined as a fundamental anthropo-geographical document of Calabria Ultra, the oldest and most complete known.

A study was conducted to trace and identify the sites on which the towers, described by the Codice rise, or once stood. The identification work crosses a lot of data and places the location of the towers and the current denomination on an interactive map, compared with what is reported in the Codice.

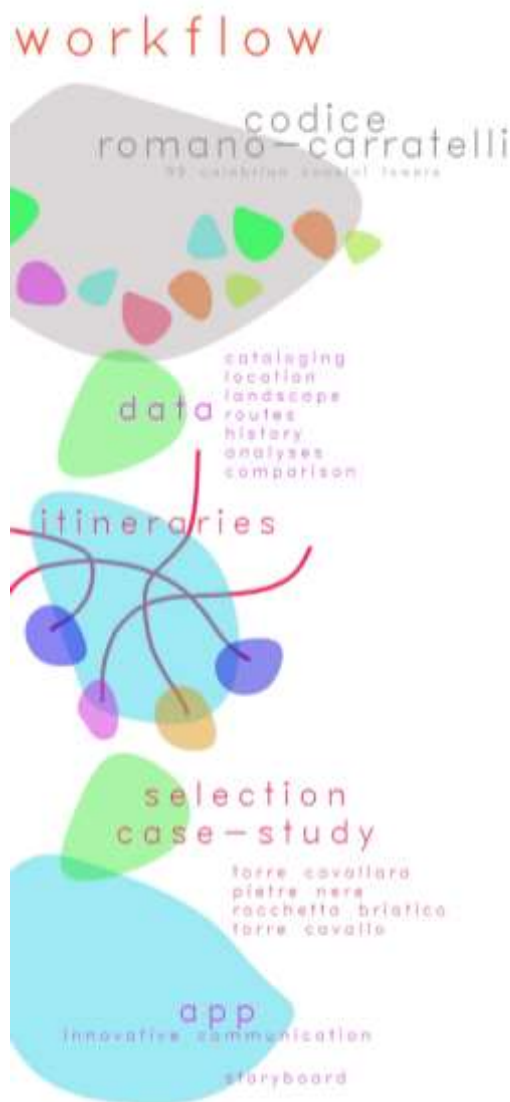


Figure 3: Research project workflow

Some case studies have been selected and will be analysed in detail: Torre Cavallara, Pietre Nere, Rocchetta Briatico, Torre Cavallo. Many other towers, and their routes, will be analysed during the research. Specifically, the visual relationships between towers and between the single structure and the landscape that host it will be highlighted.

Each route, with the specificities and history that characterizes it, will be enhanced within the app, with three-dimensional simulations, augmented reality, and historical news. The design of the app will be developed by forming a complex storyboard and considering the impact that the communication strategy and graphics can have in spreading the message.

2.1 SURVEY, MODELING AND INCLUSIVE FRUITION

The research path involves surveying and making related models in HBIM of four coastal towers that are still available, although in a ruined state: Torre Cavallara, Catanzaro; Torre La Rocchetta, Briatico (VV); Pietre Nere, Palmi (RC); Torre Cavallo, Costa Viola (RC). Surveys of the first two towers have already been carried out on June 19 and 23, 2023, respectively.

An integrated type of survey was carried out for Torre Cavallara in Catanzaro: range-based (Faro Focus X 330 phase difference laser-scanner) and image-based (DJI Mavic Air 2 drone) methodology.

The laser-scanner survey enabled the acquisition of point clouds related to the exterior envelope of the tower and the only covered space. For this purpose, 13 scans were used, including 10 for the exterior space and staircase and 3 for the interior. The scans were aligned with spherical targets of diameter Ø 145 mm, appropriately placed in the survey scenario. The acquired data were supplemented with an additional image-based survey that also allowed the parts not accessible with the scanner-laser to be documented. Georeferenced aerial photos (resolution 4000x2250 pixels) were taken, in DNG and JPG format, with the help of a DJI Mavic Air 2 drone and covered the entire exterior surface of the tower. A total of 597 photographs were taken, including 225 with zenith shot, 296 with frontal shot, and 76 with inclined shot. The two surveys, range-based and image-based will be integrated in order to obtain a complete point cloud of the monument. Torre La Rocchetta in Briatico, being devoid of inaccessible parts, was surveyed exclusively

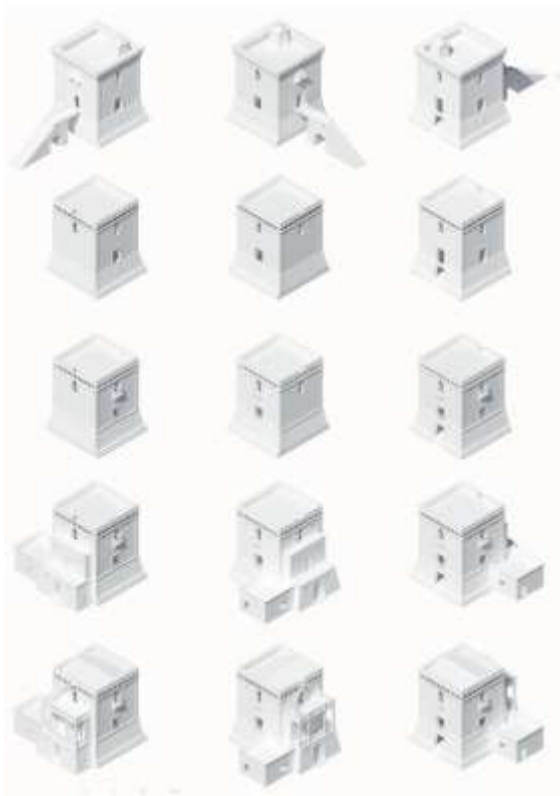


Figure 4: Critical modeling and point cloud of the Tower of Soverato n.59 of the Carratelli Roman Code. (Drawings by Claudio Patanè).



Figure 5: Point cloud of the Torre delle Pietre Nere survey

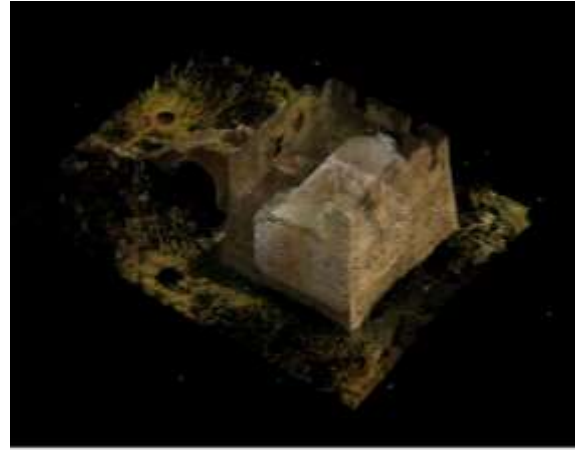


Figure 6: Point cloud of the Torre Cavallara survey, near Catanzaro

with range-based methodologies (Faro Focus X 330 phase-difference laser-scanner). The monument required 12 scans, 8 of which were external scans for the perimeter facades and 4 internal scans: three at ground-floor level to survey the stone pavilion vault; one at the top of the staircase leading to the upper level. The connection between the external and internal scans was made through the wide gap on the northern side.

The point clouds of the surveyed towers will be used to render HBIM models. Through interactive functions, they will make usable technical and popular information addressed to different types of users: geolocation, historical and bibliographical news, information on construction techniques, data on the state of preservation etc. Comparisons with the corresponding images of the Roman-Carratelli Codex and hypotheses of the original configuration, based on philological reconstructions, will also be proposed. These models will be included in a web-accessible database and will also be usable through a multi-platform application for mobile devices from which it will be possible to activate visualizations in VR (Virtual Reality), AR (Augmented Reality) and MR (Mixed Reality). For the realization of such materials, maximum attention will be paid to inclusive communication, usable even by the most disadvantaged categories and in line with the indications of *The London Charter* of 2008 and *The Principles of Seville* of 2011, ensuring the necessary criteria of reliability and scientificity.

2.2 VISUAL, PHYSICAL AND DIGITAL PATHS

The system of towers depicted in the *Codice Romano Carratelli*, designed to prevent threats from the sea, allowed obtaining a panoptical vision extended to the entire coastal development of Calabria Ultra.

The position of the towers on the territory made it possible to control a vast portion of the sea, and to communicate visually with the two adjacent towers and, sometimes, with the hinterland. It is therefore a mixed visual system, of a conical-linear type; a further network of physical routes was connected to it, designed to reach the inhabited centers in the shortest possible time and warn them of possible raids (fig. 7). The attribute “cavallara” (for horses), often associated with the tower, indicates the

presence of stables on the ground floor intended to house horses, which at the time were the fastest means of transport.

The communication project is inspired precisely by this dual connection system: visual (conical-linear) and terrestrial routes (linear).

As regards the visual system, it is expected:

- construction of a diorama (spherical photo) of the view from the top of each tower of the Codex (fig. 8). The photograph is viewed (on a monitor or 3D device) with a field angle similar to that of human vision (vertical angle of 150°, horizontal angle of 55°), therefore it is not perceptible in its entire development, but it is necessary to navigate using the mouse or visual pointer.

- construction of a panopticon, composed of the fusion of all the spherical views obtained from the top of each tower. The spherical photos are sectioned at the point where each optical cone intersects with the two adjacent ones; therefore, the horizontal angle taken into consideration is smaller than that of the single photo. Navigation within the panopticon occurs discontinuously, from photo to photo.

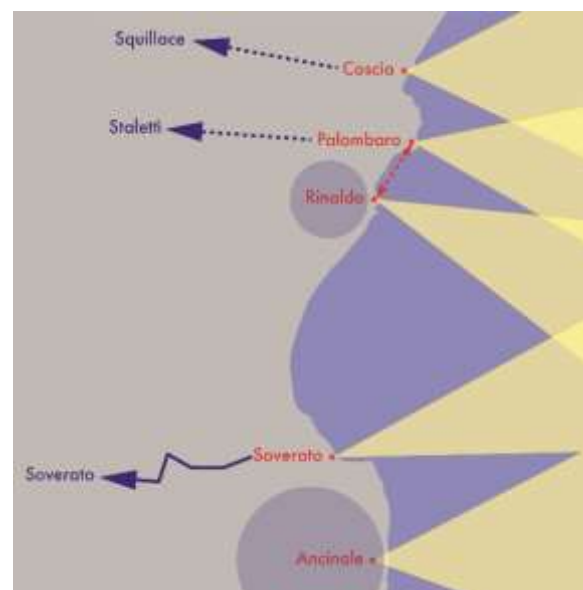


Figure 7: The visual system of the towers south of Squillace (Catanzaro). It allowed full control of the sea in front. The Coscia and Palombaro towers were in visual communication with the towns of Squillace and Staletti (blue dotted arrow). The Rinaldo tower was the defense of two farmhouses and some freshwater springs close to the coast; it was in visual connection with that of the Palombaro (red dotted arrow). The Soverato tower was a “for horses” tower; a track departed from it which reached the internal center of the same name, not visible from it (continuous blue arrow). The Ancinale tower protected the mouth of the river of the same name.

- view from the tower to the town (or towns) inland, and vice versa. These are single photographic images, taken with a normal lens (focal length 50 mm).

In the event that the current conditions of the building prevent photography from the ground, the images will be obtained by drone; the slight change in the height of the point of view will not affect the continuity of the overall perception.

The system of land routes, once used mainly in the absence of visual connection between the tower on the coast and the inland towns, have been entirely redesigned to allow the visit of the still existing towers, the sites where they stood and those on which planned its construction.

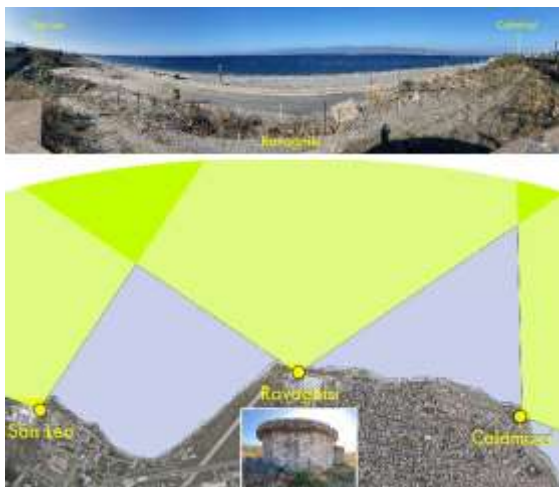


Figure 8: Diorama of the “Ravagnisi” tower (also called Torre Lupo), in the southern outskirts of Reggio Calabria, and visual relationship with the adjacent towers of San Leo and Calamizzi.



Figure 9: The three levels of the route system for visiting and observing the towers between Palmi and Bagnara (Reggio Calabria).

- main road network (SS 18, in green);
 - secondary driveways (in yellow);
 - pedestrian traffic (in blue). In particular, the Tracciolino hiking trail allows you to observe the Costa Viola and its towers (now inaccessible) from above.

We believe it is of little significance to reconstruct the ancient routes between the tower and the hinterland; we preferred to redesign a system aimed at tourist use, organizing it according to three different levels (fig. 9):

- the first (coastal development), entirely accessible by car, follows the coastal profile of the entire territory.

- the second level is made up of sections that branch off from the coastal path and allow you to get further closer to some towers by car.

- the third level is made up of sections that join the first or second level route and can only be covered on foot. It is used to visit the towers that cannot be reached by car.

The route system also represents the layout on which thematic networks are grafted, intended for better tourist enjoyment and the valorization of the territory. Among these.

- the network of food and wine points of sale and tasting.

- the hospitality network.

- the network of monuments and points of cultural interest.

There are also itineraries that allow you to visit multiple towers over the course of a day on foot or in a mixed mode (hike plus bicycle).

2.3 INNOVATIVE COMMUNICATION FOR LANDSCAPE ICONEMES

The coastal towers represented in the *Diario delle Meraviglie* known as the Carratelli Roman Code perform the function of territorial attractor of excellence; positioned along the perimeter of the Calabrian coast they become an element of visual and cultural connection.

They are the cornerstones of a linear path that is intended to connect to reconstruct a cultural scenario not only aimed at tourists and/or travellers, but capable of improving the quality of the relationship between communities and their heritage.

The goal is to create a digital tape for the use of the Towers with the declination in 'itineraries' conceived as a key to reading, knowledge and communication of the cultural resources of the Calabrian coastal territory.

Communication based on an integrated system of information that can be consulted online, to highlight the submerged excellences of an unknown territory and to promote inclusive tourism. Through the digital artifacts that allow the survival of the existing monument (subject to the erosion of time, abandonment, neglect) and the visualization of an architecture that has



Figure 10: Solid model and 3D prints made by Claudio Patanè and Andrea Marraffa.



Figure 11: Coastal defense planning on the ionian sea

never been built, there will be a tendency to verify a phenomenon of interactivity with history, with the places of the past and with those present, offering the user a full involvement in cultural immersion experiences. The identification and interpretation of the territory's resources through Cultural mapping operations provides a mapping of the characteristics and resources that form the cultural scene that emerges in the surroundings of each individual Tower: cultural activities and events; cultural innovation environments; historical, artistic, and environmental heritage; specialized agricultural productions; handicrafts; forms of cultural expression ethnic minorities etc.

Furthermore, reference is made to some fruition modality indicators: reachability and accessibility (path conditions, private property, opening hours, etc.); visibility (signage, local promotion, search for historical information, etc.); state of conservation (abandoned, degraded, tampered with).

The digitization of a suitable number of Towers makes the physical heritage available for a series of processing in which digital models will be used multimodally through VR or AR technologies involving visual display, gesture detection or audio rendering.

Users will be able to use all the information available in digital format through simple commonly used tools.

3. CONCLUSION

Through the digital artifacts that allow the survival of the existing monument (subject to the erosion of time, abandonment, neglect) and the visualization of an architecture that has never been built, there will be a tendency to verify a phenomenon of interactivity with history, with the places of the past and with those present, offering the user a full involvement in cultural immersion experiences.

4. ACKNOWLEDGMENT

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paragraph “Innovative communication for landscape iconemes”. The authors thank Claudio Patanè, author of the doctoral thesis “Architetture parlanti nel paesaggio fortificato Calabrese. Il Codice Romano Carratelli. Progetto e costruzione di un itinerario terracqueo”, who contributed to the preparation of this study.

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Programm

MITTWOCH | WEDNESDAY, 29. November 2023

WORKSHOP I Tactile Museum Project: Using 3D Printed Tactile Artifacts for Creating Inclusive Experiences in Museums.

10:00 – 12:30 Moderation: **Vicente Gascó Gómez | Atlantic University**

Museums are valuable institutions where culture, history, and education converge. However, quite often such experiences rely heavily on visual elements, inadvertently excluding individuals with functional diversity such as visual impairments. This workshop aims to provide a comprehensive guide for those seeking to make culture, history, and art more sensory-inclusive with 3D printed tactile artifacts. Through a series of projects and case studies done with museums in Puerto Rico, the workshop discusses design principles, 2D-to-3D workflows, project considerations, and 3d printing processes and materials relevant for creating tactile objects.

WORKSHOP II Algorithmen zur Erstellung und Bewertung visueller Bildersortierungen

14:00 – 16:00 Moderation: **Prof. Dr. Kai Uwe Barthel | Nico Hezel | Konstantin Schall
HTW Berlin**

Da die Menge visueller Daten ständig wächst, wird die Organisation von Bildern wichtiger. Menschen können komplexe Einzelbilder leicht verstehen, aber sie haben Schwierigkeiten, große unsortierte Bildsammlungen zu durchsuchen. Dieses Problem tritt z.B. in Archivrecherchen oder bei Mediensuchen auf. In diesem Workshop werden grundlegende Prinzipien der visuellen Bildersortierung vermittelt. Nutzertests zeigen, wie sortierte Bilder die Suche und Übersicht über große Bildmengen erleichtern. Eine neue Metrik ermöglicht die Vorhersage der Benutzerwahrnehmung bei sortierten Bildmengen. Außerdem wird ein extrem schneller Algorithmus für hochwertige visuelle Sortierung vorgestellt. Nach dem Workshop können Teilnehmer Bildersortierungen selbst durchführen. Schließlich wird gezeigt, wie die Kombination von Bildersortiertechniken mit Bildgraphen die explorative visuelle Erkundung extrem großer dynamischer Bildbestände ermöglicht.

FREITAG | FRIDAY, 01. Dezember 2023

WORKSHOP III Initiativen, Verbundprojekte und Kooperationen für die Kultur

12:00 – 13:30 Mit Beiträgen von | With Contributions by:

Dr. Sabine de Günther | Giacomo Nanni | Ilias Kyriazis | Prof. Dr. Marian Dörk | Dr. Linda Freyberg
(UCLAB, Fachhochschule Potsdam | Leibniz-Institut für Bildungsforschung und Bildungsinformation |
„Tracing and Telling: Exploring collection holdings through graph-based narratives“)

Dr. Martin Breuer | Alan Riedel

(Deutsche Digitale Bibliothek |

“Come one, come all(?)” Engaging Users of the German Digital Library)

Dr. Thomas Hörnschemeyer | Rebecca Krämer

(Museum Wiesbaden | Hessisches Landesmuseum für Kunst und Natur |

„Ein gemeinsamer Datenraum für das historische Erbe Hessens“)

Dr. Karsten Dahmen | Dr. Jürgen Freundel

(Das Münzkabinett der Staatlichen Museen zu Berlin |

“Normdatenportal und IKMK.net“)

KONFERENZ | CONFERENCE I

TRANSFORM I

MITTWOCH | WEDNESDAY, 29. November 2023

9:15 – 18:00

9:15 Eröffnung **Dr. Sibylle Hoiman**
(Direktorin des Kunstgewerbemuseums der Staatlichen Museen zu Berlin)

Session I **Inklusion und Partizipation | Inclusion and Participation**

Moderation: **Univ.-Prof. Dipl.-Ing. Dominik Lengyel (B-TU Cottbus-Senftenberg)**

09:30 **Social Flow - Social Connectedness and Flow Through Participatory Art Zeitgeist**
Dr. Oliver Gingrich | Dr. Shama Rahman | Dr. Daniel Hignell-Tully (University of Greenwich, NeuroCreate, University of Greenwich)

09:50 **Between the Absence of the Object and Presence for Everyone –
On the Virtual Experience of Art and its Mediation**
Theresa Stärk M.A. (Institut für Kunstgeschichte, Heinrich-Heine-Universität Düsseldorf)

10:10 **"Concrete Sculptures" in Hong Kong – Explorations in Expanded Photography**
Dr. Elke E. Reinhuber (SCM School of Creative Media, City University of Hong Kong)

10:30 – 11:30 **Kaffeepause | Coffee Break | Networking | Postersession**

Session II **Erweiterte Umgebung | Extended Environments**

Moderation: **Univ.-Prof. Dipl.-Ing. Dominik Lengyel (B-TU Cottbus-Senftenberg)**

11:30 **Digital Exhibitions vs Real Exhibitions or Curator vs AI Driven Curator**
Alessandro Colombo (Architekt)

11:50 **Comparing the Experience of Art Appreciation in a Gallery and a Shop Context Using VR**
Itay Goetz (Department of General Psychology and Methodology, University of Bamberg
Research Group EPÆG Bamberg Graduate School of Affective and Cognitive Sciences)

12:10 **The Prompt Wrangler: AI Text-to-Image Generation as Curatorial Practice**
Mitch Goodwin (University of Melbourne)

12:30 **Open Justice Transformations Impacting Extended Reality (XR) Environments**
Adnan Hadzi (University of Malta)

13:00 – 14:00 **Mittagspause | Lunch | Poster Session**

Session III Generative Erzählungen | Generative Storytelling

Moderation: Prof. Dr. Dorothee Haffner (HTW Berlin)

14:00 Data Spaces // Data Worlds: Perspektivwechsel mit künstlerischer Unterstützung

Monika Reich M.A. | Brian Eschrich | Dr. Robert Fischer | Maria Matthes (Interactive Science Lab, Center for Interdisciplinary Digital Sciences, TU Dresden)

14:20 A symbolic homecoming. 3D Digital imaging of Greek vases from the MHNC-UP

Vera Moitinho de Almeida | Rui Morais (Universidade do Porto)

14:40 Reviving the Past: Visualising Cultural Heritage in Dynamic User Interfaces

Elena Karittevli | Neofytos Kokkinos | Marinos Ioannides | Kyriakos Efstathiou (UNESCO Chair on Digital Cultural Heritage)

15:00 Visualising Drawings: from Archives to QGIS. A methodological overview

Chiara Vitaloni (University of Palermo)

15:30 – 16:00 Kaffeepause | Coffee Break | Networking | Postersession

Session IV Standards und Formate | Standards and Formats

Moderation: Frank v. Hagel

(Wissenschaftliche Museumsdokumentation, digitales Sammlungsmanagement |
Institut für Museumsforschung | Stiftung Preußischer Kulturbesitz)

16:00 Berlin's Digital Cultural Heritage. A Quantitative Glance at Metadata Quality

Alexander Winkler

(Forschungs- und Kompetenzzentrum Digitalisierung Berlin digiS, Zuse-Institut Berlin)

16:20 Authority Files for Search and Filter Options in the German Digital Library

Dr. Domenic Städtler

(Institut für Museumsforschung Staatliche Museen zu Berlin - Preußischer Kulturbesitz)

16:40 Von der digitalen Sammlung zur „Sammlung als Daten“.

Wie effizientes Qualitätsmanagement diesen Wandel unterstützen kann

Dr. Celia Krause

(Deutsches Dokumentationszentrum für Kunstgeschichte - Bildarchiv Foto Marburg)

KONFERENZ II CONFERENCE II

TRANSFORM II DONNERSTAG | THURSDAY, 30. November 2023

9:00 – 19:00

9:00 Begrüßung **Keynote Speech: Prof. Dr. Sebastian Sierra Barra**

„Digital aufgelöste Demokratie: Von der Unabhängigkeitserklärung des Cyberspace zur neuen Unmündigkeit.“

Session I **Digitale Reproduktion | Digital Reproduction**

Moderation: **Prof. Dr. Andreas Bienert (EVA-Berlin Vorsitz | ehem. SMB)**

9:30 **Interactive Volumetric Video in VR Experiences—Technology, Design & Evaluation**

Prof. Dr. Anja Ballis^a | Oliver Schreer^b

(Ludwig-Maximilians-Universität München, Germany ^a | Fraunhofer Heinrich-Hertz-Institut ^b)

9:50 **Digital Reinassance. A Platform for the Interactive Dissemination of the Monumental Heritage of the Calabrian Coast Depicted in the Codice Romano Carratelli (XVI century)**

Prof. Francesca Fatta | Marinella Arena | Daniele Colistra | Domenico Mediati | Paola Raffa
(Università degli Studi Mediterranea di Reggio Calabria)

10:10 **Digitization of Object Rich Natural History Collections with DORA – a Multi-Organizational Approach to Success**

Dr. Nora Lentge-Maaß

(Department of Collection Future, Leibniz Institute for Evolution and Biodiversity Science)

10:30 **Integriertes modulares Stacking-System Deimos**

Dr. Frederik Berger | Bernhard Schurian (Museum für Naturkunde Berlin)

11:00 – 12:00 **Kaffeepause | Coffee Break | Networking | Postersession**

Session II **3D-Modelle und Repliken | 3D Models and Replicas**

Moderation: **Prof. Dr. Andreas Bienert (EVA-Berlin Vorsitz | ehem. SMB)**

12:00 **New Scale Model of the City of Pergamon**

Univ.-Prof. Dipl.-Ing. Dominik Lengyel | Jacopo Spinelli M. Sc. | Lyubov Dimova M. Sc.

(Brandenburgische Technische Universität Cottbus-Senftenberg)

12:20 **Let's Play's from Buildings, Exhibitions and Museum Pieces**

Birgit Tsuchiya | Bernhard Strackenbrock (Illustrated architecture)

12:40 **The Representation of Pastoral Stone Architecture: Towards a Graphic Reconstruction**

Lorella Pizzonia (PhD S. Università degli Studi Mediterranea di Reggio Calabria, Italy)

13:00 **From Physical to Virtual, from Virtual to Physical, and Back to Virtual again.**

Representations of an Underground Church in the Field of Xreality

Arch. Francesco Stilo (PhD Università degli Studi Mediterranea di Reggio Calabria, Italy)

13:30 – 15:00 **Mittagspause | Lunch | Ausstellung**

Session III Multimodale Erfahrungen | Multimodal Experiences

Moderation: Sandro Schwarz (Referent für IT Strategie | Stiftung Preußischer Kulturbesitz)

15:00 Multimodal Science Communication In An Interactive Exhibition

Dr. Annett Schulze | Prof. Dr. Michael Beuthner | Andreas Will
(Bundesinstitut für Risikobewertung (BfR), Deutschland | SRH Berlin University of Applied Sciences, Deutschland | Garamantis GmbH, Deutschland)

15:20 The Transfomer Tower

Jorge Cruz Pinto

15:40 Digital Shift of Knjaževac Museum towards Accessible Collections

Milena Milošević Micić (Museum advisor art historian, The Homeland Museum of Knjaževac (Zavičajni muzej Knjaževac) & Balkan Museum Network)

16:00 Performatics, Creativity, Conceptual Art and YouTube Tuts

Prof. Dr. Daniel Buzzo (CODE University of Applied Sciences Berlin, Germany)

16:30 – 17:30 Kaffeepause | Coffee Break | Networking | Postersession

Session IV Multisensorische Transformation | Multisensory Transformation

Moderation: Univ.-Prof. Dipl.-Ing. Dominik Lengyel (B-TU Cottbus-Senftenberg)

17:30 Avatars of Digital Stories. From Classic to Enriched Audio-Video Constructs

Ioana Crihana (The National Association of Public Librarians and Libraries in Romania, University Politehnica of Bucharest, Romania)

17:50 Von Bronze zu Bits: Die Erforschung und innovative Vermittlung von Pompejis Lichtkunst im Rahmen der Ausstellung „Neues Licht aus Pompeji“

Manuel Hunziker M.Sc. M.A.
(Institut für Klassische Archäologie, Ludwig-Maximilians-Universität München, Deutschland)

18:10 “Cultural Heritage is our Passion”

Andrea de Polo Saibanti | Christian Hohendorf (Zeuschel GmbH, Germany)

18:30 Künstliche Intelligenz in Museen – Erschließung von Sammlungsbeständen mithilfe von KI

Sonja Potter^a | Frank Dührkohp^a | Lars Mischak^b | Sebastian Klarmann^c
(Verbundzentrale des GBV (VZG)^a | Dataport AÖR^b | Programmfabrik^c)

ABENDVERANSTALTUNG | EVENING EVENT

19:00 Führung durch die Ausstellung „Großes Kino – Filmplakate aller Zeiten“

Guided tour of the exhibition “The big screen – Film Posters of All Time”

KONFERENZ III CONFERENCE III

TRANSFORM III

FREITAG | FRIDAY, 01. Dezember 2023

9:30 – 16:30

Session I Transformationen | Transformations

Moderation: Univ.-Prof. Dipl.-Ing. Dominik Lengyel (B-TU Cottbus-Senftenberg)

9:30 Can the metaverse save the planet?

Terry Trickett (Architect, London)

9:50 The Agency of Image in an Age of Urban Re-Imagination

Alex Yuen (Harvard University Graduate School of Design)

10:10 From a Museum of Things to Narratives of People

Dr. Thomas Tunsch (Staatliche Museen zu Berlin)

10:30 VI-Train

Pedro Vaz | Bárbara Vaz (Presidencia da Republica Portuguesa)

11:00 – 12:00 Kaffeepause | Coffee Break | Networking | Postersession

Session II Digitale Gemeinschaft | Digital Community

Moderation: Dr. Thomas Tunsch (Kustos | Museum für Islamische Kunst | SMB)

12:00 Computer 3D Models in Visual Arts Education - Some Experiences from Croatia

Ass. Prof. Dunja Pivac | Vana Mardešić | Bojan Vondra

(Arts Academy, University of Split, Croatia | Independent Researcher | Split, Croatia | Senior Software Engineer | Emovis Croatia, Split, Croatia)

12:20 New Technologies, New Narratives, New Experiences. Stories between Exhibiting and AI

Dr. Pamela Bianchi (École Nationale Supérieure d'Architecture de Paris-Belleville (ENSAPB)
École d'Art et Design de Toulon (ESAD))

12:40 Where Past and Future meet: Artificial Intelligence and the Art Museum

Dr. Astrid Fendt (Abteilungsleitung Archäologie, Landesmuseum Württemberg, Stuttgart)

Workshop Initiativen, Verbundprojekte und Kooperationen für die Kultur

12:00 – 13:30 Mit Beiträgen von | With Contributions by:

Dr. Sabine de Günther | Giacomo Nanni | Ilias Kyriazis | Prof. Dr. Marian Dörk | Dr. Linda Freyberg
(UCLAB, Fachhochschule Potsdam, Deutschland | Leibniz-Institut für Bildungsforschung und
Bildungsinformation |

„Tracing and Telling: Exploring collection holdings through graph-based narratives“)

Dr. Martin Breuer | Alan Riedel (Deutsche Digitale Bibliothek |
„Ein Portal für alle(s)? Digitale Kulturvermittlung der Deutschen Digitalen Bibliothek“)

Dr. Thomas Hörnschemeyer | Rebecca Krämer
(Museum Wiesbaden | Hessisches Landesmuseum für Kunst und Natur |
„Ein gemeinsamer Datenraum für das historische Erbe Hessens“)

Dr. Karsten Dahmen | Dr. Jürgen Freundel
(Das Münzkabinett der Staatlichen Museen zu Berlin |
“Normdatenportal und IKMK.net“)

13:30 – 15:00 Mittagspause | Lunch

Session III Intelligente Partnerschaft | Smart Partnership

Moderation: Freya Schlingmann (Referatsleitung Digitale Museumsdienste | SMB)

15:00 Deciphering the Engraved Crosses in the Chapel of St. Helena

Moshe Caine | Amit Re'em | Doron Altaratz
(Israel Antiquity Authority and Hadassah Academic College)

15:20 Reinterpreting artists' self-portraits through AI derivative creations

Ass. Prof. Helena Barranha (Instituto Superior Técnico, Universidade de Lisboa and
Institute of Art History, NOVA FCSH / IN2PAST, Portugal)

15:40 “Promised too much? AI in use in the Image Archive of the ETH Library”

Nicole Graf (ETH-Bibliothek / ETH Zürich)

16:00 May (A)I help you? – AI-based dialogues in the museum

Anke Neumeister | Michael Schiffmann
(Deutsches Meeresmuseum Stralsund | Cologne Cobots Lab der Technischen Hochschule Köln)

16:30 Verabschiedung | Fare-well

17:00 Konferenzdinner | Conference dinner (Selbstzahler | self-pay)