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CeraMIS - interactive Internet-based information system on Neolithic pottery

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Abstract

The development of “CeraMIS”, an interdisciplinary data base management system for analytical results of clay raw material (geological samples) and pottery artefacts (archaeological samples) is modelled on former provenance studies presented here on poster. It is part of a German-Hungarian bilateral project on “Long distance trade in Neolithic pottery” (<http://www.ace.hu/daad/daad3/>)

The data base management system consist two main components: the SQL database and the software “CeraMIS” that organizes the storage of data.

One of the important features of the database is to make clear differences between analyses on the whole pottery, the clay paste, the temper and the surface treatments. Applying a logical, already traditional methodological procedure of provenance analysis of archaeological pottery, we will present results of petro-minerological and geochemical investigations of the samples, like macroscopical, microscopical description, X-Ray diffraction, X-Ray fluorescence, PGAA, INAA, etc. As the second part of the project, it is to investigate the surface treatments (paintings, slips, other techniques). To analyze these thin, easily destroyable constituents of pottery it is necessary to involve non-destructive, high resolution methods (Raman, μ -Raman, μ -XRF, FTIR, single crystal X-ray diffractometry) which provide detailed information on these surface occurrences.

To present the results of these complex investigation and make the information available to all other people involved in the field of research, we have developed the software solution based on a client/server architecture. The client software “CeraMIS” connects to the server via internet connection in a way that the user does not need to install any additional software. The database can be queried by search methods. The system is designed so that further amendments and extensions are possible without data loss. It is updated and tailored according to the experience gathered during its use. The system functionalities, data structure and data content are regularly revised according to the requirements of the users and data providers. However, the amendments should be done so that the changes do not hamper the comparisons with the previous data and applied methods.