

## Modelling Medieval Vaults (London, 14 Jul 16)

The University of Liverpool in London, Finsbury Square. Seminar Room 4, Jul 14, 2016

Registration deadline: Jul 7, 2016

Alex Buchanan

The use of digital surveying and analysis techniques, such as laser scanning, photogrammetry, 3D reconstructions or reverse engineering offers the opportunity to re-examine historic architecture.

Digital analysis has enabled new research into design processes, construction methods, structural engineering, building archaeology and relationships between buildings. Recent research on Continental European and Central American architecture has established the significance of these techniques, however, as yet there has been little exploitation of digital technologies in the context of medieval architecture in the British Isles. This is despite international recognition of the importance of thirteenth and fourteenth-century English vault design to the history of Gothic architecture in an international context.

The aims of the present symposium are to present new research in this emerging field to establish appropriate methodologies using digital tools and identify significant questions for future research in the area.

The symposium will be relevant to anyone with an interest in:

Medieval architecture

Three-dimensional digital methodologies

Digital techniques used for the analysis of historic works of architecture

### PROGRAMME

09:00

Welcome (tea and coffee)

09:30

Introduction

09:40

Keynote: Prof Norbert Nussbaum, Thomas Bauer and Jörg Lauterbach:

Benedikt Ried's Deconstructive Vaults in Prague Castle – Design, Construction and Meaning

10:30 Tea and coffee break

Digital processes 1

10:50

Carmen Pérez de los Ríos:

Researching tas-de-charge Design and Construction Methods: an Approach Supported by Digital Techniques

11:10

Danilo Di Mascio:

Morphological and geometric complexities of built heritage

11:30

Marco Carpiceci and Fabio Colonnese:

Medieval vaults for Renaissance architecture. Modelling the vaults on sheet 10 of Leonardo da Vinci's Code B

11:50

Enrique Rabasa-Díaz, Ana López-Mozo, Miguel Ángel Alonso-Rodríguez and Rafael Martín-Talaverano:

Technical knowledge transfer in European Late Gothic: multi-star vaults

12:10 Questions

12:20

Keynote: Prof Santiago Huerta:

Cracks and distortions in masonry arches and vaults

13:10 Lunch break

New questions in 14th-century vaulting

13:50

Nick Webb:

Wells cathedral choir aisle vaults: digital documentation and analysis

14:05

Alex Buchanan:

Wells cathedral choir aisle vaults: issues of interpretation

14:20

Andrew Budge:

Design changes: the macro- and micro-architectural vaults of fourteenth-century collegiate churches

14:40

Sophie Dentzer-Niklasson:

From Two to Three Dimensions: Drawings and Design Processes in Medieval Vaulting

15:00 Questions

15:10 Tea and coffee break

Digital processes 2

15:30

Rosana Guerra and Paula Fuentes:

The construction of the vaults of Mallorca cathedral

15:50

Weiyi Pei and Lui Tam:

Comparison of Digital Documentation Methodologies of Neo-gothic Vaulting System: A Case Study of Dominican Church, Ghent, Belgium

16:10

Balázs Szőke, Balázs Szakonyi and Gergely Buzás:

Role of the "Horizontal ribs" in late gothic vault constructions in Hungary.

16:30 Questions

16:40 Keynote: Prof Benjamin Ibarra-Sevilla

Enquiries to be addressed to [njwebb@liverpool.ac.uk](mailto:njwebb@liverpool.ac.uk)

Further information about the symposium can be found at:

<http://www.tracingthepast.org.uk/events>

Reference:

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