

Advanced Knowledge of the Resource (KR)

PURPOSE

Advanced KR helps connect resource meanings with audience interests and points of view. This component provides tools for: recognizing the interpretive value of advanced KR; acquiring advanced KR; and using the professional disciplines of science and history to identify and evaluate multiple audience perspectives.

OBJECTIVES

At the completion of this component the learner will be able to:

- articulate ways in which advanced KR supports the interpreter's ability to facilitate opportunities for audiences to make their own intellectual and emotional connections to the meanings and significance inherent in the resource;
- apply advanced research skills to the acquisition of KR;
- use the philosophies, methodologies, and assumptions of professional disciplines to identify and analyze multiple audience perspectives.

APPROACH

Full performance interpretation requires advanced KR—a comprehensive understanding of the multiple meanings and types of significance associated with the resource.

Research and advanced KR has specific interpretive value. They help connect resource meanings to distinct audiences as well as aid the selection of appropriate interpretive techniques. Advanced research skills allow interpreters to gather information that potentially establishes relevance and creates opportunities for audiences to make their own intellectual and emotional connections with the meanings and significance inherent in the resource.

Learners should strive to meet the standards articulated here in subject areas most relevant to their own resource and should seek to understand the assumptions and parameters of their most relevant professional disciplines before moving on to other disciplines. However, as few resources can be accurately described as exclusively scientific or historic, full performance interpreters are obligated to continue their research and broaden their study of both disciplines with time.

CONTENT OUTLINE

I. Advanced KR-Assumptions

- A. Resources possess multiple meanings and advanced KR requires a comprehensive understanding of those meanings.
- B. Some meanings are more relevant to some audiences than others.
- C. Audiences have multiple perspectives on similar resource meanings.
- D. Scholars, specialists, and audiences ascribe different and new meanings to the resource over time.

II. Advanced KR-Why?

A. Advanced KR provides context for the resource's stories.

1. Context is the resource's relationships, comparisons, and connections to meanings, universal concepts, processes, systems, ideas, values, events, movements, changes, time-periods, theories, interpretations, models, and other resources.
2. Greater knowledge of context increases the interpreter's ability to make tangible/intangible/universal concept links.

B. Advanced KR provides the ability to:

1. identify multiple meanings in the resource;
2. establish relevance for the audience;
3. address multiple audience perspectives; (See: [Appropriate Technique: Connecting Multiple Resource Meanings to Multiple Audience Interests and Perspectives](#))
4. communicate about specific topics with expertise;
5. work with scholars and specialists;
6. be accurate and current about a wide variety of resource topics and interpretations;
7. do advanced and original research, document resource knowledge, and share KR with the public and park staff.

Most interpreters are not given the time to design and execute experiments, conduct extensive series of oral histories, or do comprehensive and publishable primary research. However, full performance interpreters have knowledge of how such work is done and continually perform original and advanced research through informed reading of scholarship, primary sources, and communication with scholars, specialists, and authorities.

III. Accuracy and current information-Why?

Interpretation that is accurate provides a verifiable and comprehensive description, is errorless, and conforms to facts. An interpreter must always be accurate. All resource meanings, with enough knowledge and understanding, can and must be interpreted accurately. For example: an interpreter can accurately describe and explain the theory of Evolution as well as the tenets and explanations of Creationism. Likewise an interpreter can accurately describe and explain theories, perceptions, and understandings from the past that effect, conflict with, and/or contribute to theories, perceptions, and understandings in the present.

Interpretation that is current incorporates recent and ongoing discussion of the resource and its subject matter. This includes questions being asked by scholars, specialists, and the general public as well as what they are thinking and saying about the work that is being done. There can be multiple current explanations, theories, and interpretations that complement and/or conflict with each other. Currency also includes understanding of the general acceptance and use of a position by the professional community as well as popular culture and specific groups of people. An interpreter uses current information to provoke or provide additional opportunities for the audience to make their own intellectual and emotional connections to the resource.

A. The resource, audience, and agency are best served by interpretation that is accurate and uses current information.

1. An audience that understands the multiple meanings of the resource and multiple points of view about the resource is more likely to support care for the resource.
2. Audiences expect and even assume the presentation of accurate interpretation and current information.
3. Agency credibility depends on the presentation of accurate interpretation and current information.

B. Effective interpretation requires comprehensive knowledge, understanding, and explanation of multiple resource meanings and audience perspectives-not just popular and current ones, in order to:

1. be relevant;
2. demonstrate familiarity with diverse sources of knowledge and opinion, which engenders trust in the open-mindedness of the interpreter;
3. demonstrate respect for audience points of view;
4. encourage dialogue;
5. provoke or provide diverse audiences with opportunities for personal intellectual and emotional connections with the meanings of the resource;
6. allow audiences to make decisions for themselves. (See: [Appropriate Techniques: Connecting Multiple Resource Meanings to Multiple Audience Interests and Perspectives](#) component.)
7. provide context for NPS perspectives.

IV. Advanced KR and research skills

A. Full performance interpretation requires accurate and in-depth knowledge of:

1. primary and secondary source material

2. the subject matter's current scholarship and issues;
3. previous theories, interpretations, and historiography;
4. the philosophies, methodologies, and assumptions of the relevant professional discipline;
5. techniques for evaluating sources of information and comparing ideas.

B. Full-performance interpretation requires the equivalent of graduate school and/or assistant researcher abilities in the concepts and data related to the resource. A full performance interpreter:

1. understands methods of data collection and is able to assist those who publish professional and original scientific or historical work;
2. uses analytical tools to evaluate a variety of sources of information--for example: peer reviewed articles; gray literature (for example: organizational reports, dissertations, or other unpublished but distributed sources); direct scientific measurement /observation/ monitoring; comparative study of artifacts and specimens; primary documents; secondary interpretations; historiography; and oral histories;
3. is able to plan and apply research techniques to achieve park and interpretive program goals and explore the wide scope of perspectives and interpretations on a given subject;
4. reads, documents, and makes available all sources used for interpretation;
5. applies appropriate ethics for using and referencing the work of others;
6. A full performance interpreter evaluates research within the context of other research and a variety of broader contexts.
7. A full performance interpreter understands and can describe the principles and methodologies of the natural and cultural disciplines that relate to their resource.

V. Suggested strategies for acquiring advanced resource knowledge.

A. Current Scholarship

1. Establish personal contact with researchers conducting the work.
 - a) Much critical natural resources research is produced by park natural resource divisions, the U.S. Geological Survey - Biological Resources Division, university scientists, state and federal agencies, and consulting firms. Many agencies now produce synopses of current research in hard copy or on the web as well as ways to contact researchers.
 - b) Park historians, university historians, state, produce much historical research and federal agencies, and consulting firms. Many historical journals are available on the web as well as ways to contact researchers.
 - c) Join professional organizations and attend conferences.
2. Read new publications as well as reviews of new publications. Professional journals provide the most up-to-date information.

B. Evolution of theories, interpretations, historiography (What we used to think, why we thought it, and why we think differently now.)

1. Read current publications and then read those publications' references.
2. Read publications that describe the evolution of a scientific or historic issue or idea and professional journals that feature bibliographic essays.
3. Contact scholars and specialists.

C. Personal resource immersion (See: Module 210: Prepare and Present an Effective Conducted Activity-Component Plan: [Resource Immersion](#))

D. Comparative Study

1. How does the subject matter compare with similar subjects in different geographic areas, conditions, time periods, interpretations, or theories?
2. How can the differences and similarities expand KR?

E. Unpublished sources-Most parks and researchers have unpublished research reports and records that may provide current and valuable information. Examples include: document, artifact, and historic photograph collections, memoranda, permit reports, Section 106 compliance records, resource management reports, field notes, and exhibit

plans.

F. Use local sources and specialists-for example, naturalists, clubs, historical societies, newspapers, and oral histories.

G. World Wide Web

1. The WWW provides access to a wide variety of libraries, archives, agencies, and perspectives.

2. The WWW requires skillful evaluation of sources. What is the intent of the website? Is it educational or does it primarily express opinion? Does it provide citations? How does the information and interpretation it provides relate to other information and interpretations?

VI. Sources for learning how to conduct full performance research.

A. Module 103: Preparing and Presenting an Effective Interpretive Talk-Component: [Interpretive Program Research](#)

B. Philosophy of Science and Research Methods-suggested readings in bibliography below)

C. Philosophy of History and Research Methods-suggested readings in bibliography below)

D. College Courses

E. Internet distance learning

VII. Professional disciplines: philosophies, methodologies, and assumptions

A. Why?

1. The philosophies, methodologies, and assumptions of science and history help interpreters:

a) analyze and evaluate sources and interpretations;

b) recognize that ambiguity and disagreement are intricate to both science and history and are essential to the evolution of knowledge and understanding;

c) recognize some of the reasons for ambiguity and disagreement regarding their own resource;

d) analyze, understand, and respond interpretively to multiple audience perspectives.

2. The National Park Service uses professional standards and academic methods for resource management and interpretive programming. However, full performance interpreters should go well beyond the strict methodology of these professions in order to facilitate the connection of resource meanings to audience interests. Personal anecdotes, recreational activities, appeals to beauty, stories, oral tradition, belief, empathy, and memory are examples of appropriate interpretive tools that cannot be classified as professional science or history.

B. Science - "Science...is the organized, systematic enterprise that gathers knowledge about the world and condenses the knowledge into testable laws and principles."-Edward O. Wilson (*Consilience: The Unity of Knowledge*, Alfred A. Knopf, New York, 1998. P. 53.)

1. Science gathers evidence to test explanations of what things are and how things work.

a) Science is more than observation, the recording of data, the increase of knowledge, and the development of technology. While all of these efforts and the fields that exercise them are important and valuable, they represent aspects of "professional," "pure," or "academic" science.

b) Science attempts to establish common understandings that explain the interactions of nature.

c) Science assumes nature is essentially orderly and that if objective and verifiable questions are asked, unified explanations, laws, schemes, models, or theories regarding nature are possible.

d) Questions that require subjective and/or emotional answers have no scientific meaning and are not in the realm of science.

e) The work of science is cumulative, builds upon itself, and progresses.

2. Science examines nature to answer specific questions. Much of the work of science is determining what the questions are.

3. Science attempts to gain objective answers to questions through tests and experiments.
 - a) Successful experiments produce measurable evidence.
 - b) Much of the difficult work of science is determining how an experiment may most effectively question the hypothesis.
 - c) Experiments, in order to be logical and scientifically meaningful, require the possibility of falsification or the conceivable possibility that the hypothesis can be disproved.
 - d) Experiments must be replicable in order for conclusions to be valid.
4. Science organizes conclusions into larger explanations.
 - a) Explanations generated by experiments are further tested and validated through efforts to establish their consistency and integration with other explanations.
 - b) The more a given explanation fits with other explanations and helps answer other questions the greater validity it attains.
 - c) The process of science is self-correcting.
 - (1) Some explanations gain validity as they are continually tested and evaluated against new explanations.
 - (2) Some explanations lose validity, are refined, or are replaced as they are continually tested and evaluated against new explanations.
 - d) Theories are the foundations of science. They are widely accepted hypotheses that have not been disproven.
 - (1) A scientific theory is more than a simple opinion as the common use of the word "theory" might suggest.
 - (2) Scientific theories elegantly and logically account for a comprehensive range of evidence and explanations and therefore contribute to a more general and fundamental scientific explanation.
 - (3) Scientific theories are challenged, refined and validated by competent critics over time. They are the most tested and accepted scientific explanations presently available.
 - (4) Scientific theories continue to be refined and adjusted to accommodate testing and logical analysis presented by new scientific explanations.
 - (5) Scientific theories are conceptual, not susceptible to direct experimental verification, and cannot be described as absolute truth as there is no external objective truth by which to measure them.
 - e) Scientists often disagree. This ambiguity helps drive efforts for greater understanding and more useful explanations.
5. Professional science generates publishable work that contributes explanations to the larger body of knowledge.
 - a) General process:
 - (1) identify problem
 - (2) background research
 - (3) Identify question and experiment or test
 - (4) conduct pilot study to evaluate data collection methods
 - (5) conduct full study (experiment or test)
 - (6) data analysis and interpretation
 - (7) conclusion
 - (8) write paper
 - (9) peer review
 - (10) final publication
 - (11) dissemination (additional peer review)
 - b) Sources for the interpreter
 - (1) Data generated by experiment or test
 - (2) Peer-reviewed scientific journals with wide distribution
 - (3) Review articles that synthesize the conclusions of primary sources
 - (4) Technical reports, dissertations, final funding reports, permit reports, and other types of unpublished "gray literature"
 - (5) Proceedings and Abstracts-usually not widely distributed
 - (6) Textbooks
 - (7) WWW journals and sites-some are peer reviewed, some are not.
 - (8) Popular -*National Geographic*, *Scientific America*, *Nature*, etc.
 - c) Ethics-Professional scientists use appropriate citations and provide full credit for any contributions.
6. Related fields
 - a) NPS Natural Resource Management-Uses scientific conclusions and techniques to protect and restore natural

systems. Natural resource management may also generate and/or participate in scientific study.

(1) Activities

- (a) Park-based work that surveys, identifies, maps, monitors, and evaluates resource conditions, processes, and species.
- (b) Concerned with subjects like endangered species, non-native species, water and air quality, environmental stewardship, natural systems, legal compliance, and planning.
- (c) Based on scientific conclusions and techniques; plans and executes efforts to manage consumptive uses, preserve, and restore resources.
- (d) Works with adjacent landowners and land-managers.
- (e) Shares scientific knowledge with larger community.

(2) Sources

- (a) Relevant published and unpublished scientific materials
- (b) Park documents
- (c) Resource management journals
- (d) Inventory and monitoring data

b) Natural History-Knowledge is derived from a variety of sources, scientific, popular, and philosophical, but is largely gained through observation and personal experience. A skilled scientist might also be a naturalist, however a skilled naturalist is not necessarily a scientist.

(1) Activities

- (a) Field based
- (b) Relies on resource immersion
- (c) Can be informal or academic
- (d) Closely related to inventory
- (e) Concerned with observation, identification, behavior, and habitat use

(2) Sources

- (a) Relevant published and unpublished scientific materials
- (b) Field guides
- (c) Species lists
- (d) Philosophy-for example Rachel Carson, Aldo Leopold, John Muir, Carolyn Merchant, Jared Diamond

C. History-"A historian is someone (anyone) who asks an open-ended question about past events and answers it with selected facts which are arranged in the form of an explanatory paradigm."-David Hackett Fischer (*Historian's Fallacies: Toward a Logic of Historical Thought*, Harper Colophon Books, New York, 1979, xv).

1. History gathers evidence that describes and explains the past.

a) History is more than information, artifacts, primary sources, or a chronicle of events about the past. While each of these and the fields that specialize in them are valuable, they represent aspects of "professional," "pure," or "academic" history.

b) History constructs explanations or interpretations about the actions, ideas, and relationships of people in the past as well as the effects of events.

c) History strives for accurate explanations of actual events but recognizes that explanations are relative and "always changing in response to the increase or refinement of knowledge." (Carl L. Becker, "Everyman His Own Historian," *American Historical Review*, XXXVII (January, 1932), 221.)

d) History assumes it is possible to accumulate understanding of the past, convey understanding of the past, and provoke additional pursuit of answers to questions about the past. Some historians assume this knowledge can clarify choices and provide insight for the present and future.

e) History assumes that it will never be possible to know everything about the past.

f) The process of history often creates new questions and the need for additional explanations.

2. History selects evidence to develop explanations of the past.

a) History does not attempt to capture the entire past or the entirety of any of its parts-this would be an infinite and impossible task.

b) History asks questions about the past, considers relevant evidence, selects and analyzes evidence, crafts explanations and interpretations, and conveys those explanations and interpretations.

c) Selecting evidence for its authenticity, reliability, accuracy, credibility, relevance, usefulness, and comprehensive nature is one of the primary challenges of history.

d) Sources of evidence, perspectives on evidence, and methods for evaluating and measuring evidence has broadened significantly since the 1960s.

e) The selection process depends on the judgements, interests, and abilities of the historian.

3. Historical explanations and interpretations are evaluated by:

a) The presence or absence of comprehensive evidence;

b) The presence or absence of logic and reason;

c) The presence or absence of bias;

d) The context of related historical explanations;

e) Their ability to persuade the community of historians.

4. Historical explanations and interpretations are intrinsically related to the interests, judgements, and abilities of the historians crafting them and the times and societies in which they live.

a) Historical explanations and interpretations reflect what is deemed to be important in the present.

b) Historical explanations and interpretations are constantly changing.

(1) Present issues create new questions that require the adjustment of other explanations and interpretations.

(2) New evidence, as well as newly applied analytical tools, requires the adjustment of other explanations and interpretations.

c) New explanations are "revisionist" of previous explanations and thus almost all historical explanations are revisionist.

d) The profession of history no longer strives to establish consensus or definitive interpretations of history. Rather, the profession views historical explanation as part of an evolving process of understanding and as reflective of the time.

5. Each historical explanation or interpretation has some value.

a) Each explanation or interpretation tells something about the historian/perspective/time that crafted it and how the past can be viewed.

b) History might then be said to give us a series of different but not incompatible portraits of the past, each reflecting it from a different view." (Walsh, W.H. *An Introduction to Philosophy of History*, Hutchinson University Library, London, 1958, 20.)

6. Professional history generates publishable work to broaden the public's understanding of the development of American culture.

a) General process

(1) Formulate question

(2) Identify sources

(3) Gather evidence

(4) Analyze and interpret evidence

(5) Explanation, interpretation, or conclusion (usually involves peer review)

(6) Generate, for example, exhibit, program, film, presentation, paper, article, book (additional peer review)

b) Sources

(1) Primary sources (direct evidence)-for example, diaries, letters, public records as well as material culture, buildings, and oral histories.

(2) Secondary sources

(a) Peer reviewed historic journals with wide dissemination

(b) Review articles that describe and synthesize other explanations

(c) Dissertations, compliance reports, funding reports, NPS cultural landscape reports, NPS historic resource studies, and other types of "gray literature"

(d) Proceedings and abstracts-usually not widely distributed

(e) Textbooks

(f) WWW journals and sites-some are peer reviewed, some are not

(g) Popular-*American Heritage*, *Civil War Times Illustrated*, etc.

c) Ethics--Professional historians use appropriate citations and provide full credit for any contributions.

7. Related fields

a) Cultural or Historic Resources Management-Uses historical information and explanations along with technology to preserve, maintain, and encourage the use of historic places, documents, and artifacts. Cultural or historic resource management may also generate and/or participate in historic research and publication.

(1) Activities

- (a) Identifies, monitors, records, and evaluates resource conditions.
- (b) Works with diversity of cultural resources, exhibits, personal service interpretation, cultural landscapes, archives, tribes, museum curation, legal compliance, archeology, ethnography, architecture, document and artifact conservation, and planning.
- (c) Plans and executes efforts to preserve and restore historic resources.
- (d) Works with adjacent landowners and land managers.
- (e) Shares resource knowledge with larger community.

(2) Sources

- (a) Relevant published and unpublished historical materials
- (b) Site documents
- (c) Cultural or historical resource management journals
- (d) Inventory and monitoring data
- (e) Archival collections-oral histories, photographs, etc
- (f) Living participants

b) "Collectors of Antiquities"-Primarily concerned with the preservation, description, rarity, and documentation of specific types of historic information or tangible historic resources. Antiquarians have great knowledge of specific aspects of history and/or material culture. A historian, one who is interested in the explanations of the past, might also be a collector of antiquities; however, a collector of antiquities is not necessarily a historian.

(1) Activities

- (a) Personal contact with historic information, locations, and artifacts
- (b) Chronicles or "captures" specific parts of the past
- (c) Often interacts with tangible resource taken out of historic context
- (d) Relies on personal experience and experience of other collectors
- (e) Can be informal or academic
- (f) Concerned with identification and provenance

(2) Sources

- (a) Relevant published and unpublished historical materials
- (b) Written accounts of other chroniclers
- (c) Collectors guides
- (d) Auction catalogs and price lists

VIII. Evaluating Conclusions

A. Question sources-All conclusions and interpreted material should be considered with healthy skepticism.

1. What question(s) does the researcher ask?
2. What hypothesis, thesis, explanation, or interpretation is being presented?
3. What methodology is being used?
4. Is the evidence accurate, credible, relevant, authentic, and comprehensive?
5. Are the conclusions reliable, verifiable, repeatable, and comprehensive?
6. How does the view presented fit with or challenge predominantly accepted theory and explanation?

B. Recognize change-A full performance interpreter recognizes that scientific and historical explanations change as technology, analysis, methodology, and culture evolves. A full performance interpreter must be familiar with:

1. the evolution of perspectives about a given topic;
2. competing and conflicting perspectives about a given topic.

C. Identify bias-Culture, experience, interpretation, funding sources, ideologies, and underlying agendas of authors influence research.

1. Identify the purpose of the author(s) and sponsor(s).
 - a) Is there a profit motive?
 - b) Is there an ideological motive?
 - c) Is there a long-standing "official" position that the research might support or challenge? Is there a liability motive?
 - d) Is there a special interest involved?

e) Have paid experts been used?

2. Check with other subject matter experts to understand what biases may be present.

D. Identify methodologies used-Different methods of investigation and schools of interpretation and analysis may lead researchers to different conclusions about the same topic.

E. Identify uncertainties-Incomplete information or data can result in differing conclusions.

F. Identify base assumptions-Investigations of the same subject based on differing assumptions can result in differing conclusions.

RESOURCES

Philosophy of Science and Research Methods

Publications

Gould, Stephen J. Any titles by this author.

Hans, Huth. *Nature and the American: Three Centuries of Changing Attitudes*. Lincoln, NE: University of Nebraska Press, 1990.

Hempel, Carl. *Philosophy of Natural Science*. Prentice Hall, 1966.

Holden, G. *Science and Anti-Science*. Cambridge, MA: Harvard University Press, 1993.

Kuhn, T.S. *The Structure of Scientific Revolutions*, 2nd Edition. International Encyclopedia of Unified Science, Volume 2 Number 2. Chicago: University of Chicago Press, 1970.

Mantell, Michael A. Ed. *Managing National Park System Resources: A Handbook on Legal Duties, Opportunities, and Tools*, The Conservation Foundation, Washington DC 1990

National Academy of Sciences Press. "Teaching about Evolution and the Nature of Science". 1998

National Park Service, "Natural History in the National Park System and on the National Registry of Natural Landmarks," Natural Resource Report NPS NR NRTR-90 03, 1990.

Popper, K.R. *The Logic of Scientific Discovery*. New York: Harper Torchbooks, Harper and Row, 1968.

Mayr, Ernst. Any titles by this author.

Shamos, Morris H. *The Myth of Scientific Literacy*. New Brunswick, New Jersey: Rutgers University Press, 1995. See Chapter 3, "The Nature of Science."

Thomas, Lewis. Any titles by this author.

Wilson, Edward O. *Consilience: The Unity of Knowledge*. New York: Alfred A. Knopf, 1998.

The Diversity of Life. New York: W.W. Norton, 1999.

Wright, R. Gerald. *Wildlife Research and Management in the National Parks*. Urbana and Chicago: University of

Illinois Press, 1992.

Philosophy of History and Research Methods

Entry Level

Anderson, Frank Maloy. *The Mystery of "A Public Man": A Historical Detective Story*. Minneapolis: University of Minnesota Press, 1948.

Barzun, Jacques, and Henry F. Graff. *The Modern Researcher*. 5th Edition. Boston: Houghton Mifflin Company, 1992.

Davidson, James West, and Mark Hamilton Lytle. *After the Fact: The Art of Historical Detection* 4th edition New York MCGraw-Hill, 1999.

Kammen, Carol. *On Doing Local History: Reflections on What Local Historians Do, Why and What it Means*. Nashville: Association for State and Local History, 1996.

Strunk, William and E.B. White. *The Elements of Style*. 4th edition New York: Prentice -Hall, 1999.

Tuchman, Barbara. *Practicing History*. New York: Random House, 1982

Full Performance Level

"A Round Table: What Has Changed and Not Changed in American Historical Practice?" *The Journal of American History*, 76 (September 1989).

Appleby, Joyce, Lynn Hunt, and Margaret Jacob. *Telling the Truth About History*. New York, W.W. Norton & Company, 1994.

Beasley, David R. *How to Use a Research Library*. New York: Oxford University Press, 1988.

Collins, Donald E., Dianne B. Catlett, and Bobbie L. Collins. *Libraries and Research: A Practical Approach*. 2nd Edition. Dubuque, Iowa: Kendall/Hunt, 1990.

Fischer, David Hackett. *Historians' Fallacies: Toward a Logic of Historical Thought*. New York: Harper and Row Publishers, 1970.

Hockett, Homer Carey. *The Critical Method in Historical Research and Writing*. New York: The Macmillan Company, 1955.

Kyvig, David E., and Myron A. Marty. *Nearby History: Exploring the Past Around You*. Nashville: American Association for State and Local History, 1982.

Mann, Thomas. *A Guide to Library Research Methods*. New York, Oxford University Press, 1987.

Mauch, James E., and Jack W. Birch. *Guide to the Successful Thesis and Dissertation: Conception to Publication: A Guide for Students and Faculty*. 2nd Edition, New York: M. Dekker , 1989.

Nevins, Allan. *The Gateway to History*. Chicago: Quadrangle Books, 1962. (First published in 1938)

Poulten, Helen J. *The Historian's Handbook: A Descriptive Guide to Reference Works*. Norman, University of Oklahoma Press, 1972.

Rundell, Walter, Jr. *In Pursuit of American History: Research and Training in the United States*. Norman: University of Oklahoma Press, 1970.

The Chicago Manual of Style, 14th ed., Chicago, 1993.

"The Practice of American History: A Special Issue." *The Journal of American History* , 81 (December 1994).

Advanced Level

Kammen, Michael. *In the Past Lane: Historical Perspectives on American Culture*. New York, Oxford University Press, 1997.

Selvages & Biases: The Fabric of History in American Culture. Ithaca: Cornell University Press, 1987.

Ed. *The Past Before Us: Contemporary Historical Writing in the United States*. Ithaca, Cornell University Press, 1982.

Levine, Lawrence W. *The Opening of the American Mind: Canons, Culture, and History*. Boston: Beacon Press, 1996.

Novick, Peter. *That Noble Dream: The "Objectivity Question" and the American Historical Profession*. New York: Cambridge University Press, 1988.

Other History Sources

Archibald, Robert. *A Place to Remember, Using History to Build Community*. American Association for State and Local History, 1999.

Becker, Carl L. "Everyman His Own Historian," *American Historical Review*, XXXVII (January, 1932), p. 221.

Bloch, Marc. *The Historians Craft*. New York: Vintage, 1953.

Carr, Edward H. *What is History?* New York: Vintage, 1961.

Carson, Barbara G. and Cary. "Interpreting the Historic Scene" (correspondence course). National Park Service and American Association for State and Local History. (Currently out of circulation. May be referenced through the Training Manager, Interpretation)

Handlin, Oscar. *Truth in History*. Cambridge:Harvard University Press, 1979.

Linenthal, Edward. *History Wars: The Enola Gay and Other Battles for the American Past*. New York: Henry Holt and Company, 1996.

Loewen, James W. *Lies Across America: What Our Historic Sites Get Wrong*. New York: The New Press, 1999

Lies My Teacher Told Me: Everything Your American History Textbook Got Wrong. New York: The New Press, 1995.

Walsh, W.H. *An Introduction to Philosophy of History*. Hutchinson University Library: London, 1958.

Wright, Langdon G. "Historical Research" (Correspondence course). National Park Service and American Association for State and Local History (Currently out of circulation. Contact Training Manager).

Dissertations- Dissertation Abstracts International
University Microfilms International
300 North Zeeb Road
Ann Arbor, Michigan 48106-1346
313-761-4700
1-800-521-3042

Ethics-Karamaski, Theodore J., ed. *Ethics and Public History: An Anthology*. Malabar, Florida: Robert E. Krieger Publishing Company, 1990.

Historiography-Major Problems in American History Series, Boston, New York: Houghton Mifflin Company

National History Standards (1996)-National Center for History in the Schools
University of California, Los Angeles
1100 Glendon Avenue, Suite 927
Box 951588
Los Angeles, CA 90095-1588

Thematic Framework-[The National Park Service's Thematic Framework](#)

Websites

[American Association for State and Local History](#)

[The National Council on Public History](#)

[Organization of American Historians](#)

Suggested Developmental Activities

1. Conduct advanced research relevant to your resource using source material unfamiliar to you. Use a source listed in the "Resources" section to learn how to conduct your research. Share your findings with your supervisor and colleagues.
2. Go back to a program or product that you previously made and create a bibliography that documents the information you used.
3. Select a variety of research sources often used in your resource. Evaluate each of these in terms of the philosophies, methodologies, and assumptions of the professional discipline most relevant to your site. What does your analysis tell you about how and why different people view and interpret your resource in different ways? How have these interpretations emerged at your site
4. Evaluate one or several of your resource's exhibits. How does the exhibit demonstrate the professional discipline of science or history? How does the exhibit reflect the perspectives of its creators? How does it reflect the time it was created? Have new sources or perspectives provided new insight to its interpretations? How might the exhibit be different if it were produced now?
5. Evaluate interpretive products at museums, nature centers, other federal agencies. Compare and contrast with NPS. Is their KR providing opportunities for emotional and intellectual connections to the meanings and significance of the resource? Is their KR accurate?
6. Research the historiography or evolution of perceptions and interpretations of your site. How have perceptions of the resources meanings changed over time and what caused those changes? How has interpretation responded?

Last update: January, 2001

<http://www.nps.gov/idp/interp/340/Kr.htm>

Editor: [NPS Training Manager for Interpretation, Education, and Cooperating Associations](#)

Component for Module 340

Advanced KR and Resource Liaison

PURPOSE

This component articulates the value of close coordination with resource management. The component provides tools for establishing mutual understanding and effective coordination between the two functions.

OBJECTIVES

At the completion of this component the learner will be able to:

- Articulate the shared mission of resource management and interpretation;
- Identify strategies by which interpretation can coordinate work with resource management;
- Access information generated by and work with resource managers and other subject matter experts.

APPROACH

The content of this component is intended primarily for NPS interpreters.

Many who do resource management work have the title, resource manager-others do not. Resource management can be described as any work directed at the preservation and conservation of the tangible resource. Scientists, historians, curators, maintenance, law enforcement, and interpreters often play a resource management role.

The goals and objectives of both resource management and interpretation are more fully realized when there is a cooperative relationship between the two. When the disciplines understand each other and work together preservation and protection can be synthesized and the effectiveness of each profession compounded.

Interpreters and resource managers generally share an immediate experience in and love for the resource. Both also function to protect the resource. Resource management does much of the work that cares for the resource while interpretation facilitates audiences' care about the resource. The degree to which the public cares about the resource determines the success of and level of support for efforts to care for the resource.

Resource Liaison occurs on both the division as well as the individual level. Successful coordination between the functions requires mutual understanding of mission, expertise, and professionalism.

CONTENT OUTLINE

I. Description of resource liaison.

A. Resource liaison is a role interpreters assume in relation to resource managers and other subject matter experts with the objective of effectively protecting the resource through the coordinated efforts and combined abilities of both interpretation and resource management. (Note: for this component, the words "resource management" will signify work with natural as well as cultural and historical resources.)

B. All full performance interpreters understand and function in this role.

II. Why resource liaison.

A. The effectiveness of both resource management and interpretation is enhanced by an ongoing cooperative relationship that shares interest in information and knowledge and all efforts that promote care about and care for the resource

B. All full performance interpreters should be aware of the most recent and accurate information and be able to use it appropriately and interpretively.

C. Resource management and interpretation bring complementary skills to a relationship that benefits both professions and, most important, the resource.

1. Resource management:

a) Provides expertise and access to accurate, in-depth, and current resource information.

(1) Resource managers are typically authorities on the history and current status of the resource.

(2) Resource managers are usually involved in the most current and ongoing resource projects.

(3) Resource managers' own experience is a valuable resource for information and insight.

(4) Resource managers can provide direction and guidance for finding additional research resources and access to researchers and scholars.

b) Provides access to rich interpretive resources. Audiences who observe the work and understand the process of ongoing research, preservation, or restoration projects are often better able to make intellectual and emotional connections to the meanings of the resource.

c) Provides accurate and in-depth understanding of critical resource issues.

(1) Current threats to the resource

(2) Potential threats to the resource

(3) Actual and potential actions to alleviate threats to the resource

d) Provides a check on efforts, programs, and activities initiated by management, interpretation, maintenance, and other divisions that may be inappropriate and affect the resource adversely. Resource management has a specific responsibility to maintain the resource's physical integrity and accurate story.

e) Recognizes and supports interpretive efforts that sustain both the preservation and audience enjoyment mission.

(1) For park management

(2) For the public

2. Interpretation:

a) Provides an awareness of audience needs, interests, motivation, and relevance.

b) Provokes audiences to care more about the resource so they may also come to care for the resource (i.e. not feeding wildlife, reporting found artifacts) and support resource management efforts that care for the resource.

c) Interprets critical resource issues to the public. (See Draft [Module: Interpreting Critical Resource Issues](#)).

(1) Elevates public awareness

(2) Articulates reasons for preservation actions in the context of respectfully presenting multiple points of view.

(3) Facilitates appropriate in-park and out-of-park behavior

d) Describes the work and value of resource management.

e) Recognizes and supports resource management efforts to sustain the preservation mission.

(1) For park management

(2) For the public

D. Mutual support and coordinated efforts between resource management and interpretation helps dissolve the often-perceived conflict between preservation and enjoyment missions.

1. Public support plays a vital role in preservation efforts.

a) Parks are created and managed as an expression of societal values.

b) Resource management actions are/can be controversial.

c) Understanding audience needs, interests, and relevance is critical for the support and the work of preservation and a key consideration for both interpretation and resource management.

2. Much of the public will support resource restrictions, or at least understand the reasons for such restrictions, if it is clear such restrictions will result in quality visitor experience and resource protection.

III. How to develop effective resource liaison.

A. Recognize common ground.

1. Resource managers and interpreters possess passion and care for resource.
2. Resource managers and interpreters often share similar significant life experiences.
 - a) Some type of resource immersion early and throughout life
 - b) Education background in relevant subject area
3. Resource managers and interpreters both serve a protection and an education function.
 - a) Resource management works to care for the resource and help others experience and connect intellectually and emotionally.
 - b) Interpretation facilitates experiences and connections to provoke care about the resource which is necessary for protection.

B. Establish common understandings

1. Respect and recognize resource managers areas of expertise. (Note: Likewise, resource managers can most effectively establish positive relationships with interpreters that benefit the resource by recognizing and respecting their areas of expertise.)
 - a) Whenever possible, interpreters should know something about the discipline and specific subject before they approach any specialist or expert.
 - (1) A resource manager's time is not well used by teaching individual interpreters very basic concepts.
 - (2) Preparation is a gesture of respect and recognition of professionalism.
 - (3) Prepare a list to generate discussion with the researcher as to what they would like to see interpretation do for further understanding and support of the research.
 - (4) Speaking the language and concepts relevant to the subject provides the most efficient communication and collaboration.
 - b) If they know little about a subject area, interpreters should feel free to approach resource managers and/or other interpreters for guidance on how they might learn more.
2. Provide resource managers with primary parkwide interpretive themes and demonstrate how those themes are designed to communicate resource significances and meanings.
3. Seek to attend appropriate resource management training and meetings and invite resource managers to attend appropriate interpretive training and meetings. The value of understanding both immediate issues and operations as well as building relationships should not be underestimated.
4. Invite resource managers to provide regular issue and foundational training to interpretive staffs. Offer to provide the same to resource managers.
5. Ask resource managers to participate in interpretive planning and interpretive media planning as active participants, not just reviewers.
6. Develop training that combines resource management and interpretation in both planning and presentation.
7. Invite resource managers to make regular briefings to interpretive staffs on resource management projects and issues. Offer to provide the same to resource managers.
8. Contribute to a resource management newsletter or generate a briefing report after learning about or experiencing a resource management project.
9. Request any resource management in-house or contracted reports include a common-language executive summary. Offer to:
 - a) Suggest what types of information would be most relevant to the audience;
 - b) Help write the section;
 - c) Write the section per the approved review of resource management.
10. Suggest and pursue details, job-swaps, and job-shadowing opportunities with resource managers.
11. Request reading lists and bibliographies dealing with relevant resource issues from resource managers. Offer to provide the same to resource managers.
12. Pursue opportunities to share projects and work with resource managers.
13. Become a specialist on a particular resource management issue. Share that expertise with other interpreters.
14. Offer to create interpretive products that educate staff and public audiences prior to the initiation of resource management projects.

C. Accomplish the work

1. Advocate-Regardless of the size of operation, budget, traditions, and personalities involved, advocate and look for opportunities to advance collaborative efforts between interpretation and resource management.
2. Planning and projects-All parks benefit by including both resource management and interpretation in any planning or project efforts.
 - a) Planning and implementation is most successful when expertise and perspective are respected and all participants and stakeholders are given a meaningful role.
 - b) Perspectives of both resource management and interpretation allow for a case-by-case decision making process in which both preservation and audience enjoyment may be achieved
 - (1) Solutions to preservation and interpretation issues are often difficult to find and differ widely from project to project. Policy directs the NPS to preserve first and only when the existing form of resource is inadequate for understanding is restoration and reconstruction considered. A cooperative and balanced relationship between resource management and interpretation is critical for the preservation of both the tangible resource and access to its intangible meanings.
 - (2) Interpretation must recognize that consultation with resource managers ensures interpretive activities, restorations, and products do not damage the resource and/or mislead the audience. Resource managers must recognize that consultation with interpreters can ensure that resource management efforts do not deny emotional and intellectual access and/or confuse the audience. The resource is best served when two professions use the expertise of the other to strengthen their own efforts.
 - c) Collaboration at both the planning and implementation level allows for respectful, clear, and persuasive:
 - (1) articulation of park actions, especially in the face of controversy. (See Draft [Module: Interpreting Critical Resource Issues and Controversy](#))
 - (2) efforts at ensuring public compliance regarding critical resource issues.
 - (3) interpretation of ongoing preservation work.
 - (a) The process of preservation and its activities provides opportunities for the audience to make emotional and intellectual connections with the meanings of the resource.
 - (b) Interpreting the process of preservation provides opportunities to build support for preservation decisions.

IV. What interpreters should know about how resource management has changed and ways it applies its professional disciplines.

A. Natural Resource Management in the NPS

1. Ecology-Natural resource management in the NPS has been heavily influenced by the development of the science of ecology.
 - a) The NPS attempts to manage the resource according to ecologically sound principles.
 - b) The NPS has changed its position on, among other things:
 - (1) The elimination of predators;
 - (2) The level of threat of exotic species;
 - (3) The stocking of non-native fish in park waters;
 - (4) Fire management.
 - (5) Wilderness Management
 - c) The knowledge and freedom to apply ecologically sound principles varies on a site-by-site basis.
2. Science-based decision making- The following are reasons the use of science for decision making is often described as incompletely implemented due to:
 - a) Preservation and restoration goals of a resource that sometimes conflict with research conclusions;
 - b) The perception that the public's primary concern is for "charismatic" mega-fauna, scenery, and not the more subtle and complex relationships of an ecosystem;
 - c) The resulting lack of funding and organizational commitment;
 - d) Lack of baseline information.
3. Scientific objectivity-Natural resource management in the NPS must continually balance its advocacy role as protector of the resource (an expression of values), with its use of science in an objective fashion.
 - a) Scientists may express suggested alternatives for management approaches that are based on values, but;
 - b) Scientists must "separate value-based recommendations from their factual, scientific analyses of alternative future scenarios." (Dennis, John G.. "National Park Service Management Policies for the National Park System." The George

Wright Forum, Volume 16, Number 3, 1999, 7-18.)

4. Sources-The following are especially valuable sources for interpreters seeking to understand natural resource management in the NPS.

- a) [Naturenet](#) -Provides current policy, issues, publications, descriptions of resource management projects and activities, and more.
- b) Park Science: Integrating Research and Resource Management-provides articles and case studies on research and resource management projects in the NPS.
- c) [The George Wright Forum](#)-Journal of the George Wright Society.
- d) Preserving Nature in the National Parks: a History, Richard West Sellers, Yale University Press, 1997-A landmark history on the use of science in National Park Service management. The book also includes valuable discussion of interpretation.

B. Cultural Resource Management in the NPS

1. Public desire for the "spectacular"-The NPS is effected both positively and negatively by the public's perceived desire for entertaining restoration.

a) When restorations are appropriate and accurately rendered, the public's understanding of and attachment to the resource is significantly enhanced.

b) Sometimes restorations destroy the subtle to reconstruct the spectacular and or misrepresent the past.

2. Social History-Cultural resource management in the NPS has been affected by the developments in the field of social history.

a) The NPS has increasingly devoted study and preservation efforts to resources that represent the stories of African Americans, woman, American Indians, workers, immigrants and other under-represented segments of society.

b) Congress (with the addition of sites like Manzanar National Historic Site and Brown v Board of Education National Historic Site), scholars, diverse audiences, constituents, and stakeholders have increasingly called on the NPS to tell different and sometimes conflicting stories. Many of these audiences have an intense desire to define their "truth" about a given event.

3. Public History-The work of NPS cultural resource management and interpretation at historic sites falls in the realm of public history. The work of public history often involves audiences' differing perspectives on the "truth" of a historic description, explanation, interpretation, restoration, or commemoration.

4. Study of collective memory-There is an increasing amount of scholarship devoted to understanding how and why societies and groups choose to remember and commemorate some elements of their pasts and not others. Cultural resource managers and interpreters can benefit from a greater understanding of:

a) Audiences' pre-conceptions of history. (See: "[Advanced Knowledge of Audience](#)" component section on prior perspectives on subject matter.)

b) How audiences evaluate and interpret the history presented to them.

5. Partnerships and outreach-The NPS has increasingly devoted assistance to states, nations, local organizations, and individuals that seek to preserve aspects of their own past.

6. Sources-The following are especially valuable sources for interpreters seeking to understand cultural resource management in the NPS.

a) Links to the Past-Website that provides current policy, issues, publications, descriptions of cultural resource management projects and activities, and more.

b) CRM Magazine-The flagship publication for cultural resource management programs that contains articles on the full range of cultural resources management and preservation topics.

RESOURCES

Articles

Consolo, Susan L. "Translating Scientific Information into Park Management at the Operational Level." *The George Wright Forum*. Volume 7, Number 1, 1990.

Dennis, John G. "National Park Service Management Policies for the the National Park System." *The George Wright Forum*, Volume 16, Number 2, 1999,

Books

Sellers, Richard West. *Preserving Nature in National Parks: A History*. New Haven and London, Yale University Press, 1997.

Kammen, Michael. *Mystic Chords of Memory*. Alfred A. Knopf, New York, 1991.

Loewen, James W. *Lies Across America: What our Historic Sites Get Wrong*. New York, London, Toronto, Sydney, Singapore, Simon and Schuster, 1999

Journals

[*CRM Magazine*](#)-National Park Service publication for cultural resource management programs.

[*The George Wright Forum*](#)-Journal of the George Wright Society.

[*Park Science*](#)-National Park Service publication.

[*The Journal of American History*](#)-Organization of American Historians

[*The Public Historian: A Journal of Public History*](#)-National Council on Public History

[*Journal of Interpretation Research*](#)-The National Association for Interpretation

Websites

[*Naturnet*](#) -National Park Service website provides current policy, issues, publications, descriptions of resource management projects and activities, and more.

[*Links to the Past*](#) -National Park Service website provides current policy, issues, publications, descriptions of resource management projects and activities, and more.

[*National Council on Public History*](#)

Suggested Developmental Activities (Additional suggestions welcomed!)

1. Select a current resource issue and describe complementary ways in which, under ideal circumstances, interpretation and resource management might address the issue. Get in depth to explore why there is often such controversy behind some resource management actions.
2. Prepare a case study or incident analysis on a resource issue from the past. What happened and why? Did resource management and interpretation work together? If they had, how might things have been different.
3. In consultation with your supervisor, implement one personal or divisional strategy for coordinating with resource management.
4. Study the process used for a restoration or preservation project and design ways in which the process might be used to provide opportunities for potential audiences to make intellectual and emotional connections to the meanings and significance of the resource.
5. Volunteer and work with resource management or an outside researcher on a research, restoration, or preservation project. Bring your experience and information back to interpretation.
6. In consultation with your supervisor, determine who within the park is involved in resource management and on

- what levels. Meet with them to discuss how resource issues are identified and work to develop a system where ideas are exchanged on a regular basis.
7. Create an in-park newsletter or email to keep others up to date on resource management and interpretation issues and projects.
 8. Create an audience-participation program (like pulling exotics or planting natives) to involve visitors in the real work of resource management.
 9. In consultation with your supervisor, help form an interdivisional team from maintenance, resource management, cultural resource management, interpretation, and law enforcement to create more effective and multifaceted solutions to issues.
 10. Create a publication/exhibit, etc., which explains an issue in depth and explains NPS response/policy/actions.
 11. Collaborate with a park resource manager or researcher to write an article for a local newspaper or your park's newspaper that interprets a current resource management or research project. Interview your collaborator about the project. Then brainstorm together a list of audience-relevant tangible-intangible links and universal concepts that relate to the project. Develop two or three possible themes from the ideas generated by this list. Write a draft of the article and have your collaborator review it and provide feedback. Continue working with your collaborator through the final draft of the article.
 12. Collaborate with someone in resource management to rework an outdated exhibit or publication.
 13. Evaluate existing non-personal services such as park based curriculum guides. Is it feasible to update materials with information on resource management projects for students/teachers?
 14. Ask a researcher or resource manager to review your interpretive program for accuracy and additional comments.
 15. Keep track of the resource management success stories at your park. Network with other interpretive rangers in your region to generate a newsletter/web site aimed at the general public.
 16. Include the following objective in your program outline: 60% of visitors will know the objectives of resource management in general or your specific topic (this objective is included in the Natural Resource Challenge).

Last update: March, 2001

<http://www.nps.gov/idp/interp/340/krri.htm>

Editor: [NPS Training Manager for Interpretation, Education, and Cooperating Associations](#)

Component for Module 340

Advanced Knowledge of the Audience (KA)

PURPOSE

Advanced KA connects audience interests and perspectives to resource meanings. This component provides tools for acquiring advanced KA as well as understanding of its interpretive value.

OBJECTIVES

At the completion of this component the learner will be able to:

- articulate ways in which advanced KA supports the interpreter's ability to facilitate opportunities for audiences to make intellectual and emotional connections to the meanings and significance inherent in the resource;
- apply advanced research and analytical skills to acquire advanced KA.

APPROACH

Advanced KA is used to identify ways the resource is relevant to given audiences.

Advanced KA helps connect audience interests and perspectives to resource meanings and appropriate interpretive techniques.

Audience research is not confined to formal social science studies. While full performance interpreters should understand and be able to participate in such studies, each interpreter has an ongoing responsibility to use personal research techniques to pursue advanced KA relevant to their resource.

CONTENT OUTLINE

I. Advanced KA-Why? See [Appropriate Techniques: Connecting Multiple Resource Meanings to Multiple Audience Interests and Perspectives](#) component plan for more on interpretive applications.

A. Advanced KA helps interpreters identify multiple audience interests and perspectives as well as ways the resource is relevant to distinct audiences.

B. Advanced KA helps interpreters meet audiences on their own terms.

1. The NPS employs methodologies, standards, and protocols of science and history to:

- a) make management decisions;
- b) be accurate;
- c) educate the public;
- d) provide data and analysis.

2. Audiences often ascribe the resource meanings that fall outside the strict realm of science and history.

3. While interpreters ground their work in science and history, they are obligated to respect and honestly and accurately recognize and use perspectives that go beyond those disciplines to facilitate connections between the meanings of resources and the interests of audiences.

C. Advanced KA helps interpreters use KR and resource meanings to tailor interpretive products to specific audiences. Full performance interpreters do not alter the facts from one audience to another; however, full performance interpreters do change interpretive approach and strategy in order to more effectively provide opportunities for distinct audiences to forge connections to the resource. Advanced KA helps interpreters modify presentations in progress based on a sense of audience reaction.

D. Advanced KA helps interpreters interpret multiple meanings, multiple points of view, critical resource issues, and

controversy.

E. Advanced KA provides essential elements for strategies of inclusion. [See Module 110: Visitor Needs and Characteristics, [Strategies of Inclusion](#) component].

F. Advanced KA provides essential elements for constituency building. [See Module 110: Visitor Needs and Characteristics, [Constituency Building](#) component].

II. Who is the audience?

A. On-site

1. "The people who come to the park and attend programs or encounter the Ranger in situations of seeking information display knowledge about parks in general and the park in particular ranging from complete ignorance to highly knowledgeable. They are casual visitors bent upon enjoying themselves on vacation; they are tour groups eager to learn about the park and its opportunities for enjoyable activities; they are officials of local or state governments or of other federal agencies; they are individual landowners or homeowners associations near the park who are upset about park policies; they are dignitaries of the U.S. or foreign governments; they are school children, school teachers, school administrators; they are college students, college professors, or other scholars; they are nationally and internationally recognized subject matter experts; they are advocates of causes and people just looking for fun and escape from their daily routines; they are writers or representatives of the media on assignments. They come to the park for widely varying reasons and with widely varying degrees of interest and involvement and willingness to receive the interpretive messages." (citation: National Park Service GS-0025-09 Park Ranger Interpretation Position Description, 14.)

2. Individuals

a) All who visit a resource are unique individuals.

b) Many individuals visit resources as parts of groups and are influenced by their social interaction, shared identity, and perspective of the group.

c) Individuals also visit resources apart from groups but are influenced by their identity with groups.

3. Groups-Can include, among others: friends, couples, families, clubs, schoolchildren, military, hobbyists, recreational users, ethnic, cultural, community, religious, professional, elderhostel, scouts, travel, and advocacy.

B. Off-site

1. Audiences who access resources via the classroom, internet, agency publications, cooperating association publications, private publications, or word of mouth are potentially even more diverse than those who visit a resource in person.

2. Audiences who never visit a resource are critical to its stewardship. Their level of care about the resource or the agency that is responsible for the resource ultimately affects care for the resource.

3. Off-site audiences may include audiences who are under-represented on-site. This provides opportunities for reaching under-represented audiences in an inclusive manner. [See Module 110: Visitor Needs and Characteristics, [Strategies of Inclusion](#) component and [Constituency Building](#) component plan.]

III. What the audience brings to the resource-See [Presenting an Effective Curriculum-based Program](#) Module 270 and Module 110 [Visitor Needs and Characteristics](#) for resources on culture, age, learning styles, and inclusion.

A. Subjective perspectives affect the way in which audiences perceive and interact with resources.

1. Age

2. Learning Styles

3. Experience-Direct or indirect (education, reading, film, etc.) exposure to similar types of resources, events, perspectives

4. Culture and/or country of origin

a) World view, traditions, assumptions, and understandings of family, friends, values, and community

b) History of inclusion or exclusion

5. Religion-May or may not embrace formally defined disciplines of science, history, and anthropology

6. Access-Physical, mental, and learning disabilities

7. Education

- a) Quantity of knowledge relevant to the resource
 - b) Perspective of knowledge relevant to the resource
8. Economic class-Access to experiences and/or education relevant to the resource
9. Mood-May or may not be receptive due to current personal circumstances
10. Social group-Mood and subjective perspectives of those who are sharing an experience with the resource

B. Motivation-

1. Audiences who desire to experience the resource seek something of value for themselves (See [Module 101 Tenets](#))
 - a) Some have personal understanding and meaning already realized, but desire exposure to the resource.
 - b) Many expect the resource to possess some meaning and relevance, but have varying degrees of understanding as to what those meanings and relevance might be.
2. Audiences represent a range of specific motivations
3. Visitors seek quality experiences (See Visitor Needs and Characteristics Module 110, [Quality Visitor Experiences](#) component.)

C. Prior perspectives on subject matter

1. Science

a) While most audiences have some appreciation for technology, many have little understanding of the process and workings of science. (Note: Much of the following discussion of audience perspectives on science comes from Shamos, Morris H. *The Myth of Scientific Literacy*, Rutgers University Press, New Brunswick, New Jersey, 1995. Chapter 3.)

(1) Science is often believed to be interesting, but too difficult and unrewarding to learn in detail.

(2) Most of the public is unaware of the process and work of formal science.

(3) Many are confused by the scientific meanings of words like:

(a) Evidence

(b) Theory

(c) Truth

(d) Hypothesis

(e) Scientific method

(f) Uncertainty

(4) Many have impressions of science generated by popular culture.

(a) Science as technology

(b) Science as entertainment

(c) Science as undermining tradition and values

(d) Science as progress

(e) Science as static and unchanging

(f) Science as the domain of "geeks" and outsiders

(g) Science as conspiracy

(h) Science as anti-religion

(5) Some of the public does understand the process and workings of science as well as hold scientific expertise in a given area(s).

b) Some audiences bring expectations to a given type of resource.

(1) Fossil, geology, volcanic sites, etc. might draw audiences with a more sophisticated knowledge of science as well as audiences with less scientific background who want to know more. These resources might also draw audiences with deeply held convictions regarding Creationism.

(2) Sites with primarily recreational opportunities might draw audiences with less interest in learning about science, even if they have a sophisticated knowledge.

2. History

a) While most audiences have some appreciation for the past, many lack an understanding of the profession of history.

b) Audiences often have their own interpretations and descriptions of historic "truth." (Note: Much of the following is taken from Glassberg, David. "Presenting History to the Public: The Study of Memory and the Uses of the Past," CRM, Volume 21, Number 11, 1998, Understanding the Past, 4-8.)

(1) Differing perspectives on history and memory speak, often unconsciously and as "the" truth, to the ideals, self-

image, and identity of groups. The interpreted and "inherited" history of an event or resource can:

- (a) articulate political ideology;
- (b) define the boundaries of group identity as well as hold the group together;
- (c) can represent the struggle of oppressed and oppressor.

(2) The public has perceptions of history generated by popular culture:

- (a) Film/TV
- (b) Re-enactment
- (c) Commemoration
- (d) Pageantry
- (e) Documentary
- (f) Popular press
- (g) Educational systems

(3) An individual's perspectives and perceptions of history can be influenced by any of the subjective perspectives listed above.

c) Some audiences bring expectations to a given type of resource.

(1) Memorials, monuments, battlefields, might draw audiences with very specific expectations about commemoration, behavior, and veneration.

(2) Historic homes and re-creations might draw audiences with specific interests in knowledge of material culture.

(3) Many audiences may expect a sense of nostalgia based on their personal past experiences, ancestral experiences or other sources of personal identification with the resource and/or its stories.

IV. How to research KA.

A. Consider

1. The general does not equal the specific

a) All audience research, ranging from formal social science and organized studies to informal, personal, and anecdotal, provides data and information about groups of people.

b) KA does not equal knowledge of the individual visitor.

c) Individual visitors are always an exception to generalizations as each visitor represents subjective influences, variables, and nuances that do not conform to generalizations.

2. Personal bias-Identify personal bias to effectively conduct audience research. (See [Identifying and Removing Bias from Interpretive and Education Programs](#), Module 201).

3. Organizing responses-While participating in organized studies, having informal conversations with audience members, or doing secondary research, identify and record how audience members might or did:

a) ascribe meaning to the resource;

b) express interest in the resource;

c) identify their own emotional and intellectual connections to the resource.

B. Social Science and organized studies

1. [NPS Social Science Program](#)

a) Mission

(1) "An accurate understanding of the relationship between people and parks is critical to both protecting resources unimpaired and providing for public enjoyment. The social sciences-those sciences that explore the human condition-are valued disciplines in the scientific repertoire needed by the NPS."

(2) "The objectives of the NPS social science program are to conduct and promote state-of-the-art social science related to the mission of the National Park Service, and deliver usable knowledge to NPS managers and the public."

b) Products and Programs

(1) The Social Science Research Review Series includes papers that focus on issues critical to the management of the National Park System. The purpose of each review is to provide the basis for scientific understanding of the issue. Experts are commissioned to write the review papers, and each paper is peer-reviewed. (Note: Hard copies are available from the Social Program Office (202) 208-6330)

(2) The Visitor Services Project has conducted over 120 visitor studies in units of the National Park System. The primary purpose of these studies has been to provide park managers with accurate information about visitors-who they

are, what they do, their needs and opinions. For a list and access to completed studies see the Social Science website. (3) Focus Groups: A Tool for Evaluating Interpretive Services, A National Park Service training package, Cooperative Park Studies Unit, University of Idaho, National Park Foundation. This is an effective training package and should be consulted when designing formal visitor research projects. It was written before the Paperwork Reduction Act of 1995 (PRA) was passed. The PRA requires that all information collections from the public in which "identical questions" are asked of "10 or more persons" must be approved by the Office of Management and Budget (OMB). Focus groups, if they are composed of ten or more visitors, now fall under the scope of the PRA.

The NPS Social Science Program provides technical assistance for those wishing to design visitor research projects and it oversees the OMB approval process for all NPS-funded or sponsored visitor studies. Questions regarding the OMB approval process should be directed to the Visiting Chief Social Scientist via the [NPS Social Science Program](#).

- (a) This pre-approved (by the Office of Management and Budget) training package establishes procedures by which individual NPS sites may conduct focus groups with 9 individual visitors or less.
- (b) The package makes valuable qualitative visitor study inexpensive and easy to conduct.
- (c) Any full-performance ranger, with the cooperation of park management, should be able to conduct research using this approach.
- (d) This package was distributed to all NPS units in 1992. Access a copy within the resource or contact the regional or support office.

2. Universities and other partners

- a) Local colleges and universities often provide opportunities for conducting formal audience studies.
- b) The NPS Social Science Program offer access to a variety of potential social science partners.
- c) When developing any new formal audience study (other than one based on the Focus Groups: A Tool for Evaluating Interpretive Services), contact the Visiting Chief Social Scientist via the NPS Social Science Webpage for Office of Management and Budget approval. The NPS Social Science Program provides technical assistance for those wishing to design visitor research projects and it oversees the OMB approval process for all NPS-funded or sponsored visitor studies. Questions regarding the OMB approval process should be directed to the Visiting Chief Social Scientist via the NPS Social Science Program website.

The regular OMB approval process takes approximately 6 months, including two separate public comment periods. The NPS Social Science Program has received OMB approval for a program of visitor surveys in which the public is asked questions within the scope of pre-approved topic areas dealing with visitors and visitor experiences. This Expedited Approval process takes a minimum of 45 days and applies to studies of park visitors only. Any NPS-funded or sponsored research which collects information from members of the public who are not park visitors falls within the scope of the regular OMB approval process. Anyone proposing to conduct research which involves individuals who are not park visitors should contact the NPS Social Science Program for technical assistance. Samples of Federal Register notices, survey instruments and submissions for approval are available.

The document, Expedited Approval for Visitor Surveys: Guidelines and Approval Form, was published by the NPS Social Science Program in October 1999. It outlines the process by which one submits a visitor survey for review and expedited approval by the NPS Social Science Program and OMB. The Principal Investigator (PI) of any proposed visitor study (who could be an NPS staff person, university researcher through a Cooperative Park Studies Unit, Cooperative Ecosystem Studies Unit, or others) must submit their approval form and proposed survey instrument to the NPS Social Science Program a minimum of 45 days before the first day they intend to administer their survey in the field. Electronic copies of this document are available on the NPS Social Science website.

3. Sources-the [NPS Social Science](#) webpage contains both NPS specific and outside social science resources and research.

C. Personal research-direct contact with audiences

1. Observation of and conversation with audiences

- a) an ongoing and critical task
- b) not scientific but of enormous value
- c) helps an interpreter become familiar with a wide range of audience characteristics, perspectives, and meanings ascribed to the resource

2. While general information does not directly equate to individual audience members, the more an interpreter knows about audience characteristics, perspectives, and the meanings audiences ascribe to the resource the better an interpreter is able to recognize audience characteristics and meanings as they are revealed by individuals.

3. Post-presentation, observation, and conversation evaluation

a) Much valuable identification and understanding of audience characteristics comes "after the fact" or post encounter.

b) Newly encountered characteristics should be researched.

(a) Categorize observations and conversations into potential resource meanings, audience interests, and connections

[See Tangible/Intangible/Universal [Worksheets](#)]

(b) Apply increased KA to later encounters.

4. Observe audiences

a) Respect audience privacy

(1) Do not follow audience members

(2) Do not eavesdrop

b) Observe what types of groups are attracted to specific resources and activities

5. Talk to audiences-probably the most important ongoing research a full performance interpreter can do.

a) When possible, talk to audiences who don't like the interpretive services offered-their criticism can lead to better understanding of what people of their group want and need.

b) Do not force yourself on audiences or pry, but when there are opportunities for relaxed conversation with audiences, ask questions like:

(1) What does this place mean to you?

(2) What did you think about when you encountered a given resource?

(3) If you were a ranger, what would you want visitors to understand or care about?

(4) What should your kids know about this place and why?

(5) What made you decide to visit this place?

(6) Has your experience been what you expected?

(7) What did you know about this place before you came here?

(8) What does it feel like or what does it mean to you when you do a given recreational activity?

6. Talk to stakeholders-groups with a special or specific interest in the resource.

a) If possible, seek out leaders, elders or other respected members of groups.

b) Be aware of the official relationship between a given group and management.

(1) Do not interfere with an official relationship

(2) Be clear and accurate about what you can and cannot speak to

(3) Understand you are always an ambassador for the resource and the agency

c) Know enough about the group to, if appropriate, ask the right questions, show respect, and display courtesy.

d) Ask similar questions to those in 3 of this section

e) If possible, ask stakeholders to make presentations to resource staff and fellow interpreters.

D. Personal research-Secondary sources

1. Demographics

a) Know the demographics of audiences interacting with their resource.

(1) Have any demographic studies been completed?

(a) Are they comprehensive?

(b) Are they current?

(2) If necessary, a full performance interpreter should advocate for such study.

(3) At the very least, observe, talk with others, and make educated guesses about the demographics of audiences interacting with the resource.

b) Know the demographics of communities in the areas affecting the resource as well as regional and national trends and priorities.

c) Resource-specific demographic data is a critical starting point for researching KA.

(1) Research all types of audiences captured by demographic data.

(2) Strategize their sequence of research:

(a) Which group(s) are impacting the resource the most?

(b) Which group(s) are least understood?

- (c) Which group(s) are least represented and why?
- (d) What are the management goals of the resource?
- (3) Consider ways in which different group characteristics overlap in the same individuals. For example, a resource that has a significant visitation of senior women with college educations requires understanding group characteristics of seniors, women, as well as of those with higher levels of education.

d) Demographic Sources

- (1) Sources already available at the resource.
- (2) U.S. census materials-Use the World Wide Web to access census records and demographic analysis. These sources are numerous and can be found through entering "U.S. Census" on any search engine.
- (3) Local chambers of commerce and visitor information bureaus; state divisions of tourism; international visitor information from the NPS WASO Office of International Affairs; international visitor information from the U.S. Commerce Department

2. Questions for investigation

- a) What is the culture of a given group?
- b) What is the history of a given group?
- c) What are the issues of a given group?
- d) What are the customs and traditions of a given group?
- e) What is relationship to the resource of a given group?
- f) What is the motivation for interacting with the resource of a given group?
- g) What are the physical needs of a given group?
- h) What gestures of respect would be meaningful to a given group?
- i) What is common ground between one or more given groups?
- j) What are the differences between given groups?
- k) Does a given group have a specific jargon or technical vocabulary that can be shared or avoided?
- l) What is relevant Kr for a given group?
- m) What are appropriate interpretive techniques for a given group?

3. Sources

- a) Read a variety of sources:
 - (1) Sources intended to describe a group's characteristics (studies, educational sources)
 - (2) Sources that express group characteristics (usually authored by group members that convey group interests, values, culture)
 - (3) Sources that conflict and disagree (they are often indicative of either differences within a group or mistaken or unfair generalizations placed upon a group).
- b) Books, journals, educational materials, magazines, etc., can provide a great deal of information about general and specific group characteristics.
- c) The World Wide Web is likely the easiest, quickest, and cheapest way to learn about audience groups. The Web provides fast access to thousands of sites-many that describe culture and group characteristics and many authored by group members that demonstrate group characteristics. Like all sources, web sources need to be critically evaluated.
- d) Talk with experts and access oral histories.
 - (1) Group representatives, sociologists, ethnographers, people of that culture
 - (2) Know enough to know what questions to ask and not to ask

E. Research conclusions

- 1. Record impressions and conclusions.
- 2. Continually measure personal conclusions against new research and data.
 - a) Demographics change
 - b) Groups change
 - c) Understandings of groups change
- 3. Share and check conclusions with the conclusions of others.
- 4. Avoid stereotyping and definitive characterizations of individuals and groups.
- 5. Recognize the inherent limitations of all research methods.

RESOURCES

Curriculum

[*Module 110: Visitor Needs and Characteristics*](#)

[*Module 201: Identifying and Removing Bias from Interpretive and Educational Programming*](#)

Interpretation and Inclusion Newsletter - Constantine J. Dillon

[Issue 1](#): Definitions of diversity and importance to interpretation.

[Issue 2](#): Changing visitor profile

[Issue 3](#): Value of formal study

[Issue 4](#): "History, Inclusivity, and Responsibility" Douglas E. Evelyn

[Issue 5](#): "Tree of Life" activity

[Issue 6](#): Demographics

[Issue 7](#): Landscape and gender

[Issue 8](#): Resources for dealing with diverse visitors

[Issue 9](#): "Re-examining a Metaphor for America: An Argument for Work Force Diversity in the National Park Service"
Dennis A. Vasquez

[Issue 10](#): "Gestures: A Non-Universal Language"

[Issue 11](#): "Do the Right Thing: Inclusion in Interpretation" Bill Gwaltney

[Issue 12](#): Cultural diversity

Publications

Glassburg, David. "Presenting History to the Public: The Study of Memory and Uses of the Past." *Cultural Resource Management*. Volume 21, Number 11, 1998

Goldman, Theresa L., Chen, W. Jasmine, Larsen, David L. Clicking the Icon: Exploring the Meanings Visitors Attached to Three National Capital Memorials. *Journal of Interpretation Research*. Volume 6, Number 1, 2001. [Part I](#) (1,295k) [Part II](#) (998k)

Katz, Judith H., *White Awareness: Handbook for Anti-Racism Training*. Norman and London, University of Oklahoma Press, 1978.

Shamos, Morris H. *The Myth of Scientific Literacy*. New Brunswick, New Jersey, Rutgers University Press, 1995. Chapter 3.

Audience Evaluation from a Museum Education Perspective

Hein, George E. *Learning in the Museum*. Routledge, 1998.

Screven, C.G. ed. *Visitor Studies Bibliography and Abstracts*. Screven & Associates, 1999.

Serrel, Beverly. *Paying Attention: Visitors and Museum Exhibitions*. American Association of Museums, 1998.

Taylir, Samuel ed, *Try It! Improving Exhibits through Formative Evaluation*. Association of Science-Technology Centers, 1992.

Social Science Research Review Series

Gramann, James. "The Effect of Mechanical Noise and Natural Sound on Visitor Experiences in Units of the National Park System." *Social Science Research Review*. Volume 1, Number 1, 1999.

Floyd, Myron. "Race, Ethnicity and Use of the National Park System." *Social Science Research Review*. Volume 1, Number 2, 1999.

Tuler, Seth. "Employee Safety in the National Park Service." *Social Science Research Review*. Volume 1, Number 3, 1999.

Tools

Focus Groups: A Tool for Evaluating Interpretive Services. National Park Service Cooperative Studies Unit, University of Idaho and National Park Foundation.

Websites

[NPS Social Science Partners](#)

[NPS Social Science Program](#)

[NPS Visitor Services Project](#)

SUGGESTED DEVELOPMENTAL ACTIVITIES

1. Evaluate several of your own interpretive products for advance Ka. Do you know much about your audiences or do you assume that most of your programs address a "general" audience? If so, what makes your audiences general? Are your general audiences different than general audiences at other resources? How would knowing more about your audience affect the tangible/intangible linkages you choose to present as well as the techniques you use to present them? Hypothetically identify several types of audiences that might interact with your interpretive products. How do you know about them? Determine how you might change your products to provide opportunities for intellectual and emotional connections to the resource for each of those audiences
2. After consulting your supervisor, conduct several audience focus groups that attempt to determine the meanings audiences ascribe to the resource, their interests in the resource, and ways in which they make connections with the resource.
3. Formally or informally identify the demographic make-up of audiences for your resource. Begin your research with published sources or on the Internet. Look for information about the types of people who interact with your site. Locate information written about these people as well as information written or created by these people. Start an information sheet for each group you identify using the questions in section IV. D. 2 of the outline above. Go through the same process with groups who do not visit your site.
4. Informally ask visitors questions about what meanings the resource holds for them; what interests them about the resource; and what kinds of connections do they make with the resource. Create a log documenting these responses.
5. If Visitor Service Project studies exist for your park or a similar park, review them and create a profile of visitors based on the studies' findings. Ask questions like, "Do seasonal variations exist?"
6. Create a set of questions about your resource that provide you valuable information about your audiences but are not intimidating, prying, or make audiences feel like they are being surveyed.

Last update: March, 2001

<http://www.nps.gov/idp/interp/340/ka.htm>

Editor: [NPS Training Manager for Interpretation, Education, and Cooperating Associations](#)

Component for Module 340:

Appropriate Technique: Connecting Multiple Resource Meanings to Multiple Audience Interests and Perspectives

PURPOSE

Full performance interpreters consistently connect multiple resource meanings to multiple audience interests and perspectives. Mastery of this competency allows for full effectiveness of day to day interpretive contacts and the development of interpretive programs and media. This ability is also a key building block for interpreting [multiple points of view](#), [critical resource issues](#), as well as [controversial issues](#).

OBJECTIVES

At the completion of this component the learner will be able to:

- articulate how connecting multiple resource meanings with multiple audience interests and perspectives facilitates opportunities for audiences to make their own intellectual and emotional connections to the meanings and significance inherent in the resource;
- use KR and KA to establish relevance and provoke additional personal connections the meanings of the resource.

APPROACH

This component applies knowledge and practices described by the preceding components of this module. A key understanding for success is that resources possess multiple meanings (an aspect of KR) and that audiences possess multiple perspectives (an aspect of KA). Multiple resource meanings and multiple audience perspectives often overlap and affect each other. For example, audiences hold different perspectives on recognized resource meanings. Also, some resource meanings become more recognized with changing and diverse audience perspectives. What one might consider an "inherent" resource meaning or truth may be viewed by another as an audience perspective. All resource meanings and audience perspectives provide the interpreter with opportunities to connect resource meanings to audience perspectives and interests, establish relevance, and provoke personal connections.

Case studies, analysis of existing interpretive products, and self-analysis can be very helpful in learning the techniques for connecting multiple resource meanings to multiple audience interests and perspectives.

It might also be helpful to consider how section I of this component relates to the "Definitions and Roles" listed in section I-A of the "[What is Interpretation: Tangibles, Intangibles and Universal Concepts](#)" component of "Module 101- Fulfilling the NPS Mission: The Process of Interpretation."

CONTENT OUTLINE

- I. What?
 - A. Resources possess multiple meanings.
 1. Some resource meanings may be inherent, elemental, intrinsic, or "true."
 - a) Example: the Grand Canyon illustrates a dramatic geologic story
 - b) Example: the Lincoln Memorial memorializes Abraham Lincoln
 2. Some resource meanings are ascribed and/or added to the resource.
 - a) Example: tourist activities and culture on the rim of the Grand Canyon
 - b) Example: demonstrations and freedom of speech forums at the Lincoln Memorial
 3. Information sources, audiences, interpreters, managers, agencies, experts, tradition, educational institutions, among others ascribe meanings to the resource.

- a) Interpretive products should be based on the site's interpretive themes.
 - b) To be broadly successful, interpretive products and the site interpretive themes they are based on must reflect multiple resource meanings and multiple audience interests and perspectives.
4. Each tangible resource may be interpreted in multiple ways.

B. Audiences have multiple interests and perspectives

- 1. Different meanings of the resource are relevant to different audiences and audience members.
- 2. Different audiences and audience members consider different meanings to be inherent or true.
 - a) Examples: scientific, creationist, or Native American explanations of the Grand Canyon
 - b) Examples: "Great Emancipator," "Savior of the Union;" or descriptions of Abraham Lincoln as a racist
- 3. Audiences and audience members ascribe meanings to the resource.
 - a) Audiences and audience members think about resource meanings, discuss those meanings with others, and create new understandings and meanings for themselves and others.
 - b) Audiences and audience members ascribe meaning based on what is relevant to them, their experience with the resource, their previous experience, their beliefs, etc.

C. Interpretation uses multiple resource meanings to connect to multiple audience interests and perspectives.

- 1. Interpreters recognize the right of audience members to have and maintain their own perspectives.
- 2. Interpreters use KA to link appropriate resource meanings (KR) to the interests and perspectives of the audience and establish the relevance of the resource.
- 3. Interpreters use other resource meanings (KR) to provoke consideration of additional perspectives and emotional and intellectual connections to the resource.
 - a) Interpreters must do more than re-enforce or pander to audience interests and perspectives.
 - b) In order to create enhanced levels of care about the resource, audiences must have the opportunity to ascribe new meaning to the resource.

II. How?

A. Advanced KR

- 1. Use KR to establish relevance and provoke consideration of new perspectives and/or intellectual and emotional connections to the resource.
 - a) KR is a stockpile of material that can be selected from to relate to specific audiences and provoke new connections.
 - b) Prepare a repertoire of presentations on the same topic, theme, or resource using and emphasizing different elements of KR according to the interests and perspectives of given audiences.
 - c) Prepare a repertoire of ways in which different pieces or presentations of KR can be combined and sequenced according to the interests and perspectives of given audiences.
 - d) Use KA and encourage audience feedback to adjust presentations, even while presenting, to continue to address the purpose of the program but also meet the interests and perspectives of the audience.
- 2. Categorize advanced KR into tangibles, intangibles, and universal concepts.
 - a) When encountering a new tangible artifact, feature, flora, fauna, landmark, place, or aspect of the resource, brainstorm its potential intangible meanings and relationship to universal concepts. (See: appropriate sections of [Worksheet](#) and TIU Process Model)
 - b) When encountering a new intangible process, system, idea, value, or other meanings related to the resource, brainstorm its potential tangible and universal concept connections. (See: [Worksheet](#) and Process Model)
 - c) When encountering a new universal concept related to the resource, brainstorm its potential intangible and tangible connections. (See: [Worksheet](#) and Process Model.)
 - d) Share findings and worksheets with other staff members.
 - (1) Informally
 - (2) Start a division notebook of worksheets for future reference.

B. Application of Advanced KA

- 1. Use advanced KA to identify audience interests and perspectives.
- 2. Use KA to select relevant KR.

3. Use KA to make a "gesture of respect" that is recognizable and meaningful to given audiences.
 - a) Refer to ideas, events, and perspectives that are unique or relevant to a given audience.
 - b) Use language that indicates care for the perspectives, culture, and interests of a given audience.
 - c) Acknowledge level of expertise of a given audience.
4. Use KA to include a variety of perspectives, explanations, meanings, and interpretations to diverse audiences.
5. Use KA to analyze audience, prior to, during, and after presentation.
 - a) Plan programs for scheduled groups according to pre-identified audience characteristics.
 - b) Modify on-going programs based on audience reaction.
 - (1) Use appropriate questioning techniques (See: [Questioning Techniques](#) lesson plan) to solicit audience feedback.
 - (2) Check audience body language
 - (3) Pre-plan possible transitions and KR substitutions
 - (4) Adjust programs to be more technical, emotional, in-depth, basic, etc. at pre-planned moments of decision based on audience feedback.
 - (5) Use audience feedback to evaluate effectiveness of interpretive product.
 - (a) Determine alternative approaches to audiences encountered.
 - (b) Share encountered audience characteristics with peers and seek alternative approaches.
6. Categorize KA into audience perspectives, interests, and connections to the resource (See: [Knowledge of the Audience](#) component plan section on Organizing Responses).
 - a) Use intangible meanings indicated as relevant by audiences to identify tangible resources and universal concepts that can link to those meanings. Use those links to create interpretive products that explore meanings of the resource indicated by specific audiences as well as provoke consideration of new perspectives and connections to the meanings of the resource. (See: [Worksheet](#), and Process Model)
 - b) Use interests in the resource indicated by audiences to identify tangible, intangible, and universal concepts that might meet those interests. Create links based on tangible and intangible resources, and universal concepts. Use links to create interpretive products that satisfy indicated audience interests. (See: [Worksheet](#), and Process Model)
 - c) Use connections to the resource indicated by audiences to identify tangible and intangible resources and universal concepts that might be linked to those connections. Create links based on tangible and intangible resources and universal concepts. Use links to create interpretive products that build upon and move beyond indicated connections (See: [Worksheet](#), and Process Model).

C. General Approach

1. Recognize own bias as it affects understanding of KR and KA as well as interpretive products.
2. Encourage dialogue, recognize the rights of audiences, and allow audience members to have and maintain their own perspectives.
3. Seek to understand and, without manipulation, accurately describe multiple resource meanings and audience perspectives.
 - a) Based on the interests and perspectives of a given audience, be prepared to describe all sorts of meanings ascribed to the resource, including those that are obscure, unpopular, or bizarre.
 - b) Establish relevance for and provoke audiences with diverse members by interpreting a variety of meanings. [\[Multiple Points of View\]](#)
4. Do not attempt to replace an existing resource meaning or perspective with a new one.
 - a) Use existing meanings and perspectives to establish relevance and comfort before introducing new meanings and perspectives.
 - b) Controversy often arises from audiences feeling threatened that their meanings and perspectives are under attack.
5. Identify and use universal concepts.
 - a) Universal concepts establish common ground between the interpreter and audience as well as between audience members.
 - b) Universal concepts are most powerful to a given audience when they are approached through the specific perspectives and culture of a given audience.
 - c) Seek to link a single universal concept to multiple intangible meanings (ideas, processes, values, concepts, systems, etc.) each of which represents an alternative meaning.
6. Use accurate and respectful language that identifies the perspective from which information is presented.
 - a) Example: "The white South believed..." rather than "The South believed..."

- b) Example: "Scientists estimate the feature is 20 million years old..." rather than "The feature is 20 million years old..."
 - c) Example: "Hopi people say..." rather than "Hopi people are..."
7. Seek to balance audience mental comfort with challenge of impact and effect.
- a) Acknowledge audience perspectives and beliefs with respect and honesty.
 - (1) Describe perspective and use supporting KR.
 - (2) This may take a significant amount of time and/or space.
 - b) Offer new perspectives and differing beliefs after audience is comfortable, secure, and interested.
 - c) Realize that new perspectives and differing beliefs can provoke-resulting connections can be immediately cultivated if the audience is interested, but may need to develop through personal reflection. Often, provocation does not take as long to establish as relevance.

RESOURCES

Interpretive Development Program [Worksheets](#)
Process Model

Intermountain Region Comprehensive Interpretive Planning Documents:
Primary Interpretive Themes & Subthemes
Primary Parkwide Interpretive Themes
Significances of Park Resources
Sets of Significances & Primary Themes

SUGGESTED DEVELOPMENTAL ACTIVITIES

1. Evaluate several of your own interpretive products for the connection of multiple resource meanings and audience interests and perspectives. Are your products describing multiple meanings? How? Are they matching advanced KR to advanced KA? Are you identifying and establishing relevance in the intended audience? Are your products acknowledging different audience perspectives about those meanings? Can you make these products more provocative by including more resource meanings and/or audience perspectives? Can you make them more inclusive? Can you make them address a broader audience? Can you use them to provide additional gestures of respect? Can you use them to encourage dialogue between differing perspectives?
2. Use [TIU Worksheet](#) to identify multiple meanings in your resource. Apply the Process Model to develop a new interpretive product that presents multiple resource meanings.
3. Identify, formally or informally, meanings and perspectives ascribed to your resource by a variety of audiences. Use TIU Worksheet to link appropriate tangibles and universal concepts to those audience meanings. Apply the Process Model to develop a new interpretive product that addresses multiple audience perspectives. Go through the same process but begin by identifying audience interests as well as connections to the resource
4. Prepare a repertoire of ways in which different pieces or presentations of KR can be combined and sequenced according to the interests and perspectives of given audiences.

Last update: March, 2001

<http://www.nps.gov/idp/interp/340/at.htm>

Editor: [NPS Training Manager for Interpretation, Education, and Cooperating Associations](#)