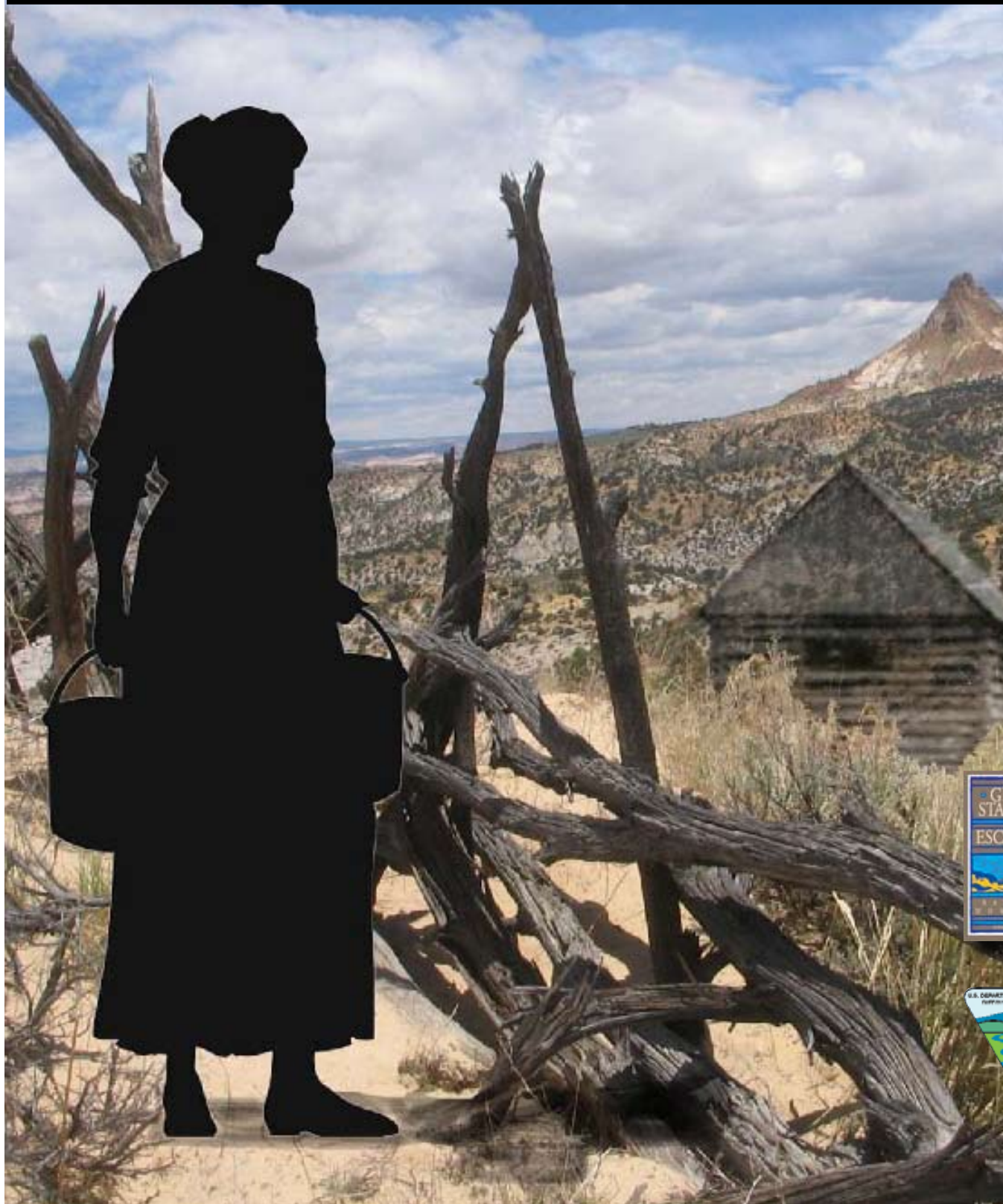


The Mystery of Molly

A Study of Dating Techniques

Student Questions



BLM

Grand Staircase-Escalante National Monument



The Mystery of Molly

A Study of Dating Techniques

Question 1

Which of the artifacts unearthed by archaeologists would be chronological markers?

Question 2

The pattern on the broken pottery was traced to a company in England that made china from 1752-1882 and sold the pattern found at the dig for twelve years, from 1860-1872. Would this be a chronological marker? If so, what information would this give you about the cold case?

Question 3

A few of the beams were in good enough condition that they were sent to the dendrochronology lab. Scientists in the lab matched the growth rings of the charred beams to charts made from other trees in the region. The tree had been cut down in 1880. What does this information tell you about the excavated house?

Question 4

Charcoal from the burned wood in the house was sent to a radiocarbon dating lab for analysis. The radiocarbon date of the charcoal came back from the lab as 1887, +/- five years. What does this date tell you about the excavated house?

Question 5

The second burned house was unearthed about .3 meters below the soil surface. Archaeologists recorded Molly’s remains under .5 meters of soil. The charred timbers and pottery were unearthed within five centimeters of that depth. The metal box was found at a depth of 1 meter. What do the different depths of artifacts and Molly’s bones tell you about this historic site?

Question 6

What does the depth of the metal box mean?

Question 7

Pottery was found at the site and the pattern was traceable, as you already learned in the discussion of chronological markers. Could this broken pottery be used in seriation and as a chronological marker? Explain your answer.

Question 8

In the space below, and on another piece of paper if needed, write your hypothesis and conclusion about the life and death of Molly, if indeed she really was Molly. Use the information obtained through the use of absolute and relative dating techniques to back up your hypothesis.
