

# Multidimensional Stage for Historical Experience

## Project: “Virtual History” Filmuniversität Babelsberg “Konrad Wolf”

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### Project summary

The project “Virtual History – Die digitale Rekonstruktion des Forum Romanum als wissenschaftlicher Erlebnisraum” from the Film University Babelsberg, Germany, started in June of 2018 and is closely connected to the “Digital Forum Romanum Project” of the Winkelmann-Institute of the Humboldt-University of Berlin. As a first step the project’s main goal is to design a virtual model of the Forum Romanum from the time of Julius Caesar’s reign as dictator of the late Roman Republic<sup>1</sup>, which can be experienced by scholars, scientists and interested viewers alike in 3D (Virtual Reality) and also as an Augmented Reality Transformation. The reconstruction of this historic space serves as a pilot project for the future of immersive virtual spaces and for an experience- and atmosphere-based access to approaching and deeper understanding of scientific data. It also takes a new and interdisciplinary approach to creating innovative fields of scientific interest by combining the well-proven, classical scientific methods of Archaeology and Art History with the creative, result-oriented working philosophy of a Film & Art university and its awarded professionalism in terms of digitalization and scenography. Therefore “Virtual History” defines itself as one of the pilot projects in the area of *artistic-scientific research*.

### Research questions and strategies

One of the most frequently asked questions in the scientific discourse around the emerging historical reconstructions in the Virtual Reality field is concerned with how we will deal with the certainties and uncertainties of the archaeological information as it presents itself in the records of material excavations and written sources. How does one present the prestigious Roman Forum in its visually stunning entirety with so many missing links in the puzzle? Or in consequence to this: How do we show that we are not sure? How can Art surpass scientific lacks of information?

At first all available scientific data was collected and the visual and geometrical outlines were mapped. The current state of the Forum Romanum was scanned using a LIDAR scanner at several positions in the area. Floors and pavements were captured, while using colour-boards to get a professional grade colour reference and shots from several 360° panoramas on location. Meanwhile, two seminars took place as a cooperation between Film University Babelsberg and the department of Classical Archaeology of the Humboldt University Berlin. These seminars did show not only the growing interest for virtual reality subject matter from students in both fields but also the gainful exchange between two disciplines with very different methodological approaches. The seminars goal was a) to research the everyday life as well as the political and religious events on the ancient Forum Romanum<sup>2</sup> under the influence of Caesar during the Late Republic and b) to examine the possibility for an auralisation for the 3D representation of the Forum Romanum<sup>3</sup> in order to show political speeches or public trials. With the success of the seminars and their contribution to the project first soundscapes were set for different parts of the storyboard. And now the design department of “Virtual History” could base its work on the scopes of fresh documented archaeological, acoustic and scenographic investigations with the most supposed probability.

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<sup>1</sup> Eventhough it has been studied for centuries, the Forum Romanum still raises new and exciting questions on how society deals with public space, its traditions and different functions and therefore attracts researchers from different fields. Among the many recent publications Freyberger, K. S. (2012) provides a thorough entry into the matter.

<sup>2</sup> The use and change of space and architecture on the Forum during the different periods of time has been a field for extensive study in the past. c.f. Muth, S. (2014).

<sup>3</sup> The basis for the soundscape are in part the results and discussions from the archaeologists of the Humboldt University Berlin, who tried different approaches for examining the visuality and range of political speeches on the Forum Romanum in recent years (c.f. Schulze, H. and Muth, S. (2014)).

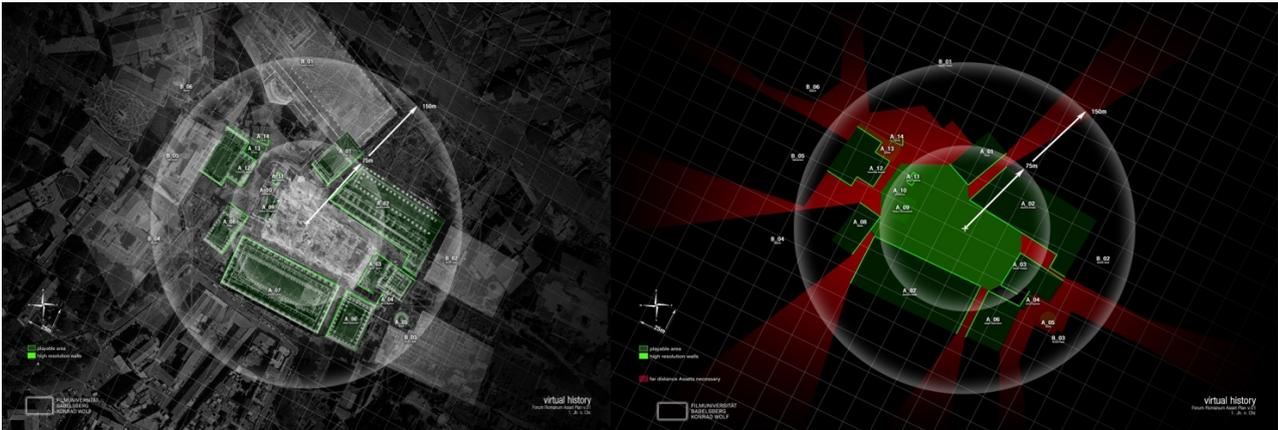


Fig. 1. Assetplan\_1 (© Filmuniversität Babelsberg\_Virtual History).

### The vision of the project

To finally show these results as well as the aforementioned uncertainties within the developed data “Virtual History” defines the orchestrated representation of the Forum on three different planes: A first one shows the user the “real” Forum Romanum in its current state, i.e. the archaeological site that can be visited in Rome today. The second one shows the 3D reconstruction of the Forum Romanum during the times of Julius Caesar based on proven scientific knowledge as an architectural model. Third an artistic interpretation of the archaeological findings and other relevant sources is to conclude and to fill in the gaps of the unknown. All three layers are built modular and can be updated and refreshed with new evidence and results at any time in the future.



Fig. 3. Forum Romanum Unity – rough style (© Filmuniversität Babelsberg\_Virtual History).

To tell the underlining story for viewers, the project operates with 2D concepts, that are set into the 3D world. A main feature of this particular reconstruction of the Forum Romanum is the opportunity to interact. The user is therefore navigated in the storymode to certain viewpoints, using different interaction methods and switching between the planes at certain times and locations. In addition for the more experienced user a number of information points serve as a basic guideline to walk the Forum Romanum on your own and get useful historic and archaeological information on the way. There will also be a possibility for captured data to be exchanged between the VR space around the objects and the AR representation, allowing the user to

further investigate certain interests later on or share them with other viewers. Users can also play little versions of ancient games and riddles, like the Roman Rota game, on some special positions on the Forum.



Fig. 3. a) Volumetric Video Shot (© Filmuniversität Babelsberg\_Virtual History). b) Cicero Speech (© Filmuniversität Babelsberg\_Virtual History and Winkelmann Institut HU Berlin)

After all, the project “Virtual History” understands it as its primary task to give scientists new inspiration and new tools for their work and aspire to an interdisciplinary cooperation between scientists, scholars, designers, developers, artists and IT specialists and would like to encourage others to new creative processes and decisions.

## References

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