

For Teachers: Please have the students read the sentences one at a time and correct their pronunciation of each sentence then have them repeat after you. Wait until after they read the sentence (use the number in place of the missing word) to have the students choose the correct answer to fill in the blank. When the students finish the article, move on to the further questions.

日本語訳なしタイプ B もございます。スクロールダウンするとございますので好きな方をご利用下さい。

3[C] - Paying for Civilization

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1. In the first millennium BC, the Phoenicians, a powerful Middle Eastern trading civilization, controlled an empire that stretched across the entire Mediterranean region. One reason for the Phoenicians' prosperity was their control of the Rio Tinto Copper and silver mines located in what is now southern Spain. Although mining activity had been carried out there since the Bronze Age, the Phoenicians to decorate temples and to pay debts, and it also allowed for the development of a corn based monetary system in the Mediterranean region. Silver was rare enough to be valuable, but thanks to the Rio Tinto mines output, there was enough for large-scale coin-making. According to Thomas Schattner, professor of archaeology at the University of Giessen Germany, "Without the silver mines of southern Spain, the development of money would have been quite different."

Further Questions&A

*Ask student to answer the question on their own at first. If the student can't answer correctly, have him look at the last page and read the "example answer" for the question. Have the student try to memorize the answer, if it's too long or difficult, you should divide the sentence into 2 or 3 parts to make it easier to remember. Once they have memorized the answer, the teacher should ask the question one last time so that the student can practice answering. Also if you find any mistakes, please mark the page and let me know ASAP.

- 1) Who are the Phoenicians? フェニキア人とは誰ですか。
 14. *Phoenicians is a powerful Middle Eastern trading civilization and they controlled an empire that stretches across the entire Mediterranean region.*
 2) What is the importance of the silver mines in Spain?
 16. スペインでの銀鉱山の価値はどれほどですか。
 17. *Silver mines in Spain made the development of money quite different.*

18. After defeating the Phoenicians in 206 BC, the Romans took over the mines and further expanded production of silver for the minting of denarius, the main coin used throughout the Roman Empire. The Romans used their political expertise to establish a comprehensive system of governance at the mines, which included leasing them to private contractors and managing the thousands of laborers,

- 行政官 (ぎょうせいかん) 軍人 (ぐんじん)
 24. administrators, and soldiers in the area. Rio Tinto silver proved
 非常 (ひじょう) に貴重 (きちょう) な 資金 (しきん) を供給 (きょうきゅう) する
 25. invaluable to the Romans, helping to fund their
 巨大 (きょだい) な 下部組織 (かぶそしき)
 26. army and the vast infrastructure of their empire. At their peak between
 27. AD 70 and 180, the Rio Tinto mines were producing more copper and silver than
 28. any other mines in the Roman Empire.

Further Questions&A

29. 3) Who took over the mines after the Phoenicians were defeated?
 30. フェニキア人が破られた後、誰が鉱山を引き継ぎましたか。
 31. After defeating the Phoenicians, the Romans took over the mines.
 32. 4) Were the Rio Tinto mines important to the Roman empire?
 33. ローマ帝国にとってリオ・ティント鉱山は重要でしたか。
 34. Yes, Rio Tinto silver proved invaluable to the Romans.

35. After the Romans were driven out of Spain in the fifth century, the Rio Tinto
 落 (お) ち込 (こ) んだ 一世紀 (いっせいき) にわたる 衰退 (すいたい) 19世紀末 (せいきまつ) に
 36. mines fell into a centuries-long decline. In the late 19th century,
 多国籍 (たこくせき) の 引 (ひ) き継 (つ) いだ
 37. however, a multinational company took over the mines and once again
 多量 (たりにょう) の～ 金属 (きんぞく) 不取締 (ふとりしまり)
 38. began to produce large quantities of metals. Mismanagement caused the
 閉鎖 (へいさ) する 購入 (こうにゅう) する
 39. mines to close in 2001, but another company has now purchased a
 歴史的 (れきしてき) に
 40. number of historically valuable items at the mines, including Bronze Age
 石油 (せきゆ) ランプ 陶器類 (とうきりい)
 41. hammer heads, Phoenician oil lamp, and pieces of Roman pottery. These
 発見 (はっけん) 詳細 (しょうさい) な 状況 (じょうきょう)
 42. discoveries have helped provide a more detailed picture of early
 鉱山 (こうざん) の 運営 (うんえい) 生活 (せいかつ) 鉱山労働者 (こうざんろうどうしゃ)
 43. mining operations and the lives of mine workers from different
 時代 (じだい)
 44. periods.

Further Questions&A

45. 5) How long were the mines in decline after the Romans were driven out of
 Spain? ローマ人がスペインから追われた後、鉱山の低迷はどのくらい続きましたか。
 46. They were in decline for 14 centuries.
 47. 6) What historically valuable items were found at the mines?
 48. 鉱山で歴史的に価値のあるどんな品物が見つかりましたか。
 49. Bronze Age hammer heads, Phoenician oil lamps, and pieces of Roman pottery.

- 遺物 (いぶつ) 環境 (かんきょう) の
 An unfortunate legacy of the mines, however, is environmental
 汚染 (おせん) 汚染 (おせん) された
 50. contamination. The two main rivers in the Rio Tinto area are poisoned with
 重金属 (じゅうきんぞく) 実際 (じっさい) は 重金属 (じゅうきんぞく)
 51. heavy metals. In fact, high levels of heavy metals are found in
 土壌 (どじょう) 地帯 (ちたい)
 52. soil and water throughout the region, and scientists have discovered
 ～にさかのぼった 始 (はじ) まり
 53. that this pollution can be traced back to the onset of mining around 4,800

54. years ago. Bend Lottermoser, authority on mine pollution, acknowledges damage 損害 (そんがい) を与 (あた) えた
55. mining has damaged the local environment but says it may have only been a contributing factor . He believes natural features of the region's geology have resulted in the release of heavy metals throughout its history. Lottermoser even suggests the unusually colored soil and water resulting from this pollution “may have attracted the very first miners to the region.”

Further Questions&A

61. 7) What was an unfortunate legacy of the mines?
62. 鉱山の不運な遺産は何ですか。
63. *An unfortunate legacy of the mines is environmental contamination.*
64. 8) What does Lottermoser suggest attracted the very first miners to the region?
65. Lottermoser はその地域に一番最初の鉱山従事者を引きつけたことを示唆していますか。
66. *He suggests the unusually colored soil and water may have attracted the very first miners.*

*Choose the correct answer from these choices.

67. (38) What is one reason the Rio Tinto mines were important while under Phoenician control? リオ・ティント鉱山がフェニキア人の支配下にあった間 重要だった理由の一つは何ですか。
68. 1 The Phoenicians were able to use technology they invited at the mines to improve mining operations in other parts of the Mediterranean region.
69. 2 The mines provided sufficient quantities of silver to enable a coin-based economy to take hold in the Mediterranean region.
70. 3 The Phoenicians could finance their military campaigns in areas of present-day Spain by trading the silver they obtained from the mines.
71. 4 The mines enable the development of metalworking techniques that were used for constructing important temples.
72. (39) One result of the Roman takeover of the Rio Tinto mines was that
73. ローマ人によるリオ・ティント鉱山の買収の結果の一つは…
74. 1 excessive mining of copper and silver to increase the empire's wealth eventually led to the closure of the mines.
75. 2 clashes between mine workers and Roman soldiers resulted in the mines being temporarily leased to private contractors.
76. 3 the mines entered a period of heightened production made possible by efficient, large-scale management.
77. 4 laborers had to be brought in front other mines, which negatively affected the output of those mines.
78. (40) Archaeologists have gained a clearer historical understanding of the Rio Tinto mines as a result of …の結果として、考古学者はリオ・ティント鉱山の明確な歴史的な理解を増している。

79. **1** finding evidence of a previously unknown civilization that may have first settled in and mined the area.
80. **2** analyzing ancient documents that reveal the amount of heavy metals extracted since the time mining first occurred.
81. **3** uncovering possessions at the mines that give clues about the habits of people who once labored in them.
82. **4** collaborating with the company that runs the mines or explore parts of them that have not been used since Roman times..
83. **(41)** What is Bernd Lottermoser's view concerning heavy-metal pollution in the Rio Tinto area? Bernd Lottermoser のリオ・ティント地域における重金属汚染に関する見解は何ですか。
84. **1** Humans are partly to blame for the pollution, but it was present before mining started and may be why people began to dig for metals there.
85. **2** The Phoenicians were not responsible for the pollution because it stopped after the first inhabitants of the region departed.
86. **3** It should not be a major cause for concern because the negative effects it has on the environment will disappear over time.
87. **4** It is a small price to pay for the contribution that mining in the area has made to civilizations throughout history.

Review Questions

88. **1)** Who are the Phoenicians?
89. *Phoenicians is a powerful Middle Eastern trading civilization and they controlled an empire that stretches across the entire Mediterranean region.*
90. **2)** What is the importance of the silver mines in Spain?
91. *Silver mines in Spain made the development of money quite different.*
92. **3)** Who took over the mines after the Phoenicians were defeated?
93. *After defeating the Phoenicians, the Romans took over the mines.*
94. **4)** Were the Rio Tinto mines important to the Roman empire?
- Yes, Rio Tinto silver proved invaluable to the Romans.*
95. **5)** How long were the mines in decline after the Romans were driven out of Spain?
- They were in decline for 14 centuries.*
96. **6)** What historically valuable items were found at the mines?
- Bronze Age hammer heads, Phoenician oil lamps, and pieces of Roman pottery.*
97. **7)** What was an unfortunate legacy of the mines?
- An unfortunate legacy of the mines is environmental contamination.*
98. **8)** What does Lottermoser suggest attracted the very first miners to the region?
- He suggests the unusually colored soil and water may have attracted the very first miners.*

解答: (38) 2 (39) 3 (40) 3 (41) 1

Type B 日本語訳なし

3[C] -Paying for Civilization

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 100. civilization, controlled an empire that stretched across the entire
 101. Mediterranean region. One reason for the Phoenicians' prosperity was their
 102. control of the Rio Tinto Copper and silver mines located in what is now
 103. southern Spain. Although mining activity had been carried out there since the
 104. Bronze Age, the Phoenicians to decorate temples and to pay debts, and it also
 105. allowed for the development of a corn based monetary system in the
 106. Mediterranean region. Silver was rare enough to be valuable, but thanks to the
 107. Rio Tinto mines output, there was enough for large-scale coin-making.
 108. According to Thomas Schattner, professor of archaeology at the University of
 109. Giessen Germany, "Without the silver mines of southern Spain, the
 110. development of money would have been quite different."

Further Questions&A

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 114. and further expanded production of silver for the minting of *denarius*, the main
 115. coin used throughout the Roman Empire. The Romans used their political
 116. expertise to establish a comprehensive system of governance at the mines,
 117. which included leasing them to private contractors and managing the
 118. thousands of laborers, administrators, and soldiers in the area. Rio Tinto silver
 119. proved invaluable to the Romans, helping to fund their army and the vast
 120. infrastructure of their empire. At their peak between AD 70 and 180, the Rio
 121. Tinto mines were producing more copper and silver than any other mines in the
 122. Roman Empire.

Further Questions&A

123. 3) Who took over the mines after the Phoenicians were defeated?
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125. After the Romans were driven out of Spain in the fifth century, the Rio Tinto
 126. mines fell into a centuries-long decline. In the late 19th century, however, a
 127. multinational company took over the mines and once again began to produce
 128. large quantities of metals. Mismanagement caused the mines to close in 2001,
 129. but another company has now purchased a number of historically valuable
 130. items at the mines, including Bronze Age hammer heads, Phoenician oil lamp,
 131. and pieces of Roman pottery. These discoveries have helped provide a more
 132. detailed picture of early mining operations and the lives of mine workers from
 133. different periods.

Further Questions&A

134. 5) How long were the mines in decline after the Romans were driven out of
 Spain?
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136. An unfortunate legacy of the mines, however, is environmental contamination.
 137. The two main rivers in the Rio Tinto area are poisoned with heavy metals. In

138. fact, high levels of heavy metals are found in soil and water throughout the
 139. region, and scientists have discovered that this pollution can be traced back to
 140. the onset of mining around 4,800 years ago. Bend Lottermoser, authority on
 141. mine pollution, acknowledges mining has damaged the local environment but
 142. says it may have only been a contributing factor. He believes natural features of
 143. the region's geology have resulted in the release of heavy metals throughout
 144. its history. Lottermoser even suggests the unusually colored soil and water
 145. resulting from this pollution "may have attracted the very first miners to the
 146. region."

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