IPAC Activity Description

Name of Activity

Biometric Identification in the Classical World

Contributor

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Brief Description of the Activity

This project applies forensic techniques used in human identification, specifically facial biometrics, to artifacts of classical antiquity. The aim is to provide objective measurements of facial features of ancient Roman portrait statues, to facilitate an assessment of the relationships between individual portraits including formal and stylistic aspects. Evaluation of the variation of data with regard to population norms will provide insight into the Roman approach to human likeness and the production processes of Roman portraits. Currently, this has been understood largely as an analogy with modern sculpting practice.

Interdisciplinary Nature of the Activity

This project aims to foster interdisciplinary and international collaboration among researchers in the humanities, mathematics, computer science and forensic science.

The international team has specialisations in the following areas:

- Dr. Schofield: 3D Modelling, Forensic Metrics, Facial Biometrics, Statistics, Data Storage/Dissemination
- Dr. Lorenz: Classical Archaeology, Roman Sculpture, Digital Humanities, 3D Reconstruction
- Dr. Davy-Jow: Forensic Anthropology, Biometrics, Facial Reconstruction, Virtual Anthropology

- Dr. Schofield, the project director, is based at the State University of New York in the USA.
- Dr. Lorenz is Director of the Digital Humanities centre at the University of Nottingham in the UK.
- Dr. Davy-Jow is based at the University of South Florida in the USA.

The individual members of the team have collaborated in the past, and have

experience of working together undertaking preliminary work on this project.

Relationship to Interdisciplinarity at Oswego

This project engages SUNY Oswego students in significant interdisciplinary research and has already resulted in the publication of interdisciplinary research by the international team of investigators. Research of this caliber significantly enhances the profile of SUNY Oswego with respect to interdisciplinarity.

Initial work by students at Oswego included examination of two portraits by means of laser-scanning yields certain benefits over traditional stylistic analysis, the mode of enquiry generally used in the study of ancient portrait sculpture: the relationships between the two representations can be mathematically quantified, thereby rendering stylistic analysis more transparent. The next stage of the project will involve further analysis of the mathematical data and visual feature comparisons between the statues.

Paper produced based on this work: Schofield, D., Lorenz, K., Davy-Jow, S. and Anderson, M., Roman Portraiture and Biometric Identification, Proceedings of the British Computer Society Conference on Electronic Visualisation and the Arts, 10th-12th July, pp 165 - 173, London, UK, 2012.

IPAC Support

Meeting space for international collaborators and visitors.

Assistance dissemination results of research work.

Assistance organising workshops for academics in similar fields.

Relevant Dates

Foreseeable future.