

# THE POWER OF PHOTOGRAPHY

 NATIONAL GEOGRAPHIC *125 years*



© JOEL SARTORE

## EDUCATOR RESOURCE GUIDE

ANNENBERG SPACE  
FOR PHOTOGRAPHY





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## HISTORY • EXHIBITS • DESIGN

**HISTORY** The Annenberg Space for Photography opened to the public on March 27, 2009. It is the first solely photographic cultural destination in the Los Angeles area. The Photography Space is an initiative of the Annenberg Foundation and its board of directors. Its creation builds upon the Foundation's long history of supporting visual arts.



**EXHIBITS** The Annenberg Space for Photography does not maintain a permanent collection of photographs; instead, exhibitions change every four to six months. The content of each show varies and appeals to a wide variety of audiences.

**DESIGN** The interior of the Space is influenced by the mechanics of a camera and its lens. The central, circular Digital Gallery is contained within the square building much as a convex lens is contained within a camera. The Digital Gallery's ceiling features an iris-like design reminiscent of the aperture of a lens. The aperture design also enhances the Gallery's acoustics.

The Print Gallery curves around the Digital Gallery, representing the way film scrolls within a camera. The curvature of the ceiling line in the Print Gallery mimics the design of a film canister.



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The gray color palette used in the Space was inspired by the standard gray scale card used by photographers for the quality control of colors on printed images and color matching. The beaded glass wall behind the entrance reception desk represents photographic film that has celluloid coating with haloid crystals.



## FEATURES WITHIN THE SPACE

### FEATURES WITHIN THE SPACE

**DIGITAL GALLERY** Seamless 7' x 14' glass screens and ultra high-definition, rear-projection imaging systems are used to display photography with stunning clarity and saturation. The screens provide 4k resolution that exceeds the level offered by Blu-Ray. In addition to providing professional photographers a long sought after level of image quality, it also allows for the display of thousands of images in a comparatively small location. The technology in use in the Digital Gallery was created expressly for the Photography Space. In addition to showing images from the exhibiting photographers, the Digital Gallery also screens short documentary films created to accompany the print exhibits.

**MICROSOFT SURFACE TABLES** Microsoft Surface is a 30-inch display in a table-like form that's easy for individuals or small groups to interact with in a way that feels familiar, just like in the real world. The two Microsoft Surface Tables allow visitors to experience their own creativity, using actual exhibit photographs and additional photographs from the featured artists. It's a camera-based vision system that lets users create digital content and move information between objects with their hands.



THE CURRENT EXHIBIT

## AGE RECOMMENDATION • | OVERVIEW

### THE POWER OF PHOTOGRAPHY

□ NATIONAL GEOGRAPHIC 125 years

#### AGE RECOMMENDATION

*The Power of Photography: National Geographic 125 Years* is recommended for ages 12 and older, but with supervision, all ages are welcome. There is some imagery of people and animals in peril that may not be suitable for all visitors.

#### OVERVIEW

*The Power of Photography: National Geographic 125 Years*, organized in collaboration with *National Geographic* magazine, celebrates the renowned publication's 125 year anniversary. From iconic images to portraits, landscapes to natural history, the exhibit offers a wide range of photographic genres and themes.

The curation and installation of *The Power of Photography* departs from previous Photography Space exhibit designs. Mosaics of more than 400 images documenting the history of *National Geographic* photography from 1888 to the present adorn the walls. In addition, an extensive digital installation showcases 500-plus images. Thirty professional-grade large format LED monitors are arranged to create video walls throughout the Photography Space galleries. These six video walls, ranging from 12 to 14 feet in width, present both individual images and photographic essays. Given the volume of photographs on the screens and a format in which the images loop at different times throughout the galleries, the viewing experience is unique to each visitor and each visit.

The exhibit features an original documentary commissioned by the Annenberg Space for Photography and produced by Arclight Productions that profiles six photographers whose work appears in the October 2013 *National Geographic* issue: Lynsey Addario, Marcus Bleasdale, David Guttenfelder, Aberlardo Morell, Joel Sartore and Martin Schoeller. Through interviews, images and behind-the-scenes footage along with commentary from *National Geographic* editors, the film offers insights into the creation of inspiring images that reveal the unseen, unknown and unexpected layers of our world.

A behind-the-scenes short film about the making of the exhibit and several videos produced by *National Geographic* provide further insight into *National Geographic's* dedication to using the power of photography to explore, educate, inspire, document and preserve the world around us.



THE CURRENT EXHIBIT

## BIOGRAPHIES OF THE FEATURED ARTISTS

**THE POWER OF  
PHOTOGRAPHY**

 NATIONAL GEOGRAPHIC 125 years



### LYNSEY ADDARIO

Lynsey Addario, an American photojournalist based in London, photographs for *The New York Times*, *National Geographic* and *TIME*. She has covered conflicts in Afghanistan, Iraq, Lebanon, Darfur, Congo and Libya, and shoots features across the Middle East, South Asia and Africa. She has been the recipient of numerous awards, including the MacArthur Fellowship in 2009. She was also part of *The New York Times* team awarded the 2009 Pulitzer Prize for International Reporting.



### MARCUS BLEASDALE

Marcus Bleasdale is an award-winning documentary photographer who uses his work to influence policy makers around the world. His work on human rights and conflict has been shown at the US Senate, the US House of Representatives, the United Nations and the Houses of Parliament in the UK. Bleasdale's work appears in the *New Yorker*, *The New York Times*, *The Sunday Times Magazine*, *The Telegraph Magazine*, *Stem*, *Le Monde*, *TIME*, *Newsweek* and *National Geographic*.



### DAVID GUTTENFELDER

David Guttenfelder has spent all of his 18 years as a photojournalist working and living outside of his native United States. As an Associated Press photographer he has been based in Africa, the Middle East and Asia. He has covered a wide range of news events including the genocide in Rwanda; US-led wars in Kosovo, Afghanistan and Iraq; the 2008 election of President Obama and earthquakes in China and Kashmir. He is a seven-time finalist for the Pulitzer Prize.





**ABELARDO MORELL**

Abelardo Morell was born in Havana, Cuba in 1948, and immigrated to the United States in 1962. Morell has been the recipient of many awards and grants. His work has been collected and shown in the Museum of Modern Art, The Whitney Museum of American Art, the Metropolitan Art Museum in New York, The Chicago Art Institute, The San Francisco Museum of Modern Art, The Victoria & Albert Museum and over seventy other museums in the United States and abroad.



**JOEL SARTORE**

Joel Sartore is a photographer, speaker, author, teacher, conservationist, National Geographic Fellow, and a regular contributor to *National Geographic*. Sartore specializes in documenting endangered species and landscapes in order to show a world worth saving. Sartore has also contributed to *Audubon Magazine*, *TIME*, *Life*, *Newsweek*, *Sports Illustrated* and numerous book projects. Sartore and his work have been the subjects of several national broadcasts.



**MARTIN SCHOELLER**

Martin Schoeller grew up in Germany, and now lives and works in New York. Schoeller worked as an assistant to Annie Leibovitz from 1993 to 1996. He advanced as a freelance photographer producing portraits of people he met on the street. The work gained recognition for its strong visual impact, and from 1998 on his work has appeared in *National Geographic*, *TIME*, *Rolling Stone*, *GQ*, *Entertainment Weekly*, *Vogue*, *Vanity Fair* and *The New Yorker* among others.



**PRE-VISIT ACTIVITY #1****Title:** Reveal America**Connection to the Exhibit:**

Throughout its 125-year history, *National Geographic* magazine has been a publication that provides its audience with information on the world and cultures outside of the United States, as well as one that helps us re-examine our own American lives. One of the themes of this exhibit is “Reveal America,” and it showcases photography of American lives, traditions and landscapes. Although these photographs documented Americans’ surroundings and neighbors, what was revealed was often as strange and unique as photographs taken in the Amazon or Sahara.

**California Visual and Performing Arts Standards:***Grade 7*

## 1.0 Artistic Perception

- 1.4 Analyze and describe how the elements of art and the principles of design contribute to the expressive qualities of their own works of art.

## 2.0 Creative Expression

- 2.6 Create an original work of art, using film, photography, computer graphics or video.

## 3.0 Historical and Cultural Context

- 3.2 Compare and contrast works of art from various periods, styles and cultures; and explain how those works reflect the society in which they were made.

## 4.0 Aesthetic Valuing

- 4.1 Explain the intent of a personal work of art and draw possible parallels between it and the work of a recognized artist.
- 4.4 Develop and apply specific and appropriate criteria individually or in groups to assess and critique works of art.

**Glossary of Relevant Terms and Concepts:**

Composition, genre, foreground

**Materials Needed:**

Internet connection, computer access, drawing materials (colored pencils, pen, paper), cameras (if possible, this is preferable). Note: Please ask students beforehand to bring in one personal item they closely identify with or highly value.





### Large Group Activity:

- Display the two images above, and lead a group discussion comparing and contrasting the photographs. What is the same or different about the subject, the style of photograph, the time period, the composition? What can be discovered about the cultures of the photographic subject by examining the picture?
- Brainstorm what it means to live in America or be American. First, begin by brainstorming what it means to be from Los Angeles County—what can you tell about someone just because you know they are from the LA area? Finally, what kinds of things make you an American or indicate that you live in America?
  - Encourage a group discussion of the following questions:
    - What kinds of things do you eat?
    - What are the best foods available? What are the worst foods?
    - Who is welcome in America or in your neighborhood in Los Angeles? Who isn't welcome?
- Who are the “insiders” and who are the “outsiders”?
- Watch this brief clip from the “God Grew Tired of Us” documentary about the Kenyan refugees coming to America. Find it on the *National Geographic* website: [http://education.nationalgeographic.com/education/media/cultural-differences/?ar\\_a=1](http://education.nationalgeographic.com/education/media/cultural-differences/?ar_a=1)
- Discuss the reaction of the Kenyan refugees to life in America/coming to America. What surprised you or did not surprise you about their reactions to living in America? What was it like hearing your culture described by outsiders? Lead a group discussion of reactions. (*CCR Grades 6-12 Speaking and Listening Standards: Comprehension and Collaboration*)

**Small Group Activity:**

- Ask students to work in groups of two to create their own hand-drawn or photographic (if possible) portraits of their classmate that they feel represents their classmate's identity in the style of the above photographs. Include personal items brought from home as subjects in the picture with the student. Have students consider what these portraits say about what it means to be from their own respective cultures.
- Ask students to write a brief personal narrative about the portrait drawn of them (or photographed) by their partner in a 50 word mini-response. Does this person look familiar to you or different to you? How would you have represented yourself differently? What does how your partner depicted you tell you about how they think of you? (*CCR Grades 6-12 Speaking and Listening Standards: Comprehension and Collaboration. CCR Grades 6-12 Writing Standards: Text Types and Purposes. CCR Grades 6-12 Language: Conventions of Standard English.*)

**PRE-VISIT ACTIVITY #2**

**Title:** Witness the Truth of the Moment

**Connection to the Exhibit:**

“Photography is a weapon against what’s wrong out there. It’s bearing witness to the truth.”  
– Brent Stirton, photographer.

In addition to featuring beautiful photographs, *National Geographic* has also been known for bringing to light some of the more troubling and tragic events in human history through photography. In this way, the photography featured in *National Geographic* can be said to have been a witness to the truth of the moment.

**California Visual and Performing Arts Standards:***Grade 6*

## 1.0 Artistic Perception

1.2 Discuss works of art as to theme, genre, style, idea and differences in media.

## 4.0 Aesthetic Valuing

4.1 Construct and describe plausible interpretations of what they perceive in works of art.

*Grade 8*

## 3.0 Historical and Cultural Context

3.1 Examine and describe or report on the role of a work of art created to make a social comment or to protest social conditions

## 4.0 Aesthetic Valuing

4.2 Develop a theory about the artist’s intent in a series of works of art, using reasoned statements to support personal opinions

4.3 Construct an interpretation of a work of art based on the form and content of the work.

**Materials Needed:**

Large photocopy (or several smaller photocopies to distribute) of Congolese gold miner.





### Large Group Activity:

- Ask students to consider that historical events that changed the course of history did not always appear significant when they first happened. In some instances, photography played an important role in creating significance around the event.
- Use Visual Thinking Strategy Questions (some examples below) to begin a discussion about the picture prior to sharing the historical context of the photograph (also below).
  - Visual Thinking Strategy Questions: What is going on in this picture? What do you see that makes you say that? What more can you find?
  - Summary of photograph subject: A young gold miner waits for his turn for spoonfuls of rice and beans. In some areas of eastern Congo, up to 40% of gold miners are children, often forcibly recruited by militias.
  - Link to supplemental information on Congolese gold mining:  
<http://www.npr.org/2013/03/28/175577518/in-congo-lure-of-quick-cash-turns-farmers-into-miners>

### Small Group Activity:

- (6th Grade) Have students work in small groups to select an image from the week's newspaper or a recent magazine, write about the event and do research on the greater significance of the event. What is being witnessed? Do you think that the photo being used in the news story is showing you something the text of the article itself does not? Students can present the photograph out of context to their peers; after discussing the potential subject of the photograph using Visual Thinking Strategy Questions, students can reveal what the photograph actually shows. (*CCR Grades 6-12 Speaking and Listening Standards: Comprehension and Collaboration, Presentation of Knowledge and Ideas. CCR Grades 6-12 Writing Standards: Text Types and Purposes, Research to Build and Present Knowledge. CCR Grades 6-12 Language: Vocabulary Acquisition and Use.*)
- (8th Grade) Have students work in small groups to select an image from the week's newspaper or a recent magazine. Ask each group to brainstorm about the event depicted, what they believe the artist's intent is and whether or not they believe this photograph makes a statement about society or social conditions. Students can either work with a partner or independently to write a brief one-page report on their interpretation of the photograph based on their group discussions. (*CCR Grades 6-12 Writing Standards: Text Types and Purposes, Production and Distribution of Writing, Research to Build and Present Knowledge. CCR Grades 6-12 Language: Conventions of Standard English, Vocabulary Acquisition and Use.*)

### PRE-VISIT ACTIVITY #3

**Title:** Connect the Eyes to the Soul

#### **Connection to the Exhibit:**

“I fall in love with almost every person I photograph. I want to hear their stories. I want to get close. This is personal for me.” – Stephanie Sinclair

*National Geographic's* archive is full of faces—faces we recognize, foreign faces, faces of tragedy and faces of celebration. The aim of the photographers featured in *National Geographic* is to highlight our common humanity, not our surface differences. From photographers such as Lynn Johnson and Martin Schoeller, some of the world's most compelling portraiture has been featured in *National Geographic*.

#### **California Visual and Performing Arts Standards:**

*Grade 9-12 Proficient*

1.0 Artistic Perception

1.3 Research and analyze the work of an artist, and write about the artist's distinctive style and its contribution to the meaning of the work.

1.4 Analyze and describe how the composition of a work of art is affected by the use of a particular principle of design.

4.0 Aesthetic Valuing

4.5 Employ the conventions of art criticism in writing and speaking about works of art.

#### **Glossary of Relevant Terms and Concepts:**

Aesthetics, art criticism, composition, dominance, emphasis, expressive content, focal point, intensity, proportion, style, theme

#### **Materials Needed:**

Large photocopies (or several smaller photocopies to distribute) of the two Martin Schoeller Twinsburg, Ohio, portraits; computers with Internet access.





### **Large Group Activity:**

- Present the two Twinsburg, Ohio, photographs to the class as a whole. Ask for initial impressions (Describe the photograph. Who are the subjects? What is your initial reaction to the photographs? Does this style look familiar? Have you seen this kind of portraiture before?) (*CCR Grades 6-12 Speaking and Listening Standards: Comprehension and Collaboration*)

### **Small Group Activity:**

- Ask students to research the photographer Martin Schoeller. Suggested areas of research include: a brief biography of the artist, a list of artistic influences and descriptions of similarities between these artists and Schoeller, discussion of his signature style and favorite subjects, and investigation of Schoeller's "Twins" portrait series. Divide research area responsibilities among the group.

*National Geographic* website with "Twins" portrait series images can be found at:

<http://ngm.nationalgeographic.com/2012/01/twins/schoeller-photography#/1>

- Ask students to work in small groups to research this information and create a short presentation to give to the class. (*CCR Grades 6-12 Speaking and Listening Standards: Comprehension and Collaboration, Presentation of Knowledge and Ideas*)

### **Individual Work/Homework:**

- Students will write a two-page critique of the work of Martin Schoeller. Critique should employ relevant terms and concepts outlined above, such as "composition," "style" and "theme." (*CCR Grades 6-12 Writing Standards: Text Types and Purposes, Production and Distribution of Writing, Research to Build and Present Knowledge. CCR Grades 6-12 Language: Conventions of Standard English, Vocabulary Acquisition and Use.*)

**Can you solve these puzzles and match the riddle to the pictures? It's not easy, but your guide is here to help! Work together in teams, and see if you can identify all of the pictures.**

1. How do you measure an "om"? Is it in waves? What lobe does it come from? Use your brain.

Photographer:

Describe :

2. What defines beauty? Is it a snow white face with bright red bow mouth? Or is it a fantastic flurry of feathers fit for dancing? Find two traditional expressions of beauty found from two very different island cultures.

Photographer 1:

Describe:

Photographer 2:

Describe:

3. Can you find your 100,000-year-old Spanish aunt? What about your 3-million-year-old African uncle?

Photographer 1:

Describe:

Photographer 2:

Describe:



4. We sleep suspended high up on The Captain's 3,000-foot-tall face. It isn't all bad, though. We can still charge our iPhones.

Photographer:

Describe:

Bonus Question:

Find two photographs of two hands placed gently on the small heads of distant "cousins."

Photographer 1:

Describe:

Photographer 2:

Describe:

# POST VISIT REFLECTIVE QUESTIONS

## THE POWER OF PHOTOGRAPHY

NATIONAL GEOGRAPHIC 125 years

**CCR Grades 6-12 Writing: Text Types and Purposes, Production and Distribution of Writing. CCR Grades 6-12 Language: Conventions of Standard English, Knowledge of Language. CCR 6-12 Reading: Integration of Knowledge and Ideas.)**

1. “Witness the Truth of the Moment,” “Protect Our Fragile Planet,” and “Connect the Eyes to the Soul” are three of the main themes of the *National Geographic* exhibition. These three themes focus on a range of topics, including war and conflict (Witness), animal extinction and global warming (Protect) and world cultures (Connect). Recall the images you saw today at the Annenberg Space for Photography and make an argument for which of these themes you feel is the most important for today’s *National Geographic* audience. (200-300 words)
2. Choose one of the following pictures from the *National Geographic* exhibit. Write a brief backstory (no more than 100 words) that tells the story of this photograph—what happened before it was taken, what is happening during it and what you think might have happened after the photo was taken. Then, write a brief reflection on elements from the photograph that inspired your backstory (100-200 words).





3. Consider the backstory of the iconic photograph by Steve McCurry titled "Afghan Girl". This Steve McCurry photo was taken in the summer of 1984 at a refugee camp along the border of Afghanistan and Pakistan. While photographing several children at a refugee camp school, McCurry came upon Sharbat Gula, who would later be known around the world as the "Afghan Girl." At the age of 12 years old (or 13, she has no birth record) Sharbat had already experienced much suffering. After a Soviet bombing killed her parents when she was six, her grandmother, Sharbat and her siblings walked to a refugee camp in Pakistan during the harsh winter months. At the time of the photograph, Sharbat had been living in the camp for seven years. Taking her photograph presented a challenge to McCurry. He had to convince Sharbat to allow him to take her photograph. According to Muslim tradition, a woman is not allowed to speak, look at or smile at a stranger, particularly a man.

Said McCurry, "There's a real emotion and a real beauty in the picture. Her expression is ambiguous - she's obviously poor because she has a rip in her shawl, and her face is kind of dirty. But through that there's a dignity, and there's a perseverance and a fortitude. There's a wide range of emotions. I think there's a great depth to the picture."

Respond: After hearing the backstory of the Afghan girl photograph, do you have any questions about the picture? What would you ask the photographer if you were able to? How do you feel about photographing someone whose culture or religion prohibit him or her from being looked at by an unknown man? Are there ethical considerations, and do you think McCurry crossed a line? (300 words)

Annenberg Learner offers a broad selection of multimedia resources to help teachers increase their expertise and to use with students in the classroom. The information below provides links to Annenberg Learner materials related to the themes of *The Power of Photography: National Geographic 125 Years*. Visit [www.learner.org](http://www.learner.org) to see the full library of resources.

### Media Literacy

*Teaching Multicultural Literature, workshop 8: Social Justice and Action, Photography Project*

Students build media literacy skills by creating their own visual messages with a camera. They learn to deconstruct others' images and construct images of their own.

<http://www.learner.org/workshops/tml/workshop8/teaching3.html>

### Historical Photography

*Unit 1: New World Encounters:* A photo review of the changes over time to Acoma pueblo in New Mexico. <http://www.learner.org/biographyofamerica/prog01/feature/index.html>

*Unit 11: The Civil War:* A feature on Civil War Photography

<http://www.learner.org/biographyofamerica/prog11/feature/index.html>

*Unit 15: The New City:* A photo of the Columbian Exposition in Chicago in 1893

<http://www.learner.org/biographyofamerica/prog15/feature/index.html>

*Unit 21: FDR and The Depression:* A feature on Depression-era photography

<http://www.learner.org/biographyofamerica/prog21/feature/index.html>

### Identity, Nationality, Culture, World Culture

*Art Through Time, program 1, "Converging Cultures"*

Throughout history, economic needs, material desires and political ambitions have brought people from different cultures and communities into contact. Whether clashes or cooperative endeavors, these convergences have brought about the exchange of knowledge and ideas. In the visual arts, they have led to creative juxtapositions, hybrid styles and the reinterpretation of traditional signs and symbols. Artists featured include Takashi Murakami, Miguel Luciano and Guillermo Gomez-Peña. <http://www.learner.org/courses/globalart/theme/1/index.html>

*American Passages, unit 12, "Migrant Struggle"*

In *Official Images: New Deal Photography*, Pete Daniel and Sally Stein ponder why so many photographs were taken and viewed during the depression era. They speculate, "Maybe people feeling deprived of material goods were attracted to those images that most closely resembled the look, surface and solidity of things. Maybe, too, people feeling suddenly insecure about the future were comforted by photography's apparent matter-of-factness, even when the 'facts' were often distressing. Most likely, the appeal of photography contained contradictory impulses: to document and transform, to gain familiarity and distance" (viii). Whatever the reasons, the 1930s were one of the most photographically documented decades of all time.

[http://www.learner.org/amerpass/unit12/context\\_activ-2.html](http://www.learner.org/amerpass/unit12/context_activ-2.html)



### *Human Geography: People, Places, and Change*

Human Geography combines economic and cultural geography to explore the relationships between humans and their natural environment, and to track the broad social patterns that shape human societies. Featuring communities around the world that are grappling with major socioeconomic change, the programs help students understand present-day events within the scope of clearly recognizable trends, and realize the impact that government, corporate and individual decisions may have on people and places near and far. This series may serve as an introductory course for students of cultural or economic geography, or as a resource for sociology, anthropology, or social science departments.

<http://www.learner.org/resources/series85.html>

### *Teaching Geography*

(many resources available here: <http://www.learner.org/workshops/geography/about/summaries.html>)

Workshop 2, "Latin America" Guatemala Slide Show

<http://www.learner.org/workshops/geography/workshop2/wkp2show.html>

### **Environmentalism**

#### *Art Through Time, program 10, "The Natural World"*

From the earliest times, people have found sustenance, solace, challenge and mystery in the natural world. In representations of animals, landscapes and earthworks, art has been a means through which humans have negotiated their relationship to nature as well as to each other. We view drawings of the natural world mirrored by a metaphysical concept of the same image in the work of Kay Walkingstick.

<http://www.learner.org/courses/globalart/theme/10/index.html>

#### *The Habitable Planet, unit 13, "Looking Forward: Our Global Experiment"*

Emerging technologies offer potential solutions to environmental problems. Over the long-term, human ingenuity may ensure the survival not only of our own species but of the complex ecosystems that enhance the quality of human life. In this unit, examine the wide range of efforts now underway to mitigate the worst effects of man-made environmental change, looking toward those that will have a positive impact on the future of our habitable planet.

<http://www.learner.org/courses/envsci/unit/text.php?unit=13&secNum=0>

See other units of The Habitable Planet, including unit 11, "Atmospheric Pollution," unit 12, "Earth's Changing Climate," unit 8, "Water Resources, unit 2, "Atmosphere" <http://www.learner.org/courses/envsci/index.html>

#### *Human Geography: People, Places, and Change, program 7, "Water is for Fighting Over"*

Along the parched California-Nevada border, various groups with compelling yet competing interests claim the water of the Truckee River Basin. The burgeoning Reno-Sparks area needs water to sustain the community, but high levels in a local reservoir are destroying the cui-ui fish of a local Paiute tribe. Farmers need irrigated water for crops, but the government seeks water further downstream for a wetlands area. These conflicts illustrate how scarce natural resources can shape a community.

<http://www.learner.org/resources/series85.html>



## **Ecodiversity**

*Rediscovering Biology, unit 3, "Evolution and Phylogenics"*

Perhaps the most striking feature of life is its enormous diversity. There are more than one million described species of animals and plants, with many millions still left undescribed. (See the Biodiversity unit.) Aside from its sheer numerical diversity, organisms differ widely and along numerous dimensions - including morphological appearance, feeding habits, mating behaviors, and physiologies. In recent decades, scientists have also added molecular genetic differences to this list. Some groups of organisms are clearly more similar to some groups than to others. For instance, mallard ducks are more similar to black ducks than either is to herons. At the same time, some groups are very similar along one dimension, yet strikingly different in other respects. Based solely on flying ability, one would group bats and birds together; however, in most other respects, bats and birds are very dissimilar. How do biologists organize and classify biodiversity?

<http://www.learner.org/courses/biology/textbook/compev/index.html>

*Rediscovering Biology, unit 12, "Biodiversity"*

Alarmed by the rapid deforestation of the species-rich tropical rain forest, prominent environmental biologists such as the Harvard ecologist Edward Wilson became increasingly active during the 1980s, warning the public about the impending crisis of species loss. In 1986 Wilson and others convened the National Forum on Biodiversity to discuss various problems associated with ecosystem loss. Calling attention to the scope of the crisis, that forum's organizers coined a new word: biodiversity.

<http://www.learner.org/courses/biology/textbook/biodiv/index.html>

*The Habitable Planet, unit 4, "Ecosystems"*

Why are there so many living organisms on Earth, and so many different species? How do the characteristics of the nonliving environment, such as soil quality and water salinity, help determine which organisms thrive in particular areas? These questions are central to the study of ecosystems—communities of living organisms in particular places and the chemical and physical factors that influence them. Learn how scientists study ecosystems to predict how they may change over time and respond to human impacts.

<http://www.learner.org/courses/envsci/unit/text.php?unit=4&secNum=1>

*The Habitable Planet, unit 9, "Biodiversity Decline"*

Living species on Earth may number anywhere from 5 million to 50 million or more. Although we have yet to identify and describe most of these life forms, we know that many are endangered today by development, pollution, over-harvesting and other threats. Earth has experienced mass extinctions in the past due to natural causes, but the factors reducing biodiversity today increasingly stem from human activities. In this unit we see how scientists measure biodiversity, how it benefits our species and what trends might cause Earth's next mass extinction.

<http://www.learner.org/courses/envsci/unit/text.php?unit=9&secNum=0>

The Habitable Planet, interactive labs, Food Web Challenge

[http://www.learner.org/courses/envsci/interactives/ecology/food\\_web.php](http://www.learner.org/courses/envsci/interactives/ecology/food_web.php)



## **Americana**

### *Artifacts & Fiction*

Artifacts & Fiction is a video-based professional development workshop designed to help new and experienced teachers teach American literature in its historical and cultural context. Through videos, hands-on activities, and print and Web-based resources, Artifacts & Fiction will guide you through the process of expanding your classroom practices as you pair cultural and historical artifacts with works of literature. This approach can heighten your students' analytic skills and help them develop a deeper understanding of course material. The workshop is geared primarily to high school teachers, although middle school teachers or college instructors might find they can adapt the approach to their classrooms.

[http://www.learner.org/workshops/artifacts/workshop\\_overview.php](http://www.learner.org/workshops/artifacts/workshop_overview.php)

### *American Passages, Archives search*

Employing a powerful search tool, access more than 3,000 items including visual art, audio files, primary source materials and additional texts supporting and enriching the understanding of American Literature.

<http://www.learner.org/amerpass/>

### *Art Through Time, program 7, "Domestic Life"*

From tables and tapestries to bowls and baskets, art has always figured prominently in domestic life. Within living spaces, objects of aesthetic value have fulfilled practical functions, indulged individual fancies, and expressed shared values. Art turns houses into homes and enriches the activities of everyday life. Textile artist Faith Ringgold explores the line between high art and craft by combining painting, quilted fabric and storytelling.

<http://www.learner.org/courses/globalart/theme/7/index.html>

## **World Conflict**

### *Power of Place, program 2, "Boundaries and Borderlands"*

The first case study, *Twin Cities, Divided Lives*, follows the story of Concha Martinez as she crosses between the U.S. and Mexico in order to make a life for herself and her children. It investigates how the relative locations of border cities influence economic development and migration.

The second case study, *Operation Hold the Line*, follows up the question of cross-border migration raised in the first program. It takes a look at how U.S. border policy is shaping the lives of not only the people living in this borderland region, but in more distant U.S. and Mexican locations as well. <http://www.learner.org/series/powerofplace/page2.html>



*Power of Place, program 17, "Sacred Space, Secular States?"*

The first case study, *Jerusalem: Capital of Two States?*, explores the spatial variations of religious practice in Jerusalem. The three major monotheistic religions of the world share the same sacred ground in the Old City, but without peace. The boundaries that carve up the city and the rest of the Holy Lands were wrought from warfare, and the issues are far from settled.

The second case study, *Turkey: Fundamental Change*, examines the gaps between rich and poor, secular and fundamentalist, in Istanbul. The city is situated at the junction of Europe and Asia where Western and Eastern influences collide. Critics of modernization in Turkey's cities see secular democratic and economic reforms as corrupting fundamental Islamic ways of life. <http://www.learner.org/series/powerofplace/page17.html>

*Power of Place, program 25, "Ethnic Fragmentation in Canada"*

*Vancouver: Hong Kong East*, focuses on this emerging Pacific Rim metropolis and the consequences of a recent influx of wealthy Hong Kong Chinese immigrants into the area. Older, well-established "Anglo" neighborhoods fight to preserve their cultural landscape, as new Asian residents tear down older homes to erect larger, more modern dwellings with radically different styles.

*Montreal: An Island of French* examines the French-speaking population within Montreal, its turbulent history with the English-speaking minority, and the ongoing efforts to resist linguistic domination in North America. The case study focuses in particular on the city's large immigrant populations and their importance to francophone efforts to maintain majority status. <http://www.learner.org/series/powerofplace/page25.html>

### **Teaching Geography**

<http://www.learner.org/workshops/geography/about/summaries.html>

*Bridging World History*

Unit 3: Human Migrations [http://www.learner.org/courses/worldhistory/unit\\_main\\_3.html](http://www.learner.org/courses/worldhistory/unit_main_3.html)

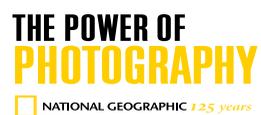
Unit 12: Transmission of Traditions [http://www.learner.org/courses/worldhistory/unit\\_main\\_12.html](http://www.learner.org/courses/worldhistory/unit_main_12.html)

Unit 24: Globalization [http://www.learner.org/courses/worldhistory/unit\\_main\\_24.html](http://www.learner.org/courses/worldhistory/unit_main_24.html)

*Art Through Time, program 12, "Conflict and Resistance"*

Throughout history, groups and individuals have sought not only to maintain control over their own lives, but also to assert their power over the lives of others. Visual art has played an important role in documenting such conflict and resistance. It also has served as a means for expressing personal views on politics, war, social inequities, and the human condition. Moroccan-born photographer Lalla Essaydi addresses the complex reality of Arab female identity from the perspective of personal experience. <http://www.learner.org/courses/globalart/theme/12/index.html>

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