



**From A to Z:
Archaeologists, Zooarchaeology, and the Tales Bones Tell**

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HOW IS ZOOARCHAEOLOGY DIFFERENT FROM ZOOLOGY?



TIME DEPTH



Photograph by Claire Alix

RANGE OF TOPICS ZOOARCHAEOLOGY COVERS

environment



culture

taphonomy
(site formation)

biogeography

environmental
conditions &
Climate change

effects of hunting
on fauna/populations

changes in
animal morphology

subsistence

Season of occupation

diet

Animal
domestication

occupation

Butchering

site use

Social organization

ethnicity

religion



Hometown U: Bone collection gives researchers a boost

By Kathleen McCoy

Hometown U July 6, 2013

WHERE DO THE ANIMALS COME FROM? HOW IS THE COLLECTION PREPARED?



A CLEANER, EASIER WAY TO PROCESS



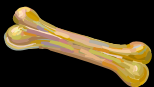
HOW IS A ZOOARCHAEOLOGICAL COMPARATIVE COLLECTION DIFFERENT FROM A ZOOLOGICAL COLLECTION?



Synoptic
Collection



Taxonomic Collection





WHAT IS STUDIED IN ZOOARCHAEOLOGY?



- Bones
- Shellfish
- Ivory/bone/antler
- Scales
- Otoliths
- Hair
- Feathers

Specialties





SAMPLING

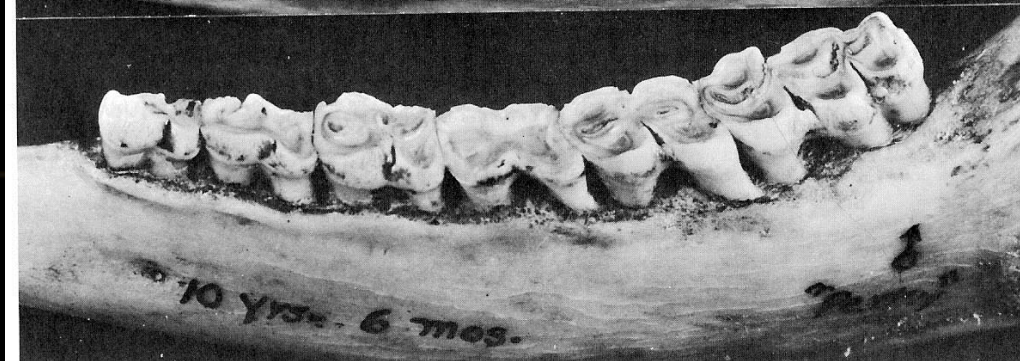
- Screen size affects
 - Presence of smaller animals
 - Presence of smaller elements
 - Size of assemblage
 - Abundance of taxa



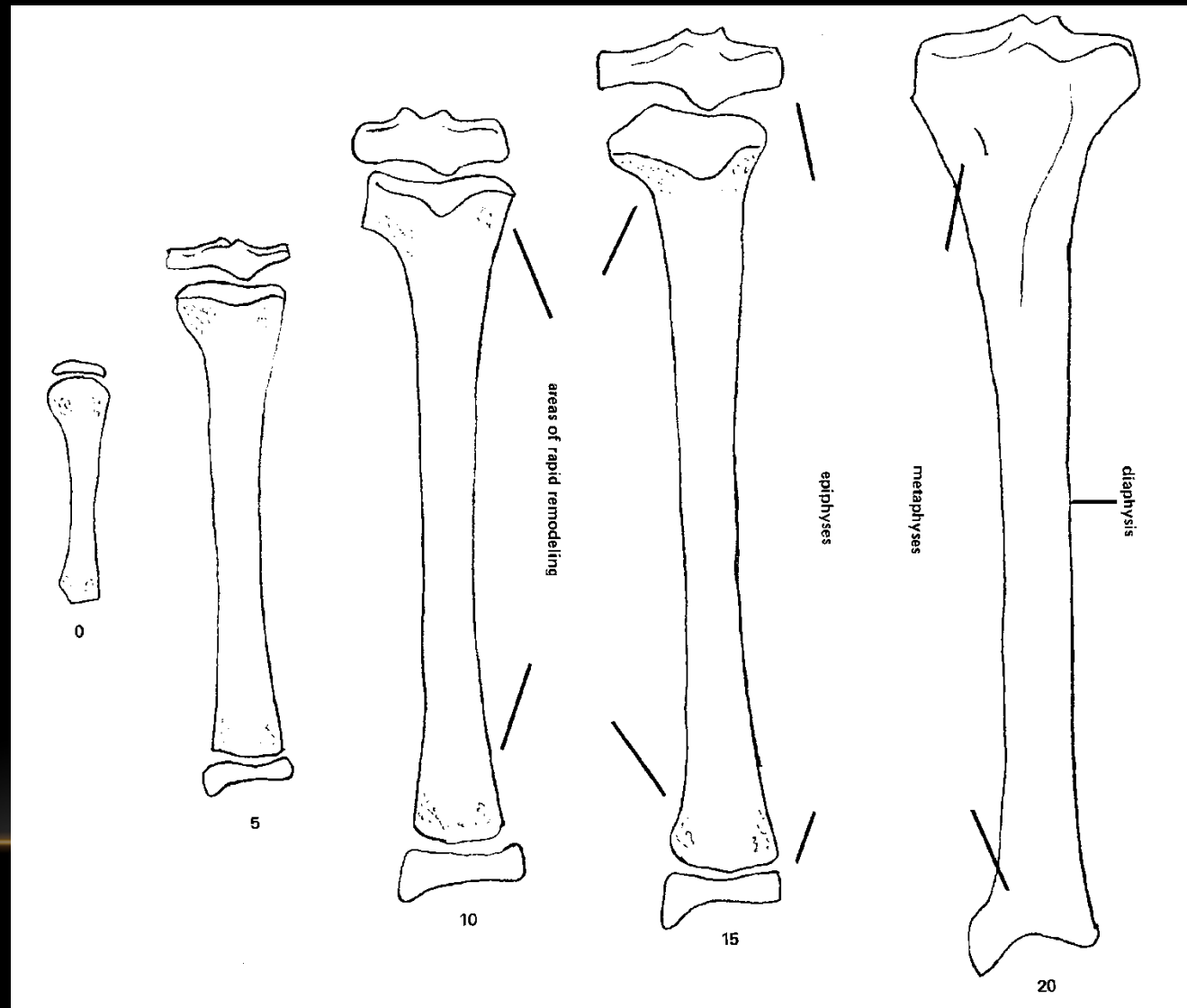
AGING AND SEASON

- Structures
 - Growth lines
 - Otoliths
 - Scales
 - shellfish
 - Antlers
 - Tooth eruption
 - Epiphyseal fusion in mammals
 - Doesn't work for birds or fish
- Oxygen Isotopes
 - Temperature rises amount of O18 decreases relative to O16
 - Usually used in conjunction with growth line analysis
- Presence/Absence of species









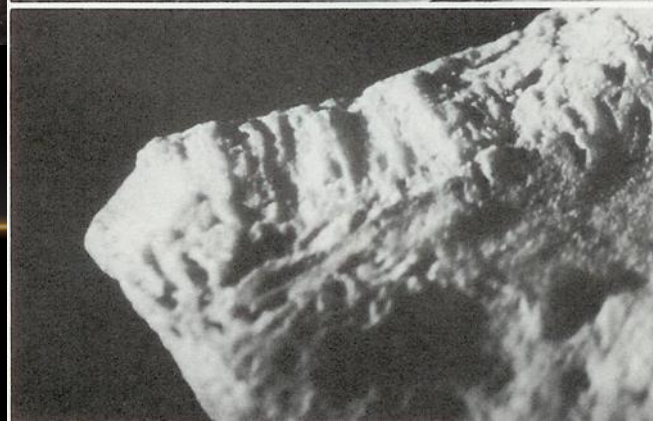
TAPHONOMY

- Erosion
 - Surface weathering
 - Chemical – soil chemistry (acid soils/basic soils)
 - Water rolling
 - Water transport
- Chewing
 - Carnivore chewing – usually fresh bone
 - Rodent gnawing – usually dry bone
 - Ungulate gnawing – for minerals
- Butchering
- Cooking
- Burning
- Root etching













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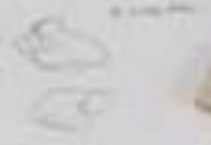
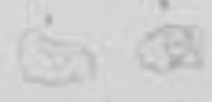
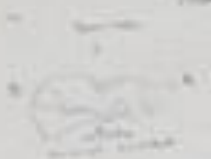
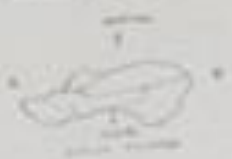






As with the humerus, the radius and ulna are shown when disarticulated with a full spectrum of motion. The two bones are shown in their normal position.

Fig. 2.17. Phalanx



of *Phoca hispida*



06-02
Unit 2
Crump

0.5mm

02-1238
N15E1
47-52cm
caribou
under rock



#418
02-928
N16W1
veg mat

#420
02-525
N0E37
veg mat



#416
Bag 1350
N10E0







Fishing from Kaiaks, Captains Harbour." 1872. MS 7119 by Henry Wood Elliot

http://www.nmnh.si.edu/nce/features/images/7119_13.jpg



THANK YOU