

# 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

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**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

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**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

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**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

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**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

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**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

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