

CHAPTER 22

GOT MILK? FARMING IN AFRICA

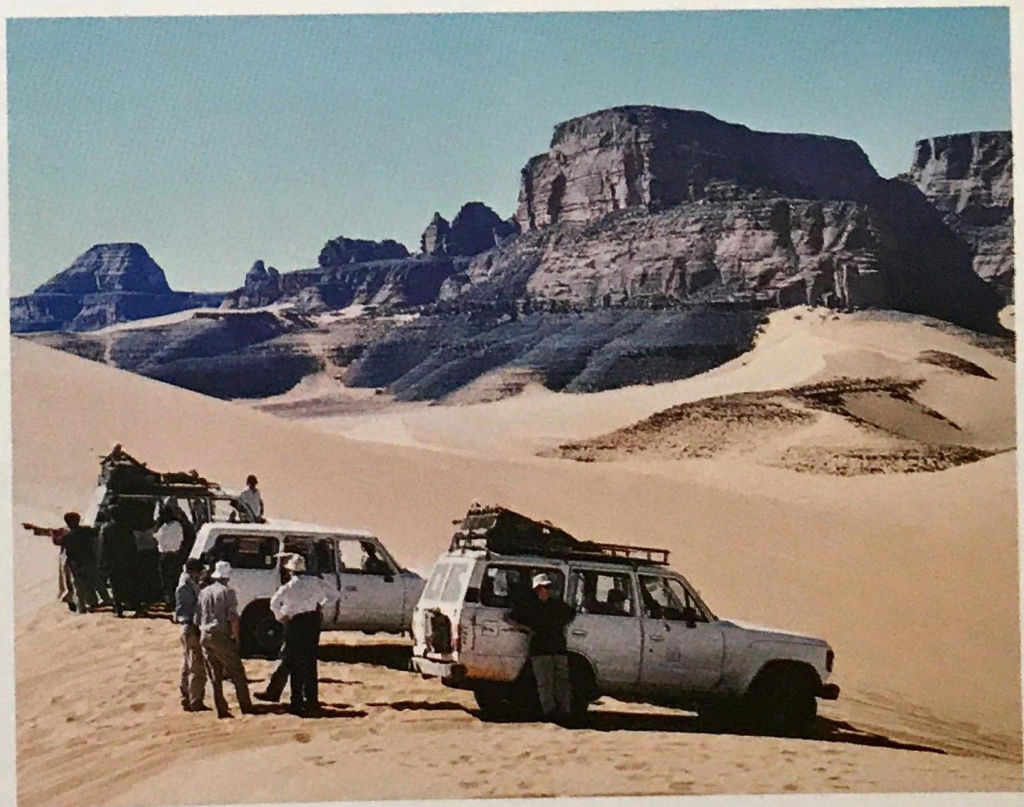
“ ROCK ART IN THE
SAHARA DESERT

Just to prove there is a club out there for *everyone*, consider the club for archaeologists—the Prehistoric Society. And get this—their newsletter is called *Past*. The November 2002 issue of *Past* describes a field trip deep into the Sahara Desert to study how the people who lived there changed from foragers to farmers.

The group of club members climbed into five beat-up SUVs loaded with camping gear and set out into the sea of sand. They soon learned that driving across the desert wasn't the smooth ride you might expect. Graeme Barker, then president of the Prehistoric Society, writes in the newsletter that the only way to approach sand dunes was to “charge full tilt.” Otherwise, before reaching the crest of the dune, the SUVs would slide back down. The trick, though, was not to drive so fast that you couldn't stop at the top of the dune, because there was no way of telling as you fishtailed up one side if the other side dropped off like a cliff.

The Sahara Desert sprawls across northern Africa. Today we think of the Sahara as a waterless death trap with nothing but shifting sand dunes. But 7,000 years ago the Sahara was quite different. Then it was grassland spotted with lakes and marshes. The Prehistoric Society's field trip included stops at places that were

“So now where are we?” Members of the archaeologists' club called the Prehistoric Society take a rest at the top of a dune in the Sahara Desert in Libya.





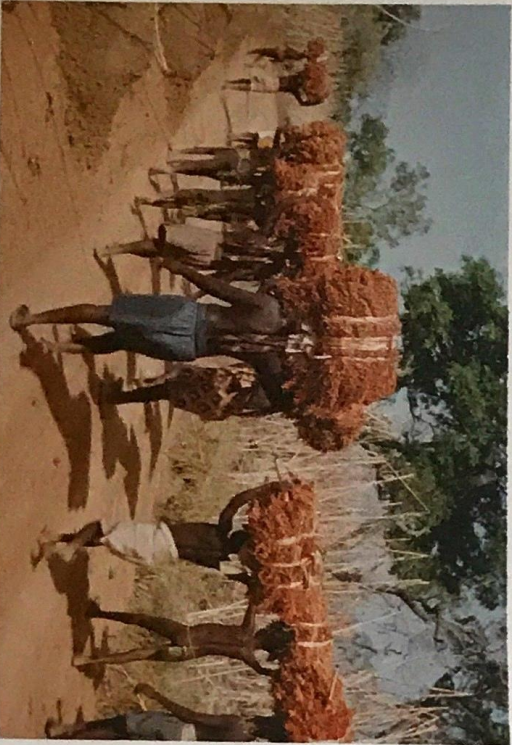
MEANWHILE IN SOUTHEAST ASIA . . .

More than 2,000 years ago, crops and animals from Southeast Asia began to trickle into Africa. Bananas and chickens were particularly popular. Rice and coconuts were a hit on the east coast.

once lakes. Long ago, lakeside settlements were places for foragers beginning a new way of life. While foraging, these people began to herd animals along the way—moving sheep, cattle, and goats from one grazing land to another.

The Prehistoric Society's first night in the desert was just what you would expect for a bunch of scholars. They'd been delayed because the kitchen truck kept getting flat tires—business as usual when driving in the desert. It was after dark when their drivers found a good spot to set up camp, out of the wind, in a bowl between dunes. The scholars huddled in the beams of the SUV's headlights, flipping through the instructions for pitching their tents.

Almost nothing dampens archaeologists' enthusiasm when they are in hot pursuit of some good prehistory. So the next morning, nearly rested and ready to set off after rock art, the scholars loaded up the vehicles. First though, they had to find gasoline. Barker wrote, "our desert journey needed all the vehicle tanks full as well as the dozen or so jerry cans we also carried . . . the word . . . was that there 'probably was' petrol 100 kilometers further south in Ghat, the last settlement before the Algerian and Niger borders." Fortunately "the word" proved true, and they were able to gas up in Ghat. Then they were off to find where and when those Saharan foragers started farming.



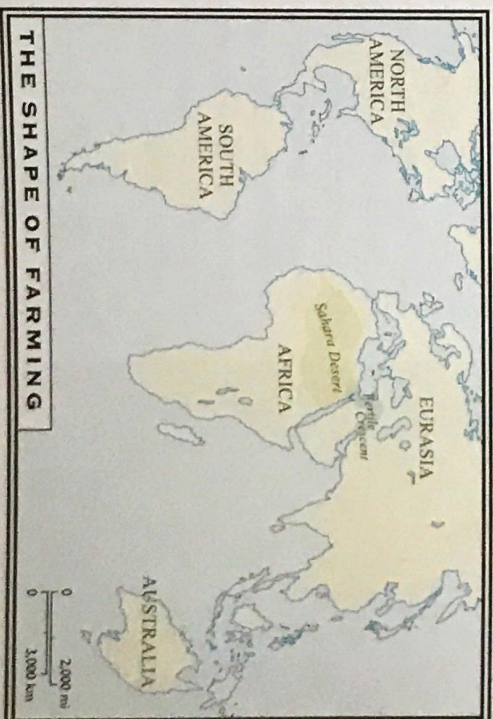
African farmers carry home a harvest of sorghum, a cereal grain domesticated in Africa south of the Sahara.

Traditionally scientists had believed that the shift from foraging to herding spread to the Sahara from the Nile Valley 6,000 years ago. The colonists herded their animals westward, carrying plants and pottery along the way. On this field trip the scholars hoped to get a firsthand look at some of the evidence that was pointing toward another theory—one that credits climate changes rather than colonists for farming. Was it all about weather?

More than 8,000 years ago the people in an area of the Middle East called the Fertile Crescent began to farm. The mild wet winters, warm dry summers, and wild plants with big seeds practically drew a picture of farming to those foragers. There was no need for a green thumb there.

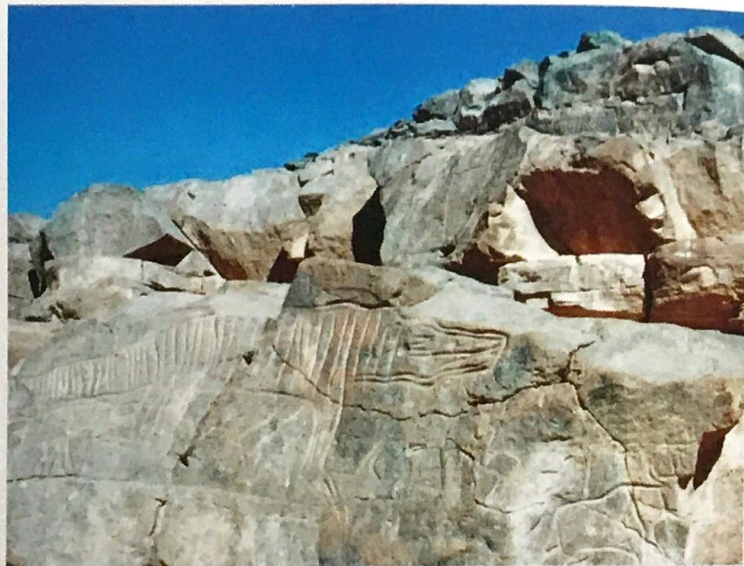
As with most good ideas, people spread the word. From the Fertile Crescent, farming found its way east and west. But why not north and south? One possible answer is obvious when you look at a map. Eurasia is short and wide, spreading east-west. Africa and the Americas have a tall north-south posture. Have you ever looked at a seed catalog? Have you noticed that plants are recommended for particular zones? Those zones are drawn east to west where temperatures, daylight, and rainfall are similar. Move north and south and conditions change. A plant thriving in southern Florida may shrivel in the cold northeastern United States. For plants that do survive both extremes, the growing seasons may be reversed—what the Montana farmer plants in the spring, the Texan plants in the fall.

As long as farming techniques spread east and west, crops, tools, and methods didn't have to change. Moving north or south into a new zone where conditions were different meant that people needed to invent new ways to farm. Invention takes time.



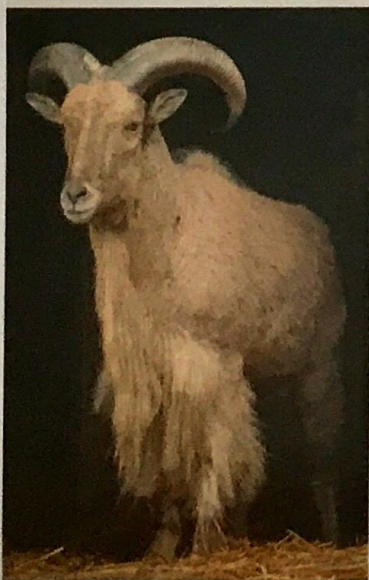
On a world map it is clear that the Americas and Africa stretch north-south and Eurasia spreads east-west. Farming began in the ideal growing conditions of the Fertile Crescent and spread rapidly east and west through similar conditions. For the people living in north-south oriented continents, farming took longer to catch on because methods and crops had to be adjusted to the differences in climate.

Images of a crocodile and other animals are cut into the rock at Messak Settafet, in the Sahara Desert. Scientists don't know how long ago the engravings were made, but you wouldn't find crocodiles there today.



BORN TO BE FREE

The penned sheep may have been tame, but they weren't bred by farmers either then or now. These were Barbary sheep. Barbary sheep are completely different animals from domestic sheep. They belong to a different genus—*Ammotragus*—which was not domesticated.

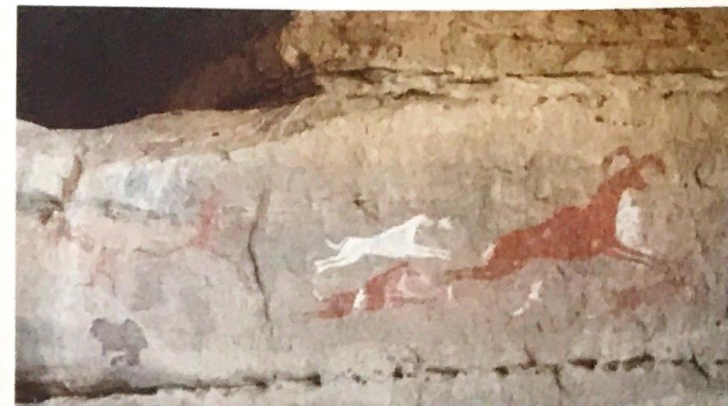


Parts of Europe were so different from the Fertile Crescent that it would take centuries for people to discover ways to work the new growing zones. Northern forests were horrible for herding, with harsh winters that made grazing almost impossible. The bitter winters killed off anything planted in the autumn—the planting season for the Fertile Crescent. The idea may seem simple, but it would take generations for people to discover that planting in the spring gave seedlings time to mature before the winter freeze.

The same climate barriers that slowed the spread of crops to the north and south slowed the spread of cattle, too. But, not all barriers have to do with climate changes. Something else stood in the way of African cattle—something so tiny that you wouldn't expect it to be able to stop herds of hulking cows, and yet it did. It was the tsetse fly. The tsetse fly is deadly to cattle. On the fringe of the African tropical forests, at the edge of what was then savannah, the tsetse flies swarmed, preventing cattle migration.

In the Sahara early foragers collected wild cereal grasses, sorghum, and millet. They hunted crocodile and antelope. And now it looks as if they herded Barbary sheep 1,000 or more years before they herded cattle. On the field trip our scholars examined very convincing evidence that these for-

agers had built stalls for their sheep. You don't build stalls for wild animals. These Saharan people must have tamed their sheep, but getting them into the enclosures would have been a challenge. One rock art picture the Prehistoric Society visited on their field trip shows a sheep running from dogs and hunters.



The pictures of daily life in the rock art showed that by 7,000 years ago people were herding domestic cattle, sheep (not Barbary sheep), and goats as well as hunting, fishing, and gathering plants. The rock art shows us what their relationship with animals must have been like: some scenes are of hunting animals, some scenes are of raising animals. There are carvings of giraffe, rhinoceros, elephant, buffalo, and crocodile from what scholars call the Big Game phase of life in the Sahara, perhaps 7,000–5,000 years ago. One carving shows hunters trapping ostriches and giraffes in stone enclosures. There are paintings of herders with their animals. There are even cow-milking scenes.

The Sahara began its shift to the desert it is today about 4,500 years ago. As the climate got drier and drier, herders had to move south in search of grasses for their animals. The wild growth of the savannah wasn't enough to feed the increasing population. People needed to boost food production. They began to farm. Some cereals such as sorghum and millet did well in the growing conditions south of the Sahara. Some cereals such as wheat and barley did not. In other areas of Africa where growing conditions were quite different, other crop combinations sprouted. In wet West Africa you might have farmed yams and African rice.

On the last evening of the Prehistoric Society's field trip in the Sahara, Graeme Barker and his company of scholars were doing a little foraging of their own. They'd lost their kitchen truck. They spent hours looking behind dune after dune. Life in the Sahara is still a challenge.

66 Rock art, Wadi Teshuinat, Libya, probably between 7,000 and 3,000 years ago

WEIRD CROPS

Not all crops grown more than 3,000 years ago are familiar to us today. In Ethiopia farmers domesticated a cereal called *tef*, an oil named *noog*, and a banana whose fruit is not the part that you eat.