

3D imaging in a South African context
An AESOP Workshop, University of Pretoria
12 to 15 October 2015

Organising committee:

Anna Oettle, Louise Euthimiou, Nanette Briers (University of Pretoria)
 Frikkie de Beer (Necsa)
 Lorna Holtman (University of the Western Cape)
 Jose Braga (University of Toulouse – Paul Sabatier, France)

DAY 1 - 12 October 2015

Venue: Sanlam Auditorium, Hatfield Campus, University of Pretoria

TIME START	ACTION/TITLE	NAME	Chair
14: 00	Application of micro-computed tomography to the analysis of forensic taphonomy and entomology of South African burial systems	Alexander Parkinson PhD candidate Evolutionary studies institute, Wits	Prof Maryna Steyn HOD School of Anatomical Sciences, Wits
14: 15	3D imaging as a tool for investigating past human biodiversity	Jason Hemingway Lecturer: Anatomical Sciences, Wits	
14: 30	Assessing cranial sexual dimorphism using sliding semilandmarks	Candice Small Anatomical Sciences, Wits	
14: 45	Magnetic Resonance Imaging for the analysis of sub-adult skeletal remains	Desiré Brits Lecturer: Anatomical Sciences, Wits	
15: 00	Dental crenulations: age estimation tool or developmental artefact	Erin Hutchinson Lecturer: Anatomical Sciences, Wits	
15: 15	The effect of tooth loss on accurately estimating sex from non-alveolar mandibular morphology using geometric morphometrics	Tshegofatso Ramphaleng MSc student Anatomical Sciences, Wits	
15: 30	Changes in the body proportion of South African children age 0-6 years	Dr. Adebessin A. Abduljalil Evolutionary Studies Institute, Wits Department of Anatomy, Sefako Makgatho Health Sciences University	
15: 45	An overview of 3D analysis of structure in the Faculty of Health Sciences, University of Pretoria	Dr. Anna Oettlé Senior lecturer: Department of Anatomy	Dr AC Oettlé Department of Anatomy University of Pretoria
16: 00	Facial profiles of children in forensic analyses	Dr. Nanette Briers Senior lecturer: Department of Anatomy	
16: 15	SAPS Facial Reconstruction	Captain Teunis Briers	
16: 30	The Lodox machine in the forensic environment	Dr Janette Verster Forensic pathology	
16: 45	Digitisation of skulls in South African groups	Melissa Pininski PhD candidate Physical anthropology University of Pretoria	

DAY 3 - 14 October 2015

Training session in 3D imaging

Venue: All activities on Prinshof campus, University of Pretoria
Morning coffee/tea/rusks and registration from 7h00 as well as 11h00 Tea and 13h00 Lunch will be served on the roof Garden accessible from the 4th floor Oral and Dental hospital

Presentations: 07h30 to 11h00 in lecture hall 6-24, Dental hospital

Workshop: Geometric Morphometrics: Prinshof IT (Information Technology) Green laboratory/

Workshop: Educational 3D models room 4-24, Basic Medical Sciences Building as indicated

All transport arranged

Departure 06:30 from Hatfield campus, University of Pretoria

TIME START	ACTION	NAME	Chair
07: 15	Arrival and registration: Morning coffee		
07: 45	Welcoming address	Prof Bosman HOD Department of Anatomy UP	Dr AC Oettlé Department of Anatomy University of Pretoria
08: 00	CBCT at the School of Dentistry, Faculty of Health Sciences University of Pretoria	Dr. André Uys Radiology School of Dentistry UP	
08: 15	CBCT versus Micro focus in assessment of alveolar bone	Prof André van Zyl HOD: Department of Periodontics School of Dentistry UP	
08: 30	Microstructure of the mandible	Charlotte Theye – PhD candidate UP	
08: 45	Changing lives using 3D printing	Dr Cules van den Heever Prosthodontist	
09: 00	Association between body weight and facial features	Dr Vinet Coetzee Facial Morphology Research Group Department of Genetics	WORKSHOP: EDUCATIONAL 3D MODELS Room 4-24, Basic Medical Sciences Building
09: 15	3D imaging in Nuclear medicine	Prof Mariza Vorster Nuclear Medicine UP	Mould making Mr. Gert Lewis/ Jabu Tshabalala Department of Anatomy, UP
09: 30	Basic concepts of Geometric morphometrics	Jason Hemingway Lecturer: Anatomical Sciences, Wits	
10: 30	Tea		
11: 00	Radiology Steve Biko hospital	Prof Zarina Lockhat (HOD) and Dr. Paul Rischbieter Department of Radiology	3D printing at UP makerspace Dennis Kriel Instructional Designer/ Educational Technologist, UP
11: 15	Imaging in forensic pathology	Prof Gert Saayman HOD: Forensic pathology UP	
11: 30	3/4 D ultrasound applications in O&G, with emphasis on pelvic floor musculature	Dr Zeelha Abdool Obstetrics and Gynaecology UP	From 3D printing to 3D model Liezl Kok Anatomoulds Pty Ltd

TIME START	WORKSHOP: GEOMETRIC MORPHOMETRICS Prinshof IT (Information Technology) Green laboratory	WORKSHOP: EDUCATIONAL 3D MODELS Room 4-24, Basic Medical Sciences Building
12: 00	Prinshof IT, Green laboratory Landmarking by microscribe digitiser Using 2D or 3D coordinates in GM Analysis Jason Hemingway Lecturer: Anatomical Sciences, Wits	Museum visit Department of Anatomy University of Pretoria
13: 00	Lunch	
14:00 - 17: 00	CONTINUATION OF WORKSHOP: GEOMETRIC MORPHOMETRICS Potential of 3D analysis Landmarking on 3D images; segmentation; 3D visualisation and representation for comparisons Jean Dumoncel Computer scientist and PhD student in IT (University of Toulouse – Paul Sabatier) Dr. Clément Zanolli Centre National de la Recherche Scientifique, France	CONTINUATION OF WORKSHOP: EDUCATIONAL 3D MODELS:
18:30 for 19:00	Gala Dinner UP Conference Centre Function Hall	

DAY 4 - 15 October 2015

Venue: Agriculture Annexe, Room 2-19, University of Pretoria, C/- Lynnwood Road and Roper Street, Hatfield

TIME START	ACTION	NAME	Chair
11: 30	Geometric parameter extraction from 3D imaging for computational modelling of user-variance in live cochleae	Prof Tania Hanekom Bioengineering	Dr. Anna Oettlé
11: 45	Visualisation of the macro and micro structure of the human cochlea and its application in cochlear implant research.	Riaze Asvat Lecturer: Department of Anatomy UP	
Not for CPD			
12: 15	Finite analysis perspectives	Prof Schalk Kok, UP: Mechanical and Aeronautic Engineering	
12: 30	Registration based strategy for the reconstruction of mandibles from full or partial craniums to assist forensics	Roelof Schoeman MEng student of Prof Schalk Kok and Dr Nico Wilke , UP: Mechanical and Aeronautic Engineering	