

# ***Identification of Human Remains in the Field: Workshop***

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## **Programme Schedule**

9.00-9.15 (15 mins): Workshop Overview, Expectations, Limitations and Outcomes

9.15-9.35 (20 mins): Overview of the Human Adult Skeleton and Dentition

9.35-10.40 (65 mins): Lab on Human Adult Skeleton and Dentition

10.40-11.00 (20 mins): Overview of Human Subadult Skeleton and Dentition

11.00-11.20 (20 mins): Morning Tea

11.20-12.25 (65 mins): Lab on Human Subadult Skeleton and Dentition

12.25-1.00 (35 mins): Australian Mortuary Archaeology

1.00-1.45 (45 mins): Lunch

1.45-2.05 (20 mins): Overview of Animal vs Human Bone Identification

2.05-3.15 (70 mins): Lab on Animal vs Human Bone Identification

3.15-3.35 (20 mins): Afternoon Tea

3.35-3.50 (15 mins): Overview of Dealing with Fragmentary Remains

3.50-4.35 (45 mins): Lab on Fragmentary Remains

4.35-5.00 (25 mins): Testing Your Knowledge

## ***Identification of Human Remains in the Field: Workshop***

### **Programme Rationale**

9.00-9.15 (15 mins): Workshop Overview, Expectations, Limitations and Outcomes

This work shop has been designed to provide professional archaeologists, for the most part, but also interested lay people, with the knowledge and skills to make informed determinations regarding skeletal material recovered (whether that be surface, excavated or simply handed in) during the course of their working day. To this end the work shop targets 3 main areas: (1) identification of relatively complete human skeletal and dental elements; (2) identification of fragmentary human skeletal and dental elements; and (3) an appreciation of the contexts in which you may find Australian Aboriginal skeletal and dental elements.

In order to achieve points 1 and 2, you must have a thorough working knowledge of the appearance, size, shape and variation found in a range of human skeletal elements. The first mini-lectures and labs on human adult and subadult (children and infants), covering the first half of the day, will provide this working knowledge. The short lecture following the labs will provide a brief overview of the range of contexts in which you may come across Aboriginal Australian remains in specific mortuary contexts (point 3). Even if you are unable to positively identify skeletal material as human in some situations, an appreciation of local mortuary contexts may be useful in assessing the appropriate outcome of a situation: i.e. continue or discontinue excavating.

Armed with a good working knowledge of both adult and subadult human skeletal anatomy, we will then explore how one can differentiate between human and non-human skeletal and dental material. To be honest, unless you have maximised your time during the labs held before lunch, this will be a difficult exercise. The single best way to tell the difference between a human femur (thigh bone) and a kangaroo (or sheep, dingo etc) femur is to know what a human one looks like (including the range of variation by sex and age particularly). Indeed, the purpose of the mini-lecture and lab between lunch and afternoon tea is NOT to learn how to identify kangaroo, sheep or wombat bones, but rather to gain a working knowledge of the ways these non-human bones are dissimilar (and at times quite similar) to human bones. After this lab you should be able to say bone A is human and bone B is non-human (an accurate knowledge of which animal is not necessary) and why this is the case (i.e. be able to justify your claim).

The final part of the day, following afternoon tea, focuses on point 2, identification of fragmentary skeletal remains. This is actually the most difficult responsibility of a specialist osteologist (including forensic osteologists). It is simply a lot harder to justify an attribution of human or non-human to fragmentary remains. Nonetheless, there are a series of methods that can be employed to help in this regard, not the least being an ability to identify morphologically diagnostic areas on fragmentary remains that suggest a human or non-human origin.

## **Programme in Detail**

### *9.15-9.35 (20 mins): Overview of the Human Adult Skeleton and Dentition*

This will be a brief powerpoint overview of basic human skeletal and dental anatomy. We will highlight the range in variation, both with respect to size and shape, of the various elements of the human skeletal system. Further, a range of morphologically diagnostic features will be presented and discussed. The purpose of learning such features is not to enhance your knowledge of human soft tissue anatomy (as, indeed, many of these features are anchor points for muscles etc), but to assist you in identifying how these features manifest in humans, as many of them occur in animals while varying in morphologically distinctive ways.

### *9.35-10.40 (65 mins): Lab on Human Adult Skeleton and Dentition and Dentition*

This is a practical hands-on lab where you will apply your new theoretical knowledge of the human skeleton. You will be required to identify various skeletal elements by name, determine their side and orientation (up, down, back, front). Being able to side and determine the orientation of a bone will help you when comparing non-human bones in the same orientation. Moreover, from experience we have found people pay much more attention to details on bones when they are required to orient them and side them. This attention to detail will be crucial when differentiating between human and non-human bones later in the workshop.

### *10.40-11.00 (20 mins): Overview of Human Subadult Skeleton and Dentition*

This will follow a similar format to the adult bone lecture. However, here the emphasis is on the ways children's bones can vary throughout childhood (neonate to teenager). It may come as a surprise the degree to which adult and subadult bones can vary.

### *11.00-11.20 (20 mins): Morning Tea*

### *11.20-12.25 (65 mins): Lab on Human Subadult Skeleton and Dentition*

This is, again, a practical hands-on lab that will consolidate the material delivered in the lecture. You will be free to make direct comparisons between the subadult material (a range of ages will be provided: from neonate through to teenager) in order to broaden your appreciation of the vast range in variation encompassed by the human skeleton.

### *12.25-1.00 (35 mins): Australian Mortuary Archaeology*

In this mini-lecture we cover a wide range of mortuary practices engaged in within pre (and to an extent post) European contact Australia. The diversity of mortuary contexts will serve to illustrate a range (not exhaustive) of mortuary scenarios you may encounter in the field. The purpose of this brief overview is simply to illustrate the diversity of potential mortuary situations you may encounter and assist in both identifying Aboriginal Mortuary sites and/or

individual burial instances and provide a context in which to identify skeletal remains in relevant circumstances.

### **1.00-1.45 (45 mins): Lunch**

1.45-2.05 (20 mins): Overview of Animal vs Human Bone Identification

Assuming a basic working knowledge of human skeletal variability (which you developed before lunch), this lecture will introduce non-human skeletal anatomy with an objective to helping you identify bones that are unlikely to be human. A range of the more commonly found (and reported) non-human animals in the Australian landscape will illustrate this overview.

2.05-3.15 (70 mins): Lab on Animal vs Human Bone Identification

Using a range of different, and commonly encountered animals in Australia, as well as the human material studied in the earlier labs, you will familiarise yourselves with non-human animal bone variation. At the end of this lab you should be able to differentiate between human (regardless of age or sex) skeletal elements and non-human material. Again, the emphasis is on identifying human vs animal, and NOT on identifying exactly what animal any given skeletal elements belongs to.

### **3.15-3.35 (20 mins): Afternoon Tea**

3.35-3.50 (15 mins): Overview of Dealing with Fragmentary Remains

As noted in the workshop overview, this is the most difficult and challenging aspect of human bone identification. Once bones become fragmentary (regardless of the underlying taphonomic processes involved), it becomes increasingly difficult to differentiate between human and non-human. This mini-lecture will cover some of the ways in which to differentiate human and non-human fragmentary material.

3.50-4.35 (45 mins): Lab on Fragmentary Remains

A range of fragmentary human and non-human remains will be provided for you to practice the methods for differentiating between the two suggested in the mini-lecture.

4.35-5.00 (25 mins): Testing Your Knowledge

In order to test and consolidate the skills you have developed over the day a short practical test has been prepared. Answers will be provided on an answer sheet in order for you to check your responses to the quiz. The purpose of the test is not to give you a pass/fail score for the workshop, but simply to provide some potential real world examples for you to respond to.