

## Secrets of the Forest

### A

In 1942 Allan R Holmberg, a doctoral student in anthropology from Yale University, USA, ventured deep into the jungle of Bolivian Amazonia and searched out an isolated band of Siriono Indians. The Siriono, Holmberg later wrote, led a "strikingly backward" existence. Their villages were little more than clusters of thatched huts. Life itself was a perpetual and punishing search for food: some families grew manioc and other starchy crops in small garden plots cleared from the forest, while other members of the tribe scoured the country for small game and promising fish holes. When local resources became depleted, the tribe moved on.

As for technology, Holmberg noted, the Siriono "may be classified among the most handicapped peoples of the world". Other than bows, arrows and crude digging sticks, the only tools the Siriono seemed to possess were "two machetes worn to the size of pocket-knives".

### B

Although the lives of the Siriono have changed in the intervening decades, the image of them as Stone Age relics has endured. Indeed, in many respects the Siriono epitomize the popular conception of life in Amazonia. To casual observers, as well as to influential natural scientists and regional planners, the luxuriant forests of Amazonia seem ageless, unconquerable, a habitat totally hostile to human civilization. The apparent simplicity of Indian ways of life has been judged an evolutionary adaptation to forest ecology, living proof that Amazonia could not - and cannot - sustain a more complex society. Archaeological traces of far more elaborate cultures have been dismissed as the ruins of invaders from outside the region, abandoned to decay in the uncompromising tropical environment.

### C

The popular conception of Amazonia and its native residents would be enormously consequential if it were true. But the human history of Amazonia in the past 11,000 years betrays that view as myth. Evidence gathered in recent years from anthropology and archaeology indicates that the region has supported a series of indigenous cultures for eleven thousand years; an extensive network of complex societies - some with populations perhaps as large as 100,000 - thrived there for more than 1,000 years before the arrival of Europeans. (Indeed, some contemporary tribes, including the Siriono, still live among the earthworks of earlier cultures.) Far from being evolutionarily retarded, prehistoric Amazonian people developed technologies and cultures that were advanced for their time. If the lives of Indians today seem "primitive", the appearance is not the result of some environmental adaptation or ecological barrier; rather it is a comparatively recent adaptation to centuries of economic and political pressure. Investigators who argue otherwise have unwittingly projected the present onto the past.

### D

The evidence for a revised view of Amazonia will take many people by surprise. Ecologists

have assumed that tropical ecosystems were shaped entirely by natural forces and they have focused their research on habitats they believe have escaped human influence. But as the University of Florida ecologist, Peter Feinsinger, has noted, an approach that leaves people out of the equation is no longer tenable. The archaeological evidence shows that the natural history of Amazonia is to a surprising extent tied to the activities of its prehistoric inhabitants.

## **E**

The realization comes none too soon. In June 1992 political and environmental leaders from across the world met in Rio de Janeiro to discuss how developing countries can advance their economies without destroying their natural resources. The challenge is especially difficult in Amazonia. Because the tropical forest has been depicted as ecologically unfit for large-scale human occupation, some environmentalists have opposed development of any kind.

Ironically, one major casualty of that extreme position has been the environment itself. While policy makers struggle to define and implement appropriate legislation, development of the most destructive kind has continued apace over vast areas.

## **F**

The other major casualty of the "naturalism" of environmental scientists has been the indigenous Amazonians, whose habits of hunting, fishing, and slash-and-burn cultivation often have been represented as harmful to the habitat. In the clash between environmentalists and developers, the Indians, whose presence is in fact crucial to the survival of the forest, have suffered the most. The new understanding of the pre-history of Amazonia, however, points toward a middle ground. Archaeology makes clear that with judicious management selected parts of the region could support more people than anyone thought before. The long-buried past, it seems, offers hope for the future.



technological terms.

- 4..... The reason for the simplicity of the Indian way of life is that Amazonia has always been unable to support a more complex society.
- 5..... There is a crucial popular misconception about the human history of Amazonia.
- 6..... There are lessons to be learned from similar ecosystems in other parts of the world.
- 7..... Most ecologists were aware that the areas of Amazonia they were working in had been shaped by human settlement.
- 8..... The indigenous Amazonian Indians are necessary to the well-being of the forest.
- 9..... It would be possible for certain parts of Amazonia to support a higher population.

### Questions 10-13

*Choose the appropriate letters **A-D** and write them in boxes **10-13** on your answer sheet.*

**10** In 1942 the US anthropology student concluded that the Siriono

A were unusually aggressive and cruel.

B had had their way of life destroyed by invaders.

C were an extremely primitive society.

D had only recently made permanent settlements.

**11** The author believes recent discoveries of the remains of complex societies in Amazonia

A are evidence of early indigenous communities.

B are the remains of settlements by invaders.

C are the ruins of communities established since the European invasions.

D show the region has only relatively recently been covered by forest.

**12** The assumption that the tropical ecosystem of Amazonia has been created solely by natural forces

- A has often been questioned by ecologists in the past.
- B has been shown to be incorrect by recent research.
- C was made by Peter Feinsinger and other ecologists.
- D has led to some fruitful discoveries.

**13** The application of our new insights into the Amazonian past would

- A warn us against allowing any development at all.
- B cause further suffering to the Indian communities.
- C change present policies on development in the region.
- D reduce the amount of hunting, fishing, and 'slash-and-burn'.

**Solution:**

- |              |        |
|--------------|--------|
| 1. v         | 8. YES |
| 2. i         | 9. YES |
| 3. vi        | 10. C  |
| 4. NO        | 11. A  |
| 5. YES       | 12. B  |
| 6. NOT GIVEN | 13. C  |
| 7. NO        |        |