Video
MEDIA SPOTLIGHT

The Human Journey
National Geographic Explorer-in-Residence Spencer Wells on human migration and The Genographic Project

For the complete videos with media resources, visit:
http://education.nationalgeographic.com/media/human-journey/

PROGRAM

This video was filmed on November 2, 2011 as part of the National Geographic Live! Lecture series at National Geographic Society headquarters in Washington, D.C.

Introduction
National Geographic Explorer-in-Residence Spencer Wells is a leading population geneticist and director of the Genographic Project, a research partnership of National Geographic and IBM. Wells's fascination with the past has led the scientist, author, and documentary filmmaker to the farthest reaches of the globe in search of human populations who hold the history of humankind in their DNA. By studying humankind's family tree, he hopes to close the gaps in our knowledge of human migration.

Outline
- Introduction, updates, and underlying questions of The Genographic Project (start-02:16 min.)
- The stones and bones theory: Paleoanthropology and Archaeology (02:17-03:00 min.)
- The geneticist approach: using family trees to study human history (03:00-04:08 min.)
- Primer on DNA: markers of descent, and the creation of a family tree (04:09-05:30 min.)
- Patterns of human variation: mitochondrial DNA and the Y-chromosome (05:31-06:36 min.)
- The earliest man and theories of African origins (06:37-08:16 min.)
- A map of human migration over time (08:17-09:14 min.)
- *The Journey of Man and the beginning of The Genographic Project (09:15-11:22 min.)
- Public participation and the Legacy Fund (11:23-12:48 min.)
- The Genographic Project's sample size (12:49-13:53 min.)
- Examples of Legacy Fund projects: Tajikistan and the Andes Mountains (13:53-15:40 min.)
- Collecting data from the public, and the power of large sample size (15:41-18:26 min.)
- Climate change as a theme to analyze data (18:27-20:41 min.)
- The Neolithic Revolution: using samples from western Eurasia to analyze the past (20:42-23:55 min.)

Strategies for Using Video in a Variety of Learning Environments
• Have students preview several of the videos and choose the one they find most inspiring. Have students describe in writing a conversation they might have with the speaker(s).
• Freeze the video on a relevant image. Have students observe details in the still image and jot down predictions of what the full video might address. Discuss students’ ideas before and after watching the video.
• Pose an open-ended question before students watch the video, and have them discuss their ideas before and after in small groups.
• Have students determine what they think the key message of this video is. Was the speaker effective in getting his or her message across?
• Show a short clip to engage students during class, and then have students watch the full video at home and write a paragraph responding to the content or a question you give them.
• Have students note statements that represent facts or opinions, including where it’s difficult to tell the difference. What further research might help distinguish facts and opinions? How might the speaker’s viewpoint compare with others’ viewpoints about a topic?

**VOCABULARY**

<table>
<thead>
<tr>
<th>Term</th>
<th>Part of Speech</th>
<th>Definition</th>
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<tbody>
<tr>
<td><strong>anthropology</strong></td>
<td>noun</td>
<td>science of the origin, development, and culture of human beings.</td>
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<tr>
<td><strong>DNA</strong></td>
<td>noun</td>
<td>(deoxyribonucleic acid) molecule in every living organism that contains specific genetic information on that organism.</td>
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<tr>
<td><strong>Explorer-in-Residence</strong></td>
<td>noun</td>
<td>pre-eminent explorers and scientists collaborating with the National Geographic Society to make groundbreaking discoveries that generate critical scientific information, conservation-related initiatives and compelling stories.</td>
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<tr>
<td><strong>Genographic Project</strong></td>
<td>noun</td>
<td>National Geographic project that uses genealogy to trace the migratory history of the human species.</td>
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<tr>
<td><strong>human migration</strong></td>
<td>noun</td>
<td>the movement of people from one place to another.</td>
</tr>
<tr>
<td><strong>migration</strong></td>
<td>noun</td>
<td>movement of a group of people or animals from one place to another.</td>
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<tr>
<td><strong>paleoanthropology</strong></td>
<td>noun</td>
<td>study of the fossils of ancient human ancestors. Also called human paleontology.</td>
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**For Further Exploration**

**Articles & Profiles**
• National Geographic Explorers: Spencer Wells, Geneticist

**Websites**
• National Geographic: Explorers
• National Geographic Events: National Geographic Live!
• National Geographic: The Genographic Project

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