

## Reading Zone 13.4

Read the following passage and then answer the questions that follow. You can check your answers on page 252.

Reflecting the developments in religion and philosophy, much Hellenistic culture was cosmopolitan and urbane, although some was individualistic and specialized. Above all, the Hellenistic age was a time when Greek culture spread through much of the inhabited world. It went to Asia, northern Africa, and eventually to Italy and the West. So firmly did it take root that it prevailed in Asia until the Arabs swept all before them in the seventh and eighth centuries c.e. It retained its dominance in the Byzantine Empire, and much of it was introduced by the Romans into the lands around the western Mediterranean.

There was some reciprocity in the process because the Greeks learned from the people they conquered; never, however, did the eastern cultures supplant the Greek. Hellenistic culture was a modified continuation of the Hellenic. Its chief characteristics were more individualism, a greater emphasis on man and nature, less idealism, and more realism. Knowledge became more specialized. Less often did thinkers concern themselves with all knowledge, as did Plato and Aristotle, but rather they concentrated on some area of knowledge.

The most enduring contributions of Hellenistic culture were made in science, generally by scientists patronized by the Hellenistic monarchs. In mathematics Euclid (c. 300 B.C.E.) developed geometry which he explained in his book the *Elements*. Hipparchus (c. 150 B.C.E.) invented trigonometry for his measurements of the earth and his astronomical calculations. He supported the geocentric theory which triumphed over the heliocentric theory of Aristarchus of Samos (c. 275 B.C.E.). Eratosthenes (276–196 B.C.E.) projected a map of the earth with lines of longitude and latitude and calculated the circumference of the world to within two hundred miles of the exact figure. The

gifted Archimedes of Syracuse (287–212 B.C.E.) discovered specific gravity, explained the movement of heavenly bodies, and made marvelous mechanical inventions. He even did elementary calculus and solved the value of pi.

Stimulated by the vast conquests and the new lands and peoples they saw, other thinkers did good work in geography and botany. The excellent achievements in medicine helped to relieve human suffering, to improve medical care, and to prevent disease. Studying the human anatomy, Herophilus (c. 300 B.C.E.) identified the functions of the brain and nervous system and showed the role of the arteries in the circulation of blood. In this period the science of physiology began.

Scholarship flourished also in the humanities, which were supported by the Hellenistic monarchies, especially the Ptolemaic at Alexandria. Since Greek was the universal language of the Hellenistic age, cultivated scholars studied its construction and wrote grammars on it. Others worked at literary criticism and rhetoric. Great libraries developed at Alexandria, Pergamum, Rhodes, and Antioch. In the museum at Alexandria, scholars were subsidized by the Ptolemies just to “do scholarship.” Although Hellenistic literature did not rival the excellence achieved in the fifth and fourth centuries B.C.E., it retained a vitality and the ability to develop new forms and themes for expressing the feeling of men whose sensibilities and tastes had been altered by the changes in politics, economics, science, philosophy, and religion.

The poet Callimachus (c. 250 B.C.E.), for a time head of the library at Alexandria, popularized the short epic dealing with mythological themes not used previously by poets. He engaged in a bitter literary feud with Apollonius of Rhodes (c. 210 B.C.E.) who adhered to the style of the long Homeric epic and who composed the immensely popular *Argonautica* with its tale of Jason and his quest for the Golden Fleece. Callimachus, after reading this poem, made his famous comment: “A big book, a big evil.” The *Argonautica*, however, is still a favorite, whereas the short epics of Callimachus have not enjoyed such success.

As a protest against the more complex urban life, Theocritus of Sicily (c. third century B.C.E.) wrote pastoral idylls praising the rural life with its shepherd, flocks, and natural, bucolic scenes. Unfortunately only one complete play and fragments of others by the playwright Menander (342–290 B.C.E.) are extant, but they show that he created a new form of comedy and was a worthy continuator of Aristophanes. Meander portrayed life and its manners rather than some general incident or theme. His insights into ordinary people and his reflections on life are indicative of the realism and cynicism that, in contrast to the Hellenic period, pervaded the Hellenistic Age. His observation “We live not as we will, but as we can,” reveals the contemporary view of life. Meander became a model for later Roman comedy and inspired the comedies of Moliere in the seventeenth century.

There was no history in the Hellenistic age to equal that of Herodotus or Thucydides, but the *Histories of Polybius* (205–125 B.C.E.), who wrote about Rome from 266 to 146 B.C.E., have been acknowledged in all ages as great history. Originally a Greek politician, Polybius became a prisoner of the Romans in 168 B.C.E. and was taken to Rome. There he soon became a friend of cultivated Romans, among them the general, Scipio Africanus. The perspective of Polybius was later widened by visits to lands overseas under Roman rule. He became an enthusiastic admirer of Rome and decided to write a history that would attempt to explain why the Romans became the masters of the Mediterranean world in fifty-three years. Like Thucydides, Polybius was not content merely to describe historical events; he wanted to know why events occurred. His analysis of why Rome was so successful in politics and military affairs is still largely accepted by historians. His theory that history moves in cycles has long influenced historians interested in the rise and decline of states and civilizations.

1. How does the passage characterize Hellenistic culture?
  - (A) Individualistic and specialized
  - (B) Cosmopolitan and urbane
  - (C) Religious and philosophical
  - (D) Pastoral and bucolic
  - (E) Plebian and choleric
  
2. All of the following are characteristic of Hellenistic culture EXCEPT
  - (A) a lesser emphasis on man
  - (B) a greater emphasis on nature
  - (C) a greater degree of individualism
  - (D) a lesser degree of idealism
  - (E) an enhanced sense of realism
  
3. Who wrote the *Argonautica*?
  - (A) Homer
  - (B) Calimachus
  - (C) Archimedes
  - (D) Apollonius
  - (E) Meander
  
4. According to the passage, all of the following were achievements of Archimedes EXCEPT
  - (A) elementary calculus
  - (B) advances in geometry
  - (C) the discovery of specific gravity
  - (D) the invention of mechanical devices
  - (E) an explanation of the movement of heavenly bodies

5. One of the famous libraries of the Greek civilization was located in
- (A) Pergamum
  - (B) Athens
  - (C) Sparta
  - (D) Luxandra
  - (E) Antioch
6. According to the passage, Greek culture spread to all of the following places EXCEPT
- (A) Asia
  - (B) the Middle East
  - (C) Northern Africa
  - (D) Western Europe
  - (E) Italy
7. Who wrote the *Histories*?
- (A) Polybius
  - (B) Herotodous
  - (C) Thucydides
  - (D) Scipio Africanus
  - (E) Aesop
8. According to the passage, which best describes the development of knowledge in the Hellenistic era?
- (A) More generalized
  - (B) More specialized
  - (C) More rational
  - (D) More mystical
  - (E) Less accurate

9. Which of the following in use today were developed during the Hellenistic era?
- (A) The idea of history as cyclical
  - (B) The use of maps for navigation
  - (C) The geocentric theory
  - (D) All of the above
  - (E) None of the above
10. All of the following were Hellenistic figures EXCEPT
- (A) Euclid
  - (B) Hipparchus
  - (C) Aristotle
  - (D) Eratosthenes
  - (E) Archimedes of Syracuse