

## PRESS RELEASE

### Schönbrunn Gets a Virtual Counterpart

**3D simulation of Schönbrunn's magnificent state rooms produced collaboratively by the Schönbrunn Society and the Ars Electronica Futurelab offers viewers remarkably realistic glimpses of the imperial palace's interior. State-of-the-art technology makes it possible to achieve a previously unattainable degree of realism in the virtual representation of this important part of Austria's historical and cultural heritage.**

*Whereas other cultural treasures go out on loan and tour the world from time to time, Schönbrunn's magnificently appointed state apartments could have been viewed only in Vienna heretofore. Now, a media installation developed by the Ars Electronica Futurelab makes it possible for viewers at other locations as well to experience the genuine feeling of a tour through the imperial residence. The first result of this pioneering project is a 3D simulation of the Millionenzimmer (million room), an interior space decorated with especially ornate wall paneling and numerous Indian-Persian miniatures. The particular challenge in this project was to produce a virtual depiction capable of capturing the room's artistic quality that resides above all in its decorative details. "Our primary objective was to achieve a reconstruction that comes as close as possible to the original spatial impression of this historical setting," explained Horst Hörtnner, director of the Ars Electronica Futurelab.*

*What awaits the viewer is a remarkably accurate reproduction and a process of immersion that even outdoes the real thing when it comes to the possibilities of viewing hard-to-reach places. Equipped with a joystick, the user can move about freely in space to get close-up views of some of imperial culture's consummate artworks, treasures from which viewers on-site are separated by velvet ropes and other protective installations.*

"Have no fear: we're not attempting to transport Schönbrunn Palace into the realm of the 'hologram experience.' After all, an artificial imitation will never be able to replace the special quality and captivating atmosphere of the imperial original," said Franz Sattlecker, chairman of the Schönbrunn Society. Rather, the media installation is intended to be used as a marketing instrument in appropriate settings such as trade fairs and exhibitions as a means of whetting guests' appetite for more: "Gliding unrestrained by gravity through the palace's interiors, past chandeliers and miniatures, was a most impressive experience even for someone like myself with a profound knowledge of Schönbrunn. In going about this work, we even discovered a previously unknown inventory number on a painting."

*The simulation's incredible richness and accuracy down to the last detail could be achieved only through the use of leading-edge techniques. Throughout the project, engineers used highest resolution digital technology ranging from laser scanning to meticulously created photographic material to generate the final visualization. "The simulation is based on the latest achievements in the field of real-time computer graphics, the most essential element of which is revolutionary 3D software we developed ourselves," Horst Hörtnner added.*

*Schönbrunn Society Co-chairman Wolfgang Kippes mentioned another important use to which the simulation will be put: "With this project, we are not only opening up a new possibility for presenting the palace to audiences*

around the world; we are also establishing a new standard for the digital conservation of irreplaceable cultural treasures.”

*The Schönbrunn Palace Society is also currently involved in another large-scale digitization initiative. The Technical University of Vienna’s Christian Doppler Laboratory for Spatial Data from Laser Scanning and Remote Sensing has been commissioned to develop an administrative system based on detailed geometric models of the palace. This system will establish a database for a variety of different applications ranging from purely documentary usage (in the sense of “digital heritage”) to restoration projects and even an all-encompassing facility management system.*

“We have developed a laser scanning method that makes possible an exact registration of edges as well as a qualitatively outstanding description of surfaces,” stated Peter Dorninger, the Christian Doppler Lab staff member in charge of the project. *It is envisioned that planned 3D visualizations of three more of the palace’s state rooms will be able to take advantage of synergies emerging from both projects.* “The geometrically absolutely precise spatial models produced by the Christian Doppler Lab could serve as the framework for the Ars Electronica Futurlab’s work and thereby contribute to greater efficiency,” Wolfgang Kippes explained.

*The virtual simulation of the Millionenzimmer was produced at a cost of 32,000 euros. For additional rooms of comparable size, the cost would run about 20,000 euros each. In addition, there are the costs of the hardware necessary for the presentation of the installation.* “Each full-wall projection requires a PC and two projectors putting out at least 5,800 ANSI lumens. This relatively high-output lighting is necessary since the images have to be projected onto a black screen treated with a special 3D coating. This is the only way to achieve optimal dark effects and intensive contrast,” according to Michael Leonardelli, the Palace Society’s head of data processing. *The one-time investment*

*necessitated by this technology is estimated at 45,000 euros per wall.*

"In the final analysis, the media installation set up at venues all over the world will focus attention on Austria's cultural treasures and thus benefit not only Schönbrunn but also the entire domestic tourism industry. Furthermore, the work that we are commissioning is making possible R&D projects that are coming up with truly innovative results," *Franz Sattlecker concluded.*

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