

# Sensory Poetry: Arousing Biophilia

**Objective:** Each student will use their senses (sight, smell, hearing, touch) to recognize and experience the inspirational value of the natural environment at Valley Forge National Historical Park and create a poem that reflects this experience.

**Subjects:** English, Literature, Science

**Grade:** 3-12

**Skills:** Observation, creative writing, literature analysis, experiential learning

**Materials:** Writing materials

**Time:** 45 minutes

**Keywords:** poetry, literary art, biophilia, tangible, intangible, values, National Park Service

Research into the relationship between human health and nature supports the idea that nature provides beneficial effects on the physical and psychological (emotional) well-being of children and adults as well as being essential for healthy childhood development (Louv 2005). Pulitzer Prize winning biologist, E. O. Wilson, goes one step further in his “*Biophilia Hypothesis*”, suggesting these benefits are based on an evolutionary (genetic) need to affiliate with

## Teacher Background

National parks represent the most spectacular and special places in our country- over 380 of them. The mission of the National Park Service “is to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations” (NPS Organic Act of 1916).

National parks have value to people for many different reasons. Some people value them for their cultural and historic meaning, others because of their spiritual significance, beauty, or importance to wildlife (Harmon 2004). Many of these values are intangible – something that can’t be seen or touched. For example, as development has surrounded Valley Forge, more and more people see the park as a destination for renewal and recreation – they value Valley Forge for the feeling of peace and tranquility it provides in an otherwise fast paced and crowded suburban environment. It is often the intangible values – the whisper of wings at dusk or how the meadows appear golden against a blue sky - that create memories, inspire people, and foster our bond with nature.

“...children are disappearing from the outdoors at a rate that would make them top of any conservationist’s list of endangered species if they were any other member of the animal kingdom.” Tim Gill, British play advocate in *The Ecologist*



Sunlight illuminates Mount Joy at Valley Forge. (Photo by Josh Douglas Smith)

natural environments and living systems. He considered arousing *biophilia* or a love of nature to be the most valuable service that national parks provide the public.

Unless people feel such a bond with other living things and their environment, it may be very difficult to arouse them into action on behalf of species, habitats, and ecosystems for which they perceive no direct human use. *Biophilia* is not something that can be taught; it comes only from direct, personal, intimate contact with the non-human world whether it be in a national park, in a backyard garden, or simply with a family pet.

Poetry, a form of literary art in which language is used for its aesthetic and evocative qualities, provides a tool for students to express how they feel connected to the natural environment and history of Valley Forge National Historical Park. Through poetry students will describe their own experience at Valley Forge, the tangible and intangible values it holds for them and, hopefully, stimulate their own feelings of *biophilia*.

*"To arouse biophilia, science is not enough. Money, for all its power, is not enough. Culture--literature, drama, music, painting, filmmaking, the humble activity of learning itself--may be the way to engage the heart."*  
Edward C. Wolf

## Activity Overview

Students will go outside and sit or stand quietly. They will observe the environment around them using all their senses (except taste) and write down what they see, hear, smell, and feel. Students will then organize the words and phrases into a poem that reflects their emotional and physical response to the outdoor environment at Valley Forge.

This activity encourages personal expression of an experience through language and creativity while developing the observational skills that are the foundation of science and fostering a connection to nature (See Teacher Supplement 2). To begin the discussion of poetry, national parks, and the connection between youth and the environment, introduce the activity by reading student poems about other national parks provided in Teacher Supplement 1.

## Student Procedure

Students may complete this activity as a group or disperse slightly to promote a more personal experience (e.g. each student under a tree) but should remain within sight of the teacher.

1. Find a pleasant setting in the park such as near Washington's Headquarters or a park picnic area. To start the exercise, have students close their eyes for a few minutes and take a deep breath to clear the mind and focus their senses on being a part of the environment.

2. Students should spend 15-20 minutes quietly observing and experiencing the environment around them using all their senses except taste. Have them write down what they hear, see, smell, and feel (e.g. sound of wind rustling the leaves, soaring hawk, feel and smell of mowed grass).

3. As a group or individually (depending on age level) students should reflect on the words they've written down and how what they experienced made them feel (physically and emotionally). Students should then write down five words or phrases that describe those feelings (e.g. happy, warm, peaceful, relaxed, free, afraid).

4. Using these words and phrases, students should create a short poem that captures their connection to the park environment, including a 1-2 word title for their poem. Poems can be free verse or rhyming. Teachers may also choose the form or style of poetry they would like students to write. Examples include haiku, cinquain, ode and diamante. Prior to beginning the exercise teachers should review relevant poetic styles and literary devices as appropriate. For younger students, develop a group poem where each person contributes one word or phrase.

5. Have students exchange poems with a classmate after completion or read their poem to the group. This will give students the opportunity to analyze different poetic styles, provide insight into other interpretations of the same experience, and provide an opportunity for discussion of why national parks are important to them.

**Special Note:** Students must stay on or near established trails or in mowed grass areas. Students should enjoy the park but should not put anything in their mouths (taste) and may not collect or remove anything (e.g. rocks, plants or animals) from the environment. If you pick the flower, it won't be there for the next child to see, smell, or touch!

## Literature Cited

Harmon, D. 2004. Intangible Values of Protected Areas: What Are They? Why Do They Matter? The George Wright Forum. Vol 21 (2): 9-22. (Teacher Supplement 3)

Louv, Richard. 2005. No Child Left Behind: Saving Our Children from Nature-Deficit Disorder. Algonquin Books of Chapel Hill. Chapel Hill, North Carolina.

Wolf, Edward C. 1989. Arousing Biophilia. Orion Magazine. Summer 1989

## Extensions

1. After exchanging poems, have the reader develop a list of things that the author might have sensed during the activity and the feelings that they think the author is trying to convey. Allow students to discuss if the author was effective and if the intended meaning was clear. Have the author offer explanations of their sensory experience.

2. Have your students research either a Revolutionary War era poet (e.g. Phillis Wheatley, Ruth Bryant) or a naturalist poet (e.g. Henry David Thoreau, Robert Frost) that created poems in the same style they selected for their sensory poetry. They should include biographical information, a description of their poetic styling's, the historical or cultural significance of the author and analysis of one of their works. Have them present their findings to the class, including a recitation of their favorite poem that identifies literary devices and their effectiveness in the poem.

3. Have students research the topic of connecting children to nature and/or provide selected reading material on the topic (See Supplemental Reading). For one week, have students document the amount of time they spend in front of the TV or computer screen and the amount of time spent outdoors (e.g. hiking, biking, sledding, playing). Discuss with the class how their lives are different from the lives of children fifty years ago (e.g. technology) and how they believe this may contribute to a disconnect

between children and nature today. Then ask students to describe how they believe units of the National Park Service promote a connection between people and their environment.

4. Hold a poetry contest. Ask the staff at Valley Forge National Historical Park if they would contribute to judging and then post winning poems on the park website. Contact the park at [www.vafo\\_superintendent@nps.gov](mailto:www.vafo_superintendent@nps.gov).

5. For younger age groups consider using a form of art rather than language. Ask students to use their senses to experience the environment as described in the activity. Then ask them to create a drawing that reflects not only what they saw, heard, smelled, and touch but also how the experience made them feel (emotionally and physically).



Photo by Mike Ticcino

## Supplemental Reading

- Children and Nature Network at [www.childrenandnature.org](http://www.childrenandnature.org)
- Dimensions Educational Research Foundation at <http://www.dimensionsfoundation.org>
- <http://www.outdoor-nature-child.com/index.html>



Experience Your America

# Sensory Poetry: Student Worksheet

## A. What did you hear?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

## B. What did you see?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

## C. What did you smell?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

## D. What did you touch?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

## E. Describe how this experience made you feel (emotionally and physically)?

- |          |          |
|----------|----------|
| 1. _____ | 2. _____ |
| 3. _____ | 4. _____ |
| 5. _____ |          |



Experience Your America

## Teacher Supplement 1: Student Poetry Examples

The poems below represent the first, second, and third place winners of the 2008 Carl Sandburg Home National Historic Site Student Poetry Contest. Winning entries were selected by judges from the North Carolina Poetry Society and published on-line at <http://www.nps.gov/carl/parknews/2009-poetry-contest.htm>.

### Grade 3-5

#### Untitled

Author: Haley (3<sup>rd</sup> place, 5<sup>th</sup> grade)

Sometimes I think of the  
cool breeze surging  
past me as  
Nature's gentle breath of life.  
The smell of clean air,  
the sound of raging rivers,  
the feeling of relaxation  
swipes you off your feet  
but that is all part of  
Nature's charm.

The time, the place, it's all too perfect.  
The sights, the sounds, the smells, it's so much to take in; even the  
trees are dancing to a  
beautiful rhythm,  
the rhythm of nature.

and even as you stand still to take it all in,  
you can feel the rhythm  
under your feet trying so bad to send a chill up through your  
body  
and before you get a chance to understand what's going on,  
you are  
already a big part of  
nature's rhythm.

#### A Beauty Worth Keeping

Author: Ashley (2<sup>nd</sup> place, 5<sup>th</sup> grade)

The calm forest, so peaceful, so joyful. Chickadees  
sound  
somewhere off  
in the distance. A small but determined chipmunk  
scampers along  
trying to find food.

Small fish linger  
at the water's edge.  
They watch eager faces gather round.  
Rushing waterfalls pour  
down, down, down  
into smooth, placid  
surfaced ponds.

Rustling leaves fill the air  
with sound  
The red and orange color like the beautiful sunset,  
being crunched beneath many feet.  
The days will never be colorless.

Now, turquoise mist  
sheds from my skin with  
a gentle breeze.  
I am intrigued with  
a harmonious dragonfly  
and its beautiful colors.  
The beauty should be everlasting,  
for ourselves and  
for our children.

#### House of the Rising Sun

Author: Amelia (1<sup>st</sup> place, 4<sup>th</sup> grade)

*Ancient red  
Cliffs reach  
up into the  
Morning  
sky as  
the sea  
of dawn  
Clouds  
Reflect  
the royal  
glow of  
Sunshine  
at Haleakala  
National  
Park*

## Teacher Supplement 1: Student Poetry Examples

### Grade 6-8

#### **National Parks**

Author: Lance (3<sup>rd</sup> place, 7<sup>th</sup> grade)

Everything about National Parks is beautiful.  
the wildlife, the vegetation, the mystery,  
it is a beautiful thing to see animals  
in their natural habitat.  
There is also a mystery about National Parks  
seeing everything naturally  
without man-made structures.  
There are so many national parks on this earth  
but I would someday love to go to Yellowstone  
to see all its beauty and mystery.

#### **Sunrise America**

Author: Abbie (2<sup>nd</sup> place, 6<sup>th</sup> grade)

America, your sunrise begins over the sandy seashore  
on Assateague Island with its ponies galore.  
Onward and upward the sun passes by  
to the Great Smoky Mountains that reach towards the sky.  
Continuing westward to shine on more places,  
greeting Mt. Rushmore's historical faces.  
Yellowstone wakes with a chill in the air,  
the sun quickly warms the elk and the bear.  
Reaching the end of this great stretch of land,  
the Redwoods rise sunward with their branches so grand.  
At last over oceans to volcanoes that spark,  
The sun's made its tour over our great National Parks!

#### **String of Hope**

Author: Rhiannon (1<sup>st</sup> place, 8<sup>th</sup> grade)

String of hope; send me home  
Tie me to my brother.  
String of hope; send me home  
Return me to my mother.

Our Mother Earth is as delicate as the web;  
Of the spider, on the wall.  
Lest we forget we're born of her as we are;  
And we must receive her call.

If we refuse to accept this;  
If what we do is rejected;  
What we're doing is tearing one more string of hope.

String of hope; send me home  
Tie me to my brother  
String of hope; send me home  
Return me to my mother.

Sing of hope.  
See that fear is nothing more;  
Than a spider on the wall.  
That spider is just a part of us;  
As Mother Earth, is to us all.

If we pursue doubting;  
Whether we're all in this together;  
What we're doing is tearing one more string of  
hope.

### Grades 9-12

#### **National Parks**

Author: Jennifer (3<sup>rd</sup> place; 9<sup>th</sup> grade)

Places with animals, plants and streams galore  
Created by Roosevelt in 1904  
Places of beauty, so serene  
Nature in harmony, a picturesque scene  
Away from the cities, skyscrapers and cars  
Untouched nature without urban scars  
We view the wild year after year  
Natural Parks, the untouched frontier

## Teacher Supplement 1: Student Poetry Examples

### The Smell of Rain

Author: Ashley (2<sup>nd</sup> place, 12<sup>th</sup> grade)

The cold breeze makes me shiver  
and the smell of rain tickles my nose  
as the clouds play hide-n-seek with the sun.

Animals scurry, searching for cover  
for they too can sense the storm coming.

But I don't move.

I allow the storm to take me over.

To wash me away.

I lie in the grass and wait.

It cannot be much longer.

And, surely it isn't, my knee  
feels the first trickle and within minutes

I am flooded.

First with the rain, then with the  
meaning it gives me.

It almost stings.

I scream, release myself, then jump up.  
I look up at the falling rain and it mesmerizes me.

The sky lights up with purple bolts  
inevitably followed by sound explosions.

My thoughts clear out like the clouds  
after the storm passes.

Though my heart is still heavy with emotion.

### Life of the Trail

Author: Katie (1<sup>st</sup> place; 9<sup>th</sup> grade)

Walking on a trail,  
Listening to the storm

I see many wild animals,  
Drinking from the river

The gray sky,  
rumbling up a storm

I hear baby birds,  
Calling to their mother

The trees swaying,  
in the furious wind

I feel the wet rain,  
dancing on my shoulders

The deer running,  
scared by the storm's anger

I smell,  
the freshness of the earth

walking on a trail,  
listening to the storm.

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The poems below were written by 7th grade students at  
Helena Flats School (Kalispell, MT) in Winter/Spring 2007  
And published on-line at [http://www.nps.gov/glac/  
forteachers/student-poetry.htm](http://www.nps.gov/glac/forteachers/student-poetry.htm).

### Glacier Park Winters

Author: Marnic

Pale powdered mountains in the distant view,  
Snow quietly tumbles down the jagged slopes.  
The eagle slowly flies over head cutting through icy winds with every  
beat of his powerful wings.

Not a sound to be heard, but the moans and  
twisting screams of dead  
branches.

Frosted over evergreens viciously shake off the newly fallen snow.

Footprints in the snow, so many, no one around to fill them.

Hypnotizing, icy streams whirling around and around waiting to  
grasp your ankle to pull you into its world of wonders.  
Tiny snowflakes under my feet making faint cries as they are being  
stepped upon.

The wind whispers its soft melody in my ears as it whistles on by.  
This is nothing more, but nature during winter in Glacier Park.

### Nature

Author: Alyssa

I see the running water,  
I hear the crunch, crunch of snow.  
I feel the brisk wind through my hair  
I smell the pine's familiar perfume.  
I taste the fresh fallen snow.  
I know appreciation for nature has been lost.

## **Teacher Supplement 2: Applicable PA Academic Standards** (Applicable standards may vary based on extension activities included.)

### **Reading, Writing, Speaking, and Listening**

#### **1.1 . Reading Independently**

1.1.L.A Apply appropriate strategies to analyze, interpret and evaluate how authors use techniques and elements of fiction and non-fiction for rhetorical and aesthetic purposes.

1.1.3.B Use knowledge of phonics, word recognition and context clues to decode and understand new words during reading.

1.1.4.B Use knowledge of phonics, the dictionary or context clues to decode and understand new words during reading.

1.1.5.B Use knowledge of phonics, and the dictionary or context clues to decode and understand new words.

1.1.3.C Use meaning and knowledge of words across content areas to develop a reading vocabulary.

1.1.4.C Use meaning and knowledge of words across content areas to increase reading vocabulary.

1.1.5.C Use meaning and knowledge of words across content areas to increase reading vocabulary.

1.1.6.C Use meaning and knowledge of words across content areas to expand reading vocabulary.

1.1.7.C Use meaning and knowledge of words across content areas to expand reading vocabulary.

1.1.8.C Use meaning and knowledge of words across content areas to expand reading vocabulary.

1.1.9.C Use vocabulary across all academic content areas that demonstrates knowledge of literal and figurative meanings of words, nuances, or connotations of words, and word origins.

1.1.10.C Interpret the literal and figurative meanings of words to distinguish between what words mean literally and what they imply as well as word origins to understand both familiar and unfamiliar vocabulary.

1.1.L.D Demonstrate comprehension before reading, during reading and after reading on grade level texts to support understanding of a variety of literary works from different cultures and literary movements.

1.1.3.E Demonstrate fluency in oral reading of grade level texts.

1.1.4.E Demonstrate fluency in oral reading of grade level texts; demonstrate an appropriate rate of silent reading based upon grade level texts.

1.1.5.E Demonstrate an appropriate rate of silent reading based upon grade level texts.

1.1.6.E Demonstrate an appropriate rate of silent reading based upon grade level texts.

1.1.7.E Demonstrate an appropriate rate of silent reading based upon grade level texts.

1.1.8.E Demonstrate an appropriate rate of silent reading based upon grade level texts.

1.1.9.E Demonstrate an appropriate rate of silent reading based upon specific grade level texts.

1.1.10.E Demonstrate an appropriate rate of silent reading based upon specific grade level texts.

1.1.11.E Demonstrate an appropriate rate of silent reading based upon specific grade level texts.

1.1.12.E Demonstrate fluency in silent reading based upon specific grade level texts.

#### **1.2 Reading, Analyzing, and Interpreting Text**

1.2.4.A Analyze text organization and content to determine the author's purpose.

1.2.5.A Evaluate text organization and content to determine the author's purpose and effectiveness.

1.2.6.A Evaluate text organization and content to determine the authors purpose, point of view and effectiveness.

#### **1.3 Reading, Analyzing and Interpreting Literature—Fiction and Non-Fiction**

1.3.3.A Read, understand, and respond to works from various genres of literature.

1.3.4.A Read, understand, and respond to works from various genres of literature.

1.3.5.A Read, understand, and respond to works from various genres of literature.

1.3.6.A Read, understand, and respond to works from various genres of literature.

1.3.7.A Read, understand, and respond to works from various genres of literature.

1.3.8.A Read, understand, and respond to works from various genres of literature.

1.3.9.A Identify and recognize various literary genre and their relationship to the author's purpose.

1.3.10.A Identify the differing characteristics that distinguish the literary fiction and non-fiction forms of narrative, poetry, drama, and essay and determine how the form relates to meaning.

- 1.3.3.B Recognize and identify different types of genres such as poetry, drama, and fiction.
- 1.3.4.B Identify the characteristics of different genres such as poetry, drama, and fiction.
- 1.3.5.B Identify and analyze the characteristics of different genres such as poetry, drama, and fiction.
- 1.3.6.B Identify and analyze the characteristics of poetry, drama, and fiction and explain the appropriateness of literary forms chosen by an author for a specific purpose.
- 1.3.7.B Identify and analyze the characteristics of poetry, drama, and fiction and explain the appropriateness of the literary forms chosen by the author for a specific purpose.
- 1.3.8.B Identify and analyze the characteristics of poetry, drama and fiction and explain the appropriateness of literary forms chosen by an author for a specific purpose.
- 1.3.9.B Analyze the characteristics of poetry, prose, drama, novels, short stories, essays and other basic genres, explaining the appropriateness of the form chosen by an author for a specific purpose.
- 1.3.11.B Interpret and analyze works in various genres of literary and/or cultural significance in American and world history.
- 1.3.6.C Compare the literary elements within and among texts used by an author, including characterization, setting, plot, theme and point of view.
- 1.3.7.C Interpret the use of literary elements within and among texts including characterization, setting, plot, theme, point of view, and tone.
- 1.3.8.C Analyze the use of literary elements within and among texts including characterization, setting, plot, theme, point of view, and tone.
- 1.3.9.C Analyze the use and effectiveness of literary elements within and among texts including characterization, setting, plot, theme, point of view, tone, mood and style.
- 1.3.10.C Analyze the use and effectiveness of literary elements (characterization, setting, plot, theme, point of view, tone, mood, foreshadowing and style) used by authors in a variety of genres.
- 1.3.6.D Interpret the effect of various literary devices (e.g. personification, simile, alliteration, symbolism, metaphor, and imagery).
- 1.3.7.D Interpret and analyze the effect of various literacy devices (e.g. personification, simile, alliteration, symbolism, metaphor, hyperbole, imagery).
- 1.3.8.D Analyze the effect of various literacy devices (e.g. personification, simile, alliteration, symbolism, metaphor, hyperbole, imagery).
- 1.3.9.D Analyze the use and effectiveness of literary devices (e.g. personification, simile, alliteration, symbolism, metaphor, hyperboles, imagery, foreshadowing, and flashback) used by one or more authors in a variety of genres.
- 1.3.10.D Evaluate the significance of various literary devices in various genre and explain their appeal.
- 1.3.12.D Identify, interpret, and analyze the author’s skill in employing literary devices in various genres (e.g. figurative language, imagery, allegory, and symbolism).

#### **1.4 Types of Writing**

- 1.4.C.A Write poems, short stories, and plays with various organizational methods, literary elements and devices.

#### **1.5 Quality of Writing**

- 1.5.C.B Develop content appropriate for the topic.
- 1.5.C.D Write with an understanding of style using a variety of sentence structures and descriptive word choices.
- 1.5.C.F Use grade appropriate conventions of language when writing and editing.

#### **1.6 Speaking and Listening**

- 1.6.3.A Listen critically and respond to others in small and large group situations.
- 1.6.4.A Listen critically and respond to others in small and large group situations.
- 1.6.5.A Listen critically and respond to others in small and large group situations.
- 1.6.6.A Listen critically and respond to others in small and large group situations.
- 1.6.7.A Listen critically and respond to others in small and large group situations.
- 1.6.8.A Listen critically and respond to others in small and large group situations.
- 1.6.8.A Listen critically and respond to others in small and large group situations.
- 1.6.9.A Listen critically and respond to others in small and large group situations.
- 1.6.10.A Listen critically and respond to others in small and large group situations.
- 1.6.11.A Listen critically and respond to others in small and large group situations.

- 1.6.12.A Listen critically and respond to others in small and large group situations.
- 1.6.3.B Use appropriate volume and clarity in formal speaking presentations.
- 1.6.4.B Demonstrate awareness of audience using appropriate volume and clarity in formal speaking presentations.
- 1.6.5.B Demonstrate awareness of audience using appropriate volume and clarity in formal speaking presentations.
- 1.6.6.B Demonstrate awareness of audience using appropriate volume and clarity in formal speaking presentations.
- 1.6.7.B Demonstrate awareness of audience using appropriate volume and clarity in formal speaking presentations.
- 1.6.8.B Demonstrate awareness of audience using appropriate volume and clarity in formal speaking presentations.
- 1.6.9.B Demonstrate awareness of audience using appropriate volume and clarity in formal speaking presentations.
- 1.6.10.B Demonstrate awareness of audience using appropriate volume and clarity in formal speaking presentations.
- 1.6.11.B Demonstrate awareness of audience using appropriate volume and clarity in formal speaking presentations.
- 1.6.12.B Demonstrate awareness of audience using appropriate volume and clarity in formal speaking presentations.

## **1.8 Research**

- 1.8.C.B Conduct inquiry and research on self-selected or assigned topics, issues, or problems using a wide variety of appropriate media sources and strategies.
- 1.8.3.C Present the results of research, using appropriate visual aids and citing sources.
- 1.8.4.C Produce an organized product that presents the results of research findings, using appropriate visual aids and citing sources.
- 1.8.5.C Produce an organized product that presents findings, draws reasonable conclusions and gives proper credit to sources.
- 1.8.6.C Produce an organized product that presents and connects findings to support purpose, draws reasonable conclusions and gives proper credit.
- 1.8.7.C Produce an organized product that presents and connects findings to support purpose, draws reasonable conclusions and gives proper credit.

**History** - (It is assumed that students will start their field trip with a visit to the park Visitor Center.)

## **8.2 Pennsylvania History**

- 8.2.3.B Identify historical documents, artifacts, and places critical to Pennsylvania history.
- 8.2.4.B Locate historical documents, artifacts, and places critical to Pennsylvania history.
- 8.2.4.D Distinguish between conflict and cooperation among groups and organizations that impacted the history and development of Pennsylvania.

## **8.3 United States History**

- 8.3.3.A Identify and describe the social, political, cultural and economic contributions of individuals and groups in United States history.
- 8.3.6.A Explain the social, political, cultural and economic contributions of individuals and groups to United States history.
- 8.3.8.A Examine the roles groups and individuals played in the social, political, cultural and economic development of the United States.
- 8.3.9.A Compare the role groups and individuals played in the social, political, cultural and economic development of the United States.
- 8.3.3.B Identify and describe historical documents, artifacts, and places critical to United States history.
- 8.3.4.B Locate historical documents, artifacts, and places critical to United States history.
- 8.3.5.B Illustrate concepts and knowledge of historical documents, artifacts and places critical to United States history.
- 8.3.6.B Explain the importance of significant historical documents, artifacts, and places critical to United States history.
- 8.3.7.B Examine the importance of significant historical documents, artifacts, and places critical to United States history.

- 8.3.8.B Evaluate the importance of historical documents, artifacts, and places critical to United States history.
- 8.3.9.B Compare the impact of historical documents, artifacts and places which are critical to the US.
- 8.3.12.B Evaluate the impact of historical documents, artifacts and places in US history which are critical to world history.
- 8.3.3.D Identify and describe how conflict and cooperation among groups and organizations have impacted the history and development of the US.
- 8.3.4.D Distinguish between conflict and cooperation among groups and organizations that impacted the history and development of the US.
- 8.3.6.D Explain how conflict and cooperation among groups and organizations have impacted the history and development of the US.
- 8.3.7.D Examine conflict and cooperation among groups and organizations in US history.
- 8.3.8.D Examine how conflict and cooperation among groups and organizations have impacted the growth and development of the US.
- 8.3.9.D Interpret how conflict and cooperation among groups and organizations have impacted the growth and development of the US.
- 8.3.12.D Evaluate how conflict and cooperation among groups and organizations in the U.S. have influenced the growth and development of the world.

## **Civics and Government**

### **5.1 Principles and Documents of Government**

- 5.1.3.F Identify state symbols, national symbols and national holidays.
- 5.1.4.F Identify state symbols, national symbols and national holidays.

### **5.3 How Government Works**

- 5.3.5.D Identify positions of authority at the local and state and national level.

### **Teacher Supplement 3: Value of National Parks**

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## Intangible Values of Protected Areas: What Are They? Why Do They Matter?

The creation and management of protected areas is now a global enterprise. From humble beginnings in a rather obscure corner of North America more than a century ago, protected areas now involve millions of hectares on every continent (including Antarctica) and probably well over 100,000 professional caretakers worldwide. Protected areas are the centerpiece of conservation, universally acknowledged as the indispensable core of any effort to preserve biodiversity and, more broadly, environmental quality. Economically, they are a dynamic component of the world's largest industry, tourism, and are the foundation of one of that industry's fastest-growing sectors, nature-based tourism (Eagles 2003). Together, the conservation and economic values of protected areas are undoubtedly immense, though they have never been completely quantified. Yet these values *are* capable of being measured. Conservation values can be expressed monetarily through models of the "ecosystem services" that protected areas provide (free of charge!) to the marketplace economy (see Daily 1997), while there are several economic formulas for estimating the revenue generated by tourism to protected areas (e.g., the U.S. National Park Service's Money Generation Model II; Stynes and Propst 2000).

Nevertheless, important as these tangible values are, the reasons why people care deeply about protected areas ultimately have little or nothing to do with them. There is another arena of values, values whose benefits are difficult or impossible to quantify, but which lie at the heart of the protective impulse that drives the modern conservation movement. These *intangible values* (also referred to as *nonmaterial values*) include the intrinsic value of nature as well as "that which enriches the intellectual, psychological, emotional, spiritual, cultural and/or creative aspects of human existence and well being" (WCPA 2000).

This issue of *The George Wright Forum* offers a look into the arena of intangible values. With the exception of this overview (a version of which was originally published in the IUCN journal *Policy Matters*), the material

presented here is drawn entirely from *The Full Value of Parks: From Economics to the Intangible*, which the author co-edited with Allen D. Putney, who leads the Task Force on Cultural and Spiritual Values of IUCN's World Commission on Protected Areas (Harmon and Putney 2003). The book—conceived for the Fifth World Parks Congress last September in South Africa—drew on a worldwide roster of authors to explore the topic. For the *Forum*, I have selected five chapters from the book to illustrate the range of intangible values.

What are these values? The WCPA task force has classified eleven major kinds, all of which spring from particular qualities of protected areas (list adapted from Putney 2003):

1. *Recreational values*, those qualities that interact with humans to

- restore, refresh, or create anew through stimulation and exercise of the mind, body, and soul (i.e., recreation).
2. *Therapeutic values*, those that create the potential for healing, and for enhancing physical and psychological well-being.
  3. *Spiritual values*, those that inspire humans to relate with reverence to the sacredness of nature.
  4. *Cultural values*, those that are ascribed to natural, cultural, and mixed sites by different social groups, traditions, beliefs, or value systems. These values, whether positive or negative, fulfill humankind's need to understand, and connect in meaningful ways, to the environment of its origin and the rest of nature.
  5. *Identity values*, those that link people to their landscape through myth, legend, or history.
  6. *Existence values*, those that embody the satisfaction, symbolic importance, and even willingness to pay, derived from knowing that outstanding natural and cultural landscapes have been protected so that they exist as physical and conceptual spaces where forms of life and culture are valued.
  7. *Artistic values*, those that inspire human imagination in creative expression.
  8. *Aesthetic values*, those that carry an appreciation of the beauty found in nature.
  9. *Educational values*, those that enlighten the careful observer with respect to humanity's relationships with the natural environment, and by extension, humanity's relationships with one another, thereby creating respect and understanding.
  10. *Scientific research and monitoring values*, those that contribute to the function of natural areas as refuges, benchmarks, and baselines that provide scientists and interested individuals with relatively natural sites less influenced by human-induced change or conversion.
  11. *Peace values*, those that contribute to the function of protected areas as a means of fostering regional peace and stability through cooperative management across international land or sea boundaries (transboundary protected areas), as "intercultural spaces" for the development of understanding between distinct cultures, or as places of "civic engagement" where difficult moral and political questions can be constructively addressed.

There are many other intangible values of protected areas, but the remainder of this overview will focus on these.

### Recreational Values

It is intuitively obvious that the millions of people who visit protected areas each year derive benefits from the recreational activities they do there. The challenge for protected area researchers and managers has been to gain a more precise understanding of the types of benefits recreation provides, as well as their cumulative significance. A great deal of social science research has been conducted into all aspects of leisure in outdoor settings, and the results of that research are increasingly being used by park managers to guide their decisions.

"Recreation" is simply defined as

activities pursued while at leisure. "Recreational use of protected areas" is defined as visits by local and regional residents and by tourists. There are three distinct components of leisure benefits: (1) gains made by an individual, a group, or society at large (e.g., the realization of physiological benefits, skill improvements, the creation of jobs); (2) the avoidance of losses by maintaining a desired condition (e.g., using backpacking to promote family cohesion); and (3) the realization of specific satisfying psychological experiences, also termed "psychological outcomes," that accrue only to individuals (e.g., stress release; Driver and Bruns 1999).

In the beginning of park-based recreation research, benefits were largely assessed by the expedient of simply counting visitor numbers, even though they are notoriously difficult to collect and subject to managerial meddling (Hornback and Eagles 1999). More recently, emphasis has been put on the benefits (and possible disadvantages) accruing to individuals and society from park-based recreation.

The question of whether park-based recreation is associated with specific benefits is difficult to answer because the necessary research has not yet been undertaken (Roggenbuck and Driver 2000). However, as Shultis (2003) notes, "considerable research on the self-reported benefits of recreating in protected areas has identified a basic, relatively constant range of benefits, including enjoyment of the natural environment, escape from urban/home/built environments, rest and relaxation, achievement/challenge, and health/fitness." The problem is that "we still know frustratingly little about what ... these benefit categories truly mean" or what their signif-

icance is to individuals and society. Nevertheless, "it seems clear that in pursuing recreational activities in protected areas, park visitors obtain a prodigious range and depth of psychological and physiological benefits that manifest themselves throughout individuals and wider society." In this sense, "recreational values are not 'intangible' to park users: the benefits of using parks reverberate throughout their lives and have clear significance. However, these same benefits and values become intangible when park advocates attempt to bring them into the sociopolitical arena," precisely because they are difficult to quantify (Shultis 2003).

### Therapeutic Values

Whereas recreation values of protected areas derive from non-facilitated leisure activities, therapeutic values result from intentional, structured activity designed to ameliorate a specific social or personal problem. People have repaired to natural areas to gain healing for thousands of years, but directed therapeutic programs aimed at producing clinical outcomes have been around for only about a century. The programs date back at least to 1901 and the "tent treatment" of psychiatric patients at Manhattan State Hospital East in New York City, and later (in the 1930s) expanded into camps addressing the psychological needs of individual adolescents. The use of wilderness therapy (which is considered a modified form of group psychotherapy) expanded greatly in the 1970s, while the 1980s and 1990s were growth periods for the utilization of wilderness therapy for youth with problem behaviors (Ewert et al. 2003). Today, in the United States alone it is estimated that there are over 500

organizations offering wilderness programs for personal growth and development (Friese 1996). Outward Bound, an international wilderness adventure program, serves about 40,000 people each year in its worldwide programs (Hattie et al. 1997).

As Ewert et al. (2003) point out, “there is considerable debate among practitioners and researchers as to what constitutes a ‘therapeutic’ use of natural areas,” yet “trends in programming reflect how the practice is evolving given the severity of problems these programs have begun to address in treatment.” In the United States, where the majority are found, the trend is toward “sophisticated therapeutic programs that are often state licensed and employ a medical model of treatment that includes clinical supervision by licensed therapists.” Numerous well-developed clinical models are now in use.

What makes protected areas therapeutic? Research suggests answers that fall into two broad categories. First, parks and the activities that take place in them represent both a symbolic and an actual break with one’s “normal life.” Crossing that divide produces benefits. Going to parks can spur an increase in personal awareness, with the outdoor setting often causing individuals to change patterns of self-destructive behavior. This in turn can result in an increase in social awareness, and a concomitant decrease in anti-social behavior. Second, the activities one does in protected areas—hiking, camping, contemplating nature, etc.—demand initiative, action, and sustained attention on the part of the individual. This results in an immediacy of experience. For example, if one has hiked into a remote area and decides to lounge

around all afternoon rather than set up camp, the consequences are felt very soon thereafter, whereas “in town” (so to speak) the consequences of irresponsible behavior are often buffered and delayed. In addition, success in dealing with outdoor situations usually demands teamwork, which has its own rewards. Combine that with close contact with the primal forces of nature, and park visitors often take home with them a constructive—and therapeutic—sense of humility (Hendee and Brown 1987; West and Crompton 2001).

### Spiritual Values

Protected areas often encompass specific sites, or even entire landscapes, that are considered sacred. In addition, many people regard certain protected areas themselves as quasi-sacred because they have been dedicated to high purposes in perpetuity—rather like the way consecrating a building makes it into a church. Thus, people may engage spiritual values in protected areas by encountering specific places of “ultimate meaning and transcendent power” (Chidester 1987; see Figure 1), or they may experience a spiritually transformative experience simply by encountering nature in a place that they know is protected in perpetuity (Taylor and Geffen 2003; cf. Harmon 2003).

It is another matter for a protected natural area to be created precisely because it *is* a sacred site. Pilgrimages to special natural places for personal reflection, rites of passage, and spiritual renewal are a feature of cultures around the world (Ewert et al. 2003). A pioneering effort in Mexico has resulted in one of the world’s first protected areas designated as a “sacred natural site,” a category of protected



Figure 1. The National Historic Sanctuary of Machu Picchu in Peru. Inscribed as a World Heritage site for both its cultural and natural values, Machu Picchu's history as an important Incan city, and the poignancy of its eventual abandonment, combine with a spectacular natural setting to make it a place of "transcendent power" that draws visitors from around the world. *Photo courtesy of Allen D. Putney.*

area that is beginning to receive attention (Lee and Schaaf 2003). The Wirikuta Sacred Natural Site in the state of San Luis Potosi protects areas of the Chihuahuan Desert that are revered by the Huichol (or Wixarika) people. Each year, a small number of chosen representatives make the trek to Wirikuta, where, after a series of offerings and rituals, the pilgrims ingest peyote, a cactus whose hallucinogenic effects are central to giving Huichols access to spiritual insights. In addition to the sacred sites themselves, over 135 kilometers of the traditional pilgrimage route the Huichols use to reach Wirikuta have now been protected by the San Luis Potosi government (Otegui 2003).

Of all the intangible values of protected areas, spiritual values are poten-

tially the most contentious. As more groups assert (or re-assert) their right to use sacred sites within protected areas, managers increasingly find themselves in the position of being asked to arbitrate between spiritual and religious values that conflict with each other or with other kinds of value. Much to the consternation of park managers, in such situations "there is no way for those vested with management responsibility to fully accommodate both points of view" (Taylor and Geffen 2003).

### **Cultural and Identity Values**

In many indigenous societies there is no clear division between one's culture, one's personal identity, and one's spirituality. Moreover, these multifaceted cultural-identity values are

often inscribed (either figuratively or literally) into an ancestral landscape, many of which now fall within gazetted protected areas. How such landscapes are regarded by local communities is now acknowledged as an important factor that must be accounted for in protected area management strategies. Agencies are learning that “it is not possible ... to simply exclude or erase values from an area of land by classifying it in a particular way” for park management purposes (English and Lee 2003). Recent changes in the management of Australia’s protected areas in response to Aboriginal rights and concerns provide a case in point, with activities ranging from co-management through to the mapping of “wild resource use places” within protected areas (Weaver 1991; English 2002). More flexible protected area designations, such as IUCN Category V protected landscapes, are seen as one way to better accommodate landscape-based cultural values (Andrade 2003; Sarmiento 2003).

But in other societies, cultural and identity values of protected areas may be distinguished from spiritual values by virtue of their being *secular* markers of distinctiveness. The wilderness movement, which had its origins in the unique history of European colonization of North America, straddles the line between sacred and secular but now boasts a strong scientific justification. The existence of large areas of wilderness has been claimed as an essential part of the make-up of “American character.” Ironically, designated wilderness has itself become a cultural icon whose putative character rests at least in part on the dubious claim that these places were historically free of cultural content (for an overview, see Callicott and Nelson

1998). The construal of what—if anything—constitutes wilderness certainly varies from culture to culture, particularly when developed- and developing-country perspectives are compared (Barnes 2003).

A key issue here, as Hay-Edie (2003) has made clear, is the difficulty of transferring conservation techniques (which many conservationists take for granted as being universally applicable, rather than as products of a particular culture) from one social setting to another. In their eagerness to embrace cultural values, he writes, “conservationists are often at risk of picking and choosing taboos, sanctions, and other supposedly ecologically useful behaviors without meeting a complex culture on its own terms.” Yet Hay-Edie feels that a “more genuine interface of worldviews seems possible” through the mechanism of the World Heritage Convention (Hay-Edie 2003). In recent revisions of its criteria for inclusion on the World Heritage List, the convention has not only recognized intangible cultural and identity values as important contributors, but has inscribed “mixed sites” having both natural and cultural components (Rössler 2003). Similar inclusiveness can also be found in UNESCO’s biosphere reserve program (Schaaf 2003).

It is worth emphasizing that cultural and identity values are perhaps strongest in community-run protected areas: those protected by customary forms of recognition that are, in terms of effectiveness, equivalent to the force of state-sponsored civil law (Harmon 2003). Interestingly, these community-level cultural and identity values are by no means incompatible with the conservation of biodiversity; in South Asia (among other places), there are

many examples where biodiversity is part of the constellation of cultural values (Pathak and Kothari 2003). Similarly, in southwest Cameroon the Nyangkpe sacred forests not only serve as *de facto* protected areas important to biodiversity conservation, but also play an paramount role in solidifying cultural identity and regulating the general social order (Kamanda et al. 2003).

### Existence Values

Existence values—the satisfaction derived from knowing that protected areas exist, that they safeguard outstanding natural and cultural landscapes, even though one might have no prospect whatsoever of actually visiting them—might seem, at first, to be a rather bloodless, abstract category of value, hardly comparable in visceral force to those that we have discussed so far. In a sense this is true enough. Yet existence values are widely held, adding a dimension of depth to other intangible values that, if missing, would render them far less effective. We can say that existence values are part of a moral foundation underlying all the other intangible values of protected areas.

Why do so many people derive satisfaction from simply knowing that protected areas exist? Fundamentally, they are reacting to a profound angst, a fear that modern civilization is progressively destroying the natural world and hence eroding the biophysical groundwork that underlies our cherished cultures and human identity. This feeling is complicated by the fact that most of us at the same time are grateful for whatever technological advantages we enjoy over our ancestors, advantages that we would not want to be without. The result is a cav-

ernous psychological rift within ourselves. Knowing that protected areas exist is, therefore, a salve to our conscience: we can take heart in knowing that perhaps not all of nature will be lost, that indeed enough will be preserved to enable ecosystems to continue to function.

This begs the question of whether such existence values are in fact not a salve at all, but rather a mere sop to our conscience. Here we are led to what is perhaps the largest, most difficult uncertainty facing the whole enterprise of protected area conservation: Are all our efforts *really* going to make a difference in the long run? If we are honest with ourselves, we have to admit that it is very much an open question. Currently, only a small fraction of the world's lands and waters have protected status under law or custom, and there is no account of how effective that status is. Still, from a practical standpoint, we must go forward in the belief that protected areas will make a difference. To do otherwise would be to admit certain defeat, and that would be far worse than quibbling about whether our hopes for success are misplaced or not.

### Aesthetic and Artistic Values

One reason why existence values are so deeply held is because they are rooted in a powerful human need for sensual engagement, and no one can deny that the world's protected natural areas contain many superlative places that delight the senses. One first thinks of stunning scenery: snowy mountains and surging waterfalls, immense tundra and teeming rainforests, sweeping grassland vistas and stark deserts. But other senses are involved too, particularly those of touch, smell, and hearing. Parks are

very tactile places, where one is encouraged to feel nature at an intimate scale, to thrust one's hand into a bed of moss, or let beach sand run through one's fingers at seaside, or feel the rocks beneath one's feet on a rugged trail. Odors and aromas—pine pitch, animal musk, wildflowers, campfires—add irreplaceable texture, and, when recollected, often set off a whole succession of memories that make a park experience unforgettable. Combine all this with the sounds of nature—birdsong, wind whistling down a canyon, lapping waves, the dripping of water from a desert seep, and, perhaps the rarest and most priceless of all, the perfection of silence, of total quiet—and one comes away with an aesthetic experience that far surpasses any human contrivance in terms of variety and complexity.

Historically, aesthetic or perception-based values played a key role in determining which natural landscapes received protection. They still do, despite the increasing emphasis on biodiversity protection and ecological representativeness as keystone criteria. The reason is deep-seated: over the course of evolutionary time, we developed an ineradicable complex of emotional responses to sensory stimulation. We use these responses to humanize elements of the environment and relations between them. Now, however, thanks to an expanded and enlightened sense of aesthetics informed by scientific understanding, even landscapes traditionally considered to be ugly and inhospitable (e.g., scrubland, steppes, bare dunes) can be drawn into the protective fold because “landscape perception parameters can be successfully used to contrast (and confirm) ecosystem evaluations based on ecological parameters” (Crespo

and Martínez 2003).

Although closely allied to aesthetic values, artistic values are distinguished by the presence of human intentions, the purposeful act of creating objects that have their own separate beauty and value. The link between natural beauty and artistic inspiration is so widespread that it hardly needs explanation. Suffice it to point out that artists had a central role in launching the modern protected areas movement. The scenic wonders of Yellowstone were first made known to the U.S. Congress and the general public through the efforts of artists, most notably the landscape painter Thomas Moran and the photographer William Henry Jackson (Silliman 2003). That link has never since been broken, and parks continue to fascinate visual artists, musicians, writers, dancers, and artisans, whether directly as subject matter or indirectly as inspiration for collateral ideas.

### **Educational Values**

Every protected area contains things worth learning about. Not everyone who visits a protected area comes intent on gaining knowledge, but most do. At its best, this expectation translates into an openness to new ideas on the part of the visitor, an eagerness to expand one's worldview. It is a subtle but critically important value that protected areas provide to people, and is part of why protected areas are public institutions whose educational potential is on a par with the world's great museums and zoos.

Some of that potential is already being realized through guiding and interpretive services. Parks that are part of well-funded systems have professional educational staff that carry out these visitor service functions.

Staples of protected area education include guided walks, wildlife discovery caravans, formal presentations to visitors by park staff, programs aimed at schoolchildren and school groups, and many others. In addition, fixed media, such as interpretive signs and audiovisual presentations, are extensively used to inform visitors. Most protected areas have visitor contact centers, often housing a museum and auditorium, where basic orientation and more in-depth education about the park take place. Generally these programs are organized according to a parkwide interpretive plan.

Increasingly, protected areas are forming partnerships with museums and universities as a way to reach out to new audiences within the general public and among academics. This is an important step because it integrates parks with society at large. Part of every protected area's mission must be to address people's needs and issues rather than simply attempting to preserve nature in isolation from the larger social context. Consciously framing an educational mission as part of a protected area's management scheme does this in a positive way. There are always social and economic costs imposed on local communities whenever a new protected area is established. Some of those costs can be offset by employing local people who have an intimate and long-standing knowledge of the park's "educational resources" as educators on the park staff.

### **Scientific Research and Monitoring Values**

Science itself is connected directly with educational values because it is a way of knowing, a process for learning (Moore 1993). It has been justly said

that "parks provide places to learn from personal experience," and "personal experience is among the most powerful and enduring ways for most people to learn.... By giving multiple examples of reality, parks connect people to abstract concepts emotionally. Such place-based learning offers multiple stimuli that enhance opportunities for diverse learners, clarifies new insights, and strengthens retention. Parks generate passion for learning, with deep, personal, emotional connections born out of experience, and stimulate curiosity that is the bedrock foundation of science" (Davis et al. 2003).

Knowledge of nature begins with exploration, and exploration leads to inventories of the world around us that are the hallmarks of any science, whether it be an orally transmitted system of traditional environmental knowledge or the classical hypothesis-driven reasoning of Western scientific inquiry. Inventories inevitably lead to monitoring, the systematic recording of how nature changes over time. In a system of traditional environmental knowledge, monitoring knowledge is transmitted in narratives that describe how things used to be compared with the present. In Western science, monitoring is carried out according to written protocols tracking a set of environmental conditions carefully chosen because they are thought to signal larger changes in ecosystems. These conditions can be thought of as "environmental vital signs" (Davis et al. 2003). Monitoring them within protected areas helps makes those areas into bellwethers for entire ecosystems.

Current scientific research in parks has contributed many insights into today's environmental problems, none more important than the realization

that local actions are enmeshed in global systems of almost staggering complexity:

The contemporary conservation movement and scientific ecology have interacted in the past two decades to develop a better understanding of and concern for ecosystem-level properties that often function at scales far greater than park or preserve boundaries. The consequence of this has been that even in the largest and oldest national parks, we now understand that most often the serious ecosystem stressors—the anthropogenic forces that lead to a loss of an untrammelled ecosystem retaining all of its parts—are not so much from tourism and the interaction of park visitors with nature, but represent forces operating at regional to global scales (Davis et al. 2003, citing Graber 1983 and Graber 1995).

One could argue that the principal value of scientific research and monitoring in protected areas is to promote this more far-reaching view of environmental challenges.

### **Peace Values**

Under “peace values” fall three distinct functions of protected areas: fostering regional peace and stability through cooperative management of transboundary protected areas, providing “intercultural spaces” for the development of understanding between distinct cultures, and acting as places of “civic engagement” where difficult moral and political questions can be constructively addressed.

The number of transboundary protected areas has increased rapidly over the past decade. As of 2001, there were 169 transboundary complexes containing 650 individual protected areas involving 113 countries (Zbicz 2001). Case studies of transboundary

protected areas show that there are many benefits to be gained, including increased coordination between park authorities, thus eliminating needless duplication of tasks; a greater tendency to manage on an ecosystem scale rather than being constrained by artificial boundaries; and decreased political tensions among countries. Symbolically, too, transboundary protected areas are important as concrete expressions of good will between countries (Hamilton et al. 1996; Sandwith et al. 2001).

Less formalized but no less important is the idea of protected areas as intercultural spaces. This does not mean that people are unwelcome to bring distinct values and worldviews to parks. Quite the opposite: where parks are conceived of as intercultural spaces, the authorities strive to make the park a place where people can, if they wish, express their views and have access to other views in a productive and respectful manner. This can be accomplished through sensitive and nuanced interpretive treatments of controversial or conflicting subjects that are associated with the park, and by creating an atmosphere of openness and transparency within the park authority itself.

Closely related is the idea of civic engagement, a term borrowed from the museum profession. Civic engagement refers to a public institution, such as a museum or a protected area, actively seeking out a role in elucidating controversial issues rather than simply waiting to be caught up in them. It does not mean that the institution tries to set itself up as a self-appointed arbiter of controversy, nor does it simply offer itself as an intercultural space for exchanges of differing viewpoints. Instead, it makes a

conscious and sustained effort to seek out “an active, intentional role in public dialogue around the kinds of contemporary issues that provoke multiple viewpoints” (Bacon et al. 1999). It is a proactive rather than reactive stance. Civic engagement tries to shape the process of achieving agreement on controversial issues, although not the outcome itself (Sevcenko 2002). The U.S. National Park Service has embarked on a series of workshops to see how civic engagement can be applied to sites in the American national park system (USNPS 2002).

These sketches of the major intangible values of protected areas by no means exhaust the topic. We have left aside consideration of the distinction between intrinsic and instrumental values and its ramifications for protected area management (Harmon 2003), the value of authenticity in nature (Gobster and Hull 2001), the cultural and spiritual values of biodiversity (Hamilton 1993; Ramakrishnan et al. 1998; Posey 1999), gender-related issues on the use and perception of public space (e.g., Day 2000)—the list goes on. But what has been said is enough to give an idea of the breadth of intangible values and how they are often connected with one another.

### **Why Do Intangible Values Matter?**

Tourism to parks is a huge industry, and the economics of protected area systems has rightly become a critical consideration for governments, policymakers, and park managers at all levels. But the very success of parks as tourist destinations obscures the real reasons why people choose to go to them. In fact, they are popular precisely because they offer a clear-cut con-

trast to the getting and spending that drives so much of modern life. They offer harried people a place to reflect and reinvigorate themselves. In this sense parks are a counterweight to what might be called “everyday” values. But more than this, the places and things in parks carry intrinsic natural values that exist without regard to any form of human usefulness or purpose. There is evidently a connection of some kind between many of the values we as humans generate within our various cultures, and the natural values “out there” in the environment, existing apart from us. To judge from the ever-increasing popularity of parks, this connection resonates in millions of people. Here, then, is the ultimate source of what we might call the “protective impulse”: the motivated desire to safeguard special places. Since parks and other protected areas are universally recognized as critical components of conservation, the importance of intangible values is clear: they are at the heart of the protective impulse that drives the modern conservation movement.

### **The Papers in This Issue**

Let me conclude by summarizing the papers that follow. “Managing the Intangible” is a manager’s-eye view of the practical challenges involved. Drawing on their experiences in Australia and Canada, respectively, Anthony J. English (New South Wales National Parks & Wildlife Service) and Ellen Lee (Parks Canada) provide some practical guidance on establishing management regimes for protected areas that deal with intangible values. Next, three scientist-managers with the U.S. National Park Service, Gary E. Davis, David M. Graber, and Steven A. Acker, lay out the case for parks as

indispensable places where the vital signs of the planet can be monitored in their paper “National Parks as Scientific Benchmark Standards for the Biosphere; Or, How Are You Going to Tell How It Used to Be, When There’s Nothing Left to See?” This is followed by “Aesthetic Values and Protected Areas: A Story of Symbol Preservation,” in which Eduardo Crespo de Nogueira (of the Organismo Autónomo Parques Nacionales, Spain’s national park agency) and Consuelo Martínez Flores (an artist) recount the ups and downs (and ups again) of aesthetics as a force behind the creation and development of protected areas. Then Bron Taylor

and Joel Geffen, both scholars of religion with a special interest in its relationship to environmentalism and science, offer several accounts of what happens “when worlds collide” in protected areas in a paper titled “Battling Religions in Parks and Forest Reserves: Facing Religion in Conflicts over Protected Places.” Finally, in “Life and the Nature of Life—in Parks,” one of the world’s leading environmental philosophers, Holmes Rolston III, shows how the human experience of parks, though it often begins in recreation, culminates with a “re-creating, deepening experience of the human spirit.”

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