# A VIRTUAL DIORAMA

Methodologising the digital artefact in cultural heritage research

This presentation sets out from an in-deep re-examination and virtual reconstruction of the archaeological remains of a stave church. The digital reconstruction functions as a virtual diorama to contextualize the diffused and decontextualized remains and contemporaneous religious artefacts. The aim is methodological; to explore the uses of the digital artefact in the research process. The reconstruction is less of a static representation of our knowledge than a historical laboratory through which archive material can be activated and hypotheses can be tested.

The research is ongoing and we invite for discussion. How can we, through the digital artefact, elicit the sensuous aspects of a virtual place, and at the same time communicate the rigour of research and display the ambiguities of the reconstruction? How can we in an intelligible way map and reference the archive materials without interfering with the presence effect of the diorama? What are the challenges to present an interactive virtual reality file as a self-standing research output? How can we develop the digital artefact to better engage both researchers and the public in a dialogue on the premises of cultural heritage research?

# Hemse stave church revisited

During a restoration of the Romanesque church in Hemse in 1896 the remains of a stave church were found as reused floor tiles. The discovery was important at the time, providing new information to a prestigious research field with few sources of knowledge. Today the church's stave members are esoteric museum artefacts, "re-membered" in various forms of production of history, with the main function to communicate an age value. For the virtual diorama to be immersive and be explored as a place, the composition of artefacts, models and sound is accessed through a Virtual Reality (VR) system. The head mounted display (HMD) and headphones serve to immerse the user in the virtual environment, making the correct scale and position of artefacts and spaces easy to read and further enhance the sense of embodiment.

The early Gotlandic stave churches like Hemse were commissioned by magnates and used in close communites. The replacement of wooden staves by stonewalls manifesting the institutionalisation of Christianity is a well-established narrative of medieval history, adduced far beyond the island of Gotland. However, the common interpretations of the stave churches bypass the buildings as something tangible for people. How did the process of communalisation impact on the physical space? What emotions did the stave church as a whole evoke through the movements of approaching, entering and dwelling?

### **Historical Laboratory**

The research sets out from an in-depth re-examination of the stave church remains. The outcome is a virtual reconstruction or a virtual diorama that "re-members" the stave church elements and re-contextualises contemporaneous religious artefacts that have been dismembered and diffused in various exhibitions and deposits. The reconstruction is in technical terms a digital artefact with the format of an interactive application, but used in our research as a historical laboratory.

The digital artefact offers tests of articulated ideas and questions, for instance how does the natural light interact with the building and the artefacts in regard of alternative openings, time of the day or season? These kinds of tests are conventionally deductive; the outset is defined, the model is prepared for the test, the test is executed and the results are observed and recorded. The tests could be comparative, in operating alternative constructions or settings of the artefacts. The tests may also augment the attention to properties or phenomenon that are known in principle but not valorised. We know that daylight may have a strong impact on the interior space in a way that forcefully divide a room in light and dark zones, but more precisely how does this work in a particular space and setting?









Almevik, G. (2017). Perusing space-time in medieval

## **Rethinking the academic artefact**

New technology provides a wide range of formats that could enhance research communication. However, although visual media, such as images and video, are used in the research process, the academic product that reaches the stage of formal examination or scholarly review still subsumes to the authoritative frameworks for academic text. International journals, where

researchers are expected to publish, call for texts with incapacious space for images, often limited in terms of colour, spread, and resolution. The peer-review system judge content and not format, still the main outcome from this research cannot be scientifically published in a format that preserve the modality of the content. How can we craft context appropriate multimodal academic artefacts and still attend to the regimes of trust within academic society?





Both the reconstruction process and the use of the digital artefact evoke new questions, of which the pursuit of possible answers forces the researcher to iterate between the archive, and again back to the laboratory. A seemingly insignificant detail may become important when traces converge on conclusions.





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References

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