# FACES OF JULIOPOLIS: 3D FACIAL MODELLING WORKSHOP

17-19 OCTOBER 2018





### **WORKSHOP DATES**

17-19 October, 2018

#### PARTICIPANT NUMBER

15

#### INSTRUCTOR

Prof. Fabio Cavalli

#### **VENUE**

Koç Üniversitesi VEKAM Ankara Bağ Evi

In 2017, Koç University VEKAM decided to support a Bioarcheaological and High-Tech Research in Juliopolis which is conducted by Asst. Prof. Ali Metin Büyükkarakaya, from Hacettepe University, Department of Anthropology.

The project intends the study of the skeletal remains from Roman Juliopolis (an ancient Roman city in the province of Ankara-Nallihan), to understand the genetics, population structure (demographic), and health of an ancient Roman-period community of Ankara province. The skeletal material derives from salvage excavations begun in 2009 by the Museum of Anatolian Civilizations, resulting in the remains of 250-500 individual skeletons from more than 500 graves. In addition to traditional bioarchaeological approaches that reveal information about the age, gender, and health of ancient individuals, the project proposes to conduct newer, more cutting-edge scientific analyses that are more rarely practiced in this area.

Within the scope of the project VEKAM is pleased to organise a workshop on 3D Modelling in terrms of facial traits with valuable contributions of Prof. Fabio Cavalli from Tireste University between 17-19 Ocotber, 2018. We believe that the workshop will contribute in the training of young researchers in cutting-edge approaches so that they can continue these types of scientific analyses into the future.

# **FABIO CAVALLI**



Fabio Cavalli was born in Grosseto, Tuscany, Italy in 1954. He studied Medicine and Surgery and graduated with honors in 1978 from the University of Siena and post-graduated in General Radiology in 1981 (The University of Siena).

In 1981 he worked as radiologist in Trieste at the Department of Diagnostic Imaging. In 2007 he became head of the Research unit of Paleoradiology and Allied Sciences of the Laboratory of Health Technology. He is the coordinator of the Osteoarchaeology Laboratory of the Jaufré Rudel Academy of Medieval Studies in Gradisca d'Isonzo.

In 1988 he co-founded the Academy of Medieval Studies "Jaufré Rudel" of Gradisca d'Isonzo which he is currently President and Head of the Study Section of Medicine History and Bioarchaeology. He is also co-founder and member of the

International Association of Studies on Myth and a member of the International Association of Greek and Latin Scientific Lexicography (IALS). He was member of the European MEPROCS project for the standardization of forensic techniques on craniofacial superimposition.

Cavalli collaborated with various institutions such as; the Institute of Mediterranean Heritage, Primorska University-Piran (SLO); the Institute for Anthropological Research (HR); the University of Lubljana and the Institute of Geochemistry of University of Parma.

He is consultant for the Zavod za Varstvo Kulturne Dediscine Slovenije (Ministry for the Protection of Cultural Heritage of Slovenia), and collaborates with MIBACT, Department for Cultural Heritage and of Friuli Venezia Giulia.

Cavalli teaches; History of Medicine Forensic Anthropology and Forensic Radiology for the University of Trieste and Facial Traits Reconstruction at the Specialization Courses of Mummiology for the University of Pisa.

# **OUTCOMES OF PROGRAM**

The general purpose of this program is to discuss the scientific definitions of analysis and reconstruction of facial traits and their possible applications in the archaeological field. The participants will preliminarily examine the history of the various theories regarding facial perception and reconstruction especially in the forensic field of personal recognition, discussing the advantages and pitfalls of the various methods proposed over the past one hundred and fifty years. Subsequently the participants will analyze the relationships between facial skeleton and facial features over real cases, until practically performing the computer-assisted reconstruction of a face starting from a facial skeleton, critically analyzing the results obtained.

### PARTICIPANTS WHO COMPLETE THIS PROGRAM:

- 1. Improve their knowledge on the theory of facial traits reconstruction
- 2. Improve their knowledge on anatomical relationships between facial skeleton and facial traits
- 3. Improve their knowledge of computer-assisted cranio-facial reconstruction techniques
- 4. Will be able to analyze and evaluate the results obtained
- 5. Will be able to use the principles and techniques for reconstructing facial features in archaeology.

#### PARTICIPANTS SHOULD BE FAMILIAR TO SOFTWARES:

- 1. MeshLab (free)
- 2. FaceGen (Singular Inversion) free / trial version
- 3. 3dS Max (free academic license)
- 4. Adobe Photoshop (better) or GIMP

#### **NOTES TO PARTICIPANTS:**

- · The language of the workshop will be in English, so participants are expected to speak advanced English
- All the participants will provide their own transportation, accommodation and computers with the required programs. Coffee Breaks and Lunch Boxes will be provide by VEKAM on 17-18-19 October, 2018.

# **PROGRAM**

# 17 OCTOBER 2018, WEDNESDAY

09:00-09:30	Opening speeches	
09:30-10:30	To perceive the face. A cultural problem	
10:30-11:30	Anatomy of the face	
11:00-11:15	Break	
11:15-12:15	Recognize the face from a skull without "helpers": laboratory	
12:15-12:45	The landmarks of the face and the skull	
12:45-13:45	Lunch	
13:45-14:15	Craniometric and facial points: laboratory.	
14:15-14:45	Correspondence between craniometric and facial points: theories, pitfalls and practice.	
14:45-15:45	Craniofacial superimposition: theory and practice	

## 18 OCTOBER 2018, THURSDAY

09:30-10:30	Laboratory of craniofacial superimposition
10:30-11:30	Facial traits reconstruction: history, theory, techniques and pitfalls
11:30-11:45	Break
11:45-12:45	Laboratory of reconstruction vs. known faces
12:45-13:45	Lunch
13:45-15:15	Laboratory of reconstruction vs. known faces
15:15-15:45	Analysis of the results

# **19 OCTOBER 2018, FRIDAY**

09:30-10:00	The "archaeological face"
10:00-11:30	Laboratory of "archaeological" faces
11:30-11:45	Break
11:45-12:45	Laboratory of "archaeological" faces
12:45-13:45	Lunch
13:45-15:00	Laboratory of "archaeological" faces
15:00-15:45	Final discussion



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