



The Harriman Alaska Expedition Retraced: A Century of Change

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The Harriman Alaska Expedition Retraced: A Century of Change

In 1899 Edward Harriman assembled a distinguished team of scientists and artists and took them on a two-month survey of the Alaska Coast. The scientists produced eleven volumes of data that took twelve years to compile.

During the Harriman Expedition Retraced, scientists, naturalists and artists observed anew the sites visited by Harriman's scouting parties a century ago. At the heart of the new expedition is the 100-year Harriman benchmark that can be used to assess our relationship with the natural world and society's current and future needs.

The purpose of this Instructional Guide is to help educators navigate and use the Web site/CD in the classroom. It includes lessons for middle and secondary classes and is designed to be used in schools across the nation. Grade levels recommended are approximate, and lessons should be adapted to fit the needs of the students. The Instructional Guide builds on the central theme, "A Century of Change," but within that broad theme contains a sequence of interdisciplinary lessons. This approach reflects the spirit of the two expeditions, themselves, which were undertaken as holistic studies of Alaska's coast. Disciplines include art, history, literature, geography, ethnography, economics, geology, technology, and biology. The lessons are based on national standards, listed on pages 55-56. You may visit the site on-line, (<http://www.pbs.org/harriman>), or work from the CD. A matrix showing the grade levels, subject matter emphasis, and estimated time of each lesson follows:

Lesson	Grade levels						Subjects				Time By CLASS
	7	8	9	10	11	12 STU	SOC ARTS	LANG	SCI	ART	
1. Launching an Expedition	6
2. Results of the 1899 Expedition	2
3. Bag a Glacier	4-5
4. No Neutral Images	4+
5. A Sense of Wonder and the Fleeting Image	3+
6. The Two Alaskas	4-6
7. Making a Collection	3
8. National and International Contexts of the Harriman Expeditions	4-5; 3
9. Historiography	3
10. Evaluating the Expeditions	1-2

The Guide is suitable for placement in a three-ring binder. The contents are organized to be used by teachers of different subjects, as fits their needs. A science teacher may extract the science sections; an art teacher may select the most relevant parts; and so on. Teaching teams and interdisciplinary schools may implement the entire Guide as appropriate. Lessons may be used in any sequence that meets teacher needs, although we encourage beginning with Lesson One in order to practice navigating the Web site/CD, and to experience an overview of the stories of the two expeditions. We also encourage the teacher to show the film early in the study cycle.

A typical “route” (lesson) in the Guide includes:

- topic of the “journey”;
- lesson subject(s): social studies, language arts, and so on;
- appropriate grade level(s);
- approximate class time needed to complete the lesson;
- materials needed;
- activities with instructional methods and suggested teacher presentation;
- vocabulary; and
- assessment techniques and instruments.

Navigation: Ease of navigation has been a primary goal of the Instructional Guide. Within the Web site/CD, the most comprehensive navigation resource is the “Table of Contents.” Its URL is <http://www.pbs.org/harriman/aboutsite/contents.html>, and it is always accessible at the HOME page, (<http://www.pbs.org/harriman>). The Table of Contents can also be reached on each page after the HOME page by using the SITE INDEX, located in a small pull down window near the upper right. The SITE INDEX will, like the Table of Contents, provide access to the major locations on the Web site, but it will not give as much detailed search control. A full Web site/CD Table of Contents is included in this Guide (see pages 51-54), cross-referenced with each lesson to highlight important content areas. While emphasizing the utility of the Table of Contents, you may wish to caution your students not to expect the usual key word “Search” function on the CD, although the Web site does support it.

Time: Time is estimated in each lesson by class periods of 45 to 50 minutes. The time estimates are, however, flexible, and each educator should consider the abilities and skill levels of their students in planning the time to accomplish each activity. The estimated time does not include any delays in access to either the Web site or the CD.

Materials and Printing: The materials list always assumes a printer, a computer with Internet access, and the Harriman Expedition’s CD/ROM. You will find the section “About This Site” (<http://www.pbs.org/harriman/aboutsite/aboutsite.html>) helpful for guidelines on viewing and printing. When printing images for art lessons in particular, go to “Page Setup” in “File” and enlarge the image to 110 or 120%. Changing the page orientation from “portrait” to “landscape,” as appropriate, will also improve the image. Some printers will print the yellow background color from the Web site pages. Set your printer for “draft” version whenever you are printing for text use only to help dilute the yellow and avoid depleting your print cartridge.

More Resources: All sections of the Instructional Guide were designed to be accomplished from within the Harriman Web site/CD, but in all instances the teacher should encourage students who are engaged in the subject to further explore related resources, many of which are listed on the Web site/CD. For more information about the expeditions, please see the References pages: (<http://www.pbs.org/harriman/aboutsite/references.html>); Harriman Links: (<http://www.pbs.org/harriman/aboutsite/links.html>); and Suggestions for Further Reading: (<http://www.pbs.org/harriman/education/extracredit/reading.html>).

Thank You: Advisors from the Harriman Expedition Retraced staff and the Alaska Geographic Alliance assisted the Guide development. Additional advisors from the Anchorage School District (Alaska), and from the Smith College Education and Child Study faculty provided expertise in pedagogy and teaching/learning opportunities. We are grateful for their patience and enthusiastic support.

Donna Matthews and Patricia H. Partnow, Ph.D.

The Harriman Alaska Expedition Retraced: A Century of Change

"Our comfort and safety required a large vessel and crew, and preparations for the voyage were consequently on a scale disproportionate to the size of the party."

Edward H. Harriman, Preface, Harriman Alaska Series, Vol. I, quoted in "The 1899 Expedition"

How did the crews and organizers of the two Harriman expeditions launch and carry out their respective voyages? What tools – physical and conceptual – did they use?

Level/Subjects:

Grades 7 - 12

Social Studies, Language Arts, Science

Summary:

Students watch the videotape *Harriman Alaska Expedition Retraced*. They explore and navigate the Harriman Web site/CD. They brainstorm what tools and ideas they would need to plan a major scientific expedition in 1899 and 2001, respectively. They make graphic presentations to their classmates, then compare the technology used during the two expeditions.

Time:

6 class sessions. Two to watch the videotape; one to explore the Web site/CD; one to retrace the geographic routes of the expeditions; one to complete research for group presentations; and one to prepare and present the information to fellow classmates.

Materials:

- Monitor, VCR and Videotape: *Harriman Alaska Expedition Retraced*
- Printed copy of "Table of Contents" from the Harriman Web site/CD for each student
- Large map of Alaska
- Yarn
- Art supplies for graphic presentations
- Printed copy of WEB SITE/CD EXPLORATION GUIDE for each student (see page 8)

Activities:

1. In preparation for your class's exploration of the Harriman Web site/CD site, refer to "Looking at Primary Sources" on the Web site/CD (<http://www.pbs.org/harriman/education/extracredit/primary.html>) for an example of a way to examine primary source documents.
2. Introduce the 1899 Harriman Expedition and the 2001 Harriman Expedition Retraced to students by showing photographs of the ships found at:
 - The Clipper Odyssey (http://www.pbs.org/harriman/explog/tech_photos.html) OR (<http://www.pbs.org/harriman/current/current.html>)
 - The George W. Elder Library of Congress site through "Harriman Links"; (<http://memory.loc.gov:8081/mss/amrvvm/vmh/vmh057r.jpg>) OR (<http://www.pbs.org/harriman/1899/1899.html>)

Then read the following from the Web site/CD:

In 1899, the railroad tycoon Edward Harriman assembled an elite crew of scientists and artists, along with friends and relatives, and took them on a two-month survey of the Alaskan coast. They traveled aboard the steamship George W. Elder. In 2001, more than two dozen scientists, writers and artists, along with a number of guests from throughout the country, retraced the expedition, observing anew the sites visited by Harriman's scouting parties a century ago. They traveled aboard the Clipper Odyssey, a 340-foot ocean-going vessel.
3. Prepare the class for viewing the *Harriman Alaska Expedition Retraced* videotape. This will be shown in two parts—a total of 110 minutes long, with a break after 55 minutes. Assign a topic to each student; the student's task is to note when his or her topic is discussed in the videotape, and be prepared to brief the rest of the class later during the unit. For instance, if the assigned topic is "forestry," the student would take notes when clear-cutting, use of lumber, the opinions of the 1899 expedition members about the quality of Alaska timber, and so on, are raised in the videotape. Following are suggested topics that will yield interesting information and relate to subsequent lessons in

Activities, continued on page 5

Activities, continued from page 4

this Guide. Since there are only twelve topics suggested, most will be assigned to at least two students.

- Changes in the environment, including abundance of natural resources.
 - Scientific and technological progress over the years between the two expeditions.
 - Outside interests (economic, social, political) as they affect Alaska.
 - Conservation issues.
 - Forestry.
 - Fisheries.
 - Tourism.
 - Clash of cultures.
 - Indigenous peoples.
 - Art (photography, drawing and painting, and literature).
 - Scientific discoveries made during the voyage.
 - The two Alaskas (“oil barrel for a nation” or potential for industry, on the one hand, and “national park for the world” or conservation issues, on the other).
4. Continue showing Part II of the videotape on the second day of class. Remind students of their assigned topics. Collect and check their notes on those topics at the end of the second class.
 5. Explain to the students that during the third day’s class they will become familiar with the crews and the places visited during the expeditions of 1899 and 2001. Students will become equally familiar with the Web site/CD where this information is contained. In order to do so, they will explore the Web site/CD. Distribute a copy of the Web site/CD’s Table of Contents to each student. Then distribute the EXPLORATION GUIDE sheet to students and allow them unstructured time to explore, navigate, and answer the questions.
 6. When students have completed the exploration, assemble the class and discuss what they found. Share information. Distinguish between primary and secondary sources. Ask students to explain which information on the Web site/CD they found to be the most valuable.
 7. Display a large map of Alaska and review the routes of the two Harriman expeditions. Mark the routes with yarn. Refer to the lessons on Assessing and Making Maps (<http://www.pbs.org/harriman/education/lessonplans/maps.html>) and Charting the Path of the Elder, (<http://www.pbs.org/harriman/education/lessonplans/location.html>) on the Web site/CD for detailed instructions on additional ways to carry out this portion of the lesson.
 8. Next, the students will plan and launch the two expeditions along the coast of Alaska. The 1899 mission is to learn about the coast of Alaska; increase knowledge of the plants, animals, geology,

Activities, continued on page 6



The route of the Harriman Alaska Expedition of 1899. By Henry Gannett and the U. S. Geological Survey.
Source: Library of Congress



“The Good Ship Geo. W. Elder” in Glacier Bay.
Photograph by Edward Henry Harriman, 1899



The Clipper Odyssey in Harriman Fjord.
Photograph by National Ocean Service, NOAA, 2001

LESSON ONE

The Harriman Alaska Expedition Retraced: A Century of Change

Activities, **continued from page 5**

and geography; and allow the participants to learn from each other and have a good time. Brainstorm what you will need. Consider the following categories in generating your list:

- Maps;
- Scientific instruments;
- Transportation;
- Communication;
- Money;
- Talented and knowledgeable expedition members.

9. Explain that the students will also need to plan a second trip along the coast of Alaska, but this one took place in 2001 rather than 1899. Briefly talk about some of the differences they might expect in planning the second voyage.

10. Divide the class into six groups, each with the task of researching the Harriman Web site/CD for information about one of the categories listed above (maps, scientific instruments, transportation, communication, money, and expedition

members). Each group must research information for both the 1899 and the 2001 expeditions. The groups will then present the information to the rest of the class, using at least one graphic tool (map, photograph, drawing, chart, or graph).

11. Allow time to research the Web site/CD and prepare their presentations. Then have students share their reports.

12. In class discussion, compare the two expeditions, particularly as they relate to different technologies available to the two crews. Ask those students who noted technological progress when watching the videotape to help provide answers. Discuss:

- How did changes in technology alter the purposes of the two expeditions?

- How did changes in technology alter the way the two crews carried out the expeditions?
- How did changes in technology alter the quality and type of information gathered?
- How did changes in technology alter the uses of the information?
- What remained unchanged, despite the hundred years of progress between the two?
- Look at the list of invited scientists and experts on the two expeditions. What is the same? What is different? Why are they different?

13. Speculate on how a Harriman retraced expedition launched in 2100 will differ from the first two.

14. Each of the twelve topics listed in #3 above is discussed in

Activities, **continued on page 7**



Juneau, 1899.
Photograph by C. Hart Merriam



Juneau, 2001.
Photograph by National Ocean Service, NOAA

Key to places that both expeditions visited (alpha list; not chronological):

Cordova
Homer
Juneau
Kodiak
Metlakatla
Sitka
Skagway
St. Lawrence Island/Gambell
St. Paul
Teller
Unalaska/Dutch Harbor
Yakutat

The Harriman Alaska Expedition Retraced: A Century of Change

Activities, continued from page 6

greater detail in at least one On-board Lecture. Depending on your class's make-up and interest, you might assign each student one On-board Lecture to read about his or her particular topic, and write a reaction paragraph. Appropriate lectures for the topics include the following list, which may be expanded as students make their own reading discoveries:

- Changes in the environment, including abundance of natural resources: "Marine Mammals in the Gulf of Alaska: Conservation Issues and More," Kathy Frost.
- Scientific and technological progress over the years between the two expeditions: [Note: no On-board Lectures deal specifically with this topic, although there is information on it in other parts of the Web site/CD, particularly "Souvenir Album: The Technology of Harriman Retraced"].
- Outside interests (economic, social, political) as they affect Alaska: "Dreaming the Klondike," Bill Cronon.
- Conservation issues: "New Ideas on the High Seas: Conservation in 2001," Brad Barr.
- Forestry: "Ecology and Politics in the Tongass National Forest," Paul Alaback.
- Fisheries: "Fisheries and the Bering Sea Ecosystem," David Policansky.
- Tourism: "A Century of Change in Alaska: Tourism and the Environment," Pam Wright.
- Clash of cultures: "Sovereignty and Cultural Survival," Allison Eberhard.
- Indigenous peoples: "Apparition in the Mirror: Soviet and Post-Soviet Life in Northern Native Communities across the Bering Sea," David Koester.
- Art (photography, drawing and painting, and literature): "Painting the Alaskan Coast: The Harriman Expedition Paintings in Context," Kes Woodward.
- Scientific discoveries made during the voyage: "The 1899 Harriman Alaska Expedition," Kay Sloan.
- The two Alaskas ("oil barrel for a nation" or potential for industry, on the one hand, and "national park for the world" or conservation issues, on the other): "A Panel Discussion on Oil and Alaska's Search for Economic Diversity and Environmental Protection."

Assessment:

Assess students according to the following:

- Videotape notes
- Completion of the Exploration Guide
- Quality and quantity of research conducted on the Web or CD
- Working relationship within the small groups
- Quality of oral and written presentations
- Participation in class discussions

LESSON ONE



MR. HARRIMAN IN HIS OFFICE

Edward Henry Harriman in his New York office.



Tom Litwin and other explorers near pile of driftwood on beach at Kukak.
Photograph by Megan Litwin

Vocabulary:

Demographic
Elite
Expedition
Technology
Tycoon

WEB SITE/CD EXPLORATION GUIDE

Directions: Look through both the 1899 and 2001 portions of the Web site/CD to find these:

1. Choose one member of the 1899 expedition. Write a paragraph about that person, describing:
 - His personal background.
 - His professional background.
 - The kind of information he was expected to contribute to the expedition.
2. Choose one member of the 2001 expedition. Write a paragraph about him or her that describes the same three things:
 - His or her personal background.
 - His or her professional background.
 - The kind of information he or she was expected to contribute to the expedition.
3. Choose one town or village that was visited during both expeditions. Answer the following questions about it, whenever possible. In some cases, you might not be able to find all of this information on the Web site/CD. Use a map or atlas to supply information such as longitude and latitude.
 - Where is the town located (longitude and latitude, region of the state)?
 - When was the village or town founded?
 - What was the demographic makeup of the town in 1899 (population size and ethnic make-up)?
 - What was the demographic makeup of the town in 2001?
 - What did the Harriman crew learn about or do in the community in 1899?
 - What did the Harriman crew do in the community in 2001?
 - What issues were important to the people of the town in 1899?
 - What issues were important to the people in the town in 2001?
4. Look at one map from the 1899 expedition and describe it. Tell:
 - Who made the map.
 - How it was made.
 - What it shows.
 - How accurate it is.
5. Look at one map from the 2001 expedition. Explain how it differs from your chosen 1899 map.
6. Find one drawing from the 1899 expedition and another from the 2001 expedition. Describe them and tell who drew them. Compare them.
7. Find one photograph from the 1899 expedition and another from the 2001 expedition. Describe them, tell their locations, and tell who took them. Compare the photographs.