

## GREEN SAHARA

The Sahara sets a standard for dry land. It's the world's largest desert. Relative humidity can drop into the low single digits. There are places where it rains only about once a century. There are people who reach the end of their lives without ever seeing water from the sky.

Yet beneath the Sahara are vast aquifers of fresh water, enough liquid to fill a small sea. It's fossil water, a treasure laid down in prehistoric times, some of it possibly a million years old. Just 6,000 years ago the Sahara was a much different place. It was green. Prehistoric rock art in the Sahara at that time shows something surprising: hippopotamuses, which need year-round water. "We don't have much evidence of a tropical paradise out there, but we had something perfectly livable", says Jennifer Smith, a geologist at Washington University in St Louis.

The green Sahara was the product of the migration of the paleomonsoons. In the same way that ice ages come and go, so too do monsoons migrate north and south. The dynamics of the Earth's motion are responsible for this. The tilt\* of the Earth's axis varies in a regular cycle –sometimes the planet is more tilted toward the sun, sometimes less so. The axis wobbles\* like a spinning top.\* The date of Earth's perihelion –its closest approach to the sun– varies in a cycle as well.

At times when the Northern Hemisphere tilts sharply toward the sun and the planet makes its closest approach, the increased blast\* of sunlight during the north's summer months can cause the African monsoon (which currently occurs between the Equator and roughly 17°N latitude) to shift to the north as it did 10,000 years ago, inundating North Africa.

Around 5,000 years ago the monsoon shifted dramatically southward again. The prehistoric inhabitants of the Sahara discovered that their relatively green surroundings were undergoing something worse than a dry period (and perhaps they migrated toward the Nile Valley, where Egyptian culture began to flourish at around the same time).

"We're learning, and only in recent years, that some climate changes in the past have been as rapid as anything under way today", says Robert Giegengack, a University of Pennsylvania geologist.

As the land dried out and vegetation decreased, the soil lost its ability to hold water when it did rain. Fewer clouds formed from evaporation. When it rained, the water washed away and evaporated quickly. There was a kind of runaway drying effect. By 4,000 years ago the Sahara had become what it is today.

No one knows how human-driven climate change may alter the Sahara in the future. It's something scientists can ponder\* while sipping bottled fossil water pumped from underground. "It's the best water in Egypt", said Robert Giegengack. "Clean, refreshing mineral water. If you want to drink something good, try the ancient buried treasure of the Sahara."

*From the press. Adapted*

*tilt*: inclinació / inclinación

*wobble*: balancejar-se, moure's amb indecisió / tambalearse

*spinning top*: baldufa / peonza

*blast*: onada, ràfega / oleada, ráfaga

*ponder*: ponderar, meditar, sospesar / ponderar, meditar, sospesar

Série 3 - A

PART ONE: READING COMPREHENSION

Choose the best answer according to the text.

[0,5 points each correct answer]

[wrong answers will be penalized (-0,16)]

1. Relative humidity in the Sahara Desert can be...
  - a) 100%.
  - b) less than 10%.
  - c) over 50%.
  - d) under 90%.
  
2. Prehistoric rock art in the Sahara...
  - a) shows fossil water on it.
  - b) is one million years old.
  - c) is about 6,000 years old.
  - d) needed water all the year round.
  
3. The Earth's motion and perihelion...
  - a) show variation within a cycle.
  - b) changed after the ice ages.
  - c) are the consequences of old monsoons.
  - d) dance when they approach the axis of the sun.
  
4. African monsoons 10,000 years ago...
  - a) only happened between Equator and 17° N latitude.
  - b) increased the blasts of sunlight all around the earth.
  - c) did not bring a lot of heavy rain.
  - d) did not happen in the Southern Hemisphere.
  
5. The prehistoric inhabitants of the Sahara migrated toward the Nile Valley because...
  - a) the monsoon weather lasted all the year there.
  - b) their land was no longer livable.
  - c) the Egyptian culture was flourishing.
  - d) 5,000 years ago there was only green land in the south of Africa.
  
6. According to a famous American scientist, climate changes in the past...
  - a) have taken place very quickly.
  - b) have been studied only in recent years.
  - c) are still under way.
  - d) have produced tropical paradises of geological beauty all over the world.
  
7. The soil can't hold water when it rains if...
  - a) there is too much vegetation.
  - b) the drying effect goes away.
  - c) the soil washes away as it did 4,000 years ago.
  - d) the land is dry and there is very little vegetation.
  
8. In the last paragraph Robert Giegengack speaks like...
  - a) a clever scientist.
  - b) an Egyptian geologist.
  - c) a good advertiser.
  - d) a prophet.

## PART TWO: WRITING

Choose **one** topic. Write about either 1 or 2. Minimum length: 100 words.

[0-4 points]

1. You are a journalist for *Blue Earth* magazine. Write an interview with the leader of a Tuareg clan about their way of life in the desert.
2. Write a letter to the Spanish Minister for the Environment. Show your deep concern about how water is being wasted in our country. Suggest a few ideas to improve the situation.

## PROVA AUDITIVA

## ANIMAL RIGHTS

### Introduction

In this radio programme you're going to hear some new words. Read and listen to them. Make sure you know what they mean.

*slaves, slavery*: esclaus; esclavitud / esclavos; esclavitud

*to deserve (something)*: merèixer / merecer

*to raise cattle*: criar bestiar / criar ganado

*poultry*: aviram / aves de corral

*to be willing (to do something)*: estar disposat a / estar dispuesto a

### Ready?

Now read the questions slowly before listening to the radio program.

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**PRESENTER:** Welcome to Uncommon Knowledge. I'm Sharon Robinson. Our program today presents the case for and against animal rights. Ever since Roman times, animals have been legally defined as property, objects for humans to use. But in the last decade, we've seen the emergence of a rights movement for animals.

With us today is David Blatte, a lawyer who specializes in animal rights.

**PRES.:** David, why should we give rights to animals?

[Now listen to the rest of the interview]

Choose the most appropriate answer according to the text. Only one answer is correct. Look at number 0 as an example.

[0,25 points each correct answer]

[wrong answers will be penalized (-0,08)]

0. Uncommon Knowledge is...

- a radio program.
  - a new book by Sharon Robinson.
  - a fashion trend.
  - a daily discussion about rights.
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1. According to David Blatte, why should animals be given rights? Because...

- now that human beings have them, it's the animal's turn.
- animals are not viewed as property.
- historically they have never had any rights at all.
- Africans have never viewed animals as objects.

2. What does David think about food?

- People should not eat beef or chicken.
- People should not eat beef but could eat chicken.
- Governments should advise people to become vegetarian.
- Animals could be killed only for food.

3. Is the idea of giving animal rights new? It is...

- relatively new. It just goes back to modern times.
- new in western cultures but not in ancient Greece.
- new. Western cultures are too traditional.
- not new. It goes back to ancient Greece.

4. David does not make a distinction between animals and humans because he says that...

- animals cannot decide their rights for themselves.
- Pythagoras and some ancient Greek philosophers did not.
- animals and humans can hurt each other.
- both animals and humans are able to feel pain.

5. According to David, why do people still eat meat?

- For nutritional reasons only.
- Because it's a luxurious thing.
- For survival of our species.
- Because they like meat.

6. Why is David against raising cattle in farms? Because...

- there is not enough beef for everybody in the world.
- the meat we eat is polluted.
- It is expensive and pollutes the environment.
- it only helps perpetuate the human species.

7. How does David feel about the future of animal rights?

- He knows his ideas are utopian.
- He is a little pessimistic.
- He feels quite optimistic.
- He feels disappointed.

8. How do animal rights compare with other forms of oppression?

Animal liberation...

- is like any other form of oppression.
- will never take place.
- will take less time than other liberation movements.
- is different from any other forms of oppression.