Contextualized Digital Heritage Workshop - Oulu

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Constructions pertaining to built heritage represent precious material and cultural resources to be studied and preserved for present and future generations. In recent years, this built heritage is increasingly understood, documented, managed, analysed and disseminated through the application of several digital technologies; this trend has created one of the main research areas in architecture, called Digital Heritage. Digital technologies open up alternative and new possibilities in the study of tangible and intangible features of built heritage. This workshop aims to create a space to allow scholars to discuss, share and apply their knowledge in a digital heritage exercise contextualized in Oulu.

Keywords: *Digital Heritage, Context, Built Heritage, Digital Technologies*

BACKGROUND AND MOTIVATION

Built heritage represents a precious material and cultural resource to be studied and preserved for present and future generations. Italo Calvino, the famous Italian writer, wrote that literature classics have always something new to say (Calvino 2013), this is why we are still studying them. Remarkable buildings pertaining to built heritage can be compared to the literature classics (Di Mascio 2015); they continue to inspire people's projects and lives also after centuries. Built heritage is a key element in defining and understanding local identity. It reflects not only the importance of tangible objects but also the intangible image of a society and its attitude towards protecting the past (Kepczynska-Walczak and Walczak, 2013). In recent years, constructions (buildings, monuments) pertaining to cultural heritage are increasingly understood, documented, managed, analysed and disseminated through the application of several digital technologies; this trend has created one of the main research areas in architecture, called Digital Heritage. Digital technologies open up alternative and new possibilities in the study of tangible and intangible features of built heritage. They don't substitute traditional methods and tools but complement and enrich them; for example, freehand analytical sketches can represent an invaluable support during 3D digital reconstructions because they allow to investigate and clarify complex or missing parts. The huge variety of constructions pertaining to cultural heritage is studied using a likewise wide range of digital technologies and methods such as: laser scanning, CAAD, 3D modellers, game engines, BIM and Semantic Web technologies. The use of these digital technologies is always supported by the collection and analysis of historical information and by theoret-

ical and methodological frameworks, influenced by a large number of architectural theories and concepts. One of the main points that characterizes built heritage compared to most of the contemporary constructions is the strong connection with a specific physical and cultural context. For this reason, unlike most of the traditional workshops on this topic, the main idea that underlies this workshop proposal is linked with a contextualized practical exercise in Oulu, Finland. Every tangible and intangible feature of a heritage construction can be documented and analysed in a multitude of ways using several concepts, theories and digital tools. The participants will be asked to creatively use their diverse knowledge and experiences in the local context to deal with specific buildings' features. The workshop could also produce a project for the local historic heritage community. This event is thought to represent the first of a series of future contextualized digital heritage workshops and hence, the name Oulu interchangeable with the name of any other city or place.

GOALS AND OUTCOMES

The workshop will represent a place to share constructive and polyvalent discussions on digital heritage; participation in a previous digital heritage project/research is mandatory. This workshop aims to create a space to allow scholars to discuss, share and apply their knowledge in a digital heritage exercise contextualized in Oulu. Moreover, this event also aims to build a community of scholars interested in digital heritage, with a specific focus on architecture. With the support of the organizing committee, two different built heritage in Oulu (pertaining to diverse building typologies) will be selected as case studies for the exercise. Participants will be asked to use their expertise to speculate how to document, manage, analyse or disseminate any specific feature of the selected constructions. In this way, they will have the opportunity to share their different point of views and approaches on the same built heritage and learn from each other. As far as we are aware, this event may represent the first attempt to connect a digital heritage workshop to a local context in a multidisciplinary way. To summarize, we seek to:

- Create a space to allow scholars to discuss, share and apply their knowledge on case studies located in Oulu;
- Build a community of scholars interested in digital heritage;
- Plan future activities on digital heritage.

A poster will be prepared to show to the conference attendees the different methodologies and tools elaborated by the workshop participants for each case study. Concepts and methodologies elaborated during the workshop will be presented in a conference paper or journal article.

WORKSHOP PLAN

The workshop will provide a balance of on-site visits, plenary sessions, breakout discussions and practical exercise activities. The event will be split in two days. During the first day, the selected constructions pertaining to Oulu's built heritage will be presented with the support of a member of the local organizing committee. After the presentations, there will be on-site visits to have a direct experience of the building and collect information (such as notes, sketches, pictures, videos) useful for the exercise. During the afternoon and the morning of the day after, participants will work in groups of two or three to elaborate their speculations using their specific knowledge and approaches. During the rest of the day, participants will present their ideas and receive feedback and questions from the other scholars. A final discussion led by the workshop organizers will attempt to synthesize the key points touched during the event and to identify themes and issues for future research and collaboration, and to develop concrete actions to progress future work in this area (e.g. developing networks, future workshops). Finally, attendees will be invited to propose new and emerging themes identifying potential plans for publications.

Figure 1
Workshop's
Programme.

Timetable – Day One	
09:00-09:30	Welcome by organizers & introductions
09:30-10:30	Description of the workshop's organization and presentations of the case studies
10:30-11:00	Coffee break
11:00-12:30	First on-site visit
12:30-14:00	Workshop Lunch
14:00-15:30	Second on-site visit
15:30-16:00	Coffee break
16:00-17:00	Practical exercise in groups
19:00	Workshop dinner/ drinks

Timetable – Day Two	
09:00-10:30	Welcome by organizers & practical exercise in groups
10:30-11:00	Coffee break
11:00-12:30	Practical exercise in groups
12:30-14:00	Workshop lunch
14:00-15:30	Presentations of the works elaborated by the participants
15:30-16:00	Coffee break
16:00-16:45	Round table discussions about the presentations
16:45-17:30	Final discussions, future plans and closing remarks
19:00	Workshop dinner/ drinks

PRESENTERS

Danilo Di Mascio, Architect and PhD, is currently a Postdoctoral Research Fellow at Northumbria University (Newcastle, UK). He has undertaken research projects on digital technologies applied in the comprehension, analysis and documentation of tangible and intangible characteristics of cultural heritage, in: Belgium, England, Italy, Scotland and United States. The research include a wide variety of buildings from vernacular architecture to masterpieces such as the Glasgow School of Art designed by C.R. Mackintosh. He participated and published at various international conferences in Europe, Middle and Far East; at the Chinese University of Hong Kong (2010), he received the Young CAADRIA Award.

Anetta Kepczynska-Walczak, Associate Professor and Head of Department of Digital Technologies in Architecture and Urban Planning at Lodz University of Technology, Poland. M.Sc. in Architecture; Pg.Dip. in Computer Aided Building Design and Ph.D. at the University of Strathclyde in Glasgow, UK; 2014 habilitation. Acted as Director Commissioner for the implementation of the National Heritage Database at the National Heritage Board of Poland and as Representative of the Ministry of Culture and National Heritage in the Council for the Implementation of INSPIRE Directive in Poland. Recent monograph "Cultural heritage management in the knowledge-based society". She will be hosting the 2018 eCAADe conference.

Nicholas Webb is a PhD, a qualified architect and lecturer at the Liverpool School of Architecture. He is researching the application of contemporary digital techniques as a method of analysing historic works of architecture, providing new and enhanced information that would not have been possible in a pre-digital era. These applications are investigated in relation to designs that were destroyed or unbuilt, for example using immersive VR to augment our understanding of Jeremy Bentham's Panopticon prison, as well as buildings that still exist; such as studying medieval vault design and construction in the British Isles for the Tracing the Past project.

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