Test Bank for Past in Perspective Introduction to Human Prehistory 8th Edition by Feder

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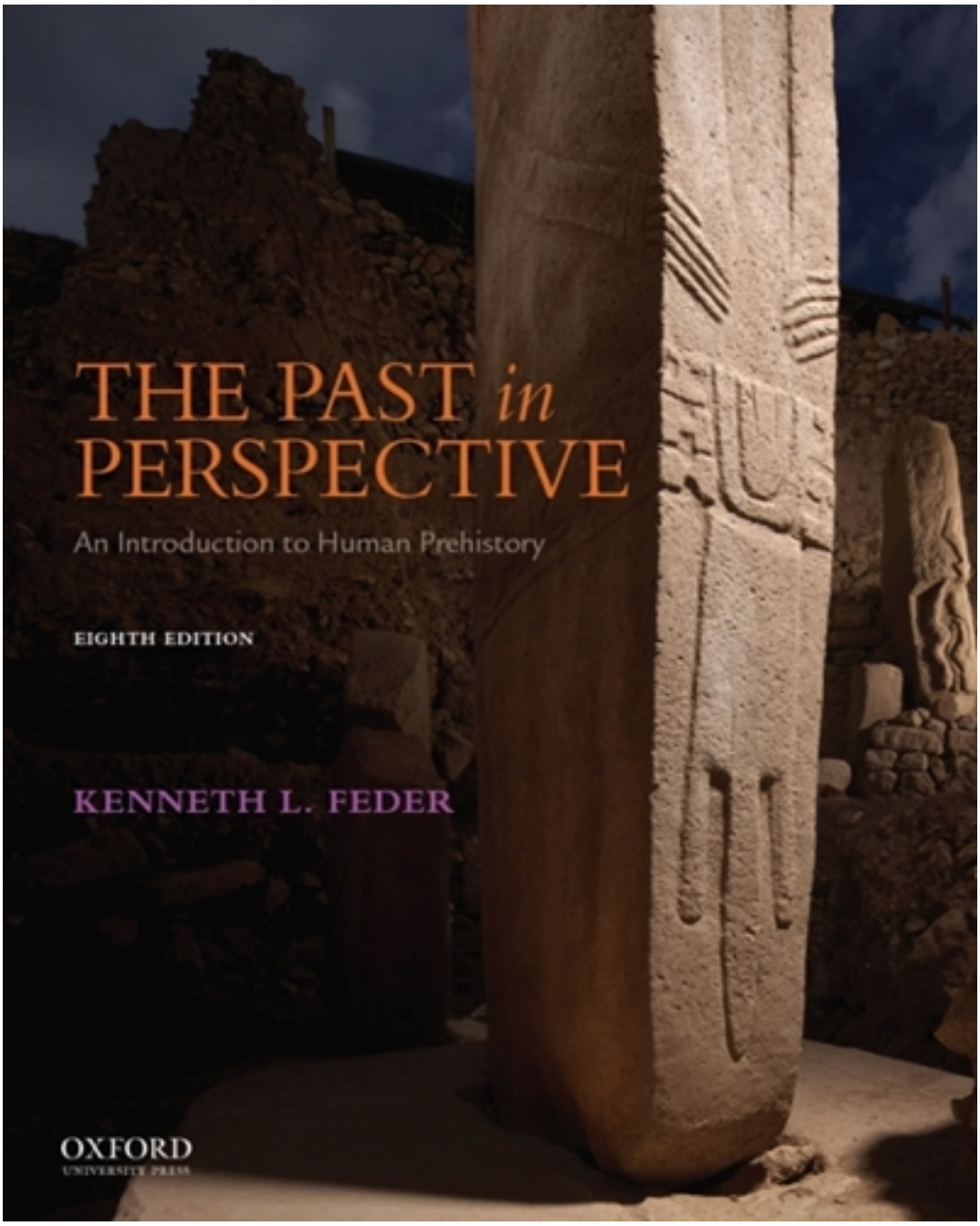

Test Bank

Chapter 2

Probing the Past

Multiple-Choice Questions

1. A proposed explanation for a phenomenon is called a:
*a. hypothesis
b. theory
c. paradigm
d. all of the above

2. Once a hypothesis has been suggested, the scientist should:
a. accept the hypothesis as valid until a better explanation comes along
b. see how other scientists feel about it to determine if it is valid
c. copyright it
*d. test it

3. A dominant scientific perspective or intellectual framework is called a:
a. focus
*b. paradigm
c. hypothesis
d. taxonomy

4. In approaching the past through "a convergence of evidence," we are confident in our conclusions because:
a. the data were published in professional journals
b. the data are mutually exclusive
c. we have employed multiple working hypotheses
*d. separate and independent data converge on the same conclusion

5. An artifact is best defined as:
a. anything found at an archaeological site
b. the physical remains of human beings or human ancestors
*c. anything made and used by a human or human ancestor
d. a complex tool found at an archaeological site

6. Stone chopping tools, arrowheads, bits of pottery, and bronze daggers are all examples of:
a. ecofacts
b. features
c. specimens
*d. artifacts

7. The bones of a butchered mastodon, charred nuts found in an ancient fireplace, and sunflower seeds recovered from a prehistoric trash dump are all examples of:
*a. ecofacts
b. features
c. specimens
d. artifacts

8. A place where the material remains of human activity are found is called a:
a. fossil locality
b. master sequence
*c. site
d. ecofact

9. Which of the following is an archaeological site:
a. a small ancient hunting camp with just a handful of artifacts
b. an abandoned nineteenth-century rural village
c. an ancient city covering hundreds of acres
*d. all of the above

10. Archaeological sites can be discovered through:
a. a surface walkover or "pedestrian survey"
b. the use of remote sensing technologies
c. test pitting
* d. all of the above

11. Proton magnetometry, ground penetrating radar (GPR), electrical resistivity, and microgravimetric survey are all varieties of:
a. dating methods
b. trace element analysis
*c. remote sensing
d. all of the above

12. Lidar is a technology useful in:
a. dating sites
*b. mapping sites
c. analyzing stone artifacts
d. examining an ancient diet

13. The application of Lidar has been used in:
*a. mapping the Maya site of Tikal
b. dating the bones of some of the earliest hominins
c. tracing the source of lithic raw materials used by ancient human ancestors in making tools
d. determining the geographic origins of individual human populations

14. Jarrod Burks and Robert Cook were able to identify and map a largely buried and hidden earthwork in Ohio through the use of:
a. dendrochonology
*b. a fluxate gradiometer
c. thermolunimscence
d. NAGPRA

15. CT scans and MRIs can be used in archaeology and paleoanthropology:
*a. to diagnose disease and injury in preserved ancient human bodies
b. to determine the age of archaeological specimens
c. in the investigation of ancient genes
d. none of the above

16. The study of how objects become part of the paleontological and archaeological records is called:
a. taxonomy
b. epistemology
c. archaeology
*d. taphonomy

17. Archaeological material that was disposed of in the place it was made or used is called:
a. debitage
*b. primary refuse
c. absolute refuse
d. secondary refuse

18. If you were to see a couple of inconsiderate people simply abandoning the remains of their picnic lunch on the lawn in front of the campus building in which your archaeology course is being held, you might ask them to pick up their:
*a. primary refuse
b. secondary refuse
c. debitage
d. taphonomy

19. Archaeological material that was moved from its place of manufacture or use to a separate disposal area is called:
a. debitage
b. primary refuse
c. absolute refuse
*d. secondary refuse

20. The modern trash dump represents which kind of deposit:
a. debitage
b. primary refuse
c. absolute refuse

*d. secondary refuse

21. Site formation processes represent:
a. the ways in which archaeological sites are excavated
*b. the ways in which archaeological sites come into existence
c. how sites are preserved
d. all of the above

22. Buried archaeological sites are exposed by:
a. systematic subsurface testing
b. erosion
c. remote sensing
*d. all of the above

23. Pedestrian survey, remote sensing, and subsurface sampling all contribute to the process by which archaeologists:
*a. find sites
b. determine the age of a site
c. assess the subsistence patters of ancient people
d. investigate the trading patterns of an ancient group

24. The following would be considered an archaeological cache:
a. a refuse pit
b. a primary deposit of stone tool debitage
*c. a cluster of thirty stone blades placed in a pit
d. all of the above

25. The ancient city of Pompeii was:
a. destroyed in a great flood, likely the event that inspired the story of the worldwide Biblical flood
b. the location of fabled Troy
*c. destroyed by a volcanic eruption in A.D. 79
d. the first Greek city-state

26. The eruption of Mt. Vesuvius:
a. is the likely inspiration for Plato's story of the lost continent of Atlantis
b. destroyed the Roman Empire and initiated the Dark Ages
c. initiated the Ice Age
*d. destroyed the city of Pompeii but also served to preserve its buildings

27. In identifying the possible source of raw materials used by ancient people, archaeologists often rely on:
a. uranium series analysis
b. Lidar
*c. trace element analysis
d. radiation damage techniques

28. Neutron activation analysis is one technique used in:
a. dating archaeological sites
b. faunal analysis
*c. trace element analysis
d. calibrating radiocarbon dates with dendrochronology

29. X-ray fluorescence is one technique used in:
a. dating archaeological sites
b. faunal analysis
*c. trace element analysis
d. calibrating radiocarbon dates with dendrochronology

30. Archaeologist Phil Weigand showed that the raw material for many of the turquoise artifacts found in Mexico was obtained from caves in:
a. Mexico
*b. the American Southwest and California
c. South America
d. Polynesia

31. Archaeologist Phil Weigand traced the geographic sources for turquoise artifacts found in Mexico through which analytical technique:
*a. neutron activation analysis
b. thermoluminescence
c. optically stimulated luminescence
d. microgravimetrics

32. Analysis of wear or damage patterns on stone tools is useful in determining:
a. the age of the artifacts
*b. how the artifacts were used
c. how long tools could be used before they wore out
d. taphonomy

33. The radiocarbon dating of stone tools is:
a. currently being worked on at the Smithsonian Institution
b. limited to tools fewer than about 50,000 years old
c. useful only where the tools have been buried since soon after their manufacture
*d. impossible

34. Together, the animal bones found at an archaeological site represent what is called the:
a. osteological comparative collection
b. taxonomy
*c. faunal assemblage
d. specimen list

35. Sexual dimorphism refers to the characteristic in some animal species that:
*a. males and females are readily distinguishable in their morphology
b. males are always larger than females of the species
c. most males are larger than most females, but some females are larger than some males
d. environmental factors can cause a change of the sex of the developing individual

36. The term osteology refers to the study of:
a. ancient disease
*b. bones
c. pollen
d. lithics

37. Palynology makes a significant contribution to the reconstruction of ancient:
*a. environments
b. disease patterns
c. trade
d. all of the above

38. Carbon isotope analysis is useful in reconstructing the general makeup of ancient plant communities because:
a. radiocarbon is produced from nitrogen in the Earth's atmosphere
b. carbon decays into several "daughter" isotopes during the half-life of radioactive carbon
c. only trees (and not grasses) use carbon isotopes
*d. different families of plants follow different photosynthesis pathways

39. C3 plants, notably trees, tend to have:
*a. a lower ^{13}C signal than C4 plants
b. a higher ^{13}C signal than C4 plants
c. a higher ^{14}C concentration and therefore appear to be younger than C4 plants
d. a lower ^{14}C concentration and therefore appear to be older than C4 plants

40. The ratio of two isotopes of oxygen (^{16}O:^{18}O) in the shells of marine micro-organisms is useful in determining worldwide:
a. humidity
*b. temperature
c. tectonic activity
d. wind patterns

41. Phytoliths are useful in identifying the plants used by ancient people because:
a. they are durable
b. they are abundant
c. they are species-specific
*d. all of the above

42. Archaeologists can distinguish the bones of male and female human beings because our species exhibits:
a. taxonomic differentiation
b. gender-based taphonomy
*c. sexual dimorphism
d. inegalitarianism

43. Reference to epiphyseal fusion in a human skeleton can be used to determine the:
*a. age of death of an individual
b. sex of an individual
c. geographic origin of a person
d. health status of an individual

44. In determining the age at death of a sub-adult (child or juvenile) based on skeletal remains, the archaeologist should make reference to:
a. the pubic symphysis and cranial sutures
b. cranial sutures and diaphyseal fusion
*c. dental maturity and epiphyseal fusion
d. radiocarbon dating and dendrochronology

45. Human teeth are useful in determining the age at which an individual died because:
a. the enamel forms in layers, one of which is deposited for approximately each year of life
*b. the teeth erupt in a known sequence at more or less fixed points in an individual's life
c. the teeth fall out in a fixed sequence during an individual's life
d. the human teeth are NOT useful in determining the age at which an individual died

46. Analysis of the health status of an ancient individual and the analysis of markers of disease, malnutrition, and trauma is called:
*a. paleopathology
b. osteogenesis
c. foraminfera
d. thermoluminescence

47. A determination of the ratio of two isotopes of strontium in human teeth is useful in determining:
a. the age at death of the individual
b. the cause of death of the individual
*c. where a person was born and spent their early years
d. where a person lived during the decade before they died

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49. If a commercial genetics testing company tells you that you are 26.7% Native American, that means:
a. that you are about one-quarter Native American
b. at least one of your grandparents was a Native American
c. at least one of your great-grandparents was a Native American
*d. very little

50. Absolute dates are:
a. those that we are confident are accurate
b. based on radioactive decay
*c. those that allow us to apply an age or range of years to an archaeological specimen
d. all of the above

51. Carbon dating and potassium/argon dating are dating techniques based on the process of:
a. radiation damage
*b. radioactive decay
c. stratigraphy
d. relative dating

52. Electron spin resonance and thermo- and optical luminescence are dating techniques based on the process of:
*a. radiation damage
b. radioactive decay
c. stratigraphy
d. relative dating

53. Potassium/argon dating is useful in dating the most ancient sites of human ancestors because:
a. potassium and argon are byproducts of ancient fireplaces
b. potassium and argon were part of the diets of ancient human ancestors
c. stone tools are often made of rock that contains substantial quantities of radioactive potassium and its byproduct argon
*d. the half-life of radioactive potassium is 1.3 billion years

54. The half-life of radiocarbon restricts the use of this dating technique to:
a. sites older than 100,000 years
b. sites older than 1,000,000 years
*c. sites younger than 50,000 years
d. sites younger than 5,000 years

55. Accelerator mass spectrometry's major contribution to archaeology rests in the fact that:
a. it extends radiocarbon dating back to beyond the age of the oldest human ancestors

b. it allows for the radiocarbon dating of nonorganic artifacts like stone tools
*c. it requires a much smaller sample than traditional radiocarbon dating procedures
d. all of the above

56. Thermoluminescence is a:
*a. dating technique that can be applied to ceramics
b. dating technique that can be applied to human bone
c. technique for reconstructing a paleodiet
d. technique for examining the technology used by ancient people in the manufacture of bone tools

57. A dating technique based on the thickness of a chemically altered layer on the surface of tools made of volcanic glass is:
a. thermoluminescence
b. paleomagnetism
*c. obsidian hydration
d. obsidian resonance

58. Which of the following materials can be dated with radiocarbon dating:
*a. bone
b. stone
c. clay
d. copper

59. Dendrochronology is also called:
*a. tree-ring dating
b. trace element analysis
c. paleomagnetic dating
d. obsidian hydration

60. The master sequence results from:
a. a long-term project to verify radiocarbon dates worldwide
b. potassium/argon dating of volcanic deposits throughout the world
c. tracking the movement of magnetic north
*d. overlapping ring sequences of living trees and successively older dead trees

61. The calibration curve has resulted from:
a. an analysis of the fusion sequence of cranial plates in various human populations
*b. a comparison of radiocarbon and dendrochronology dates
c. a comparison of radiocarbon and potassium/argon dates
d. a comparison of ^{12}C and ^{13}C in the enamel of ancient teeth

62. Archaeologists have rejected claims that human antiquity can be best explained as the result of intervention by technologically precocious Altanteans or ancient extraterrestrial aliens because scientists:
a. are close-minded

b. know these claims are true, but are engaged in a conspiracy of silence
c. are afraid that their careers will be destroyed if they admit that these things are true
*d. require evidence, and there is absolutely no evidence to support those claims

63. If you see the date of an archaeological site expressed as “2000 BC,” it can also be written:
*a. 2000 BCE
b. 2000 BP
c. -2000 AD
d. 2000 years ago

64. It is the year 2020. Technically, that’s shorthand for:
*a. 2020 AD
b. AD 2020
c. 0 BP
d. all of the above

Essay Questions

1. Archaeology is a science. How is the archaeological study of the human past scientific?

2. What does it mean to say that archaeologists and paleoanthropologists rely on a “convergence of evidence?”

3. How are archaeological sites formed? In other words, how do they come into existence?

4. What happened to Pompeii in A.D. 79? How did the destruction of Pompeii lead to its preservation?

5. How are archaeological sites preserved? How do they survive for thousands or even millions of years?

6. How do archaeologists find sites? What techniques do they use to detect evidence of the past human occupation of an area?

7. What kind of data constitute the archaeological record?

8. How do archaeologists recover data from sites?

9. Why is spatial context so important to the archaeologist? Briefly describe three different spatial contexts and associations for the same artifact, showing how different contexts reveal different behaviors.

10. How do archaeologists analyze their data? Specifically, how can archaeologists determine where raw materials came from, how tools were made and used, and how these objects can inform us of the social or religious practices of a past people?

11. What did archaeological Phil Weigand determine about the raw turquoise used by artisans in ancient Mexico? How did he determine this?

12. How do archaeologists analyze food remains? What insights do these remains provide us about the lives of past people?

13. What can blood residue recovered from the edges of stone blades tell us about ancient hunting practices?

14. How can carbon isotope analysis help in our reconstruction of an ancient environment and an ancient human diet?

15. What contributions does pollen analysis make to archaeological analysis? Describe the process by which palynologists can reconstruct plant communities and the ancient environment.

16. How does the analysis of ancient foraminifera shells inform us of worldwide temperature fluctuation and the extent of ancient glaciation?

17. What kind of information can archaeologists and paleoanthropologists derive from human and pre-human skeletal remains?

18. How can archaeologists and paleoanthropologists determine the species, sex, age at death, geographic origin, diet, and general level of health of the deceased during his or her life from a preserved human skeleton?

19. How can the analysis of the ratio of two isotopes of the element strontium in human teeth and bones help in determining where a person was born and spent his or her early years and where they lived during the decade before they died?

20. Discuss ways in which archaeologists can determine the age of sites. Discuss techniques based on radioactive decay, radiation damage, chemical processes, and paleomagnetism.

21. How has the master sequence been derived in dendrochronology? Why is this important in the application of dendrochronology in archaeology?

22. How has dendrochronology been used to calibrate radiocarbon dates? Why is this important in the application of radiocarbon dating in archaeology? What does the calibration curve show about radiocarbon dates?
23. What are the ethical challenges faced by archaeologists and paleoanthropologists?

24. What are the responsibilities of archaeologists and paleoanthropologists to the modern descendants of the people who left behind the cultural and biological remains those scientists recover and analyze?

25. What does it mean to be an “ethical” archaeologist. What are the responsibilities of an ethical archaeologist to contemporary people?

26. Using the Messages from the Past section of this chapter, why do you think archaeologists are such party-pooping skeptics regarding really interesting speculations about ancient aliens?

Chapter 2

Probing the Past

Chapter Synthesis:

Archaeologists and paleoanthropologists apply a broad array of techniques in their investigation of the human past. This chapter briefly surveys some of the more important procedures for recovering and analyzing the data on which the rest of the book is based. How sites are formed, how they are preserved, and how they are discovered are key questions for archaeologists and paleoanthropologists. Once found, data can be analyzed to determine the age of the sites, how raw materials were obtained, how tools were made from those raw materials and how they were used, on what foods was subsistence based, and aspects of a people's social, political, and even religious lives. Past peoples can also be investigated directly through analysis of their physical remains, which determines the age, sex, health status, and geographic origin of ancient individuals. The evolutionary relationship between a prehistoric person and modern human beings therefore can be determined. Using the general procedures outlined in this chapter and many other very specific analytical techniques mentioned throughout this book, archaeologists and paleoanthropologists can reveal the chronicle of the human
past.

Key Terms

absolute date
accelerator mass spectrometry (AMS)
activity area
archaeomagnetic dating
argon/argon date
artifact
artificial selection
association
C3 pathway
C4 pathway
cache
calibration curve
carbon dating
carbon isotope analysis
coprolites
cranial suture
deciduous dentition
dendrochronology
diaphysis
ecofact
ejecta
epiphyseal fusion
epiphysis
epistemology
experimental replication
faunal assemblage
fluxgate gradiometer
feature
foraminifera
half-life
hypothesis
isotope
K/Ar dating
Lidar
luminescence dating
master sequence
morphology
mtDNA
neutron activation analysis
optically stimulated luminescence (OSL)
osteological
osteological
comparative collection
paleomagnetic dating
paleopathology
palynology
paradigm
pedestrian survey
photosynthesis pathways
phytoliths
pollen
pollen rain
primary refuse
pubic symphysis
pumice
pyroclastic
radiocarbon dating
radiometric
relative date
remote sensing
secondary refuse
sexual dimorphism
site
stratigraphic
taphonomy
test pit
thermoluminescence (TL)
trace element analysis
varve
wear pattern
X-ray fluorescence

Additional Sources: Websites

There is no shortage of Internet sites devoted to archaeology. There are detailed web pages focusing on virtually every topic discussed in this chapter. Many of these sites are associated with museums with displays about archaeology, university courses in which these topics are taught, and laboratories that conduct the analytical procedures discussed here. Type into the search engine of your choice any of the glossary terms that appear in this chapter for myriad websites focusing on archaeology.