

# Benedetta Mammi

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## WORK EXPERIENCE

Cranfield Recovery and Identification of Conflict Casualties (CRICC)

Aug 2016 - Present

### Team Member (Anthropologist and Archaeologist)

- Non-governmental organisation which works both domestically and internationally with other organisations on site investigation, excavation and human remains analysis
- Use of multinational protocols and standard operating procedures
- Supply our services in a confidential, professional and efficient manner

Deployments as a CRICC Team Member:

- **Tarawa**, Republic of Kiribati (September 2016): three weeks of laboratory and field work alongside **History Flight** for the recovery of World War 2 casualties from the battle of Tarawa (1943)
  - (a) Investigation, identification and subsequent excavation of known and unknown cemeteries
  - (b) Inventory and recording of comingled disarticulated remains and associated artefacts
- **Germany** (November and December 2016): five-week recovery mission working with **History Flight** on a World War 2 fallen aircraft and crew

Cranfield University (Cranfield Forensic Institute)

November 2016

- **Demonstrator** in practical classes of the "Recovery of Buried Remains" module
- Inventory of skeletal elements for projects within the department

Oxford Archaeology

June 2016 – July 2016

### Research Student (MSc Thesis)

- Disarticulated human and non-human bone inventory and analysis
- MNI calculation, pathology and medical intervention recording
- Creation of an excel data base for the disarticulated collection
- Report writing

Monsoon Accessorize Ltd.

Sept 2014 – Mar 2015

### Part-Time Sales Assistant

- Greeting customers
- Be available to resolve any queries and advise customers
- Working within guidelines
- Till responsibility
- Stock control and management
- Dealing with deliveries
- Arranging window displays
- General housekeeping

Centre for Anatomy and Human Identification (CAHID)

### Collection Curator (Volunteer)

June 2014

Spent 2 weeks at the University of Dundee CAHID reorganizing the comparative osteology collection and had the opportunity to assist in a thiel-embalming procedure.

La Senza

### Part-Time Sales Assistant

May 2013 – Sept 2014

- Greeting customers
- Be available to resolve any queries and advise customers

- Achieve both individual and team sale goals
- Working within guidelines
- Merchandise display
- Till responsibility
- Stock control and management
- Dealing with deliveries
- General housekeeping

FICSS (Federazione Italiana Cinofilia Sport e Soccorso)

**Translator (Italian-English)**

May 2012 – Aug 2012

Translator for the regulations of the Dog Olympic Games (DOG) held in Italy, and manager of international relations with participating dog clubs

## EDUCATION

### **Cranfield University**

#### **MSc in Forensic Archaeology and Anthropology**

2015-2016

- *Analytical Techniques*: Practical introductions to the use of XRD, XRF, x-ray, microscopy, chromatography, and DNA analysis, with the outcome of producing technical appendices in expert witnesses reports
- *Courtroom Skills*: focus on the role of the expert witness in the English and Welsh judicial system with a courtroom simulation acting as an expert witness, prosecutor and examiner-in-chief
- *Forensic Archaeology - Mass Grave Excavation*: analysis of types of mass burials and excavation procedures, including a 5-day excavation of two mock mass graves, having the chance to act as SOCO, photographer, and lead archaeologist on site in order to produce a report to international standards
- *Forensic Archaeology - Recovery of Buried Remains*: introduction to surveying techniques, and the study of single and multiple burial sites. Involved a practical exercise based on locating, identifying and excavating a clandestine burial to produce an expert witness archaeological report
- *Fundamentals of Forensic Anthropology - Osteology*: human skeletal anatomy, creation of a biological profile, determining number of individuals from a set of commingled remains, study of comparative osteology, and production of a witness statement
- *Further Forensic Anthropology - Identification*: analysis of trauma (occurrence: ante-, peri- and post-mortem and type: blunt force, sharp force, projectile, burning, blast), pathologies and taphonomy
- *Investigation and Evidence Collection*: study of roles within a crime scene and how to handle different types of evidence
- *Mass Fatality Incidents (MFI)*: investigation of past disasters, MFI management procedures in place within the UK but also abroad, disaster victim identification (DVI) and the set-up of a temporary mortuary, Interpol DVI guidelines and use of Interpol DVI forms and Plass Data computer program
- *Practical Archaeological Excavation*: 5-day excavation at the disused Royal Navy Hospital site in Haslar, Gosport. Performed tasks such as surveying, site recording, excavation and recovery of single and multiple graves, and locating and recording finds. Worked to site-specific procedures, including the completion of context and human remains forms, and gained experience in both plan and section drawings and site photography
- *Radiographic Investigations in Forensic Science*: study of radiographic techniques: x-ray, CT and  $\mu$ CT, and their use in forensic investigations and DVI. Practical simulation on the use of x-ray machine (keV, and mAs) in a forensic investigation concerned with victim identification
- *Reasoning for Forensic Science*: statistics in forensic science and development of critical thinking
- ***Thesis - Post-Excavation characterisation of the archaeological disarticulated remains from the Radcliffe Infirmary Burial Ground (Oxford)***: analysis of the disarticulated assemblage retrieved from a hospital burial ground in use from 1770 to 1855, in collaboration with Oxford Archaeology

### **University of Dundee**

#### **BSc Hons in Forensic Anthropology (2:1)**

2011-2015

While the first two years of my degree focused on *Cellular Biology, Genetics, Biological and Biomedical Sciences* including laboratory experiments, in my third and fourth year I took the following modules:

- *Embryology*: study of development of the embryo from fertilisation to birth, including individual poster presentations to outline congenital disorders occurring before birth
- *Histology*: including both lectures and microscopic analysis of both human and non- samples
- *Forensic Science and the Law*: study of the Scottish judicial system and the role of the expert witness within it, as well as the limitations of different types of evidence and courtroom simulation having to act as an expert witness
- *Human Gross Anatomy*: entailing hands-on practical dissection classes using thiel embalmed bodies and formalin prosections
- Human Identification: improvement of critical thinking skills for methods used in forensic anthropology, study of types of identification based on different types of evidence: DNA, fingerprints, odontology, body modifications, ante-mortem trauma, etc. and production of a witness statement
- *Osteology*: study of the human skeleton, human/non-human identification and assessment of biological profile (ancestry, sex, age and stature)
- *Peri- and Postmortem Processes*: analysis of ante-, peri- and post-mortem skeletal trauma, as well as distinguishing between blunt force, sharp force, projectile, burning, and blast trauma, assessment of taphonomic processes, decomposition, evidence of abuse or torture, time since death interval and entomology
- *Research Methods*: how to think of, plan, and carry out a successful experiment and development of critical thinking skills
- **Honours Thesis: "Influence of resolution on trabecular bone quantification in the ischium"**: use of the computer program BoneJ to apply algorithms to  $\mu$ CT scans of neonatal ischia from the Scheuer Collection, in order to improve image quality and allow for more truthful analysis of the biomechanical properties of the developing trabecular bone.

### **"Antonio Pacinotti" High School (Italy)**

Scientifically Oriented School

2006-2011

Subjects taken: Art History, Biology, Chemistry, Earth Science, English Literature, Geography, History, Italian Literature, Latin, Mathematics, Philosophy, Physical Education, Physics

## SHORT COURSES

### **Field Work Safety Training Course**

2016

How to be prepared when travelling abroad for fieldwork, and how to plan the trip in order to adhere to international rules, laws and customs, as well as following Health and Safety procedures.

### **Osteology & Anthropology Workshop**

2014

I took part in a one-week workshop gaining first-hand experience in the forensic anthropology field dealing with unclaimed archaeological remains, both skeletonised and cremated from an excavated cemetery in Milan. I had the chance to work with the renowned medical examiner and forensic anthropologist Cristina Cattaneo and the LABANOF team in Piedmont, Italy.

### **Hermes Project**

2010

I was awarded a place on a two-week long journalism course/internship in Dublin, Ireland.

## CONFERENCES ATTENDED

Art & Science vs. Conflict in the Global Present

2016

Forensic Science in Defence & Security Symposium

2015

Second Annual Scottish Student Forensic Research Symposium

2015

Presenter: Poster on **"Influence of Image Resolution on Trabecular Bone**

## **VOLUNTEER WORK**

Volunteer for the British Heart Foundation since July 2013

## **SKILLS**

### LANGUAGES

Italian – Native Language

English – Speak fluently and read/write with high proficiency

### TEAMWORK

I have successfully undertaken several team projects within both academic and non-academic environments (i.e. being part of the university water polo team throughout my undergraduate program)

### COMMUNICATION

Oral communication skills: developed in presentations and in talking to the public.

Writing skills: enhanced with report and essay writing during my academic career.

My degree course greatly enhanced my written and verbal communication skills due to presentations, assignments, courtroom simulations, posters, essays and projects required, with special emphasis on both theses. As a sales assistant, I had to demonstrate knowledge of the different types of items sold, interact with customers and co-workers, and be able to respond effectively to any queries.

### DRIVERS LICENCE

Class B European Licence

### SOFTWARE

Windows XP, 7, 8, 10

Microsoft Office for Windows and Mac

Apple OS X

E.C.D.L. (European Computer Drivers Licence)

Photoscape

Plas Data – DVI System International

BoneJ plug in of ImageJ

FORDISC