



NATIONAL ENDOWMENT FOR THE

Humanities

DIVISION OF EDUCATION PROGRAMS

## **Narrative Section of a Successful Application**

The attached document contains the grant narrative and selected portions of a previously funded grant application. It is not intended to serve as a model, but to give you a sense of how a successful application may be crafted. Every successful application is different, and each applicant is urged to prepare a proposal that reflects its unique project and aspirations. Prospective applicants should consult the Education Programs application guidelines at

<http://www.neh.gov/grants/education/summer-seminars-and-institutes>

for instructions. Applicants are also strongly encouraged to consult with the NEH Division of Education Programs staff well before a grant deadline.

Note: The attachment only contains the grant narrative and selected portions, not the entire funded application. In addition, certain portions may have been redacted to protect the privacy interests of an individual and/or to protect confidential commercial and financial information and/or to protect copyrighted materials.

Project Title: Exploring the Past: Archaeology in the Upper Mississippi River Valley

Institution: University of Wisconsin, La Crosse

Project Director: Bonnie L. Jancik

Grant Program: Summer Seminars and Institutes for School Teachers

**EXPLORING THE PAST: ARCHAEOLOGY  
IN THE UPPER MISSISSIPPI RIVER VALLEY**

**Application to the National Endowment for the Humanities**

**For**

**A Summer Institute for K-12 Teachers  
Sponsored by the University of Wisconsin-La Crosse (UW-L)  
and the Mississippi Valley Archaeology Center (MVAC)**

**July 14–August 1, 2014**

**Project Director:**

**Bonnie L. Jancik**

**Director of Public Education, MVAC**

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# **Exploring the Past: Archaeology in the Upper Mississippi River Valley**

## **Intellectual Rationale**

### ***Introduction***

The University of Wisconsin–La Crosse (UW-L) and the Mississippi Valley Archaeology Center (MVAC), a nonprofit research and education center at UW-L, propose a Summer Institute for Teachers for July 14–August 1, 2014. Building on successful three-week Institutes held in 2007, 2010, 2011, and 2012 (see 2012 evaluations, pp. 86–105), the 2014 Institute will provide 25 K-12 teachers with three weeks of intense, guided exploration of changing cultural adaptations in the Upper Mississippi Valley over nearly fourteen millennia, and how we learn about human cultures through the study of archaeology. A team of UW-L faculty and MVAC research and educational specialists with extensive experience providing content and pedagogical training for K-12 educators will employ an array of instructional methods to help participants understand the dynamic nature of human cultures and adaptations through time. The Institute will embody the principles of the National Endowment for the Humanities’ “Bridging Cultures” initiative by encouraging participants to explore not only differences among human cultures across time and space, but also commonalities that join all cultures together. Participants will complete individual classroom-implementation projects and emerge with content knowledge applicable to a wide range of grade levels, subject areas, geographic regions, and time periods.

The archaeological record of the Upper Mississippi Valley tells a fascinating story and provides an ideal vehicle for exploring how archaeologists move from potsherds and stone tools to insights into how people have lived, adapted to their surroundings, and changed through time. Participants will learn about the nature of the archaeological record through actual excavation

and laboratory work and discussion of how we can derive cultural information from material remains.

When Europeans arrived, the Upper Mississippi Valley was home to complex human cultures that had adapted to the region's distinctive environment over thousands of years. The Institute will study the development of these cultures, beginning with the arrival of Paleoindian large-game hunters about 13,500 years ago. Succeeding Archaic cultures (7000–500 B.C.) adapted to changing postglacial environments, and subsequent Early Woodland (500 B.C.–A.D. 100), Middle Woodland (A.D. 100–600), Late Woodland (A.D. 600–1050), and Oneota (A.D. 1000–1600) cultures reflected an escalating pace of cultural development, as mobile hunter-gatherers became farmers living in more complex, settled communities. Other changes encompassed major technological innovations such as pottery and the bow and arrow, increasing social and political complexity, long-distance trade networks, and elaborate burial rituals, including the construction of thousands of earthen mounds. The arrival of Europeans led to massive changes in the physical and social environment, and new cultural adaptations for both Native peoples and European immigrants that have continued to evolve into the present day.

### ***Significance of Topic***

Archaeology, the study of past human cultures from the remains they left behind, is an essential topic for K-12 teachers. It links the humanities and the sciences and offers an engaging, multidisciplinary framework for providing content education in archaeology, history, anthropology, and other related fields, thus enhancing content knowledge in multiple subject areas simultaneously. The study of evolving cultural adaptations reveals the interconnectedness of human systems and how change in one aspect, such as food acquisition, has ramifications in other aspects, including economic, political, social, and religious systems. It also encourages

better understanding of other cultures, including the basic, universal needs all human cultures must meet, and the ways in which different cultures meet those needs and develop and change through time. The Institute's focus on applying archaeological methods to real-world data lets participants experience the process of discovery from initial data collection to ongoing interpretation and analysis.

The Institute addresses several National Council for the Social Studies, Curriculum Standards for Social Studies, Thematic Strands, including (1) Culture; (2) Time, Continuity, and Change; (3) People, Places, and Environments; (4) Individual Development and Identity; (5) Individuals, Groups, and Institutions; (6) Power, Authority, and Governance; (7) Production, Distribution, and Consumption; (8) Science, Technology, and Society; and (9) Global Connections. It also addresses National Center for History in the Schools National Standards for History, including Standards for Historical Thinking K-4 and 5-12, Standards in History for Grades K-4, United States History Standards for Grades 5-12, and World History Standards for Grades 5-12. Additionally, the Institute will address numerous standards in reading and writing from the Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects. The Social Studies, History, and Common Core standards are detailed in Appendix E, pp. 66–79.

The Institute also aligns with high priorities for “archaeological literacy” identified by the Society for American Archaeology’s Public Education Committee: understanding how archaeology is conducted; that it is about people and past cultures, not just artifacts; and that it involves stewardship of archaeological resources (Franklin et al. 2008).

## ***Institute Goals***

The Institute goals are to provide participants with *core content* in two areas:

- (1) an experiential understanding of the archaeological record and the process of archaeology, and how they are used to interpret past cultures, and
- (2) an understanding of the succession of cultures that have adapted to the Upper Mississippi River Valley

as well as *pedagogical support* through interaction with content scholars, field trips, inquiry-based activities, and individual classroom implementation projects.

## ***Core Content***

*(1) The process of archaeology, including its strengths and limitations, and direct experience of how we learn about the past through the archaeological record.* Understanding human cultures by finding and interpreting items they left behind is a stimulating idea for all ages. Archaeology provides both a conceptual framework and practical tools for learning about human cultures and linking to other disciplines, including anthropology and history. The Institute will demystify archaeology by showing what kinds of information archaeologists have available, how they acquire and process it, and how they use it to interpret human behavior and past events.

Archaeological understanding of past cultures is limited by the types of material remains that are preserved, and by our ability to recognize, study, and interpret them. Some aspects of culture, such as basic tool types and major foods, are easier to derive from archaeological evidence than others (e.g. belief systems). How archaeologists conduct their research, from initial research questions to field and laboratory work, analysis, and interpretation, will be explored through discussion enhanced by excavation, laboratory, and workshop experiences. Important archaeological and anthropological concepts such as culture, context, subsistence and settlement strategies, and types of social organization will be discussed and also utilized in

inquiry-based activities that will examine changing cultural adaptations through time.

Participants will explore how we know about the past, and how our understanding can change as we obtain new information and develop new techniques for recovering and analyzing remains.

Archaeology is especially well suited to experiential, hands-on learning. Reading that ancient hunters used spearthrowers and stone-tipped spears is different from actually throwing a spear or flaking raw stone into a usable tool. Such hands-on experiences form an important part of archaeological research and lead to a richer, more accurate understanding of the past. They also foster understanding of the sophistication and versatility of technologies—and cultures—that are sometimes perceived as “primitive.” Similarly, taking part in an excavation and examining trays of stone flakes or broken pottery helps people understand what kinds of data archaeologists actually work with and how they use it to create a picture of past lifeways. The Institute’s varied activities will ensure that participants enjoy a rich, authentic experience in how archaeology works and what we can learn from it.

*(2) A thorough background on the succession of cultures that have adapted to the Upper Mississippi Valley over the past 13,500 years.* The archaeological record of the Upper Mississippi Valley reveals a remarkable history of cultural adaptation and growth. The Institute will explore what archaeology has told us so far about this succession of regional cultures.

How and when humans arrived in the New World is a subject of intensive research and heated debate regarding colonization times, routes, and models as well as possible ties to the extinction of Ice Age megafauna. In the Upper Mississippi Valley, human occupation began when the glaciers retreated and the area became habitable. The region’s first peoples, known to archaeologists as Paleoindians, were skilled hunters who killed mammoths, mastodon, and other large game and had a highly mobile way of life (Theler and Boszhardt 2003:53–68).

After the megafauna disappeared, subsequent Archaic hunter-gatherers (7000–500 B.C.; Theler and Boszhardt 2003:69–95) pursued smaller game, adapted to more regionally specific environments, and followed an annual cycle that positioned them to acquire foods at the best locations and times of year. Cool-season living sites, including rockshelters, were in protected locations, while warm-season camps were generally along rivers. Late Archaic Red Ocher and Old Copper cultures showed greater social complexity, including elaborate burial practices, long-distance trade in copper, shell, and stone, and early steps in plant domestication.

About 2,500 years ago, three developments marked the beginning of Woodland cultures throughout much of eastern North America: the addition of horticulture to a hunter-gatherer economy; pottery manufacture; and the construction of earthen burial mounds (Theler and Boszhardt 2003:97–156). Early Woodland cultures (500 B.C.–A.D. 100) reflect the early stages of this transformation. Middle Woodland cultures (A.D. 100–600) continued the trend toward complexity and included cultures linked to Hopewell, a pan-regional development marked by elaborate mound burials and long-distance trade. Early and Middle Woodland peoples still relied primarily on hunting and gathering and a flexible seasonal round, congregating in larger settlements during the warm season and dispersing into smaller groups for the winter.

Late Woodland cultures (A.D. 600–1050) reflect a gradual increase in population density, integration of corn horticulture into a diversified subsistence economy, and the introduction of the bow and arrow, with concomitant changes in hunting strategies. Mounds were created in various shapes, including animal-effigy forms that might have represented clans or mythic figures (Birmingham and Eisenberg 2000; Mallam 1976). Between A.D. 1000 and 1150, regional cultures were also affected by emissaries, traders, and/or emigrant Mississippian populations from Cahokia, a complex, stratified chiefdom-level society centered in the St. Louis area of the

Mississippi Valley. Effigy-mound construction ceased about 950 years ago, and Effigy Mound peoples seem to have largely abandoned the region's interior hill country, perhaps because a growing population density disrupted seasonal mobility and confined the groups to individual valleys year round, making them vulnerable to collapses in two crucial resources, firewood and white-tailed deer (Theler and Boszhardt 2006).

Beginning about A.D. 1300, Mississippian-influenced Oneota peoples practiced more intensive agriculture and lived in sprawling settlements along the major rivers near La Crosse (Boszhardt et al. 1994; Theler and Boszhardt 2003:157–182). Oneota peoples grew corn, beans, and squash and practiced ridged-field agriculture on a large scale, and they also hunted and collected a wide range of wild resources. Oneota groups abandoned La Crosse nearly 400 years ago and moved west, probably in response to disease, population displacement, and other contact-related changes that preceded the actual arrival of Europeans in the area.

European contact brought profound changes, including disease and depopulation; movement and removal of Native peoples; a changing economy, including the fur trade; the introduction of new technologies and raw materials (e.g., firearms, iron, brass, steel); and the introduction of the horse. Beginning with Jean Claude Nicolet's visit in 1634, French and English explorers, traders, and military personnel came to the Upper Mississippi Valley, and by the mid-1800s, widespread Euroamerican settlement was causing profound impacts, from formalization of land ownership to massive environmental changes. La Crosse became a focus for lumbering and river transport, and European farmers of various ethnicities settled the surrounding countryside (Ostergren and Vale 1997; The Wisconsin Cartographers' Guild 1998).

Euroamerican farming adaptations in the region have continued to evolve to the present day. Changes in farming methods and the rise of large-scale agribusiness have led many long-

term family farmers to either sell out or rely on auxiliary incomes for support; however, Amish farmers who have purchased land here after selling higher-priced farmland in other regions are creating a new generation of family farms based on traditional farming methods. Other developments, besides large-scale factory farms, include new crop choices (e.g., wine grapes replacing tobacco), farming geared to niche markets (organic foods), development of garden plots by immigrant Hmong families who sell through farmers' markets and other local channels, and land sales to retirees, commuters, hunters, and hobby-farm owners.

The common thread linking these disparate cultures, from Paleoindian to the modern day, is their adaptation to the Upper Mississippi River Valley, and in particular to the rugged ridge-and-valley topography of the "Driftless Area," an area that, unlike surrounding regions, was not reshaped by glaciation or covered with glacial drift during the last Ice Age (Martin 1965). The Driftless Area is noted for its numerous archaeological sites, its location between the eastern woodlands and the western prairies, and the deep, wide trench of the Mississippi River, which forms a north-south communication route. Despite abundant natural resources, the region's rugged topography and harsh winters have posed significant challenges to human habitation.

Comparing different cultural adaptations to the same locale is a fascinating and important approach to archaeological research. In any environment, human groups make choices regarding how to meet basic survival needs such as food, water, protection from the elements and other dangers, and essential raw materials. These adaptive choices are linked to every other facet of culture: technology, settlement size and location, social organization, and ideology and art. Archaeologists study adaptive strategies by looking at site types and sizes, tool types, processing areas, and plant and animal remains. The Institute's inquiry-based activities will encourage participants to assess the local environment and technologies available at different times,

postulate the choices particular groups might have made to meet their basic needs throughout an annual cycle, and test those interpretations by examining the archaeological evidence.

To strengthen understanding of other cultures and cultural adaptations, the Institute will also incorporate selected information on modern land use and adaptations. Archaeologists routinely use such information to complete the picture of human occupation over time and to evaluate landscape changes and their effects. Examining current adaptations also helps students apply basic anthropological and archaeological concepts to cultures they can see and experience, a “culture-bridging” approach that fosters understanding and also prepares the students for stepping outside of their modern perspective and studying cultures of long ago.

### ***Institute Length***

Participant comments from our four previous Institutes have indicated that the three-week length is ideal. It provides an appropriate amount of time for presenting and understanding the content and sufficient time for participants to analyze, synthesize, and creatively apply the content to their unique teaching situation.

## **Project Content and Implementation**

The study plan for the 2014 Institute incorporates feedback from the 2012 Institute (see evaluations, pp. 86–105) and provides in-depth content on the process of archaeology and the succession of cultural adaptations in the Upper Mississippi Valley. Potential classroom applications of course content will be discussed throughout the Institute. Week 1 will introduce the concept of culture, the regional environment, basic archaeology concepts and terms, artifact interpretation, excavation at an archaeological site, and resources for classroom applications and projects. Week 2 will feature hunter-gatherer adaptations, the peopling of the New World, additional aspects of the process of archaeology, and work on participant projects (described

later in this section, pp. 14-15). Week 3 will include horticultural and agricultural adaptations, the effects of European contact, using adaptive strategies to link archaeology to the modern day, classroom adaptations of course content, and presentation of participant projects. The following table summarizes major topics, activities, and readings.

<b>Summary of 2014 Summer Institute Study Plan</b> (for expanded study plan, see Appendix B, pp. 31-42)	
<b>WEEK 1</b>	
<b>Major Topics and Activities</b>	<b>Readings</b>
<ul style="list-style-type: none"> <li>• Introduction to the Institute</li> <li>• Archaeology as the study of past cultures</li> <li>• Culture as the basis for survival</li> <li>• Aspects of culture: environment, technology, subsistence, settlement, social organization, ideology</li> <li>• Types of social organization</li> <li>• Initial inquiry-based activity/case study: local Amish adaptations</li> <li>• Introduction to resources for classroom applications and individual projects</li> <li>• Field trip: dynamic environment of the Driftless Area; observation of Amish subsistence and settlement strategies (follow-up to case study)</li> <li>• Archaeology terms and concepts</li> <li>• Laboratory experience #1: working with artifacts; identifying and analyzing stone tools, pottery, bone tools</li> <li>• Brainstorming on participant projects</li> <li>• Excavation field trip: why archaeologists excavate; excavation types, strategies, and methods; documentation and mapping; collecting artifacts and soil samples; excavation experience for participants</li> </ul>	<p><b>Required</b> (see also Appendix B):            Davis, <i>How Students Understand the Past</i>, pp. 109-120            Denevan, “The Pristine Myth,” pp. 369-385            Kraybill, <i>The Riddle of Amish Culture</i>, pp. 1-26            Malone &amp; Holliday, <i>Digging and Discovery: Wisconsin Archaeology</i>, pp. 2-13            Martin, <i>Physical Geography of Wisconsin</i>, pp. 141-182            Price &amp; Feinman, <i>Images of the Past</i>, pp. 1-33            Theler &amp; Boszhardt, <i>Twelve Millennia</i>, pp. 1-51            Wisconsin Cartographer’s Guild, <i>Wisconsin’s Past and Present</i>, pp. 30-1, 36-7</p> <p><b>Resources to Review</b> (see also Appendix B):            Davis &amp; Connolly, <i>Windows into the Past</i>            Malone, <i>Digging and Discovery</i> (teacher guide)            MVAC Web site, online lesson plans and PowerPoint presentations            Smith et al., <i>Intrigue of the Past</i></p> <p><b>Supplemental</b> (see also Appendix B):            Ashmore &amp; Sharer, <i>Discovering Our Past</i>, pp. 1-24, 60-85            Ostergren &amp; Vale, <i>Wisconsin Land and Life</i>, pp. 49-64, 137-196, 197-220, 355-375, 410-423</p>

<b>WEEK 2</b>	
<ul style="list-style-type: none"> <li>• Laboratory experience #2: basic laboratory processes and methods; wash and begin analyzing artifacts</li> <li>• Hunter-gatherer adaptations and life-ways</li> <li>• Hunter-gatherer social organization and subsistence/settlement systems</li> <li>• Classroom applications/project time (Monday-Thursday)</li> <li>• Individual project meetings, submission of project plans (Monday-Thursday)</li> <li>• Examples of hunter-gatherer groups from around the world</li> <li>• Laboratory experience #3: further introduction to artifact types; identify and catalog artifacts</li> <li>• Driftless Area hunter-gatherers: inquiry-based activity/case study; comparison with archaeological data on Paleoindian and Archaic hunter-gatherers</li> <li>• Laboratory experience #4: artifact inventory, graphic and tabular presentation of data, identification of distribution patterns, site interpretations, suggestions for future study</li> <li>• Hunter-gatherer strategies applied to the controversy of the peopling of the New World</li> <li>• Laboratory experience #5: processing, identifying, and interpreting ecofacts</li> <li>• Technology field day: direct experience with ancient technology – atlatl, pump and hand drills, flintknapping, bow and arrow technology</li> <li>• Discussion of responsible artifact collecting; how archaeologists and nonprofessionals work together</li> </ul>	<p><b><u>Required:</u></b>  Binford, <i>Constructing Frames of Reference</i>, pp. 434-464  Binford, "Willow Smoke and Dogs' Tails," pp. 4-20.  Guthrie, <i>The Nature of Paleolithic Art</i>, pp. 209-301  Haynes, <i>The Early Settlement of North America: The Clovis Era</i>, pp. 1-37, 81-96, 109-158, 239-273  Malone &amp; Holliday, <i>Digging and Discovery: Wisconsin Archaeology</i>, pp. 14-35  Martin &amp; Szuter, "War Zones and Game Sinks in Lewis and Clark's West," pp. 36-45  Quimby, "A Year with a Chippewa Family, 1764-1765," pp. 217-239  Theler &amp; Boszhardt, <i>Twelve Millennia</i>, pp. 53-95, 215-227</p> <p><b><u>Supplemental:</u></b>  Frison, <i>Survival by Hunting</i>, pp. 1-61, 222-230  Gramly, "Deerskins and Hunting Territories," pp. 601-605  Kay, "Are Ecosystems Structured from the Top Down or the Bottom Up?," pp. 484-498  Kelly, <i>The Foraging Spectrum: Diversity in Hunter-Gatherer-Lifeways</i>, pp. 39-110  Martin &amp; Szuter, "After Overkill: Game Sinks and Overhunting in 'Wild America,'" pp. 1-45  Nelson, <i>Heart and Blood: Living with Deer in America</i>, pp. 10-52  Ostergren &amp; Vale, <i>Wisconsin Land and Life</i>, pp. 331-350  Schorger, "The White-Tailed Deer in Early Wisconsin," pp. 197-247</p>
<b>WEEK 3</b>	
<ul style="list-style-type: none"> <li>• Horticultural and agricultural adaptations and life-ways</li> <li>• Transition from hunter-gatherers to farmers</li> <li>• Native American cultigens</li> </ul>	<p><b><u>Required</u></b> (see also Appendix B):  Hickerson, "The Virginia Deer and Intertribal Buffer Zones in the Upper Mississippi Valley," pp. 43-65</p>

<ul style="list-style-type: none"> <li>• Driftless Area horticultural and agricultural peoples: inquiry-based activity/case study; comparison with archaeological data on Woodland, Oneota, Mississippian cultures</li> <li>• Field trip: Native American mounds in Euro-American cemetery; Effigy Mounds National Monument and Pikes Peak State Park; Battle of the Bad Axe (Black Hawk War of 1832)</li> <li>• Euro-American contact and settlement</li> <li>• Adaptive strategies into modern times</li> <li>• Classroom applicability of course content</li> <li>• Field trip: new adaptations in the Driftless Area; effects of modern land use on archaeological resources</li> <li>• Presentation of teacher projects</li> <li>• Final discussion: tying it all together, Institute closure</li> <li>• Project evaluation</li> </ul>	<p>Janus, <i>Creating Dairyland</i>, pp. xiii-57</p> <p>Malone &amp; Holliday, <i>Digging and Discovery: Wisconsin Archaeology</i>, pp. 36-64</p> <p>Schroeder, "Maize Productivity in the Eastern Woodlands and Great Plains of North America," pp. 499-516</p> <p>Theler &amp; Boszhardt, <i>Twelve Millennia</i>, pp. 97-192</p> <p>Wilson, <i>Buffalo Bird Woman's Garden</i>, pp. 1-67</p> <p><b><u>Resources to Review</u></b> (see also Appendix B):</p> <p>Fagan, <i>Ancient North America</i></p> <p><b><u>Supplemental</u></b> (see also Appendix B):</p> <p>Birmingham &amp; Eisenberg, <i>Indian Mounds of Wisconsin</i></p> <p>Lenzendorf, <i>Effigy Mounds: A Guide to Effigy Mounds National Monument</i></p> <p>Theler &amp; Boszhardt, "Collapse of Crucial Resources and Culture Change," pp. 433-472</p>
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"Big idea" questions to be engaged during the Institute include:

- What are the basic, universal needs all humans must meet?
- What is culture?
- What are the differences among human cultures across time and space?
- What are cultural commonalities that join all cultures together?
- How do cultures adapt to environmental and social change?
- What constitutes the archaeological record?
- How do archaeologists move from cultural remains to insights into how people have lived, adapted to their surroundings, and changed through time?
- How does our understanding of the past change?

The Institute readings were selected because of their ability to (1) stimulate participants' learning of key points of the Institute's content, (2) expose participants to varied information sources at a high academic level and outside their particular fields, and (3) support their efforts to

apply the Institute's content in their own classrooms. The readings expose the participants to domain-specific vocabulary and text style and provide high-level information from an array of academic fields (geography, ecology, biology, and history) that can be applied to the Institute's content. Such readings are typically used by graduate students or professionals in those particular fields, but the teachers will be shown how to integrate them into the study of archaeology and human adaptation. The diverse readings also illustrate ways of deriving information from a variety of source types, as the following examples show:

- Davis encourages teachers to rethink how we learn history and what impact these ideas have on how we teach about the past.
- Theler & Boszhardt provides a thorough synthesis of the region's cultures through time that integrates with the flow and content of the Institute.
- The Wisconsin Cartographer's Guild provides the opportunity to derive content from visual information (charts, graphs, photographs, maps) and integrate it with text.
- Quimby exposes participants to a first-hand account from the late 1700s that illustrates key concepts related to hunter-gatherer life-ways and regional adaptations.
- Wilson's ethnographic account of early Native American gardening illustrates agricultural methods and also provides background information for possible classroom applications.

Participants will work with and learn from a team of prominent scholars and researchers in anthropology, archaeology, and education (see Project Faculty and Staff). Constructivist teaching practices as outlined by Foote et al. (2001; see Appendix E, p. 83) will form the basis for instruction. The project will employ a team-teaching approach and a variety of instructional methods, including inquiry-based activities (see Appendix E, pp. 80–82), workshop and laboratory activities, demonstrations, field trips, lectures, discussions, individual research, and Web-based teaching format. Instruction will also model the essential points for guiding student learning of the past, as outlined by Davis (2005; see Appendix E, pp. 84–85); for example,

“Meaningful learning requires active engagement in the construction of knowledge. People become engaged in studies of the past when they understand that history is made, when they are shown how it is made, and when they are provided opportunities to share in its construction” (Davis 2005:120). The Institute was designed in accordance with this model of teaching and learning. Inquiry-based activities will examine specific problems and decision making related to human survival and adaptation. Participants will use primary data sources, draw their own conclusions, and work with broad archaeological and anthropological concepts that they can apply to their own teaching areas.

Besides learning new content, participants will complete individual projects that will help them analyze, evaluate, and synthesize the Institute’s content and apply it in their classrooms. The projects will be facilitated by project staff and tailored to a wide range of individual teaching needs. The teachers will be encouraged to use a constructivist teaching model with inquiry-based activities that reflect the best practices in history instruction (Davis 2005). Example projects include creation of lesson and unit plans, learning centers, Web sites, videos, PowerPoint and Prezi presentations, photo-journals, or scrapbooks. Throughout the Institute, teachers will be expected to complete readings, participate in activities and field trips, and conduct research related to their projects. They will work with staff to identify connections to their curriculum, prepare appropriate lessons, compile supplemental materials, and identify local contacts for support after the Institute concludes. The teachers will present their completed projects at the end of the Institute. Projects will also be posted to MVAC’s Web site as appropriate, making them available to participants and interested teachers nationwide beyond the project period (e.g., 74 projects from the 2007, 2010, 2011 and 2012 NEH Institutes are posted at <http://www.uwlax.edu/mvac/Educators/LessonPlans.htm#NEH>). A Web-based teaching format

(Desire2Learn) will be used after applicants are accepted, during the Institute, and for several months afterward, to facilitate group and staff interaction and support.

Participants will be encouraged to share Institute content and their experiences with their colleagues. Teachers who participated in previous Institutes have shared their experiences in many ways, including district or school-wide professional development activities, presentations to colleagues, articles written for educational and public venues, and presentations to the public.

### **Project Faculty and Staff**

The Mississippi Valley Archaeology Center, established thirty-one years ago, and the UW-L Archaeological Studies Program, over twenty years old, offer an unusual joining of an undergraduate academic program with a university-based research organization that specializes in regional research and public education and outreach.

The director and project faculty are a highly qualified team with solid backgrounds in anthropology and archaeology, and experience in undergraduate/graduate and public (youth through adult) education as well as numerous projects designed for K-12 teachers. They have worked together successfully on many projects, including the 2007, 2010, 2011, and 2012 NEH Summer Institutes. The members have extensive experience with regional archaeology and are well respected in the field (see résumés in Appendix C, pp. 43–60). The 2014 team's many areas of common interest and experience, as well as their complementary skills and specialties, make their team-teaching approach synergistic and exciting, with individual members taking the lead on topics and types of presentations that best reflect their specialties.

*Director Bonnie Jancik* (Director of Public Education, MVAC; Adjunct Faculty and Associate Graduate Faculty, UW-L). Jancik has been involved in formal elementary education and informal K-12 education for over thirty years. She is widely known for her work in

archaeology education and delivering integrated content and inquiry-based professional development for practicing teachers. She has taught and team-taught undergraduate and graduate classes for K-12 teachers and has directed large-scale, content-based professional development workshops that use archaeology as a vehicle to teach a wide variety of curriculum subjects, including serving as Co-Director for the 2007, 2010, 2011, and 2012 NEH Summer Institutes. Jancik will take the lead on education-related aspects of the Institute, including participant projects, as well as recruitment, logistics, and project administration.

***Project Faculty James Theler*** (Professor Emeritus of Archaeology, UW-L; Adjunct Senior Research Archaeologist, MVAC). With over thirty years of experience, Theler is known for his dynamic teaching style and worldwide knowledge of human cultures and cultural adaptations. His research specialties include the reconstruction and analysis of past environments, human subsistence and settlement strategies, analysis of animal remains, and Woodland cultures of the Upper Midwest. He is currently studying the archaeology of the Bad Axe Valley, including the Cade Archaeological District. Theler was a Co-Director for the 2010, 2011, and 2012 NEH Institutes and a Visiting Scholar for the 2007 Institute. He will take primary responsibility for providing core content related to human cultures and cultural adaptations.

***Project Faculty Katherine Stevenson*** (Projects Director, MVAC; Adjunct Faculty, UW-L). Stevenson has been involved in archaeology at UW-L and MVAC for over thirty years. Her research interests include regional Woodland and Oneota cultures, subsistence and settlement, effective presentation of archaeological information, working with archival records, and regional caves and rock art. Her experience in editing and publishing has emphasized communication of scholarly information to the general public, including children. Stevenson was

a Co-Director for the 2010, 2011, and 2012 NEH Institutes and a Visiting Scholar for the 2007 Institute. She will participate in content presentation and take the lead with laboratory experiences, demonstrations, inquiry-based activities/case studies, and archaeology-related aspects of individual projects.

***Presenter Loren Cade*** is a lifelong resident of the Bad Axe Valley and an avocational archaeologist with a long-term relationship with MVAC and a strong interest in ancient technology. He is expert in making wooden arrows and hunting with traditional bows and is experienced at presenting archaeology-related information to the public. His farmland includes significant portions of the Cade Archaeological District, which he was instrumental in getting listed on the National Register of Historic Places. Cade will reprise his roles from the 2007, 2010, 2011, and 2012 NEH Institutes by hosting and helping facilitate the fieldwork portion of the project, co-leading the technology field day, discussing the ethics of artifact collecting, and providing information on evolving adaptations for local farmers.

***Presenter Robert Keiper*** has been a flintknapper for over forty years. He has taught people of all ages the art of making stone tools. Robert has been involved with MVAC for many years, participating in archaeological activities and presenting at public events. In 2009 Keiper received MVAC's Regional Archaeology Award to acknowledge his long-term commitment to sharing his knowledge of ancient technologies. Keiper's presentations at the 2010, 2011, and 2012 Institutes were mentioned as a highlight by many participants. For 2014 he will provide flintknapping workshops at the Institute's technology day.

### **Participant Selection**

Archaeology is an interdisciplinary topic with applications beyond social studies and history. The anticipated audience for the 2014 Institute includes K-12 teachers from a variety of

content areas such as social studies, history, science, art, languages, and special education. In the 2007, 2010, 2011, and 2012 Institutes, the selection committee chose teachers from diverse grade levels and subject areas with stimulating results. The eclectic nature of the group encouraged unique ways of looking at and applying the Institute content that would not have been possible with a more homogeneous group of teachers.

Institute recruitment activities will be designed to attract applicants from across the nation. All four previous Institutes have drawn geographically diverse groups of applicants. For example, recruitment for the 2012 Institute produced over 3,680 hits to the Institute Web site, 89 inquiries, and 75 cover sheets, resulting in 47 applicants from 20 states. Plans for attracting applicants for the 2014 Institute will build on previous publicity activities and include press releases, targeted e-mails, mailings, contacts with national professional organizations, listservs and sharing information at teacher conferences.

Twenty-five teachers will be selected for participation. Selection criteria will include experience, interest in the topic, and ability to implement the content in their classrooms, as described in their application essays. The project director and project faculty will act as the selection committee.

### **Project Web Site**

The 2014 Institute Web site will provide information that will acquaint viewers with the Institute's content and structure. Images from the 2012 Institute will showcase Institute activities. PDFs will provide additional information including the director's prospectus (formerly Dear Colleague letter), NEH Application Information and Instructions, projected agenda and required readings, and field trip information. Additional topics to be addressed on the Web site and accompanying PDFs will include: staff, stipend, Continuing Education Units, graduate

credit, UW-L Visiting Scholar status, technology, dorm and off-campus housing, meals, scholar selection, application information, and area and campus links for additional information.

After the Institute, participants' individual projects will be posted to MVAC's Web site as appropriate, making them available to participants and interested teachers nationwide beyond the project period (e.g., 74 projects from the 2007, 2010, 2011 and 2012 NEH Institutes are posted at <http://www.uwlax.edu/mvac/Educators/LessonPlans.htm#NEH>).

### **Professional Development for Participants**

Participants will have the option of obtaining three graduate credits through UW-L. Those who choose to receive credit will be responsible for paying their own tuition and fees. UW-L transcripts will serve as documentation for credit in the teachers' local districts. Participants will receive an "equivalency letter" describing the work of the program and indicating that completion of the entire Institute is equivalent to three graduate credits. Teachers will also have the option of receiving Continuing Education Units for a nominal fee. Documentation will be sent to teachers after the Institute.

### **Institutional Context**

UW-L and MVAC are especially well qualified for hosting the proposed Institute. UW-L is a residential campus with facilities for over 10,000 students. Its Archaeological Studies Program, based in Wimberly Hall, has over a hundred undergraduate majors and offers up-to-date, computer-interactive classrooms and extensive collections of artifacts and other teaching materials. MVAC offers a combined focus on regional research, undergraduate education, public education and outreach, and consulting services for businesses and agencies, and is the region's primary center for archaeological research and education. MVAC occupies UW-L's 8,000 ft<sup>2</sup>

Archaeology Center and Laboratory, which houses staff offices, student work stations, a faunal analysis lab, an artifact conservation facility, artifact reference collections, and displays of regional artifacts and information. MVAC has extensive precollegiate resources, including books, maps, and teaching materials, and the UW-L library features archival resources, historic publications, maps, and photographs. Information Technology staff provide up-to-date technology for distance education and Internet-based learning and will facilitate access to the UW-L computer system.

Reuter Hall, a relatively new (2006) on-campus residence hall, was popular with 2007, 2010, 2011, and 2012 Institute participants and will be available again in 2014. It offers suites with four private bedrooms, a semi-private bathroom, kitchen, living room, wireless Internet access, and other amenities. Dorm rates for 2014 are anticipated to be similar to the 2012 Institute rate of \$600 for the three weeks of the Institute.

During the 2007, 2010, 2011, and 2012 Institutes, the UW-L College of Liberal Studies, the Sociology/Archaeology Department, and the Mississippi Valley Archaeology Center have all provided funding for welcome and farewell receptions. Numerous dignitaries (the Chancellor, Provost, Dean of the College of Liberal Studies, Director of the Archaeological Studies Program, etc.) have been present at these events to welcome participants to UW-L.

With a grants office that manages millions of dollars of funds annually, UW-L has ample resources for fiscal administration. MVAC manages 150 to 200 accounts annually, from small projects to multiyear projects over \$1 million. The director and project faculty have experience with federal and multiyear state projects and fiscal management and reporting procedures.

MVAC's research and educational resources, combined with UW-L's Archaeological Studies Program and institutional resources, provide an ideal context for the proposed project.

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**Appendix B:  
Expanded Study Plan  
and Readings**

**Exploring the Past:  
Archaeology in the Upper Mississippi River Valley  
Expanded Study Plan and Readings  
July 14–August 1, 2014**

**Daily Schedule:**

**Morning Sessions: 8:30–12:00**

**Lunch Break: 12:00–1:00**

**Afternoon Sessions: 1:00–4:30**

**WEEK 1**

**Sunday, July 13:**

- **Participants arrive, check into dorms** (*Jancik*)

**Monday, July 14:**

- **Introduction to the Institute** (*Jancik, Stevenson, Theler*)
  - Welcome and staff/participant introductions.
  - Orientation and logistics.
  - Explanation of CEUs, credits.
  - Campus tour.
  - Archaeology Lab tour.
  - Computer log-on, wireless hookup.
  - Project overview (discussion of approach, goals, assignments for participants).
  - Brief introduction to Mississippi Valley study area (environment, geology).
- **Welcome Reception (Lunch)**

**Tuesday, July 15 (Lecture, Discussions, Activity/Case Study, Classroom Applications/Project Time):**

- **Archaeology: The Study of Past Cultures** (*Theler, Stevenson, Jancik*)
  - Fundamental concept: What is “culture”? Human cultures as dynamic, evolving systems.
  - Culture as the basis for survival, and the means for adapting to constantly changing physical and social environments: How do people meet their basic needs? How do human cultures survive and adapt through time and space?
  - Aspects of culture: environment, technology, subsistence, settlement, social organization, ideology.
  - Types of social organization (band, tribe, chiefdom, state): How are they linked to subsistence and settlement?
  - How are these culture-related concepts reflected archaeologically?
- **Introduction to Understanding Other Cultures** (*Theler, Stevenson, Jancik*)
  - Cultural context: The Amish as a “culture within a culture,” seeking to maintain traditional life-ways, social structure, and activities within the larger society.
  - Inquiry-based activity/case study: How have Amish settlers adapted to the Driftless Area? What is their life-way like? How do they plan for and survive an annual cycle?
  - Amish adaptive strategies in the region: Participants will construct a basic model of Amish subsistence and settlement using their existing knowledge supplemented by information provided by staff.

- Comparison to participants' current understanding of life-ways and adaptive strategies of early pioneers and pre-European inhabitants of the area.
- **Introduction to Classroom Application Ideas** (*Jancik, Stevenson, Theler*)
  - Introduction to prepared lessons on archaeology that can be adapted for classroom applications. Includes published resources as well as Web-posted lessons from previous grants, including the 2012, 2011, 2010, and 2007 NEH Summer Institutes.

**Wednesday, July 16 (Field Trip):**

- **The Driftless Area and the Upper Mississippi Valley** (*Stevenson, Theler, Jancik*)
  - Introduction to the modern landscape, geography, and environment. Includes stops at bluff tops overlooking the Mississippi Valley, along the Mississippi River, and at interior valleys and ridge tops.
  - Present and past environments: On-site comparison of modern topographic maps with detailed maps predating construction of the lock-and-dam system on the Mississippi.
- **The Dynamic Environment of a Driftless Area Valley: The Bad Axe** (*Theler, Stevenson, Jancik*)
  - Stops at representative locations for detailed study of the topography and environment of the Bad Axe Valley, an interior valley that serves as a study area for the Institute.
  - How do we learn about past environments? Early maps and records (e.g., 1800s Government Land Office survey data), pollen analysis, studies of sediments and remains of past fauna.
  - Environmental and landscape changes through time, including changes since Euroamerican settlement (fire suppression, vegetation changes, farming and resulting erosion/deposition).
  - Implications of environmental changes for human occupation, past and present.
  - Implications for archaeology and interpretation of the past.
- **Adaptive Strategies in the Driftless Area: Amish Case Study** (*Theler, Stevenson, Jancik*)
  - On-site presentations and discussions in Amish community near Cashton, Wisconsin, to study Amish adaptive strategies in the Driftless Area.
  - Discussion of field trip and previous day's case study; refinement of ideas about Amish life-ways and adaptive strategies and comparisons to earlier adaptations.
  - Archaeological reflections of Amish life-ways; applications to interpreting pre-European and early Euroamerican adaptations, settlement, and archaeological sites.
  - Even traditional cultures are dynamic: discussion of ongoing changes in Amish culture through interaction with modern society.

**Thursday, July 17 (Lecture, Discussions, Laboratory, Classroom Applications/Project Time):**

- **Fundamentals of Archaeology** (*Theler, Stevenson, Jancik*)
  - Introduction to basic concepts, terms, and methods of archaeology: scientific method, archaeological sites, survey methods, excavation methods, context, artifacts, ecofacts (plant and animal remains), features, stratigraphy, dating methods, settlement patterns, ethnographic analogy.
  - The five basic tasks of archaeology: concept formation, data collection and processing, interpretation of data, synthesis, explanation.
  - What types of archaeological sites are there? Why are they located where they are? How are they related to resource use?
  - Why do we do historic archaeology? How do archaeological remains differ from historic records?
- **Laboratory Experience #1: Artifact Identification and Analysis** (*Stevenson, Theler, Jancik*)
  - Introduction to how archaeologists work with stone tools, pottery, bone artifacts.
  - Participants will examine different types of artifacts to learn the basics of how archaeologists identify, analyze, classify, and interpret these materials, in preparation for Friday's excavation experience.

- **Exploration of Classroom Application Ideas** (*Jancik, Stevenson, Theler*)
  - Hands-on experience with some simple classroom activities that introduce key archaeological concepts such as context, observation vs. inference, and preservation.
  - Small- and large-group initial brainstorming on adapting Institute content to specific grade levels and subject areas.
  - Participants will sign up for meetings with staff (to be held Monday–Thursday of Week 2) to discuss their individual project ideas, address questions, receive guidance, and identify appropriate resources.

**Friday, July 18 (Field Experience):**

- **Excavation Experience at the Cade Archaeological District, Bad Axe Valley** (*Theler, Stevenson, Cade, Jancik*)
  - Digging for a reason: How do we decide when and where to dig? Why do we dig—or not? The nonrenewable nature of archaeological resources.
  - Basic archaeological field strategies and methods: site preparation, setting up excavation units, basic equipment, proper use of equipment, excavating in levels, mapping and documentation, collecting artifacts and soil samples.
  - Participants will set up and excavate units at an archaeological site, using appropriate methods to collect artifacts and record information.
  - Lunchtime and end-of-day discussions of field work: Was it what the participants expected? If not, why not? What potential did they see? What limitations did they encounter?
- **“I Was Wondering...” (General Discussion Session at Lunch)**
- **Quick-Write Project Feedback from Participants** (*Jancik, Stevenson, Theler*)

**Readings for Week 1:**

- **Required Readings:**
  - Elaine M. Davis, *How Students Understand the Past*, AltaMira Press, New York (2005), pp. 109–120.
  - William M. Denevan, “The Pristine Myth: The Landscape of the Americas in 1492,” *Annals of the American Association of Geographers*, Vol. 82 (1992), pp. 369–385.
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  - Bobbie Malone and Diane Holliday, *Digging and Discovery: Wisconsin Archaeology*, State Historical Society of Wisconsin, Madison (2006), pp. 2–13.
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  - James L. Theler and Robert F. Boszhardt, *Twelve Millennia: Archaeology of the Upper Mississippi River Valley*, University of Iowa Press, Iowa City (2003), pp. 1–51.
  - The Wisconsin Cartographers’ Guild, *Wisconsin’s Past and Present*, University of Wisconsin Press, Madison (1998), pp. 30–31, 36–37.
  - Staff-compiled summary on local Amish communities.
- **Classroom Application Resources to Review:**
  - Elaine M. Davis, *How Students Understand the Past*, AltaMira Press, New York (2005), pp. 121–162.
  - M. Elaine Davis and Marjorie Connolly (editors), *Windows into the Past: Crow Canyon Archaeological Center’s Guide for Teachers*, Kendall Hunt, Dubuque, Iowa (2000).

- Bobbie Malone, *Digging and Discovery: Wisconsin Archaeology* (teacher guide), State Historical Society of Wisconsin, Madison (2000).
- Mississippi Valley Archaeology Web site, online lesson plans and PowerPoint presentations, <http://www.uwlax.edu/mvac/Educators/LessonPlans.htm>.
- Amy Rosebrough and Bobbie Malone, *Water Panthers, Bears, and Thunderbirds: Exploring Wisconsin's Effigy Mounds*, Wisconsin Historical Society, Madison (2003).
- Doris Seale and Beverly Slapin (editors), *Through Indian Eyes: The Native Experience in Books for Children*, Oyate, Berkeley, California (1998); also *A Broken Flute: The Native Experience in Books for Children*, AltaMira Press, Walnut Creek, California (2005).
- Shelley J. Smith, Jeanne M. Moe, Kelly A. Letts, and Danielle M. Patterson, *Intrigue of the Past: A Teacher's Activity Guide for Fourth through Seventh Grades*, U.S. Department of the Interior, Bureau of Land Management (1993).
- Society for American Archaeology Web site, [www.saa.org](http://www.saa.org).
- **Supplemental Readings:**
  - Wendy Ashmore and Robert J. Sharer, *Discovering Our Past: A Brief Introduction to Archaeology*, Mayfield, Mountain View California (1996), pp. 1–24, 60–85.
  - Leavelva Bradbury, *The Geography of Wisconsin*, Macmillan (1923), pp. 1-62.
  - John A. Hostetler, *Amish Society*, Johns Hopkins University Press, Baltimore (1993)
  - Brad Igou (compiler), *The Amish in Their Own Words*, Herald Press, Scottsdale, Pennsylvania (1999).
  - Donald B. Kraybill, *The Riddle of Amish Culture*, Johns Hopkins University Press, Baltimore (2001), pp. 188-212, 213-237, 295-318.
  - Mississippi Valley Archaeology Center educational Web site sections, Process of Archaeology (<http://www.uwlax.edu/mvac/Educators/primer.htm>) and Past Cultures (<http://www.uwlax.edu/mvac/Educators/PastCultures.htm>).
  - James M. Omernik, Shannen S. Chapman, Richard A. Lillie, and Robert T. Dumke, "Ecoregions of Wisconsin," *Transactions*, Vol. 88 (2000), pp. 77-103.
  - Robert C. Ostergren and Thomas R. Vale (editors), *Wisconsin Land and Life*, University of Wisconsin Press, Madison (1997), pp. 49–64, 137–196, 197-220, 355–375, 410–423.
  - Stanley A. Temple, "Surviving Where Ecosystems Meet: Ecotonal Animal Communities of Midwestern Oak Savannas and Woodland," *Transactions*, Vol. 86 (1998), pp. 206-221.
  - H. Martin Wobst, "Boundary Conditions for Paleolithic Social Systems: A Simulation Approach," *American Antiquity*, Vol. 39 (1974), pp. 147–178.
  - Additional readings available based on need and individual interest.

## WEEK 2

### Monday, July 21 (Laboratory, Lecture, Discussion, Classroom Applications/Project Time):

- **Laboratory Experience #2: Processing Artifacts** (*Stevenson, Theler, Jancik*)
  - Introduction to basic laboratory process and methods for washing, sorting, data recording, and cataloging of excavated materials.
  - Participants will wash and begin analyzing the artifacts they collected during Friday's excavation.
- **Hunter-Gatherer Adaptive Strategies and Life-ways** (*Theler, Stevenson, Jancik*)
  - Hunter-gatherers and their adaptations to different environments; factors that affect hunter-gatherer adaptations (e.g., game types and density, kilocalorie needs).
  - Hunter-gatherer social organization and subsistence/settlement systems. Looking at individual sites is not enough; need to look at the full range of site types and locations to understand the adaptive strategy—how do people in a particular environment survive a full annual cycle?

- **Classroom Application Ideas and Individual Project Planning** (*Jancik, Stevenson, Theler*)
  - Participants will work in small groups to explore lesson ideas from published and Web-posted sources, and will select one to evaluate and share with other groups.
  - The first set of participants will rotate out of the group sessions for their individual project meetings with staff.

**Tuesday, July 22 (Lecture, DVD, Discussion, Laboratory, Classroom Applications/Project Time):**

- **Hunter-Gatherer Adaptive Strategies and Life-ways** (*Theler, Stevenson, Jancik*)
  - Examples of hunter-gatherer groups from around the world. When and where have they existed, and how have they lived? What has happened to them?
  - Do we still have vestiges of our hunter-gatherer heritage? —New theories about outdoors and competitive sports.
  - DVD: *Cree Hunters of Mistassini*, with follow-up discussion on risks and decision making.
  - How hunter-gatherer adaptations are reflected archaeologically.
- **Laboratory Experience #3: Analysis** (*Stevenson, Theler, Jancik*)
  - Further introduction to artifact types (e.g., stone tools, types of debris from stone toolmaking, types of pottery)
  - Participants will identify and catalog the artifacts they excavated, using actual cataloguing forms and procedure manuals, to prepare the materials for analysis and later curation.
- **Classroom Application Ideas and Individual Project Planning** (*Jancik, Stevenson, Theler*)
  - Each participant will meet with two others to share and brainstorm ideas for their individual projects.
  - The second set of participants will rotate out of the group sessions for their individual project meetings with staff.

**Wednesday, July 23 (Activity/Case Study, Discussion, Laboratory, Classroom Applications/Project Time):**

- **Hunter-Gatherers in the Driftless Area** (*Theler, Stevenson, Jancik*)
  - Inquiry-based activity/case study: How did prehistoric hunter-gatherers adapt to the Driftless Area? What was their lifeway like? How did they plan for and survive an annual cycle?
  - Hunter-gatherer adaptive strategies in the region: Participants will use information they have learned to construct a model of hunter-gatherer adaptive strategies for the Driftless Area
  - Discussion of model, including risks, versatility, and limitations of the adaptation.
  - What we know archaeologically: Paleo-Indian and Archaic hunter-gatherers in the Driftless Area.
- **Laboratory Experience #4: Interpreting Data** (*Stevenson, Theler, Jancik*)
  - Participants will inventory the artifacts they have identified and develop ways of presenting the information in graphic and tabular form, to facilitate interpretation.
  - Participants will evaluate the distribution patterns they have identified, make site interpretations, and develop recommendations for future study of that site.
- **Classroom Application Ideas and Individual Project Planning** (*Jancik, Stevenson, Theler*)
  - Participants in groups will engage in hands-on study of “Pre-European Peoples” boxes developed for MVAC educational programming, for possible adaptation and use in their own classrooms.
  - The third set of participants will rotate out of the group sessions for their individual project meetings with staff.

#### **Thursday, July 24 (Lecture, Discussion, Laboratory, Project Time):**

- **Peopling of the New World** (*Theeler, Stevenson, Jancik*)
  - Applying information on hunter-gatherer strategies to a controversial and important problem: When and how did people come to the New World? What was their possible role in the extinction of Ice-Age megafauna?
  - Examination of current archaeological evidence: the postglacial environment, megafauna and other game, technology, archaeological sites, dates.
  - Participants will use their knowledge of hunter-gatherer adaptations plus data from the morning session to evaluate theories and data related to the peopling of the New World: What routes could they have taken, and how could we trace them? What would you expect to see? What would happen if hunter-gatherers came to a new environment with no comparable predators? What adaptive strategy would be most likely? What model best explains the archaeological evidence?
- **Laboratory Experience #5: Interpreting Ecofacts** (*Stevenson, Theeler, Jancik*)
  - Deriving subsistence information from specialized studies of ecofacts: types of plants and animals used, habitats exploited, seasonality, hunting-gathering strategies and techniques.
  - Introduction to processing (flotation) of soil samples to obtain ecofacts, and identifying animal and plant remains from archaeological sites.
  - Participants will work with archaeological ecofacts to interpret subsistence behavior—e.g., calculating Minimum Number of Individuals for animal species, projecting usable meat weights and kilocalories represented, using deer jaws to determine age and season of kill.
- **Classroom Application Ideas and Individual Project Planning** (*Jancik, Stevenson, Theeler*)
  - Participants in groups will continue to work with ecofacts, to explore possible classroom adaptations.
  - The final set of participants will rotate out of the group sessions for their individual project meetings with staff.

#### **Friday, July 25 (Off-Campus Workshop, Lecture, Discussion):**

- **Technology Field Day: Demonstrations and Experimental Activities at the Cade Farm** (*Cade, Keiper, Stevenson, Theeler, Jancik*)
  - Using an atlatl (spearthrower); the physics of atlatls.
  - Using pump drills and hand drills for grinding and fire-starting.
  - Bow-and-arrow technology: demonstration of traditional bow-and-arrow.
  - Discussion and experimentation on advanced flintknapping: evaluating raw materials, comparison of unaltered and heat-treated cherts, pressure-flaking for fine control.
  - Participants will experience the basics of traditional arrowmaking, including making a stone spokeshave and shaping a wooden shaft, making an arrow point by flintknapping (pressure flaking), hafting the point with wet sinew, and fletching with feathers.
  - Discussion and observation: Is so-called “primitive” technology really primitive? The scientific basis and innovative nature of ancient technology (e.g., the physics of atlatls, the transition from spear to bow-and-arrow, detachable points).
- **Artifact Collecting: How Avocational and Professional Archaeologists Work Together** (*Cade, Theeler, Stevenson, Jancik*)
  - Display and discussion of artifacts from the Cade collection, including from the Cade Archaeological District.
  - Presentation, discussion on the ethics of artifact collecting and how it can contribute to archaeological research.

- “I Was Wondering...” (General Discussion Session at Lunch)
- Quick-Write Project Feedback from Participants (*Jancik, Stevenson, Theler*)

### Readings for Week 2:

- **Required Readings:**
  - Lewis R. Binford, *Constructing Frames of Reference: An Analytical Method for Archaeological Theory Building Using Hunter-Gatherer and Environmental Data Sets*, University of California Press, Berkeley (2001), pp. 434–464.
  - Lewis R. Binford, “Willow Smoke and Dogs’ Tails: Hunter-Gatherer Settlement Systems and Archaeological Site Formation,” *American Antiquity*, Vol. 45 (1980), pp. 4-20.
  - R. Dale Guthrie, *The Nature of Paleolithic Art*, University of Chicago Press, Chicago (2005), pp. 209–301.
  - Gary Haynes, *The Early Settlement of North America: The Clovis Era*, Cambridge University Press, Cambridge (2002), pp. 1–37, 81–96, 109-158, 239–273.
  - Bobbie Malone and Diane Holliday, *Digging and Discovery: Wisconsin Archaeology*, State Historical Society of Wisconsin, Madison (2006), pp. 14-35.
  - Paul S. Martin and Christine R. Szuter, “War Zones and Game Sinks in Lewis and Clark’s West,” *Conservation Biology*, Vol. 13 (1999), pp. 36–45.
  - George I. Quimby, “A Year with a Chippewa Family, 1764–1765,” *Ethnohistory*, Vol. 9, No. 3 (1962), pp. 217–239.
  - James L. Theler and Robert F. Boszhardt, *Twelve Millennia: Archaeology of the Upper Mississippi River Valley*, University of Iowa Press, Iowa City (2003), pp. 53-95, 215-227.
- **Supplemental Readings:**
  - George Frison, *Survival by Hunting: Prehistoric Human Predators and Animal Prey*, University of California Press, Berkeley (2004), pp. 1–61, 222–230.
  - Richard M. Gramly, “Deerskins and Hunting Territories: Competition for a Scarce Resource of the Northeastern Woodlands,” *American Antiquity*, Vol. 42 (1977), pp. 601–605.
  - Charles Kay, “Are Ecosystems Structured from the Top Down or the Bottom Up?: A New Look at an Old Debate,” *Wildlife Society Bulletin*, Vol. 26 (1998), pp. 484–498.
  - Robert L. Kelly, *The Foraging Spectrum: Diversity in Hunter-Gatherer-Lifeways*, Smithsonian Institution Press, Washington (1995), pp. 39-110.
  - Paul S. Martin and Christine R. Szuter, “After Overkill: Game Sinks and Overhunting in “Wild America”,” Submitted to *Prehistoric Human Impact on the Environment: A Global Perspective*, Charles L. Redman, Steven R. James, Paul R. Fish and J. Daniel Rogers, editors (1995), pp. 1-45.
  - Richard Nelson, *Heart and Blood: Living with Deer in America*, Vintage Books, New York (1998), pp. 10–52.
  - Robert C. Ostergren and Thomas R. Vale (editors), *Wisconsin Land and Life*, University of Wisconsin Press, Madison (1997), pp. 331–350.
  - Arlie W. Schorger, “The White-Tailed Deer in Early Wisconsin,” *Transactions of the Wisconsin Academy of Sciences, Arts and Letters*, Vol. 42 (1953), pp. 197–247.
  - Additional readings available, based on individual need and interest.

## WEEK 3

### Monday, July 28 (Lecture, Discussion, Activity/Case Study, Project Time):

- **Horticulturalists and Agriculturalists: Adaptive Strategies and Life-ways** (*Theler, Stevenson, Jancik*)
  - The transition from hunter-gather adaptations to strategies that include horticulture (gardening) and agriculture (farming).

- Native American cultigens: What was grown, when, and how? How was plant cultivation integrated into subsistence systems in various regions?
- Considerations and consequences related to plant cultivation: What are the benefits and drawbacks? What are the nutritional consequences? What other ramifications are there (e.g., storage, labor requirements, commitment to a piece of land)? Are agricultural adaptations “better” or “more advanced” than hunter-gatherer adaptations?
- Social organization and subsistence/settlement patterns of horticultural and agricultural groups.
- How horticultural and agricultural adaptations are reflected archaeologically (e.g., villages, larger groups, storage facilities, agricultural tools).
- **Horticulturalists and Agriculturalists in the Driftless Area** (*Theler, Stevenson, Jancik*)
  - Inquiry-based activity/case study: How did horticulturalists and agriculturalists adapt to the Driftless Area? What were their lifeways like? How did they plan for and survive an annual cycle?
  - Participants will combine their previous knowledge from the hunter-gatherer case study with information on plant cultivation (e.g., crop choices and requirements, labor requirements, storage methods) to model subsistence and settlement of prehistoric horticulturalists and agriculturalists.
  - Discussion of models, including risks, versatility, and limitations of the adaptations.
  - What we know archaeologically: Woodland, Oneota, and Mississippian cultures of the Driftless Area.
  - New theories regarding an archaeological puzzle: the sudden disappearance of Late Woodland cultures throughout the Driftless Area. Examination of population increase and collapse of crucial resources (deer and firewood) as a possible cause.
- **Group/Individual Project Time** (*Jancik, Stevenson, Theler*)

#### **Tuesday, July 29 (Field Trip):**

- **Native American Mounds at Genoa, Wisconsin** (*Stevenson, Theler, Jancik*)
  - Visit to Native American mounds preserved through incorporation into a Euroamerican cemetery.
  - Discussion of current site-preservation and burials-related issues: Are mounds and burials protected? What happens to human remains today? Who “owns” ancient human remains?
- **Effigy Mounds National Monument and Pikes Peak State Park near McGregor, Iowa** (*Theler, Stevenson, Jancik*)
  - Guided hike along trails at Effigy Mounds National Monument to view well-preserved effigy and other mounds in a bluff-top setting overlooking the Mississippi Valley.
  - Visit to Effigy Mounds National Monument interpretive center to view informational video, displays, and resource materials.
  - Discussion of potential roles of mounds in Woodland cultures, not only as burial places, but also as symbols of group unity or territoriality.
  - Lunch at Pikes Peak State Park featuring a panoramic view of the confluence of the Wisconsin and Mississippi Rivers, a key location throughout prehistory and during Euro-American exploration and settlement of the Upper Mississippi Valley.
  - Viewing of an effigy mound at Pikes Peak State Park that is readily accessible for any participants unable to complete the strenuous hike at Effigy Mounds National Monument.
- **Battle of the Bad Axe** (*Theler, Stevenson, Jancik*)
  - Visit to a site near Victory, Wisconsin, where Sauk and Fox men, women, and children were massacred by U.S. Army regulars and militia during a pivotal episode of the Black Hawk War of 1832.
  - Why did this incident occur? Discussion of cultural misunderstandings and conflicts related to Euroamerican settlement, and competition over resources and land.

### **Wednesday, July 30 (Lecture, Discussion, Project Time):**

- **Euroamerican Contact and Settlement** (*Theler, Stevenson, Jancik*)
  - Effects of Euroamerican contact and settlement on Native peoples: disease and depopulation; population movement and forced removals; the changing economy (including the fur trade); changing alliances and allegiances; new technologies and raw materials (firearms, iron, brass, steel, glass); introduction of the horse; advancing Euroamerican settlement; formalization of property ownership; post-settlement environmental changes.
  - The end of the Oneota occupation of La Crosse, probably related to long-distance impacts of European contact even before European explorers had reached the region.
  - Changing adaptations: types of Euroamerican settlements; differences in adaptive strategies of precontact Native peoples and Euroamericans; competition over land and resources as a source of conflict.
  - Revisiting and refining earlier comparison of early Euroamerican and current Amish adaptive strategies in the Driftless Area.
- **Closing the Circle: Adaptive Strategies into Modern Times** (*Theler, Stevenson, Jancik*)
  - Summary of changing adaptations since Euroamerican settlement: What changes have occurred in the environment, technology, population density, and other aspects of culture, and how have they affected adaptive strategies and use of the land?
  - In our own society, do anthropological and archaeological principles of adaptive strategies still apply? Do people still follow an annual round? Are there still vestiges of an annual round in the participants' lives?
  - What happens into the future?
- **Applicability of Course Content** (*Theler, Stevenson, Jancik*)
  - Guided discussion on the relevance and applicability of course content to other geographic regions, times, and cultures, and to current events—e.g., examples of tribal rivalries, competition over resources as a source of conflict, conflicts between state-level political concepts or goals and tribal forms of social organization.
  - How participants can apply the project content to particular topics or areas of interest to them.
- **Group/Individual Project Time** (*Jancik, Stevenson, Theler*)

### **Thursday, July 31 (Field Trip):**

- **What New Adaptive Strategies Are Evident in the Driftless Area?** (*Theler, Stevenson, Jancik*)
  - Changes in Euroamerican agricultural strategies: What has happened to the traditional Euroamerican model of the family farm?
  - On-site visit to a century dairy farm (owned by the same family for over 100 years) that demonstrates changing adaptations through time—from traditional, to mainstream commercial, to organic methods and markets.
  - Visit to a small family farm that has transitioned to a new adaptive strategy: raising goats for a rapidly growing niche market in goat meat.
  - On-site visit and discussion with staff at the headquarters of Organic Valley, the nation's largest cooperative of organic farmers, to explore how and why some regional family farmers are choosing organic methods and markets as an adaptive strategy to address changing economic needs and realities.
  - Visit to a small, family-owned Amish farm that is a major supplier of organic produce for Organic Valley, to learn how the owners are combining traditional lifeways and farming methods with access to leading-edge market opportunities.

- Other new adaptive strategies and land uses: new crops (e.g. tobacco production replaced by vineyards), sale of rural property for recreational or residential use, Hmong garden plots for farmers' market sales. Observation and discussion while driving through the area.
- Comparison of changing adaptive strategies through time in the same locale: prehistoric hunter-gatherers, prehistoric horticulturalists and agriculturalists, earlier Euroamerican settlers, modern land uses. Adaptation to the Driftless Area environment as the common thread linking past, present, and future cultures.
- Archaeological consequences of modern land uses: How are archaeological sites and archaeological research affected by current farming methods and encroaching development? Do archaeological sites have any legal protection? How do archaeologists try to work in advance of development? Can sites be preserved, and how?

### Friday, August 1:

- **Presentation of Teacher Projects** (*Jancik, Stevenson, Theler*)
  - Participants present their individual classroom implementation projects
- **Farewell Reception (Lunch)**
- **Project Conclusion** (*Theler, Stevenson, Jancik*)
  - Final discussion session on course content and applications.
- **Project Evaluation** (*Jancik, Stevenson, Theler*)
  - Participants fill out formal evaluations.
- **Checking Out of Dorm** (*Jancik*)

### Saturday, August 2:

- **Participants Depart**

### Readings for Week 3:

- **Required Readings:**
  - Harold Hickerson, "The Virginia Deer and Intertribal Buffer Zones in the Upper Mississippi Valley," in *Man, Cultures, and Animals: The Role of Animals in Human Ecological Adjustments*, edited by A. Leeds and A. Vayda, Pub. No. 78, American Association for the Advancement of Science, Washington, D.C., pp. 43–65.
  - Edward Janus, *Creating Dairyland*, Wisconsin Historical Society Press, Madison (2011), pp. xiii-57.
  - Bobbie Malone and Diane Holliday, *Digging and Discovery: Wisconsin Archaeology*, State Historical Society of Wisconsin, Madison (2006), pp. 36-64.
  - Organic Valley web site, Why Organic? <http://www.organicvalley.coop/why-organic/overview/> and About Us <http://www.organicvalley.coop/about-us/overview/our-history/>.
  - Sissel Schroeder, "Maize Productivity in the Eastern Woodlands and Great Plains of North America," *American Antiquity*, Vol. 64 (1999), pp. 499–516.
  - James L. Theler and Robert F. Boszhardt, *Twelve Millennia: Archaeology of the Upper Mississippi River Valley*, University of Iowa Press, Iowa City (2003), pp. 97-192.
  - Gilbert L. Wilson, *Buffalo Bird Woman's Garden: Agriculture of the Hidatsa Indians*, Minnesota Historical Society Press, St. Paul (1987), pp.1–67.
- **Additional Classroom Application Resources to Review:**
  - Brian Fagan, *Ancient North America: The Archaeology of a Continent*, 3rd ed. Thames and Hudson, New York (2000).
  - Richard Townsend (editor), *Hero, Hawk, and Open Hand: American Indian Art of the Ancient Midwest and South*, Art Institute of Chicago (2004).

- **Supplemental Readings:**

- Robert Birmingham and Leslie Eisenberg, *Indian Mounds of Wisconsin*, University of Wisconsin Press, Madison (2000).
- Robert A. Birmingham and Lynne G. Goldstein, *Aztalan*, Wisconsin Historical Society Press, Madison (2005).
- Emanuel Drechsel, "Speaking "Indian" in Louisiana," *Natural History*, (1986), pp. 4, 6, 8, 10.
- James P. Gallagher, Robert F. Boszhardt, Robert F. Sasso, and Katherine Stevenson, "Oneota Ridged Field Agriculture in Southwestern Wisconsin," *American Antiquity*, Vol. 50, No. 3 (1985), pp. 605-612.
- Lynne Heasley, *A Thousand Pieces of Paradise, Landscape and Property in the Kickapoo Valley*, University of Wisconsin Press, Madison (2005).
- Patrick J. Jung, *The Black Hawk War of 1832*, University of Oklahoma Press, Norman (2007).
- Dennis Lenzendorf, *Effigy Mounds: A Guide to Effigy Mounds National Monument*, Effigy Mounds National Monument, Iowa (2000).
- Aldo Leopold, *A Sand County Almanac and Sketches Here and There*, Oxford University Press, New York (1949 and 1989).
- Charles L. Redman, *Human Impact on Ancient Environments*, The University of Arizona Press, Tuscon (1999).
- Bruce D. Smith, *The Emergence of Agriculture*, Scientific American Library, New York (1998), pp. 183-205.
- James L. Theler and Robert F. Boszhardt, "Collapse of Crucial Resources and Culture Change: A Model for the Woodland to Oneota Transformation in the Upper Midwest," *American Antiquity*, Vol. 71 (2006), pp. 433-472.
- Herman J. Viola and Carolyn Margolis (editors), *Seeds of Change*, Smithsonian Institution Press, Washington (1991)
- The Wisconsin Cartographers' Guild, *Wisconsin's Past and Present*, University of Wisconsin Press, Madison (1998), pp. 2-5, 8-15, 38-45, 64-69.
- Additional readings available, based on individual need and interest.

### ADDITIONAL RESOURCES FOR POTENTIAL CLASSROOM APPLICATION

- Louise Erdrich, *The Birchbark House*, Hyperion Books for Children, New York (1999).
- Kathleen King, *Cricket Sings: A Novel of Pre-Columbian Cahokia*, Ohio University Press, Athens (1983).
- Patty Loew, *Native People of Wisconsin* (teacher guide and student text), Wisconsin Historical Society Press, Madison (2003).
- Karen Speerstra, *The Earthshapers*, Naturegraph Publishing, Happy Camp, California (1980).
- MVAC's library of precollegiate resources will be available throughout the Institute.

### OPTIONAL ACTIVITIES

- Project staff will provide information on regional educational (e.g., museums, libraries, parks, historic or archaeological sites) and exploration (e.g., riverboat cruise, scenic drives) opportunities that participants might want to pursue on their evenings or weekends.

**Appendix E**  
**Supplementary Materials**  
**(Standards, Constructivist and Inquiry-Base**  
**Research, Constructivist Strategies, How**  
**Students Understand the Past)**

## National Council for the Social Studies

### National Curriculum Standards for Social Studies

#### Thematic Strands Addressed by the Institute

(taken from the Web site at: <http://www.socialstudies.org/standards/strands>)

#### 1) CULTURE

*Social studies programs should include experiences that provide for the study of culture and cultural diversity.*

**Human beings create, learn, share, and adapt to culture.** The study of culture examines the socially transmitted beliefs, values, institutions, behaviors, traditions and way of life of a group of people; it also encompasses other cultural attributes and products, such as language, literature, music, arts and artifacts, and foods. Students come to understand that human cultures exhibit both similarities and differences, and they learn to see themselves both as individuals and as members of a particular culture that shares similarities with other cultural groups, but is also distinctive. In a multicultural, democratic society and globally connected world, students need to understand the multiple perspectives that derive from different cultural vantage points.

**Cultures are dynamic and change over time.** The study of culture prepares students to ask and answer questions such as: What is culture? What roles does culture play in human and societal development? What are the common characteristics across cultures? How is unity developed within and among cultures? What is the role of diversity and how is it maintained within a culture? How do various aspects of culture such as belief systems, religious faith, or political ideals, influence other parts of a culture such as its institutions or literature, music, and art? How does culture change over time to accommodate different ideas, and beliefs? How does cultural diffusion occur within and across communities, regions, and nations?

**Through experience, observation, and reflection, students will identify elements of culture as well as similarities and differences among cultural groups across time and place.** They will acquire knowledge and understanding of culture through multiple modes, including fiction and non-fiction, data analysis, meeting and conversing with peoples of divergent backgrounds, and completing research into the complexity of various cultural systems.

**In schools, this theme typically appears in units and courses dealing with geography, history, sociology, and anthropology, as well as multicultural topics across the curriculum.** Young learners can explore concepts of likenesses and differences among cultural groups through school subjects such as language arts, mathematics, science, music, and art. In social studies, learners interact with class members and discover culturally-based likenesses and differences. They begin to identify the cultural basis for some celebrations and ways of life in their community and in examples from across the world. In the middle grades, students begin to explore and ask questions about the nature of various cultures, and the development of cultures across time and place. They learn to analyze specific aspects of culture, such as language and beliefs, and the influence of culture on human behavior. As students progress through high school, they can understand and use complex cultural concepts such as adaptation, assimilation, acculturation, diffusion, and dissonance that are drawn from anthropology, sociology, and other disciplines to explain how culture and cultural systems function.

## 2) TIME, CONTINUITY, AND CHANGE

*Social studies programs should include experiences that provide for the study of the past and its legacy.*

**Studying the past makes it possible for us to understand the human story across time.** The historical experiences of societies, peoples and nations reveal patterns of continuity and change. Historical analysis enables us to identify continuities over time in core institutions, values, ideals, and traditions, as well as processes that lead to change within societies and institutions, and that result in innovation and the development of new ideas, values and ways of life.

**Knowledge and understanding of the past enable us to analyze the causes and consequences of events and developments, and to place these in the context of the institutions, values and beliefs of the periods in which they took place.** Study of the past makes us aware of the ways in which human beings have viewed themselves, their societies and the wider world at different periods of time.

**Knowing how to read, reconstruct and interpret the past allows us to answer questions such as:** How do we learn about the past? How can we evaluate the usefulness and degree of reliability of different historical sources? What are the roots of our social, political and economic systems? What are our personal roots and how can they be viewed as part of human history? Why is the past important to us today? How has the world changed and how might it change in future? How do perspectives about the past differ, and to what extent do these differences inform contemporary ideas and actions?

**Children in early grades learn to locate themselves in time and space.** They gain experience with sequencing to establish a sense of order and time, and begin to understand the historical concepts that give meaning to the events that they study. The use of stories about the past can help children develop their understanding of ethical and moral issues as they learn about important events and developments. Children begin to recognize that stories can be told in different ways, and that individuals may hold divergent views about events in the past. They learn to offer explanations for why views differ, and thus develop the ability to defend interpretations based on evidence from multiple sources. They begin to understand the linkages between human decisions and consequences. The foundation is laid for the further development of historical knowledge, skills, and values in the middle grades.

**Through a more formal study of history, students in the middle grades continue to expand their understanding of the past and are increasingly able to apply the research methods associated with historical inquiry.** They develop a deeper understanding and appreciation for differences in perspectives on historical events and developments, recognizing that interpretations are influenced by individual experiences, sources selected, societal values, and cultural traditions. They are increasingly able to use multiple sources to build interpretations of past events and eras. High school students use historical methods of inquiry to engage in the examination of more sophisticated sources. They develop the skills needed to locate and analyze multiple sources, and to evaluate the historical accounts made by others. They build and defend interpretations that reconstruct the past, and draw on their knowledge of history to make informed choices and decisions in the present.

## 3) PEOPLE, PLACES, AND ENVIRONMENTS

*Social studies programs should include experiences that provide for the study of people, places, and environments.*

**The study of people, places, and environments enables us to understand the relationship between human populations and the physical world.** Students learn where people and places are located and why they are there. They examine the influence of physical systems, such as climate, weather and seasons, and natural resources, such as land and water, on human populations. They study the causes, patterns and effects of human settlement and migration, learn of the roles of different kinds of population centers in a society, and investigate the impact of human activities on the environment. This enables them

to acquire a useful basis of knowledge for informed decision-making on issues arising from human-environmental relationships.

**During their studies, learners develop an understanding of spatial perspectives, and examine changes in the relationship between peoples, places and environments.** They study the communications and transportation networks that link different population centers, the reasons for these networks, and their impact. They identify the key social, economic and cultural characteristics of populations in different locations as they expand their knowledge of diverse peoples and places. Learners develop an understanding of the growth of national and global regions, as well as the technological advances that connect students to the world beyond their personal locations.

**Today’s social, cultural, economic and civic issues demand that students apply knowledge, skills, and understandings as they address questions such as:** Why do people decide to live where they do or move to other places? Why is location important? How do people interact with the environment and what are some of the consequences of those interactions? What physical and other characteristics lead to the creation of regions? How do maps, globes, geographic tools and geospatial technologies contribute to the understanding of people, places, and environments?

**In schools, this theme typically appears in units and courses dealing with geography, regional studies, and world cultures.** Student experiences will encourage increasingly abstract thought as they use data and apply skills in analyzing human behavior in relation to its physical and cultural environment. In the early grades, young learners draw upon immediate personal experiences in their neighborhoods, towns and cities, and states, as well as peoples and places distant and unfamiliar, to explore geographic concepts and skills. They learn to use maps, globes, and other geographic tools. They also express interest in and concern for the use and misuse of the physical environment. During the middle grades, students explore people, places, and environments in this country and in different regions of the world. They learn to evaluate issues such as population growth and its impact, “push and pull” factors related to migration, and the causes and implications of national and global environmental change. Students in high school are able to apply an understanding of geospatial technologies and other geographic tools and systems to a broad range of themes and topics. As they analyze complex processes of change in the relationship between people, places, and environments, and the resulting issues and challenges, they develop their skills at evaluating and recommending public policies.

#### **4) INDIVIDUAL DEVELOPMENT AND IDENTITY**

*Social studies programs should include experiences that provide for the study of individual development and identity.*

**Personal identity is shaped by an individual’s culture, by groups, by institutional influences, and by lived experiences shared with people inside and outside the individual’s own culture throughout her or his development.** Given the nature of individual development in a social and cultural context, students need to be aware of the processes of learning, growth, and interaction at every level of their own school experiences. The examination of various forms of human behavior enhances an understanding of the relationships between social norms and emerging personal identities, the social processes that influence identity formation, and the ethical principles underlying individual action.

**Questions related to identity and development, which are important in psychology, sociology, and anthropology, are central to the understanding of who we are.** Such questions include: How do individuals grow and change physically, emotionally and intellectually? Why do individuals behave as they do? What influences how people learn, perceive, and grow? How do people meet their basic needs in a variety of contexts? How do individuals develop over time? How do social, political, and cultural interactions support the development of identity? How are development and identity defined at other times and in other places?

**The study of individual development and identity will help students to describe factors important to the development of personal identity.** They will explore the influence of peoples, places, and environments on personal development. Students will hone personal skills such as demonstrating self-direction when working towards and accomplishing personal goals, and making an effort to understand others and their beliefs, feelings, and convictions.

**In the early grades, young learners develop their personal identities in the context of families, peers, schools, and communities.** Central to this development are the exploration, identification, and analysis of how individuals and groups are alike and how they are unique, as well as how they relate to each other in supportive and collaborative ways. In the middle grades, issues of personal identity are refocused as the individual begins to explain his or her unique qualities in relation to others, collaborates with peers and with others, and studies how individuals develop in different societies and cultures. At the high school level, students need to encounter multiple opportunities to examine contemporary patterns of human behavior, using methods from the behavioral sciences to apply core concepts drawn from psychology, sociology, and anthropology as they apply to individuals, societies, and cultures.

## 5) INDIVIDUALS, GROUPS, AND INSTITUTIONS

*Social studies programs should include experiences that provide for the study of interactions among individuals, groups, and institutions.*

**Institutions are the formal and informal political, economic, and social organizations that help us carry out, organize, and manage our daily affairs.** Schools, religious institutions, families, government agencies, and the courts all play an integral role in our lives. They are organizational embodiments of the core social values of those who comprise them, and play a variety of important roles in socializing individuals and meeting their needs, as well as in the promotion of societal continuity, the mediation of conflict, and the consideration of public issues.

**It is important that students know how institutions are formed, what controls and influences them, how they control and influence individuals and culture, and how institutions can be maintained or changed.** The study of individuals, groups, and institutions, drawing upon sociology, anthropology, and other disciplines, prepares students to ask and answer questions such as: What is the role of institutions in this and other societies? How am I influenced by institutions? How do institutions change? What is my role in institutional change?

**Students identify those institutions that they encounter.** They analyze how the institutions operate and find ways that will help them participate more effectively in their relationships with these institutions. Finally, students examine the foundations of the institutions that affect their lives, and determine how they can contribute to the shared goals and desires of society.

**In schools, this theme typically appears in units and courses dealing with sociology, anthropology, psychology, political science, and history.** Young children should be given the opportunity to examine various institutions that affect their lives and influence their thinking. They should be assisted in recognizing the tensions that occur when the goals, values, and principles of two or more institutions or groups conflict—for example, the school board removing playground equipment for safety reasons vs. the same equipment being used in a city park playground (i.e., swings, monkey bars, or sliding boards). They should also have opportunities to explore ways in which institutions (such as voluntary associations, or organizations like health care networks) are created to respond to changing individual and group needs. Middle school learners will benefit from varied experiences through which they examine the ways in which institutions change over time, promote social conformity, and influence culture. They should be encouraged to use this understanding to suggest ways to work through institutional change for the common good. High school students must understand the paradigms and traditions that undergird social and political institutions. They should be provided opportunities to examine, use, and add to the body of

knowledge offered by the behavioral sciences and social theory in relation to the ways people and groups organize themselves around common needs, beliefs, and interests.

## 6) POWER, AUTHORITY, AND GOVERNANCE

*Social studies programs should include experiences that provide for the study of how people create, interact with, and change structures of power, authority, and governance.*

**The development of civic competence requires an understanding of the foundations of political thought, and the historical development of various structures of power, authority, and governance. It also requires knowledge of the evolving functions of these structures in contemporary U.S. society, as well as in other parts of the world.** Learning the basic ideals and values of a constitutional democracy is crucial to understanding our system of government. By examining the purposes and characteristics of various governance systems, learners develop an understanding of how different groups and nations attempt to resolve conflicts and seek to establish order and security.

**In exploring this theme, students confront questions such as:** What are the purposes and functions of government? Under what circumstances is the exercise of political power legitimate? What are the proper scope and limits of authority? How are individual rights protected and challenged within the context of majority rule? What conflicts exist among fundamental principles and values of constitutional democracy? What are the rights and responsibilities of citizens in a constitutional democracy?

**Through study of the dynamic relationships between individual rights and responsibilities, the needs of social groups, and concepts of a just society, learners become more effective problem-solvers and decision-makers when addressing the persistent issues and social problems encountered in public life.** By applying concepts and methods of political science and law, students learn how people work to promote positive societal change.

**In schools, this theme typically appears in units and courses dealing with government, politics, political science, civics, history, law, and other social sciences.** Learners in the early grades explore their natural and developing sense of fairness and order as they experience relationships with others. They develop an increasingly comprehensive awareness of rights and responsibilities in specific contexts. During the middle school years, these rights and responsibilities are applied in more complex contexts with emphasis on new applications. Learners study the various systems that have been developed over the centuries to allocate and employ power and authority in the governing process. High school students develop their abilities to understand and apply abstract principles. At every level, learners should have opportunities to apply their knowledge and skills to participate in the workings of the various levels of power, authority, and governance.

## 7) PRODUCTION, DISTRIBUTION, AND CONSUMPTION

*Social studies programs should include experiences that provide for the study of how people organize for the production, distribution, and consumption of goods and services.*

**People have wants that often exceed the limited resources available to them.** The unequal distribution of resources necessitates systems of exchange, including trade, to improve the well-being of the economy, while the role of government in economic policy-making varies over time and from place to place. Increasingly, economic decisions are global in scope and require systematic study of an interdependent world economy and the role of technology in economic growth. As a result, a variety of ways have been invented to decide upon answers to four fundamental questions: What is to be produced? How is production to be organized? How are goods and services to be distributed and to whom? What is the most effective allocation of the factors of production (land, labor, capital, and entrepreneurship)?

**In exploring this theme, students confront such questions as:** What factors influence decision-making on issues of the production, distribution and consumption of goods? What are the best ways to deal with market failures? How does interdependence brought on by globalization impact local economies and social systems?

**Students will gather and analyze data, as well as use critical thinking skills to determine how best to deal with scarcity of resources.** The economic way of thinking will also be an important tool for students as they analyze complex aspects of the economy.

**In schools, this theme typically appears in units and courses dealing with concepts, principles, and issues drawn from the discipline of economics.** Young learners begin by prioritizing their economic wants vs. needs. They explore economic decision-making as they compare their own economic experiences with those of others and consider the wider consequences of those decisions on groups, communities, the nation, and beyond. In the middle grades, learners expand their knowledge of economic concepts and principles, and use economic reasoning processes in addressing issues related to fundamental economic questions. High school students develop economic perspectives and deeper understanding of key economic concepts and processes through systematic study of a range of economic and sociopolitical systems, with particular emphasis on the examination of domestic and global economic policy options related to matters such as trade, resource use, unemployment, and health care.

## **8) SCIENCE, TECHNOLOGY, AND SOCIETY**

*Social studies programs should include experiences that provide for the study of relationships among science, technology, and society.*

**Science, and its practical application, technology, have had a major influence on social and cultural change, and on the ways people interact with the world.** Scientific advances and technology have influenced life over the centuries, and modern life, as we know it, would be impossible without technology and the science that supports it.

**There are many questions about the role that science and technology play in our lives and in our cultures.** What can we learn from the past about how new technologies result in broader social change, some of which is unanticipated? Is new technology always better than that which it replaces? How can we cope with the ever-increasing pace of change, perhaps even the concern that technology might get out of control? How can we manage technology so that the greatest numbers of people benefit? How can we preserve fundamental values and beliefs in a world that is rapidly becoming one technology-linked village? How do science and technology affect our sense of self and morality? How are disparate cultures, geographically separated but impacted by global events, brought together by the technology that informs us about events, and offered hope by the science that may alleviate global problems (e.g., the spread of AIDS)? How can gaps in access to benefits of science and technology be bridged?

**This theme appears in units or courses dealing with history, geography, economics, and civics and government.** It draws upon several scholarly fields from the natural and physical sciences, social sciences, and the humanities for specific examples of issues as well as the knowledge base for considering responses to the societal issues related to science and technology.

**Young children learn how science and technologies influence beliefs, knowledge, and their daily lives.** They study how basic technologies such as telephones, ships, automobiles, and airplanes have evolved and how we have employed technology such as air conditioning, dams, and irrigation to modify our physical environment and contribute to changes in global health and economics. From history (their own and others'), they can construct examples of the effects of technologies such as the wheel, the stirrup, an understanding of DNA, and the Internet. In the middle grades, students begin to explore the complex influence of scientific findings and technology on human values, the growth of knowledge, and behavior. Students examine scientific ideas and technological changes that have surprised people and even

challenged their beliefs, as in the case of discoveries about our universe and their technological applications, as well as the genetic basis of life, atomic physics, and other subjects. As they move from the middle grades to high school, students continue to think analytically about the consequences of change and how we can manage science and technology to increase benefits to all. Students gain the knowledge to analyze issues such as the protection of privacy in the age of the Internet; electronic surveillance; the opportunities and challenges of genetic engineering; test-tube life; and other findings and technologies with implications for beliefs, longevity, and the quality of life and the environment.

## 9) GLOBAL CONNECTIONS

*Social studies programs should include experiences that provide for the study of global connections and interdependence.*

**Global connections have intensified and accelerated the changes faced at the local, national, and international levels.** The effects are evident in rapidly changing social, economic, and political institutions and systems. World trade has expanded and technology has removed or lowered many barriers, bringing far-flung cultures, institutions, and systems together. Connections among nations and regions of the world provide opportunities as well as uncertainties. The realities of global interdependence require deeper understanding of the increasing and diverse global connections among world societies and regions.

**In exploring this theme, students confront questions such as:** What are the different types of global connections? What global connections have existed in the past, exist currently, and are likely in the future? How do ideas spread between societies in today's interconnected world? How does this result in change in those societies? What are the other consequences of global connections? What are the benefits from and problems associated with global interdependence? How might people in different parts of the world have different perspectives on these benefits and problems? What influence has increasing global interdependence had on patterns of international migration? How should people and societies balance global connectedness with local needs? What is needed for life to thrive on an ever changing and increasingly interdependent planet?

**Analyses of the costs and benefits of increased global connections, and evaluations of the tensions between national interests and global priorities, contribute to the development of possible solutions to persistent and emerging global issues.** By interpreting the patterns and relationships of increased global interdependence, and its implications for different societies, cultures and institutions, students learn to examine policy alternatives that have both national and global implications.

**This theme typically appears in units or courses dealing with geography, culture, economics, history, political science, government, and technology but may also draw upon the natural and physical sciences and the humanities, including literature, the arts, and languages.** Through exposure to various media and first-hand experiences, young learners become aware of how things that happen in one part of the world impact other parts of the world. Within this context, students in early grades examine and explore various types of global connections as well as basic issues and concerns. They develop responsive action plans, such as becoming e-pals with a class in another part of the world. In the middle years, learners can initiate analyses of the consequences of interactions among states, nations, and world regions as they respond to global events and changes. At the high school level, students are able to think systematically about personal, national, and global decisions, and to analyze policies and actions, and their consequences. They also develop skills in addressing and evaluating critical issues such as peace, conflict, poverty, disease, human rights, trade, and global ecology.

## National Center for History in the Schools

### National Standards for History: Standards Addressed by the Institute (taken from the Web site at <http://nchs.ucla.edu/standards>)

#### NATIONAL STANDARDS FOR HISTORY (K-4)

- *Standards in Historical Thinking*

Standard 1: Chronological Thinking

- A. Distinguish between past, present, and future time.
- G. Explain change and continuity over time.

Standard 2: Historical Comprehension

- E. Appreciate historical perspectives.
- F. Draw upon data in historical maps.

Standard 3: Historical Analysis and Interpretation

- A. Formulate questions to focus their inquiry or analysis.
- B. Compare and contrast differing sets of ideas, values, personalities, behaviors, and institutions.
- G. Consider multiple perspectives.
- H. Explain causes in analyzing historical actions.
- J. Hypothesize influences of the past.

Standard 4: Historical Research Capabilities

- A. Formulate historical questions.
- B. Obtain historical data.
- C. Interrogate historical data.
- D. Marshal needed knowledge of the time and place, and construct a story, explanation, or historical narrative.

Standard 5: Historical Issues-Analysis and Decision-Making

- A. Identify problems and dilemmas in the past.
- B. Analyze the interests and values of the various people involved.
- C. Identify causes of the problem or dilemma.
- D. Propose alternative choices for addressing the problem.
- E. Formulate a position or course of action on an issue.
- F. Identify the solution chosen.
- G. Evaluate the consequences of a decision.

- *Standards in History for Grades K-4*

Topic 1: Living and Working Together in Families and Communities, Now and Long Ago

Standard 2: History of Students' Local Community and How Communities in North America Varied Long Ago

Topic 2: The History of the Students' Own State or Region

Standard 3: The People, Events, Problems, and Ideas that Created the History of Their State

Topic 3: The History of the United States: Democratic Principles and Values and the Peoples from Many Cultures Who Contributed to Its Cultural, Economic and Political Heritage  
Standard 5: The Causes and Nature of Various Movements of Large Groups of People into and within the United States, Now and Long Ago

Topic 4: The History of Peoples of Many Cultures around the World  
Standard 7: Selected Attributes and Historical Developments of Various Societies in Africa, the Americas, Asia, and Europe  
Standard 8: Major Discoveries in Science and Technology, Their Social and Economic Effects, and the Scientists and Inventors Responsible for Them

## **NATIONAL STANDARDS FOR UNITED STATES AND WORLD HISTORY (5-12)**

- *Standards in Historical Thinking*

Standard 1: Chronological Thinking

- A. Distinguish between past, present, and future time.
- E. Interpret data presented in time lines.
- F. Reconstruct patterns of historical succession and duration.

Standard 2: Historical Comprehension

- E. Draw upon data in historical maps.

Standard 3: Historical Analysis and Interpretation

- B. Compare and contrast differing sets of ideas, values, personalities, behaviors, and institutions.
- C. Differentiate between historical facts and historical interpretations.
- D. Consider multiple perspectives.
- E. Analyze cause-and-effect relationships and multiple causations, including the importance of the individual, the influence of ideas, and the role of chance.
- H. Hold interpretations of history as tentative.
- I. Evaluate major debates among historians.
- J. Hypothesize the influence of the past.

Standard 4: Historical Research Capabilities

- A. Formulate historical questions.
- B. Obtain historical data.
- C. Interrogate historical data.
- D. Identify the gaps in the available records, marshal contextual knowledge and perspectives of the time and place, and construct a sound historical interpretation.

Standard 5: Historical Issues-Analysis and Decision-Making

- A. Identify issues and problems in the past.
- B. Marshal evidence of antecedent circumstances and contemporary factors contributing to problems and alternative courses of action.
- C. Identify relevant historical antecedents.
- D. Evaluate alternative courses of action.
- E. Formulate a position or course of action on an issue.
- F. Evaluate the implementation of a decision.

- *United States History Standards for Grades 5-12*
  - Era 1: Three Worlds Meet (Beginnings to 1620)
    - Standard 2: How early European exploration and colonization resulted in cultural and ecological interactions among previously unconnected peoples
  - Era 4: Expansion and Reform (1801–1861)
    - Standard 1: United States territorial expansion between 1801 and 1861, and how it affected relations with external powers and Native Americans
- *World History Standards for Grades 5-12*
  - Era 1: The Beginning of Human Society
    - Standard 2: The processes that led to the emergence of agricultural societies around the world
  - Era 5: Intensified Hemispheric Interactions – 1000–1500 CE
    - Standard 6: The expansion of states and civilizations in the Americas, 1000–1500

**Common Core State Standards  
for  
English Language Arts &  
Literacy in History/Social Studies, Science, and Technical Subjects**

**Standards Addressed by the Institute**

(taken from the Web site at: [http://www.corestandards.org/assets/CCSSI\\_ELA%20Standards.pdf](http://www.corestandards.org/assets/CCSSI_ELA%20Standards.pdf))

**Reading Standards for Literacy in History/Social Studies 6-12**

<b>Grades 6-8 students:</b>	<b>Grades 9-10 students:</b>	<b>Grades 11-12 students:</b>
<b>Key Ideas and Details</b>		
1. Cite specific textual evidence to support analysis of primary and secondary sources.		
2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.	2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.	2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.
3. Identify key steps in a text’s description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered).	3. Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them.	3. Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.
<b>Craft and Structure</b>		
4. Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.	4. Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social studies.	
<b>Integration of Knowledge and Ideas</b>		
7. Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.	7. Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text.	7. Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.

**Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects 6-12**

<b>Grades 6-8 students:</b>	<b>Grades 9-10 students:</b>	<b>Grades 11-12 students:</b>
<b>Text Types and Purposes</b>		
2. Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.	2. Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.	2. Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.
a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.		
d. Use precise language and domain-specific vocabulary to inform about or explain the topic.	d. Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers.	d. Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.
e. Establish and maintain a formal style and objective tone.	e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.	

<b>Production and Distribution of Writing</b>		
4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
6. Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently.	6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.	
<b>Research to Build and Present Knowledge</b>		
7. Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.	8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.	8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.
9. Draw evidence from informational texts to support analysis, reflection, and research.	9. Draw evidence from informational texts to support analysis, reflection, and research.	9. Draw evidence from informational texts to support analysis, reflection, and research.

## **Research Support for Use of Constructivism and Inquiry-Based Methods in Teacher Professional Development**

### **Constructivism**

Institute activities are designed to create cognitive dissonance between teacher participants' existing beliefs and their new learning, a process endorsed by professional development experts (Loucks-Horsley and Matsumoto 1999; Radford 1998). Teachers "must actively inquire into students' thinking, creating classroom tasks and conditions under which students thinking can be revealed" (Bransford et al. 2000:19). In the proposed Institute, one means of linking teacher professional development experiences directly to student achievement will be through activities in which teachers utilize a constructivist approach to break down and analyze how they conceptualize and learn history. When teachers return to their schools, they will be able to apply these same techniques to evaluate more effectively how their students learn content, critically evaluating their students' thinking processes to identify and resolve student misconceptions (Loucks-Horsley and Matsumoto 1999; Radford 1998).

### **Inquiry-Based Methods**

Substantial research indicates that the use of inquiry-based learning (IBL) reflects a strong best practices model for both teachers and students (for example, Delisle 1997; Perkins 1992; Thomas 2000). IBL facilitates seeing the interrelationships of multiple fields of knowledge, and addresses real-world, multifaceted needs (Delisle 1997), a framework necessary for in-depth understanding of the Institute's content. Throughout the Institute, teachers will learn integrated archaeological, anthropological, historical, and cultural content through activities that examine primary and secondary information sources, engage in in-depth scholarly discussions with faculty, and attempt to understand the content by posing and answering real questions about how cultures interacted and changed through time. Workshop activities such as flintknapping provide content information that can be provided most effectively through active experiential learning. The activities actively involve teachers in the process of discovering and creating the past. These are practices that participants are encouraged to replicate in their own classrooms as they design their individual implementation projects.

The National Staff Development Council (2001:11) notes that in quality teaching, “teachers experience firsthand as learners the instructional approaches they use in the classroom.” IBL education promotes informed, energetic, and thoughtful learning, “generative knowledge” (Perkins 1992). Rather than taking the approach of “teaching to the test,” where students memorize key formulas and solutions, IBL fosters students’ and teachers’ abilities to not only enhance content retention, but also facilitate application of that content to novel problems (Thomas 2000). IBL also addresses multiple intelligences (Perkins 1992). In addition, IBL enhances intrinsic motivation for learning and promotes the use of higher-order thinking skills (Sheldon and Biddle 1998; Voke 2002), encouraging lifelong learning (e.g., Wolk 2003).

Long known to be highly motivating for students and teachers (Higgins and Holm 1986; Smardz and Smith 2000), archaeology provides endless opportunities for teachers to engage in inquiry-based activities that explore the rich archaeological records of past cultures and their changes through time.

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**Constructivist Strategies: Meeting Standards and Engaging Adolescent Minds**  
**By Chandra J. Foote, Paul J. Vermette, Catherine F. Battaglia**  
**Eye on Education, Larchmont, New York, 2001.**

**Constructivist Teaching Practices (pp. 8–9)**

1. Encourage and accept student autonomy and initiative.
2. Use raw data and primary sources, along with manipulative, interactive, and physical materials whenever possible.
3. Use cognitive terminology such as “classify,” “analyze,” “predict,” and “create” when framing tasks.
4. Allow student responses to drive lessons, shift instructional strategies, and alter content.
5. Inquiry about students’ understandings of concepts before sharing teacher understandings about those concepts.\*
6. Encourage students to engage in dialogue, with one another and the teacher.
7. Provoke student inquiry by asking thoughtful, open-ended questions and encourage students to pose questions to each other.
8. Seek elaboration of students’ initial responses.
9. Engage students in experiences that might engender contradictions to their initial hypotheses and beliefs and then encourage discussion.
10. Allow wait time after posing questions.
11. Provide time for students to think analogously by creating relationships and metaphors.
12. Nurture students’ natural curiosity through frequent use of the learning cycle model:
  - a. Provide open-ended opportunity for students to interact with purposefully selected materials;
  - b. Provide “concept introductions” lessons aimed at focusing the students’ questions; provide related new vocabulary, framing with students their proposed experiences, and so forth;
  - c. Provide “concept application” opportunities: students work on new problems with the potential for evoking a fresh look at the concepts previously studied.\*

\*Adapted from *The Accomplishment of Cognitive Research Over the Last Twenty Five Years*, by Santa A. Raisen.

**How Students Understand the Past**  
by M. Elaine Davis  
AltaMira Press, New York, 2005

**Essential Points: A Review (pp. 119–120)**

1. Historical knowledge can be structured in at least two ways: narrative understanding and logical-scientific understanding. Narrative structure is used to convey essential meaning and may not adhere to a strict chronological/linear view of past events. This does not mean that the meaningful sequence is not necessarily chronicle. The way in which historical knowledge is constructed may vary cross-culturally.
2. History should be viewed as all of the human past, not just the written past. To believe otherwise is to deny the legitimacy of the past of many groups of people.
3. Knowledge of the past is constructed and learners enter into studies of the past with preconceptions. Discovering learner preconceptions is an important step in the development of effective and meaningful learning experiences.
4. What educators believe they are teaching may not, in fact, be what students are learning. Thus, the ongoing examination of students' conceptual understanding is an important aspect of the instructional process. This may best be achieved through engaging students in dialog about their perceptions.
5. We, as educators, have our own assumptions regarding the audience we teach. These assumptions may be both personal and professional in nature. It is critical that we recognize our assumptions, understand how they shape instructional design, and examine how they may place constraints on what we learn.
6. Meaningful learning requires active engagement in the construction of knowledge. People become engaged in studies of the past when they understand that history is made, when they are shown how it is made, and when they are provided opportunities to share in its construction.
7. Multiple modes of instruction, particularly visual information, help students make meaning of the past. Therefore, it is important to interrogate instructional materials for their potential to inform as well as misinform. What is the possibility that the information may be misunderstood or erroneously interpreted?
8. The context or setting in which instruction takes place is an important and powerful part of the instruction. For example, when artifacts are being used to teach about a past culture, the setting in which the learner encounters the artifacts will influence what is learned.
9. Objects (artifacts, ancient structures, replicas, etc.) contribute to the learner's understanding of life in the past in a way that words alone cannot convey. This is particularly true for objects that can be held or used in some way. Authentic objects play a different role than replicas in the construction of knowledge about the past. Authentic or "real" objects are direct evidence of the past, whereas replicas are generally used to teach concepts about life in the past.
10. If learners are to make meaning of the past, it must have relevance for them. This is one of the most important challenges for history and archaeology educators. Some common ways of establishing relevance include examination of daily tasks of "ordinary people," research into personal and family histories, the study of one's community or cultural group, and the studies of one's own gender or peer group in a particular historical era.

11. Learners become more engaged in studies of the past when they are actively involved in constructing it. This requires a heavy emphasis on inquiry in instructional process.