DIGITALE REKONSTRUKTION ANTHROPOLOGISCHER FUNDE - EINE PILOTSTUDIE ZUR 30.000 JAHRE ALTEN DOPPELBESTATTUNG VON NEUGEBORENEN AM KREMSER WACHTBERG

Lead partner:
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Additional participating institutions:
Naturhistorisches Museum Wien
Universität für Weiterbildung Krems (Donau-Universität Krems)
Österreichische Akademie der Wissenschaften

Research field:
Geistes-, Sozial- und Kulturwissenschaften
Sammlungen Niederösterreich
Materialen und Oberflächen

Funding tool: Basic research projects

Project-ID: FTI17-010

Project start: 01. November 2018

Project end: will follow

Runtime: 24 Monate / finished

Funding amount: € 180.000,00

Brief summary:
The discovery of the more than 30,000 years old ritual double burial of two neonates at the Krems-Wachtberg site in 2005 has evoked much attention not only by the media and the general public, but also from the international scientific community as findings of sub adults of ancient humans are, on a global scale, extremely rare occasions.
After the discovery and exposure the ritual burial was carefully recovered as a block, and the fragile specimens were stored to keep its original excellent condition. In 2015 the recovered block was excavated, documenting each single step with state-of-the art methods.
Digitisation is now aimed for to enable analyses, restoration and also visualisation. Currently, the only non-destructive way to make a digital copy and visualize the remains is high-resolution micro-computed tomography imaging. It allows 3D reconstruction of the surface as well as the inner micro-structure - making it possible to “uncover the invisible”. In 2018 such a device will be installed at the division for Biomechanics of KL University as part of the Core Facility at Campus Krems.
This will overcome the current restrictions of analysis and allows a digitisation of the findings for future analysis. Together with the available light scanning data from the excavation the whole assembly can be reconstructed. Apart from 3-dimensional reconstruction it will be possible to restorate the chaîne operatoire of activities which were part of this burial process, as well as the post-sedimentary formation processes (4D = modelling the development through time).
In addition to the reconstruction of the burial, up-to-date documentation and archiving of the data is of utmost importance to lay a basis for further research. Thus, one of the main objectives of this pilot project is to set up a catalogue of criteria for a long term, open-source data repository which provides access to all the data regarding the excavation and findings for larger groups of scientists beyond disciplinary borders.
Digitisation of the Krems-Wachtberg double burial is challenging in all respects and requires a variety of experts to deal with the many aspects that are inherent in such a spectacular discovery. For the first time, it is possible to investigate this outstanding find from Krems-Wachtberg under the leadership of Lower Austrian research institutions. As one of its main

targets, the proposed project will contribute to a further professionalization in Collection Management and Museology – one of the areas of Lower Austrian FTI strategy – and it will significantly improve the visibility of cultural heritage in Lower Austria by latest technical developments that allow for scientific exploitation on an international level.