

CONFOCAL MICROSCOPY FOR THE ANALYSIS OF WEAR ON TOOLS AND TEETH IN PREHISTORY

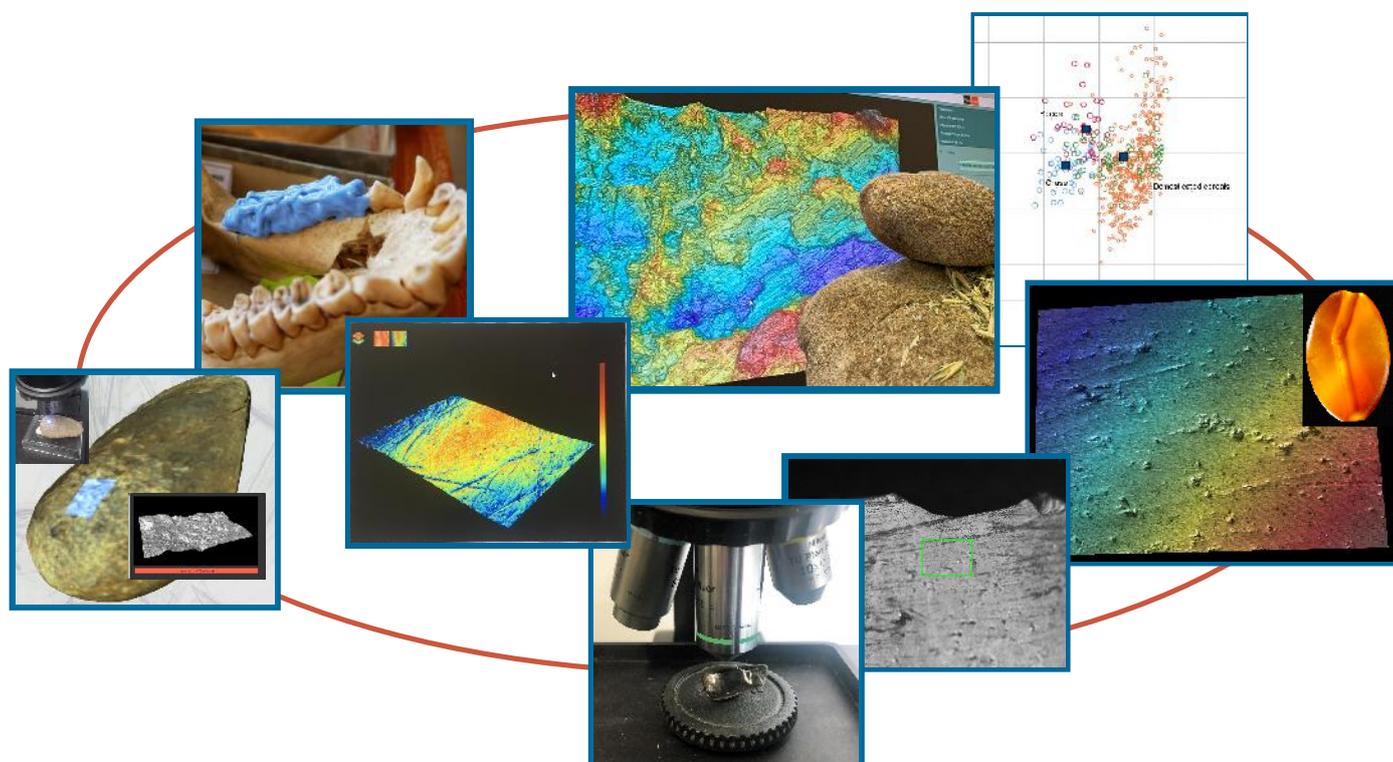
2-4 May 2022

Institute Milá y Fontanals (CSIC), Barcelona

During the last decade, texture analysis of wear on teeth and tool surfaces performed using 3D scanning confocal microscopy is gaining momentum. The Archaeology of Social Dynamics group of the Milá y Fontanals Institute (CSIC-Barcelona) is organising a workshop on this subject. Besides discussing methodological questions, we will present different case studies involving the application of confocal microscopy and texture analysis.

The workshop is addressed to students wishing to develop their research using this methodology and to consolidated researchers interested in integrating this line of research into their studies. We will keep a balance between theoretical and practical learning.

Mornings will be devoted to theory, while the practical use of the confocal microscope, texture analysis software and statistical packages will be carried out during the afternoons. Furthermore, during the workshop participants will also have the opportunity to discuss their scientific interests and present their case studies.



REGISTRATION

Send a short application letter to:
tecnologiaprehistorica@imf.csic.es

DEADLINE: 1st April 2022

FEES:

60€ - students (MA/PhD)

100€ - professionals

May 2nd 2022

Hour	Title	Speaker	Institution
9-10h	Confocal microscopy	Sara Aguado	Sensofar
10-11h	The SensoMap (Mountains) software for texture analysis	Sara Aguado	Sensofar
11-11:30h	Coffee-break		
11:30-12:30	Data acquisition (cleaning of samples, casts and measurements)	Juan José Ibáñez	IMF-CSIC
12:30-13:30	Treatment of 3D images	Niccolò Mazzucco	University of Pisa

15-16h	Hands-on session: Data acquisition
16-16:30	Coffee break
16:30-18h	Hands-on session: Treatment of 3D images. Filtering

May 3rd 2022

Hour	Title	Speaker	Institution
9-10h	Statistical analysis	Ferran Estebananz	IMF-CSIC
10-11h	Texture analysis on teeth: state-of-the-art and new challenges	Gildas Merceron	PALEVOPRIM Lab, CNRS & University of Poitiers.
11-11:30h	Coffee break		
11:30-12:30	Case study 1: Harvesting technology during the Neolithic	Fiona Pichon	IMF-CSIC
12:30-13:30	Case study 2: Diet in primates, hominins and ancient homo	Laura Martínez	University of Barcelona

15-16h	Hands-on session: Measuring texture
16-16:30	Coffee break
16:30-18h	Hands-on session: Statistical analysis

May 4th 2022

Hour	Title	Speaker	Institution
9-9:30h	Case study 3: Animal teeth	Sergio Jiménez	IMF-CSIC
9:30-10h	Case study 4: Ornaments	Hala Alarashi	IMF-CSIC
10-10:30h	Case study 5: Pottery technology	Sara Díaz and Niccolò Mazzucco	Autonomous University of Barcelona and University of Pisa
10:30-11	Case study 6: The bamboo hypothesis	Hermine Xhaiflair	IMF-CSIC
11-11:30h	Coffee break		
11:30-12	Case study 7: Milling and pounding tools	Andrea Zupancich	IMF-CSIC
12-12:30	Integrating different scales of 3D analysis	Thomas Huet	Oxford University
12:30-13:30	Texture analysis on teeth and tools: similarities and disparities	Ivan Calandra	MONREPOS Archaeological Research Centre and Museum for Human Behavioural Evolution, Mainz, Germany

15-16h	Hands-on session: Potential case studies presented by the participants		
16-16:30	Coffee break		
16:30-18	Round table. Potential and limits of confocal microscopy and texture analysis Gildas Merceron Ivan Calandra Juan José Ibáñez Niccolò Mazzucco Laura Martínez		