

First Hourly

2)

1) Multiple choice// True or False

2) Identifications of names, terms, images

3) Short answer questions



Meat was a staple component of everyday diet in the ancient world. T or F?

1) The ancient Mediterranean was principally a beer culture. T or F?

2) Demeter and Persephone

2) Mediterranean climate

3) What would you ask?



Teeth, bones and stomach contents

**What can dead people tell us about
DIET?**

Short term diet? Long term diet?

**Arch 0770
Food and Drink
In Classical Antiquity**

Short-term evidence

MUMMIFIED FOOD



CONTAINING MUMMIFIED JOINTS OF MEAT, HAUNCHES OF GAZELLE, LIVER, AND TRUSSED CHICKEN, FOUND UNDER THE HATHOR-HEADED COUCH IN THE TOMB OF AN UNKNOWN PHARAOH, 18TH DYNASTY, THEBES, EGYPT.

King Tut's tomb



Pompeii

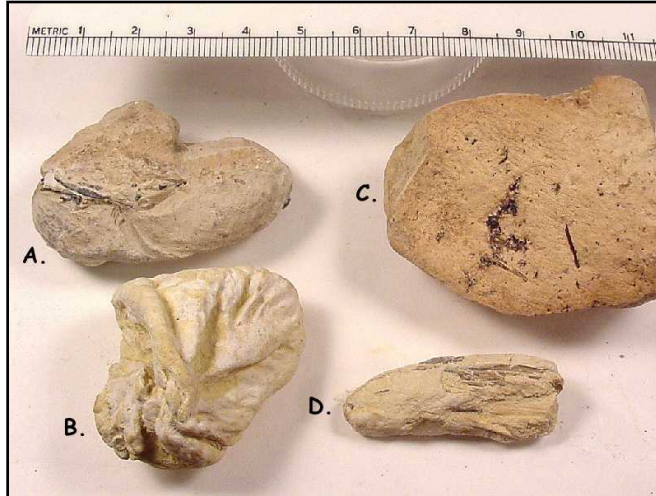
individual meals
unusual settings

How
representative?
informative?



Evidence for a single meal: Coprolites = preserved human feces

Find:
Bone
Shell
Fish
Seeds
Pollen
Insects



Preserved
in dry or wet;
'break apart'
and analyze



Coprolites = preserved human feces

Health: parasitic infestations



tapeworm
whipworm



**Do You
Have Worms?**

Expel worms on a periodic basis
with a natural herbal formula.

Short term dietary data



mummies
Iceman



Hours before he died, "Ötzi" the Iceman gorged on the fatty meat of a wild goat, according to a new analysis of the famous mummy's stomach contents.

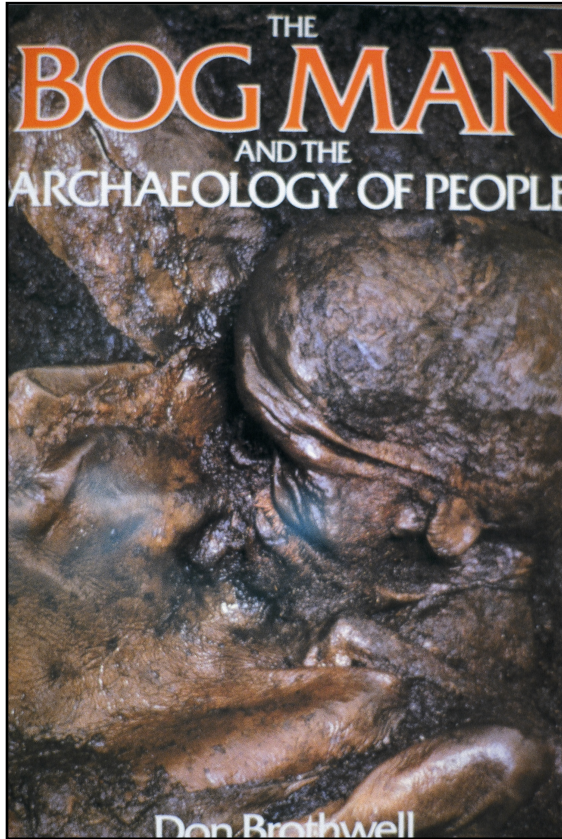
stomach contents
intestinal contents

"The stomach content is yellowish to brownish colored and mushy, with some bigger pieces of meat and grain..."



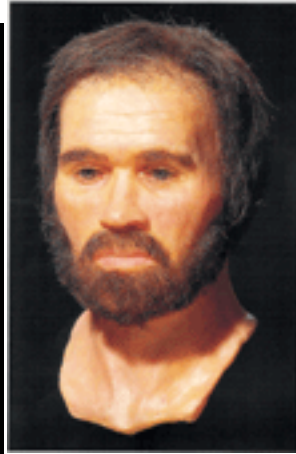
Bog People

Iron Age, date ca. 2000 BP



Sacrificial victims?
Executed criminals?

Lindow Man (Pete Marsh)



Men, women
& children





Lindow

different
'last
meals'

Tollund



Grauballe



Long-term diet

effect on entire system, on
human skeleton (osteology)



Tooth Wear

Teeth = body's hardest tissue..

archaeodentistry



Egyptian
grit



cut
marks



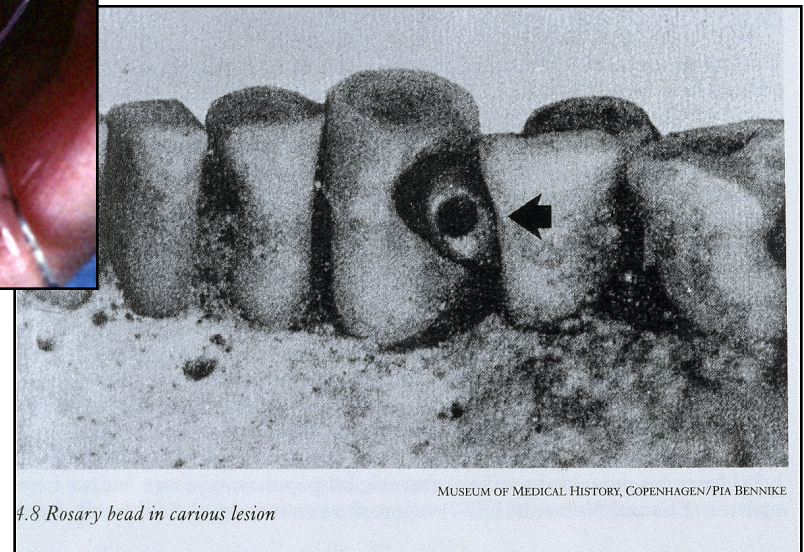
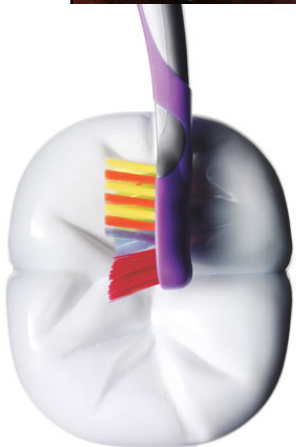
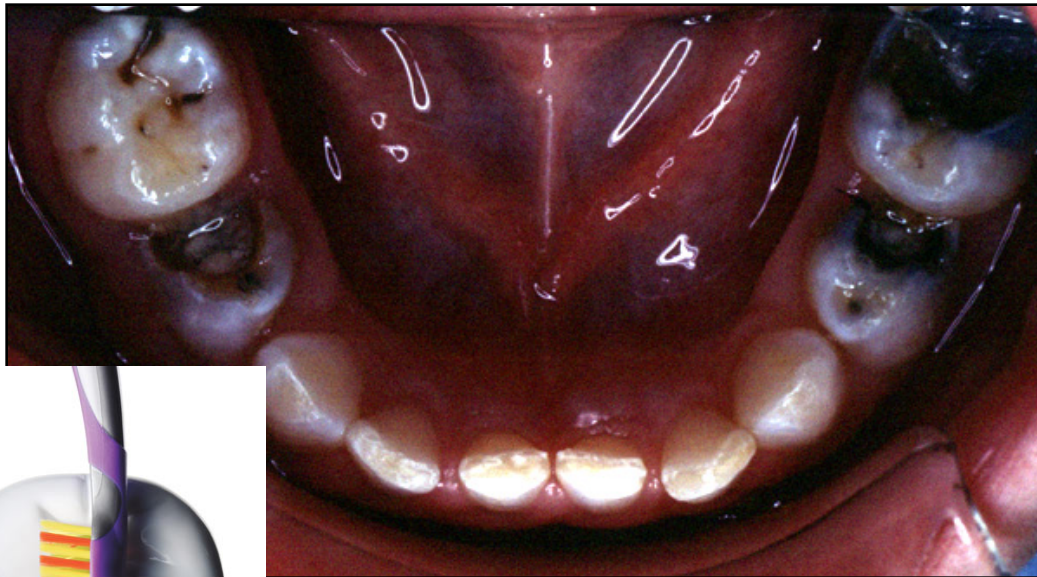
grinding

Meat vs. vegetable; 'additives' of sand/grit
how well things are cooked

Harder diets wear teeth faster

Tooth decay: dental caries (cavities)

High carbohydrate diets (starch, sugar) associated with dental caries
Gets worse with 'progress' : with sedentary life, farming
Gets worse with wealth, leisure



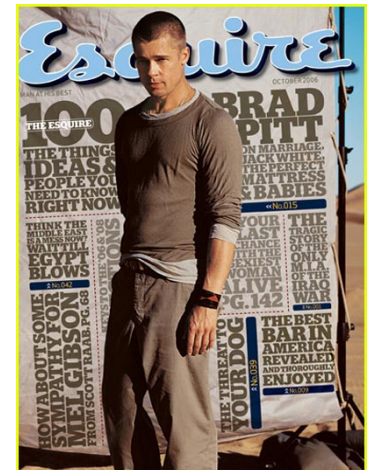


**Pitting, scoring of enamel on crown surfaces
= childhood malnutrition**

Enamel hypoplasia

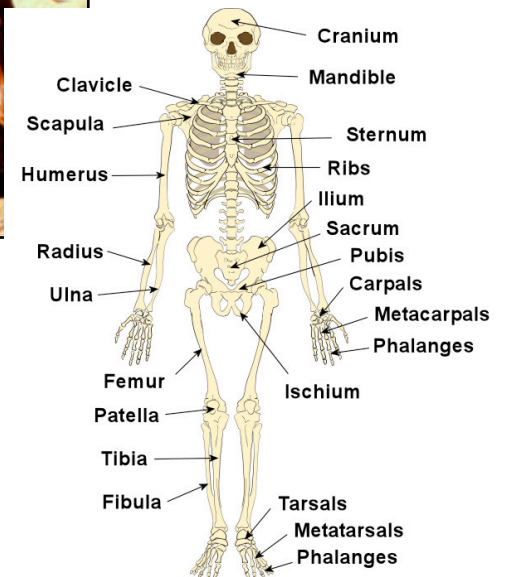
Bones (osteology), diet and stature

- Stature (height) depends in part on nutrition while bones are growing
- Bay of Naples data on Roman height:
Average male approximately 5 ft 6 in
Average female approximately 5 ft 1 in
- Modern American height for comparison:
Average male approximately 5 ft 9 in
Average female approximately 5 ft 4 in



Harris Lines

General stress indicators, only on growing bones
Indicates childhood nutritional deficiencies and diseases
Manifest as dense, opaque transverse lines
Primarily seen on body's long bones



‘Chemical signatures’

isotopic analysis = diet over a lifetime
stable isotope analysis of bone collagen

^{14}C , ^{13}C , ^{12}C = carbon isotopes

^{14}C is radioactive, used for archaeological dating

^{13}C and ^{12}C are stable isotopes, different ratios in different environments/organisms (two different types of land plants vs. marine plants)



^{14}N and ^{15}N (isotopes of nitrogen)

Low ratio of ^{15}N to ^{14}N suggests agriculture, high ratio of ^{15}N to ^{14}N = marine diet

High ^{15}N values: meat, blood, milk of domesticated animals

Low ^{15}N = plant based diet



Trace element analysis

Strontium = stable mineral
component of bone

Strontium:calcium:: plants:meat

Vegetarians = high strontium
to calcium ratio;

Carnivores = lower strontium
to calcium ratios

Which would you want to be?

