

THE DECLINE OF ANGKOR WAT

A. Angkor is the epicentre of one of the greatest vanishing acts of all times. The ancient **Khmer kingdom** in modern Cambodia lasted from the 9th to 15th century, and at its height dominated a huge area of South-East Asia from today's Myanmar in the west to Vietnam in the east.

As many as 750,000 people lived in Angkor (capital **city**), making it the most extensive urban complex of the pre-industrial era by the late 16th century. When Portuguese missionaries came across the lotus-shaped towers of Angkor Wat (world's largest religious monument), the empire was in its final phase.

B. Exactly what caused the decline is unknown; invaders, a change of religion, a shift to maritime trade that degraded an inland city are all guesswork. The people of Angkor never spoke a single word explaining their kingdoms collapse. Recent excavations are suggesting a new answer. Angkor was doomed by the very ingenuity that originally gave rise to it – control of water slipped away.

C. To ensure a steady water supply, stabilise rice production and control flooding, Khmer engineers had built a full network of canals, moats, reservoirs and ponds. Massive infrastructure slowed the wet-season deluge flowing from the Kulen Hills, moving it into canals that fed the barays (artificial bodies of water).

Spreading across the gently sloping land, the water gets finally drained into the Tonle Sap (the largest freshwater lake in South-East Asia). This system ensured a water supply that did not rely on the monsoon. But this reliability required massive skills of engineering, including a reservoir called the West Baray, which is 8 kilometres long and almost three kilometres wide.

To build this most sophisticated of Angkor's large reservoirs 1000 years ago, as many as 200,000 Khmer workers were needed to stock nearly 16 million cubic yards of soil in embankments 300 feet wide and three stories tall. Till today, the rectangular reservoir is fed by water diverted from the Siem river.

D. Today's researchers have been amazed by the **ambition** of Angkor's early engineers. "The entire landscape is artificial" say people. Over several centuries, hundreds of miles of canals that relied on subtle differences in the land's natural inclination were constructed to divert water from three different rivers to the barays.

During the summer monsoons, overflow channels bled off excess water and after the rains petered out in October/November, irrigation channels dispensed the stored water. The barays helped renew soil moisture by allowing water to soak into the earth. In neighbourhood fields, surface evaporation would have drawn up the groundwater to supply crops.

E. The clever water system may have made all the difference between mediocrity and greatness. Most of the kingdom's rice was grown in fields with embankments that would otherwise have relied on monsoons or the seasonal flow of water on the floodplain. Irrigation may have boosted harvests. The system could also have helped in providing rations during a poor monsoon season.

The ability to divert and hold water flow have afforded a measure of protection from floods. Angkor's waterworks would have been an extremely valuable asset for the struggling South-East Asian kingdoms.

F. There is strong evidence that says the system was destroyed by Angkor's own engineers; one of the huge spillways was destroyed that was used to remove excess water. However, why this was done is a mystery. The ruins are a vital clue to an epic struggle as Khmer engineers coped with even more complex and unruly water system.

Logically, the dam was failed; the river could have chewed into the dam, weakening it gradually. Perhaps, it was washed away by a heavy flood. The Khmer then ripped apart most of their stonework, salvaging the blocks for other things.

Question 1-6

Which paragraph contain the following information?

Write the letter, A-F

1. a mention of growing food production -
2. possible causes of destruction of an irrigation feature -
3. a brief portrayal of a civilisation at its peak -
4. a labour force estimation took part in construction of the water system -
5. modern-day reactions to a complex, man-made water system -
6. speculation about the decline of an empire -

Question 7-10

Write the correct letter, *i-vi*

- i. the water system was able to compensate
- ii. the stone blocks had disappeared
- iii. it outpaced neighbouring systems
- iv. a change was made that still lasts today
- v. the system could use all of the supplied water
- vi. the kingdom was in its final stages

- 7. When visitors from the West parts arrived –
- 8. When Angkor's irrigation system worked well –
- 9. When the most sophisticated reservoir was built –
- 10. When the monsoon failed –

Questions 11-14

Do the following statements agree with the information given in the Reading Passage 1 ?

TRUE – if the statement agrees

FALSE – if the statement contradicts

NOT GIVEN – if there is no information

- 11. Missionaries accidentally destroyed some structures at Angkor Wat –
- 12. Angkor's inhabitants left manuscripts providing information about the collapse of their society –
- 13. The water system took a few 100 years to construct –
- 14. The irrigation system became harder to control over the years –