

The Wind Makes Dust

by Carl Sagan



ABOUT THE READING In this excerpt, Carl Sagan writes about what good science means to him, and why it makes a difference. Sagan argues against the idea that science is too difficult for "primitive" peoples to understand.



As you read the passage below, pay attention to how Sagan applies human geography to hunter-gatherer societies.

Scientific thinking has almost certainly been with us from the beginning. You can even see it in chimpanzees when tracking on patrol of the frontiers of their territory, or when preparing a reed to insert into a termite mound to extract a modest but much-needed source of protein. The development of tracking skills delivers a powerful evolutionary selective advantage. Those groups unable to figure it out get less protein and leave fewer offspring. Those with a scientific **bent**, those able to patiently observe, those with a penchant for figuring out acquire more food, especially more protein, and live in more varied habitats; they and their **hereditary** lines prosper. The same is true, for instance, of Polynesian seafaring skills. A scientific bent brings tangible rewards.

The other principal food-garnering activity of pre-agrarian societies is foraging. To forage, you must know the properties of many plants, and you must certainly be able to distinguish one from another. Botanists and anthropologists have repeatedly found that all over the world hunter-gatherer peoples have distinguished the various plant species

VOCABULARY

- bent** strong interest
- hereditary** passed on from parent to child
- finesse** skill
- cartographers** map makers
- belied** show that something is false or wrong

Penchant means liking or fondness for doing something.

What kinds of things must societies know to forage for food?

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with the precision of Western taxonomists. They have mentally mapped their territory with the **finesse of cartographers**. Again, all this is a precondition for survival.

So the claim that, just as children are not developmentally ready for certain concepts in mathematics or logic, so “primitive” peoples are not intellectually able to grasp science and technology, is nonsense. This vestige of colonialism and racism is **belied** by the everyday activities of people living with no fixed abode and almost no possessions, the few remaining hunter-gatherers—the custodians of our deep past.

ANALYZING LITERATURE

- 1. Main Idea** According to the passage, how does scientific thinking benefit animals and people?

- 2. Critical Thinking: Drawing Inferences** What might Sagan’s description of hunter-gatherers tell you about their cultures?

ACTIVITY

Imagine that you are a journalist who is interviewing Carl Sagan about the importance of science. What five questions would you ask him? Conduct research to find the answers.