

A CULTURAL HERITAGE DIALOGUE  
IT SUPPORT FOR REFLECTIONS ON THE PRESENT AND THE FUTURE

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ABSTRACT

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A society's cultural heritage and the discussion surrounding such heritage form a possible and fruitful point of departure for reflections on the present and the future. Digital communication and visualization aids can, when properly used, provide a resource with which to develop and broaden discussions concerning the contents, usage, and significance of the cultural heritage.

To try to contribute to a broadening of the cultural heritage dialogue, with those who actually live in today's society, a church building is chosen as the object of study. The church enables a large number of opportunities for interpretation and experience and has many different meanings and values for different groups of people.

As a technical platform, a multi-user environment on the Internet, Active Worlds, is used. Within these virtual environment two interactive 3D-models of Old Uppsala Cathedral, the current church and the reconstructed 12th century cathedral, can be reached and explored. In the reconstructed model an imaginary mass on Saint Erik's Festive Day on May 18, 1180 is simulated. The models are closely integrated with contents on a website.

By actively involving two target groups, professionals involved in the church and its future (found in the ecclesiastic and conservation professions) and the school, to participate and interact with the virtual environment an evaluation of the intersections between the core of content and techniques and of possibilities for communication and dialogue has been made.

A project in collaboration between the Swedish National Heritage Board and Chalmers University of Technology

Our cultural heritage is not defined once and for all. What it means to you depends on who you are, what you know about it and from which angle you look upon it. To put the questions about the cultural heritage, its values and management, on the society's agenda it is important to establish and broaden the dialogue concerning these questions with the citizens.

In the project "A Cultural Heritage Dialogue"<sup>1</sup> we have tried to involve new and old target groups in dialogues based upon interactive visualizations. To reach a level where the cultural heritage concerns and engages as many as possible we believe it's important to go from one-way, top down communication, to a dialogue.

Few cultural environments can compete with churches in terms of claiming relationships to many disparate groups of people. The churches offer a large number of opportunities for interpretation and have different meanings and values for different groups of people. Therefore the parish church of Old Uppsala was selected the object of study.

OLD UPPSALA - THE PLACE AND THE CHURCH

Old Uppsala is one of Sweden's most famous and historically charged cultural environments. With its royal burial mounds, traces of a manor house and the former cathedral, the place itself speaks of the central importance it had in pre-historic and early medieval times.

In the year of 1164, Sweden was given permission to form its own diocese. The Archdiocese was situated in Old Uppsala in the heart of Uppland, a place that enjoyed great importance in pagan Svealand.

The cathedral was completed during the 12th century and was then some time during the first half of the 13th century, the cathedral burned down and the



Figure 1 The parish church of Old Uppsala

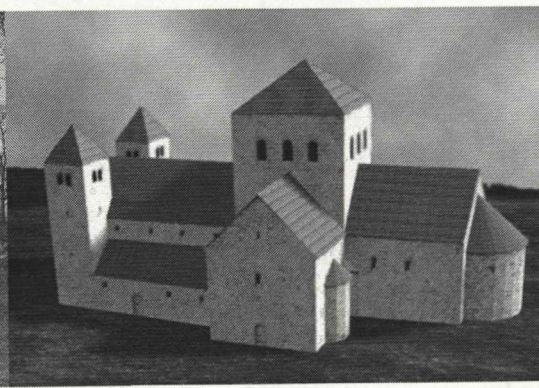


Figure 2 The reconstructed 12th Century Cathedral



Archdiocese was moved to East Aros (Uppsala). In 1270, the church in Old Uppsala was transformed into a smaller parish church.

#### ACTIVEMODULES AND TIMEDOC

As a technical platform, an online multi-user environment, Activeworlds<sup>2</sup> is used. It is a commercial system based on streaming technologies. The system hosts over a thousand collaborative 3D virtual worlds in its main universe. Within the browser users can enter and explore different worlds together.

The Activeworlds graphical interface (Fig.3) consists of three main windows: a graphics window with the current 3D world, a chat window and an interconnected standard web browser window. Entering a world a user can navigate and appear as an avatar in real-time 3D, click on objects to display the corresponding web page, teleport to a different area, chat with others etc. Activeworlds is one of the most popular and used online browsers. It stands out from the others due to its fast browser download, low system requirements and the possibilities for users to build within the world.

Within our world TimeDoc in the Activeworlds universe, two church models, the current Old Uppsala parish church and the reconstructed 12th century cathedral, can be explored.

In the parish church, which is represented in a photo-realistic way, you may click on certain objects to gain more information on the closely connected website.<sup>3</sup> There are also possible to see the planned changes in the church. If you do not want to explore the world by yourself there are two guidebots<sup>4</sup> that are programmed to show you around.

The second model represents the 12th century cathedral and is based on a scientific interpretation of the source material and available references. In this case, we have used full colour illustrations instead of photo-realism. It was important to make evident that this model is an interpretation of the source material. Via interactive solutions, visitors find out, how the source material was interpreted. Another reason was to pave the way for additions and alternative interpretations. In the reconstructed model, an imaginary mass on Saint Erik's Festive Day on May 18, 1180 is simulated.

#### USING THE VIRTUAL MODELS IN DIALOGUES WITH USERS

It is neither possible, nor desirable, to address all target groups simultaneously. Moreover, the issues that concern, or interest, different groups and individual persons are seldom the same. Therefore the information and dialogues must be based on who one wants to address and in which context.

The overall aim of the project is to establish a dialogue, where the virtual model of the church becomes a place for conversations not only about this specific church, but also of church buildings more generally, today and in the future. The point of departure for the project was the planned changes of the interior of Old Uppsala parish church. That has given us the privilege to work in close contact with the staff of the church. Together with the staff we were able to formulate the questions we wanted to discuss with the public. The planning process also gave us the opportunity to employ the virtual models and the ongoing dialogues as material in the discussions between the church and the regional heritage authorities.



Figure 3 Attending the virtual mass, in TimeDoc, Figure 4 Chat going on in TimeDoc Active Worlds

We have also collaborated with the Tunaberg School in Uppsala, where a number of students from the 7th-9th grades have participated. The aim in this case was to explore the perspective of the user thirsting for knowledge. What do the students like to know? What interests them? And how should the information be presented in the virtual model? The students have contributed by doing their own research about persons and events associated with the present as well as the medieval church. The result of the students work is presented in TimeDoc.

#### EXPERIENCES

Based on a core content representing an important Swedish cultural environment, Old Uppsala, the intention of the project was to test in which ways it is possible to develop dialogues with different target groups using Virtual Reality technology.

The results of this project and the dialogues held with our target groups will provide an important foundation for continued discussions at the Swedish National Heritage Board.

## Virtual Reality

What will the dialogues lead to in terms of expertise needed, and - perhaps - altered methods of work? The result of the dialogues, that still are running, may lead to the conclusion that experts on cultural heritage do not have all the competence and knowledge the citizens ask for. And perhaps that will lead to a change of positions. If, as a result of the dialogue with its target groups, the National Heritage Board has to transform its ways of working, this means that they strive to establish a way to deal with the heritage in a democratic way. We were happy to find out that those, who had the opportunity to take part in events in TimeDoc, experienced that they actually were communicating in a "real" space. Of course the pupils, one of our target groups, are quite used to spend time in three-dimensional virtual space, as they are playing Internet based online games. But still, we found it easy to discuss difficult questions with them; what does a church mean to them, what values do they see, and what are their opinions of what you can and cannot do with a church. The pupils willingly took part in what developed into a virtual excursion and very much enjoyed the dialogue.

Not only did we successfully conduct an interactive lesson in TimeDoc with the pupils of the Tunaberg School, on more than one occasion we arranged open houses and other presentations where experts participated. The general experience of these "seminars" was that the experts very quickly forgot the virtuality of the setting and became involved in discussions about the content. The three dimensional context evoked certain topics that concerned experts from different fields and led to re-evaluations of existing knowledge. For example, after some discussion, the reliquary with the bones of Saint Erik was moved to another location within the medieval church, to allow better access for pilgrims.

Finally, within the model of the parish church, the members of the parish of Old Uppsala had the opportunity to examine proposed changes sketched by the architect. The parish church model was demonstrated on meetings between parish members and involved experts. It was employed to demonstrate different ways to rearrange the interior. However, few of the parish members took the chance to explore TimeDoc on their own. The quite simple technology involved still seems to represent an obstacle for many potential users.

One important problem we have experienced so far concerns how to sort out the dialogue when there are more than 4-5 active visitors present simultaneously. It becomes hard to figure out who is talking to whom and some people tended to become involved in two or three conversations at the same time. Another problem is that the number of objects that a certain area within Activeworlds may hold is limited. Thus, for example, some of the proposed changes of the parish church had to be shown in the separate web-window, which decreases interactivity.

### CONCLUSIONS

This is the first time the National Heritage Board is involved in real-time discussions with its target groups in a Virtual Reality medium. The results of the project so far are convincing and speak for a continuation. A dialogue in a real-time simulated world provides the opportunity to discuss questions concerning cultural heritage with groups of people that are normally hard to reach through other media. And the multimedia environment provides new angles.

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<sup>1</sup> See <http://www.design.chalmers.se/kulturarvsdialog>.

<sup>2</sup> See <http://www.activeworlds.com>.

<sup>3</sup> See <http://www.design.chalmers.se/kulturarvsdialog/gam-la uppsala>.

<sup>4</sup> Bots: short name for robot.

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