DFG 3D-VIEWER - DEVELOPMENT OF AN INFRASTRUCTURE FOR DIGITAL 3D RECONSTRUCTIONS

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The Project

The development of the DFG 3D-Viewer is intended as a permanent infrastructure offering, on the one hand, sustainable accessibility and archiving of raw data sets and meta-information, and on the other hand, through the generation of 3D web models from common data types, collaboration and specialist discourse on the virtual model. The 3D viewer infrastructure to be developed should thus enable comprehensive and sustainable object and spatial research in the humanities and history, taking into account interoperable documentation standards, as well as application-related integration of web-based, interactive 3D data viewers. During the first phase of the project, components were developed to enable future use of the DFG 3D-Viewer as an application that optimizes 3D data for web browsing and transforms accompanying model metadata into the METS/MODS schema for delivery to repositories serving as data aggregators. These components include: 1. a low-threshold metadata schema for describing digital models,



2. a 3D model viewer with a modular structure that covers compression, conversion and optimization of 3D files, tools that enable customizable model visualization,

3. a prototype repository of digital heritage models where all these elements have been implemented.

Current Status and Next Steps

A prototype of the application is currently being tested for use in the higher education sector during classes on digital restoration, as well as for archiving a variety of digital heritage models provided by project partners. Similarly, the proposed documentation scheme is currently under discussion among the community. As a next step, the DFG Viewer will be implemented in various academic institutions' repositories in the next two years. The datasets from decentralised library repositories will be indexed and displayed in centralized browser web service. As a result, users are provided with a uniform interface for viewing digitised media.

Development team

Iodel Representation: Polygo

METADATA .

Reconstructed period: 1929 — 1941	Modeling Techinque: NURBS and curve modeling	VIAF ID: https://viaf.org/viaf/170713989/
Model Copyright	Creation Time Span: 2022-03-17 — 2022-05-19	Website: https://architekturinstitut.hs-mainz.de/
License: CC-BY-NC-SA Attribution-NonCommercial-ShareAlike	Participant(s)	Role: Conceptor
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Holder (Organization)	Object	Documentation
Name: Warsaw University of Technology	Name: Synagogue in Volpa	🛃 <u>Sy_Wolpa_dokumentacja.pdf</u>
VIAF ID: http://viaf.org/viaf/144776985	Type: synagogues (buildings)	Sy_Wolpa_presentation.pdf
Website: https://www.pw.edu.pl/engpw	Location	Creator ID: Igor Bajena
Model Creation	City: Volpa	Authored on: Thu, 05/19/2022 - 17:07
Used Software: Rhino 6	Geonames ID: http://www.geonames.org/620023/volpa.html	

Fig. 1: The Synagogue of Volpa in the Mainz 3D-Repository

DFGVIewer

volna htm

wiki/03508102

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Fig. 2: Overview of the same Synagogue in the DFG 3D-Viewer

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Project Architecture

