

Farouk El Baz

Remote Sensing in Arab Deserts

Total Running Time: 45:14

Essential Questions:

How does water in a landscape change over time?

How can technology be used to discover water in places where it is not visible?

What role can discovery of water play in peace building processes?

Major Content:

Use of geology and satellite imagery to locate “ancient rivers” in Egypt and Sudan

Introduction and Remote Sensing and deserts: Slides 1 - 5

Time Tag: 00:00 - 08:03

Viewing Questions

Content Points

What is remote sensing? How does it work?

Locating deserts from satellite images

Human Evidence of past water in landscape: Slides 6 - 16

Time Tag: 08:03 - 17:00

Viewing Questions

How can scientists make inferences about the past environments of a landscape from evidence left behind?

What clues might you look for in a desert to guess whether there had been water there in the past?

Content Points

Evidence of past human civilization and water: landscape, animal shells, cave painting

Locating Ancient Rivers with satellite images: Slides 17 - 28

Time Tag: 17:00 - 27:45

Viewing Questions

How can technology be used to discover water in places where it is not visible?

How can scientists communicate and partner with engineers and governments to draw on natural resources?

Content Points

Satellite imaging of buried water in deserts: reflection off material below the sand.

Geological evidence for past water: shape of sand particles and presence of sand

Water in Darfur: Slides 29 - 37

Time Tag: 27:45 - 33:26

Viewing Questions

What role can discovery of water play in peace building processes?

Content Points

Water, sedentary farmers and nomads in Darfur

Locating water in Darfur

Gulf Region, Kuwait, and Conclusion: Slides 37 - 41

Time Tag: 33:26 - 45:14

Viewing Questions

How can technology be used to discover water in places where it is not visible?

Content Points

Locating water through heat and aridity sensing
