Protecting Archeological Sites on Private Lands

U.S. Department of the Interior
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Cultural Resources

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As part of the responsibilities of the U.S. Department of the Interior and the National Park Service to provide technical assistance on historic preservation and cultural resource management, this publication discusses a range of approaches being used to protect archeological sites on private land. This publication is provided for the informational use of its readers and is not intended to represent official U.S. Department of the Interior or National Park Service policy for any specific situation.

ON THE COVER: View of the 11,000-year-old Thunderbird Site in Warren County, Virginia. The reproduction of one of the earliest human structures in the Western Hemisphere was based on archeological evidence from the site. The Archeological Society of Virginia and the Thunderbird Research Corporation are purchasing undeveloped house lots to protect the site from destruction. (Photo courtesy of Heritage Resources Branch, Fairfax County, Virginia, Office of Comprehensive Planning)

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Preface

Thirteen years ago, a small article entitled "Legal Tools to Preserve Archeological Sites" by Geoffrey M. Gyrisco, was published in *11593*, a newsletter of information about historic preservation techniques for the professional community and lay public, put out by the Heritage Conservation and Recreation Service of the U.S. Department of the Interior. The newsletter has long since ceased publication, and the functions of the Heritage Conservation and Recreation Service have been incorporated into the National Park Service. Mr. Gyrisco's article, however, was so popular that it circulated in photocopy form long after the newsletter issue was out of print.

This showed that there continued to be a strong state and local interest in the variety of strategies, both regulatory and non-regulatory, that can be used to protect the nation's archeological heritage. Private landowners and local communities are becoming increasingly aware of their archeological heritage and are looking for ways to protect it. More and more, pressures on archeological sites originate not from federally assisted projects, but from state, local, and privately funded development and site looting. There are a wide variety of regulatory and non-regulatory techniques available that can provide some measure of archeological protection from these pressures. Unfortunately, except for photocopies of Mr. Gyrisco's 13-year-old article, information on these protection techniques is not readily available to those who would benefit from their application. It has become clear that an update and expansion of Mr. Gyrisco's original article was needed. This publication is the result.

This publication also partially fulfills the Secretary of the Interior's responsibilities under Section 112(b) of the 1992 amendments to the National Historic Preservation Act for providing resource protection information to owners of historic and archeological properties. More specifically, information is provided on strategies for protecting archeological sites that can be used in local communities when there is no federal involvement in a project. It is in local communities where decisions are made during the administration of land-use planning, zoning, subdivision ordinances, and other regulations that determine whether archeological sites are protected or destroyed. These land-use controls offer considerable potential for protecting archeological sites, although they have not been widely applied for this purpose. Archeology and its advocates have not been major partners in historic preservation and land-use decision-making, although the information in this book illustrates that it is possible. Written for professional and avocational archeologists, local preservation commissions, planners, and developers, this publication provides a general overview of local land-use regulations and other non-regulatory techniques that have been used in local communities to protect archeological sites. We in the National Park Service hope you will find this book useful as you seek to protect your community's and the nation's archeological heritage.

Acknowledgements

This publication would not have been possible if Geoffrey M. Gyrisco had not lead the way with his pioneering article in 1980. All of us who care about protecting archeological sites within the broader world of land-use decision-making owe him a great debt of gratitude. Early consultations with Ronald D. Anzalone, Advisory Council on Historic Preservation, and Francis P. McManamon, Departmental Consulting Archeologist, National Park Service, provided valuable support and guidance as the project got off the ground. Special thanks are due to Thomas H. Veech, summer legal intern, who compiled information and prepared early drafts of parts of this publication. Stephen N. Dennis, National Center for Preservation Law, Larry Wenger, University of Virginia Law Library, Bernie Callan, then with the National Alliance of Preservation Commissions, and Kathleen Schamel, CEHP, Inc., representing the Society for American Archaeology, provided critical advice and suggestions during the course of the project. Dick Waldbauer, Archeological Assistance Division, National Park Service, was a genial and helpful sounding board for a variety of ideas. Special thanks also to de Teel Patterson Tiller, Chief, Preservation Planning Branch, Interagency Resources Division, and Patricia L. Parker, Deputy Chief, Preservation Planning Branch, for their continuing support for and important contributions to this project. And last, but not at all least, thanks to the following who took time out of their busy schedules to review the draft manuscript and send their comments: Col. Bernard Brennan, Chair, Alexandria, Virginia Archaeology Commission; Allyson Brooks, Archaeologist, South Dakota State Historical Society; Kathleen Byrd, State Archaeologist, Louisiana Department of Culture, Recreation and Tourism; David Dutton, Archaeologist, Virginia Department of Historic Resources; William G. Farrar, Deputy State Historic Preservation Officer, West Virginia; Kevin Foster, Maritime Historian, National Park Service, Washington, D.C.; Lea Fowlie, Friends of Alexandria Archaeology, Alexandria, Virginia; Leland Gilsen, Archaeologist, Oregon State Historic Preservation Office; Geoffrey M. Gyrisco, Chief, Survey and Registration, State Historical Society of Wisconsin; Laura Henley, Archaeologist, Historic Preservation Division, Department of Consumer and Regulatory Affairs, District of Columbia; A. Gwynn Henderson, Staff Archaeologist, Program for Cultural Resource Assessment, University of Kentucky; Teresa Hoffman, Deputy State Historic Preservation Officer, Arizona; Bill Hunt, Planner, Planning Department, City of Ocala, Florida; Michael F. Johnson, County Archaeologist, Fairfax County, Virginia; Paula Massouh, Alexandria, Virginia Archaeology Commission; Francis P. McManamon, Departmental Consulting Archeologist and Chief, Archeological Assistance Division, National Park Service, Washington, D.C.; Ruthanne L. Mitchell, Cultural Resource Planner, National Park Service, Southeast Region, Atlanta; Stephen A. Morris, Preservation Planner, National Park Service, Washington, D.C.; Jonathan P. Rak, Esq., Hazel and Thomas, Alexandria, Virginia; John Renaud, Esq., National Park Service, Washington, D.C.; Kathleen Schamel, CEHP, Inc., Washington, D.C.; and Brona G. Simon, State Archaeologist and Deputy State Historic Preservation Officer, Massachusetts Historical Commission.

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Chapter 1 Introduction

Laws directed at protecting archeological sites frequently target those located on State or federally owned property, but many sites are located on private property. These sites represent a significant portion of the identified sites in many States, meaning that large numbers of our nation's archeological resources are not protected.

"The Kentucky Archaeological Registry"
Guynn A. Henderson

For at least 12,000 years, men, women, and children have lived, worked, and played in what is now the United States. Archeological sites can tell their stories. A jasper projectile point embedded in the rib of a deer tells of a successful hunt. A ring of charcoal-blackened stones tells of many meals cooked for the hunter and his family. A trash pit contains the debris of 19th-century household domesticity — a worn-out scrub brush, a favorite tea cup accidentally broken, wine bottles and plate scrapings from a holiday dinner, a child's marble, and a cameo brooch lost but not forgotten. A rectangle of cut stone painstakingly laid by hand forms the foundation of a long-gone house that was home to five generations of cotton farmers.

As repositories of information about 12 thousand years of human history, archeological sites are more than soil layers containing objects discarded, lost, abandoned, or intentionally buried. But since most archeological sites have little or no above-ground evidence, they are often difficult to recognize. More often than not, this means that archeological sites, and the historical information they contain, can be damaged or destroyed by well-intentioned but uninformed landowners who continue using their land or seek to improve its value through development.

Private landowners and local communities are becoming increasingly aware of their archeological heritage and are seeking ways to protect it and to explain archeology's stories to the public. Although federal agencies are required by law to consider the effects their projects may have on archeological sites and other historic places, such federal law does not generally apply to private actions if there is no federal involvement in the activity.

Archeological protection guidance currently available focuses primarily on how federal agencies can combat site looting and vandalism by implementing the provisions of the Archaeological Resources Protection Act and other federal laws; how the Native American Graves Protection and Repatriation Act can ensure sensitive treatment of burials and repatriation of Native American cultural items;[1] and how federally assisted projects can comply with Section 106 of the National Historic Preservation Act and

[1] Cultural items are defined in the Native American Graves Protection and Repatriation Act as human remains, funerary objects, sacred objects, and objects of cultural patrimony. For additional information, see "Managing Repatriation: Implementing the Native American Graves Protection and Repatriation Act" by Francis P. McManamon.

with other federal laws (see Appendix F for a summary of federal laws). Information is also available on historic preservation techniques at the local level, but this guidance tends to focus on buildings rather than archeological sites. There is little guidance on how to protect archeological sites on private lands, especially those sites that may be facing development by non-federally assisted private and public actions.

This publication is organized into five parts, subdivided by topical chapters on various protection techniques. A bibliography concludes each part. The three chapters in Part 1 lay the groundwork for the following chapters by discussing what archeology is, the many values of archeological sites, actions that threaten those values, and legal aspects of archeological site protection. Part 2 contains five chapters on protection techniques that rely on the law for their effectiveness. Owning full or partial interest in an archeological site can be a very effective protection strategy. Promoting the compatibility of land use with archeological site protection through local ordinances and development processes and by incorporating archeology in local historic preservation ordinances are important techniques that focus on regulating uses and activities on lands that contain archeological sites. Laws specific to archeology ensure that appropriate professional standards are followed in investigating archeological sites, that archeological materials are properly cared for, and that penalties are imposed on those who violate the law. A number of tax benefits are available as incentives for protecting archeological sites and other valued historic and natural areas.

The three chapters in Part 3 provide information on non-regulatory techniques that can be used to protect archeological sites. Voluntary stewardship programs help build a preservation ethic and a sense of community responsibility and pride in the community's archeological heritage. These programs also offer opportunities for the public to learn about archeology and get involved in archeological site protection activities. Long-term management programs are essential in strengthening archeological site protection. Various site stabilization techniques help protect archeological sites from erosion and vandalism. Signs not only educate the public about the history of the site, but also warn of relevant legal protection and penalties. Community archeology programs strengthen archeological site protection through professional administration of relevant ordinances. These programs also provide an important focal point for community interest in archeology through citizen involvement and education in archeological activities.

Part 4 contains the concluding chapter, which emphasizes the importance of consulting legal experts and using creativity in applying various combinations of protection techniques. A number of appendices are found in Part 5. Each appendix provides more detailed information on subjects related to archeological site protection. Appendices include a summary chart of the protection strategies described in Parts 2 and 3, a discussion of the steps involved in doing archeology, guidance on obtaining archeological services and working with developers, sources of financial assistance for archeological projects, a summary of relevant federal laws, and sources for obtaining additional information.

If you are interested in finding out more about archeological site protection under federal laws, Appendix F contains a summary of federal law, and other publications listed in the bibliographies, such as "Legal Background for Archeological Resources Protection" by Carol Carnett; *Archeological Resource Protection* by Sherry Hutt, Elwood W. Jones, and Martin McAllister; and *Protecting the Past* edited by George S. Smith and John E. Ehrenhard should be useful. For information about archeological site protection under state laws, contact your State Historic Preservation Office (listed in Appendix G). If you are looking for guidance on how to draft a local archeology ordinance, *A Handbook on Historic Preservation Law* edited by Christopher J. Duerksen might be a good place to start for general information. Remember that the particular form a local protection ordinance will take depends upon state enabling law, powers of local government, and the structure of the existing legal code. This book is not intended to be a detailed legal manual or a thorough survey of all potentially applicable laws and strategies; it is a general overview of approaches that are being, or could be, used to protect archeological sites in local communities. It is hoped that you will find it useful in determining an approach for protecting the archeological sites you care about.

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Part 1 Archeological Values and the Law

The developer of this townhouse project in Fairfax County, Virginia allowed the County Archaeologist and volunteers from the Northern Virginia Chapter of the Archeological Society of Virginia to rescue important information from this site, but it was a hazardous undertaking. There are more effective strategies for protecting archeological sites than "hard-hat archeology." Archeological site protection depends upon balancing archeological site values, the interests of the public to know about the past, the legal rights of landowners, and community values and goals. The chapters in Part 1 explore these important considerations. (Photo courtesy of Heritage Resources Branch, Fairfax County, Virginia, Office of Comprehensive Planning)

Chapter 2 What is Archeology?

Archeology evokes varying images for different people. For many, archeology is an adventure — the escapades of Indiana Jones and the curses of King Tut's tomb. For others, archeology is romance, mystery, and the "thrill of discovery" — being able to hold objects that haven't been touched by human hands for hundreds or thousands of years. In reality, archeology is all of this and more. Archeology is also the scientific study of past human lifeways through the systematic observation and analysis of the material remains of human activities.

Archeologists in the United States study human lifeways of all time periods. The period from at least 12,000 years ago up until Old World explorers and settlers arrived encompasses the rich history of Native American life on the North American continent. This time period has been traditionally called *prehistory* by archeologists because there are no written records of these times. For this time period, archeology is one of our best ways to understand the long, rich history of Native American life. The arrival of explorers and settlers from Europe, Africa, and Russia occurred at different times in various parts of the country and ushered in what archeologists call the *contact* period. Archeological sites of this period document the political, military, economic, and social interactions between Native Americans and Old World explorers and settlers. *Historical archeology* covers the period for which there are written records. Historical archeologists use written information together with archeological information to produce a richer and more complete understanding of the past than either could if used alone.

The focus of archeological attentions is the *site* — a place where human activity occurred. Native American sites include short-term camps, villages, hunting stations, and quarries. Historic period sites are quite varied, and include farmsteads, stores, mills, mining complexes, craft shops and factories, wharves, canals, villages, taverns, schools, and urban centers.

An archeological site has horizontal and vertical dimensions. Horizontally, a site may be a few feet across, or may cover several hundred acres or more. Vertically, a site may contain archeological materials only on the ground surface, such as the scatter of stone chips remaining after an Indian hunter has sharpened his weapons and moved on, or archeological materials may be as much as a couple dozen feet deep, such as a 200-year-old ship hull sunk as a foundation for urban waterfront landfill. Some archeological sites may be underwater, such as shipwrecks or inundated dry-land sites.

Few archeological sites are simple and straightforward. Most are complex, containing diverse elements, or *components*, each of which may represent a different activity. For example, a 19th-century farmstead with a house, a springhouse, a barn, three sheds, a well, a privy, a garden, and several livestock enclosures has at least ten components. These components represent household and personal activities, dairy production, livestock husbandry, gardening, and other farming activities. Studying only one component of this site — the remains of the house, or one of the trash dumps, for example — would give a very limited picture of the richness and diversity of farmstead

Aerial view of Cliff Palace, a ca. 1200 A.D. Anasazi cliff dwelling in Mesa Verde National Park, Colorado. Archeological study of this magnificent village, carried out since the late 19th century, has taught us how these people lived in the high desert. About 250 people lived here in clusters of apartment-like rooms that have been associated with family groups or clans. Ceremonies were held in circular, below-ground rooms called "kivas." In irrigated farm plots on the nearby mesa top, corn, beans, and squash were cultivated, and turkeys were raised. The Anasazi exercised great artistry in making baskets, pottery, sandals, cotton cloth, netting and cordage, ornaments of turquoise, shell, and copper, and stone, bone, and wood tools. (Photo courtesy of Bruce J. Noble, Jr.)

life. All site components bear a relationship to one another, and all components, including the buildings and landscapes, need to be studied in order to understand the way of life once carried out at this site.

Each component of an archeological site contains the data of archeological study — artifacts, features, and ecological evidence. *Artifacts* are objects manufactured by hand or machine, such as clay bowls, porcelain plates, metal hinges, glass bottles, shell beads, and stone projectile points and scrapers. *Features* are immovable manufactured objects, larger than artifacts, such as buildings, walls, trash pits, fire pits or hearths, and wells. Features often contain artifacts, or have artifacts associated with them. *Ecological evidence*, or *ecofacts*, provides information about the site's environment, which may or may not have been altered or affected by human actions at the site. This evidence can include soils, seeds and pollen and other plant remains, animal bone, shells, and charcoal.

The spatial and temporal relationships among the site's soil layers, artifacts, features, ecological evidence, and components, and between one site and others, are critical to understanding the past human activities and social processes. A basic assumption underlying all archeological study is that human behavior is not random, and that the patterning observable in the relationships among a site's elements is directly related to that behavior. It is this aspect of archeological study that enables archeologists to explain what happened at a site and why, thereby increasing our knowledge about the past.

Chapter 3 The Values of Archeological Sites

One of the fundamental values of archeological sites lies in the information that sites contain and the knowledge that can be gained from their study. Closely related is a site's research or scientific value — the ability of a site's information to be used in answering important questions about the past — and a site's interpretive or educational value — the ability to use the site itself or the results of research to teach others about the past.

The key characteristic of archeological sites that gives them their information value is the intact quality of their information content. Intact spatial and temporal relationships among soil layers, artifacts, features, ecological evidence, and components, and, for historic period sites, the existence of documentary information, enable archeologists to identify patterns that can be associated with human behavior and social processes. Where these relationships have been damaged or destroyed, our ability to study and learn about the past is markedly impaired or lost forever. At most, what we have left are objects, curiosities, that may be interesting or even pleasing to look at, but which have lost most if not all of their information value.

The Public Right to Knowledge About the Past

We are none of us born in a vacuum. We all are products and recipients of tens of thousands of years of biological and cultural history. This history, working with our present-day surroundings, affects our every thought, our every action. Knowledge of this past, just as knowledge about our environment, is essential to our survival, and the right to that knowledge is and must be considered a human birthright. Archeology, the recovery and study of the past, thus is a proper concern of everyone. It follows then that no individual may act in a manner such that the public right to knowledge of the past is unduly endangered or destroyed. ...Archeological data, including the archeological objects themselves, falls into the domain of public interest and concern. Even though private funds may finance archeological research and private citizens may collect relics using their own resources, no one owns exclusive rights to an archeological object or, even more important, to archeological data any more than the owner of a Rembrandt has exclusive rights to that painting. An individual or a corporate body may be the legal owner or repository of such data or such an object, but in a certain undefined, perhaps undefinable but nonetheless very real sense, objects of art and scientific information belong and are rightfully a part of the heritage of everyone. Legal possession does not automatically carry with it the right of destruction, and no individual or corporate body possesses the right permanently to deprive the public of any significant part of that heritage.

"Public Archeology"
Charles R. McGimsey III

NOTE: The public's right to knowledge about the past in no way implies a legal right to the objects that help convey that knowledge.

Gift from the Past

The ancient Makah village of Ozette, located on the Pacific coast of Washington state, was occupied continuously for several thousand years. Although a portion of the village was buried by a catastrophic mudslide about 500 years ago, some Makah people stayed on until the 1930s, when they moved north to Neah Bay, the social and economic center of the Makah reservation.

In the winter of 1970, high tides and large, storm-driven waves eroded and undermined the hillside, exposing timbers from five plank houses. Archeological excavations were carried out to rescue the cultural materials from being washed away to the sea. This work revealed a complete material culture record that paints a uniquely rich picture of ancient tribal lifeways. Makah elders call the archeological collection a "Gift from the Past."

The Ozette archeological collection is housed, curated, and exhibited in accordance with appropriate Makah traditions at the Makah Cultural and Research Center, which was established to oversee and coordinate programs affecting the culture and cultural education of the Makah people. Through the Center, the Makah have control and management of their own cultural patrimony, which helps them maintain cultural ties with their ancestral village. A Makah tribal member lives at the Ozette site to monitor its condition, protect it from vandalism, and to answer visitors' questions.

Listed on the National Register of Historic Places, the Ozette Archeological District contains a number of other places of traditional cultural value for the Makah in addition to the Ozette village site, shown in the foreground of this photo. In the background is Cannonball Island, which was used in the past, and is still used today, as a navigation marker for Makah fishermen. The island was also a lookout point for seal and whale hunters and for war parties, and a kennel for dogs raised for their fur.

For additional information on traditional cultural values associated with physical places, see National Register Bulletin 38, "Guidelines for Evaluating and Documenting Traditional Cultural Properties," by Patricia L. Parker and Thomas F. King, and "Keepers of the Treasures," by Patricia L. Parker.

(Photo from the files of the National Register of Historic Places, National Park Service, Washington, D.C.)

Archeological sites may also possess other values for communities and particular groups of people. These values, often called *community values* or *traditional cultural values*, are ascribed by a community, ethnic group, or Indian tribe to archeological sites and other places associated with its cultural practices or beliefs that are rooted in the community's history and are important in maintaining the continuing cultural identity of the community. The kinds of sites that can have these values include a site where a community has traditionally carried out economic, artistic, or other cultural practices important in maintaining its historical identity; a site where Native American religious practitioners have historically gone, and are thought to go today, to perform ceremonial activities in accordance with traditional cultural rules of practice; and a rural community whose organization, buildings, and patterns of land use reflect cultural traditions valued by its long-term residents. Traditional cultural values are often central to the way a community or group defines itself, and maintaining such values is often vital to maintaining the group's sense of identity and self respect. Archeological sites to which traditional cultural value is ascribed can take on this kind of vital significance, so that any damage to or infringement upon them is perceived to be deeply offensive to, and even destructive of, the group that values them.[1]

Causes of Site Damage

Archeological sites are fragile, and there are a variety of agents that can change, damage, or destroy not only the spatial and temporal relationships of archeological information, but also the self identity of groups that ascribe traditional cultural values to archeological sites. There are four general categories of forces that can damage or destroy archeological sites and their values: natural forces, human action, institutional action, and legal and regulatory procedures (see box).

Natural Forces

The forces of nature act continually on archeological sites, and range from the relatively minor activities of earthworms and freeze-thaw cycles to major catastrophic events such as earthquakes and volcanic eruptions. Many of the natural forces have acted in conjunction with human action over time to form the archeological site, and archeologists have developed techniques to understand how natural forces affect the formation of archeological sites (see, for example, *Formation Processes of the Archaeological Record* by Michael B. Schiffer). Other destructive actions, such as erosion and differential vegetation growth, have actually helped archeologists find archeological sites. Some natural forces have worked to encapsulate sites that were later discovered and productively studied by archeologists. Notable examples are the Italian city of Pompeii, buried by the volcanic eruption of Vesuvius in the first century A.D., and the Makah village of Ozette that was covered by a massive mudslide on the Northwest coast of the United States. In general, however, natural forces change and even destroy archeological

[1] This paragraph is excerpted from "Guidelines for Evaluating and Documenting Traditional Cultural Properties" by Patricia L. Parker and Thomas F. King. *National Register Bulletin 38*. Interagency Resources Division, National Park Service, U.S. Department of the Interior.

information by increasing the decay of perishable organic materials such as fabrics, basketry, and leather, and by disrupting the spatial and temporal relationships of archeological information.

Causes of Site Damage

Natural Forces

Erosion from wind or water
Flooding, inundation
Weathering
Freezing, thawing
Animal action (e.g., burrowing)
Vegetation
Soil chemistry
Earthquake, volcanic eruption
Fire
Landslide

Human Action

Looting, theft
Vandalism
Recreation (e.g., off-road vehicles)
Noise, vibration (traffic, aircraft)
Ignorance, lack of knowledge

Institutional Action

Archeological excavation
Agriculture (e.g., plowing)
Mining, quarrying
Timbering
Oil and gas exploration, extraction
Land modifications
- *Land reclamation*
- *Flood control*
- *Grading, filling, earthmoving*

Land development (large/small scale, private/public)
- *Transportation (trails, highways, airports)*
- *Residential*
- *Commercial*
- *Industrial, manufacturing*
- *Public utilities*

Legal, Regulatory Procedures

Incompatible laws, regulations, procedures

Human Action

By far the most varied and damaging forces on archeological sites are caused by human actions, and by associated institutional actions and legal or regulatory procedures (discussed below). Looting and vandalism are major sources of site damage and destruction. Several recent studies have begun to identify the magnitude of the problem. According to the report of the Society for American Archaeology's Conference on Preventing Archaeological Looting and Vandalism, *Recent statistics indicate that vandals and looters have*

- *attacked 90 percent of known sites on federal lands in the Four Corners area of the American southwest, including over 800 of the known sites on Fish and Wildlife Refuge lands alone;*
- *assaulted nearly all of the Classic Mimbres sites in southwestern New Mexico;*
- *increasingly invaded private and Indian lands, including a 1000 percent increase of looting and vandalism on the Navajo reservation alone between 1980 and 1987;*
- *ransacked historic shipwrecks on both coasts, including priceless Spanish galleons ripped apart in search of gold;*
- *overrun historic Revolutionary and Civil War battlefields tearing up land looking for coins, guns, and bottles.*

Motivation for site looting and vandalism varies. In some areas of the country, such as the Southwest where archeological sites contain artifacts that have monetary value in the national and international art markets, sites are "mined" for commercial profit. In other areas, sites are looted to acquire relics for personal collections or for display or smaller scale profit at hobby shows. While this kind of activity is illegal on federal, and most state and local public lands, and the number of successful prosecutions is increasing, site looting is rarely prohibited on private lands.

Although site damage and destruction from looting is deliberate and intentional, other damaging human and institutional actions occur largely because of ignorance of a site's existence or importance. Despite a general, widespread public fascination with archeology and learning about the past, consideration of archeological sites is not usually a factor in the daily conduct of government and business.

Institutional Actions

Although it may seem strange to include archeological excavation as an action that damages or destroys sites, this is what happens. The act of removing soil layers and artifacts disrupts the relationships of information within the site, impairs its traditional cultural values, and can result in the loss of some information. This is why archeologists insist on high levels of professional competence, the use of precise excavation techniques, and the maintenance of detailed written and photographic records of the process. Archeological information can be lost through inadequate record-keeping, lack of analysis and reporting, ineffective land management, and inadequate or incomplete assessment of impacts on sites. From our vantage point in today's highly technological world, we decry the losses of information on archeological sites investigated decades ago. We need to ensure that our archeological methods today do not produce similar criticisms of us by the archeologists of the future.

Land development and resource exploitation activities continue to increase as the nation's growing population demands ever more food, housing, and manufactured goods. Each of the actions listed in the *Causes of Site Damage* box involve land modifications that can damage or destroy archeological sites. While not intentional, some of these activities take a greater toll on archeological sites than do others. Agricultural activities, such as land-leveling and plowing, may either move archeological materials around and mix materials from separate and distinct soil layers, or totally destroy the site, depending upon the shallowness or depth of the archeological remains. Massive land modifications that accompany flood control projects, large-scale residential developments, and interstate highway construction, for example, can cause the loss of hundreds of archeological sites that represent entire communities that thrived in the past.

Legal and Regulatory Procedures

Laws and regulations may require or prohibit individual or institutional actions that unintentionally cause archeological damage or loss. For example, in many local communities the major legal mechanism for protecting historic properties is the historic district ordinance. Only a handful of these ordinances, however, have provisions that consider archeological sites. In those communities whose historic district ordinance lacks such a provision, archeological sites can easily be overlooked as actions approved under the ordinance are carried out. Many local governments manage future growth of their communities through a comprehensive or master plan. When archeological sites and other historic properties are not considered in such a plan, local government decisions about land use and development can lead to the loss of archeological sites. Regulatory procedures, such as those for approving grading or construction permits, can also have the same effect if the presence of archeological sites is not considered.

Chapter 4 Archeological Site Protection and the Law

"Protecting archeological sites" means shielding them from actions or forces that could damage or destroy the information they contain or the values the community places on them. There are a variety of such actions and protection strategies need to be tailored to the type and magnitude of action to be protected against.

All of the causes of site damage described in the previous chapter have one characteristic in common — disturbance of soil, which disrupts the fundamental nature of archeological information and the link between the site and the group that values it. Archeological sites are an inherent part of the land, at least until they are excavated properly or destroyed through any of the activities previously discussed. Individual or institutional decisions made that govern how the land is used, or what activities can occur there, will affect archeological sites. Therefore, site protection depends on the extent to which these decision-making processes take archeological values into consideration. In certain situations, these processes are outlined in law, such as land-use or real property law. In other cases, influencing decisions to be sensitive to archeological sites depends upon overcoming ignorance of archeological values through educating the decision-makers and the general public.

The highest priority strategy for protecting archeological sites is *preservation in place*. Protecting a site in place, undisturbed, with long-term management, is a strategy of *banking* the site in order to maintain its value to the community or, when appropriate, until research and excavation can be properly accomplished. While preservation in place and site management does protect the site from damage, when an archeological site has value for the information it contains, this value cannot be fully realized until it is systematically excavated, its information analyzed, and the resulting knowledge widely shared. The ongoing development and application of advanced scientific technologies to the study of archeological sites means that we can learn even more about the past than we could using archeological techniques considered state-of-the-art just decades ago. Protecting archeological sites in place creates a *bank* of sites for future investigation using even more sophisticated technologies that will further increase our knowledge of the past.

Not all sites should be excavated. Traditional cultural values often rely on a site remaining undisturbed and unstudied. Establishing a mechanism to preserve the site in place, or merely avoiding the site during construction activities, without providing for its management and appropriate future study is short-sighted, and merely delays the site's destruction or long-term protection until another threat arises. Strategies for preservation in place should always be accompanied by a long-range preservation management and research plan that sets in motion specific activities, such as maintenance, monitoring, interpretation, or fund-raising.

Special Considerations

Protecting an archeological site requires a different preservation approach than that used to protect historic buildings, which can continue to be economically productive while being protected. Archeological site protection strategies depend on limiting the kinds of activities that can occur on a piece of land, and resemble more closely those mechanisms used to protect land and natural resources.

Since archeological sites are legally owned by the title holder of the land in which the sites exist, protecting them by limiting the uses of that land creates a tension among the rights of landowners to use their land, the interests, even "rights," of the public to know about the past, and the rights of certain groups to visit and use sites to which they ascribe traditional cultural value. It is important to keep in mind that many archeological sites and other places that have traditional cultural value for Native American tribal groups are located not on Indian lands but on privately owned lands. As reported by Patricia L. Parker in *Keepers of the Treasurers*,

> *American Indians often retain deep emotional ties to the ancestral lands that were ceded by treaty or lost in war. In those ancestral places lie the graves of their ancestors and other significant sites that the tribes are seeking to protect.*

The interests of Native American tribes in their ancestral places, especially in their burial sites, are supported by legal statutes in many states.

While courts have upheld the authority of state and local governments to regulate the uses of private property, recent U.S. Supreme Court and lower court rulings on Fifth Amendment "takings" cases have made private property rights headline news. The Fifth Amendment "takings" clause states, "nor shall private property be taken for public use without just compensation." When private property is *physically taken*, as for a highway, the owner must be compensated for the land taken. The issue is not so clear

The owner and developer of this project in Northern Virginia have every right to build these homes, provided the project complies with local land-use regulations and other state or federal requirements that may apply. The appearance of such signs on a property is not the time to raise issues of archeological site protection. The owner and developer have already invested large sums of money and have complied with relevant laws and received government approvals for the project, or are in the process of doing so. Protecting archeological sites requires not only a knowledge of relevant laws, but also a respect for the rights of private landowners. (Photo courtesy of Heritage Resources Branch, Fairfax County, Virginia, Office of Comprehensive Planning)

in *regulatory takings*, when government enacts a law that regulates what an owner may or may not do with his or her property. This is a complicated issue, and courts review each case individually. In general, if the owner retains reasonable economic use of the property, if the regulation promotes a valid public purpose, and if there is a direct relationship ("nexus") between the legislative purpose and the means to achieve it, then there is not a "taking" that requires compensation, according to Richard J. Roddewig and Christopher J. Duerksen in "Responding to the Takings Challenge."

An additional complication is that while archeological sites are not, in and of themselves, marketable commodities, and it is difficult if not impossible to assign a market value to them, the land of which they are a part does figure heavily in the marketplace and does have market value. Market value also forms the basis for real estate taxes and land values. In fact, land tends to be treated primarily as an investment commodity, rather than as a resource deserving stewardship.

While it would be tempting to build a fence around an archeological site and put up a "Keep Out" sign, protecting archeological sites is not that simple. The rights of the property owner, the interests or rights of the public in learning about the past, the interests of Native American tribes, other community goals, and state and local laws must be balanced against the values of the archeological site in order to create workable and successful protection strategies.

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Part 2 Regulatory Strategies

This 35-year-old aerial view of Fairfax City, Virginia shows a new office building being constructed on the edge of the historic town center. An aerial photo taken today would show a dramatic increase in the number of office buildings, townhouse complexes, shopping centers, widened streets, and new roads. Communities grow and change, putting pressure on archeological sites and other historic places. Laws that can protect a community's archeological and historic heritage represent a public mandate, and must function within the context of broader community goals for economic growth. There are a variety of regulatory strategies that can be used to protect archeological sites. Many of these have, in fact, been quite successful. The focus of Part 2 is on techniques that rely on law for their effectiveness, or that have a basis in state and/or local law. Some of these laws provide for archeological protection but the application of such provisions is optional, such as the voluntary donation of an easement by a landowner. (Photo courtesy of Heritage Resources Branch, Fairfax County, Virginia, Office of Comprehensive Planning)

Chapter 5 Land Ownership and Site Acquisition

"If you want to protect or control some land, then the most effective way to do that is to own it. If you have fee simple ownership, then you hold the cards."

"The Archaeological Conservancy and Site Protection"
Mark Michel

The strongest and surest way to protect an archeological site is outright ownership of the site by a public or private organization, or even by an individual, with protection goals and site management capabilities. This is the premise behind the mission of the Archaeological Conservancy, a non-profit organization that buys land containing archeological sites needing protection. Established in 1979, the Archaeological Conservancy had, by 1991, acquired 58 archeological preserves in 11 States. This strategy has also been effectively used for environmental protection by the Nature Conservancy and various state and local land trusts across the country.

Possessing full title to the land and all the rights associated with it offers the landowner virtually total control, limited only by laws that regulate that control, over the land and permanent protection for the archeological site. A landowner can have a looter arrested for trespass and property damage. An easement holder, on the other hand, may need a court order to stop the owner or any intruder from damaging a site. An individual or group with no legal right in the land usually has no right to dictate what happens there, even if an archeological site is being destroyed.

Although owning the land and the site outright is the most effective protective strategy, it is also the most expensive because of costs associated with the purchase and management of the land. Nearly as effective, but less costly, is the acquisition of partial interest in land through easements designed to protect specific resources. In any case, whether the site is owned outright or protected by an easement, the landowner or easement holder has a major responsibility to guarantee site protection through effective property management or easement monitoring programs.

Fee Simple Acquisition Strategies

There are a variety of strategies that can be used to acquire land containing archeological sites. Some of these are described below.

Purchasing land at fair market value, the full price it would bring on the open market, requires a willing buyer and a willing seller negotiating an agreeable price. Fair market value costs can be quite high, particularly in areas where the demand for developable land is high. In areas experiencing economic downturns, land values can be depressed, creating opportunities to purchase lands for site protection at lower cost. After other approaches ultimately failed, the Thunderbird Site in Warren County, Virginia is being protected through fee simple acquisition (see box).

Governments use their power of *eminent domain* to acquire land for public purposes, such as parks, schools, libraries, police and fire stations, streets and highways, and other municipal facilities. Usually this land is acquired through purchase at fair market value,

It's Not Enough Just to Own a Site; It Has to be Cared For.

Once a site has been acquired, the [Archaeological] Conservancy stablizes it and prepares a 100-year management plan that governs research. Volunteers play a large role in both stabilization and preparation of the management plan. At a preserve in southeastern Colorado, more than 50 volunteers, some as far away as Denver, spent a long weekend stabilizing ancient walls and filling in pot holes with sterile soil. Near Sante Fe, volunteers built a diversion dam to protect important ruins from a meandering stream.

Preventing looting is one of our biggest concerns. We fence most of our preserves in order to visually and legally establish boundaries. No fence will keep a looter off a site, but if a looter knows that if he is caught inside our fence he will go to jail, he will think twice about it. We then set up a regular patrol system, mainly using volunteers. From this point, most archeological preserves need little care. In the East we like to keep preserves in grass and prevent dense brush from overrunning the site. This is usually accomplished with an agreement with a neighboring farmer to cut hay or graze cattle on the preserve. A well-trimmed preserve prevents erosion and deters looters, who have little cover and who are deterred by a "cared-for" appearance.

"The Archaeological Conservancy and Site Protection"
Mark Michel

but if the landowner is unwilling to sell, governments can use their authority to condemn the land, compensating the owner for the fair market value of the land. The use of eminent domain is usually a last resort rather than the preferred strategy for public land acquisition. It can alienate property owners unwilling to sell, and requires large government expenditures. Additionally, the property may be removed from the local tax rolls, thereby reducing local government revenues.

The *bargain sale* strategy is much like it sounds. Land is purchased at less than fair market value. The difference between the sale price and the property's fair market value, as determined by a qualified appraiser, is essentially a gift to the buyer. This donation may qualify as a charitable contribution, reducing the seller's federal income tax (for more information, see Chapter 9).

In an *installment sale*, the purchase price is paid in installments over an agreed-upon period of time. This reduces initial purchase costs and allows the buyer additional time to raise the total amount needed to buy the land.

An *Option to Purchase* is a legal agreement, a contract between a landowner and a prospective buyer that the land will be purchased within a specified period of time for an agreed-upon price. With a *Right of First Refusal*, the landowner gives or sells to a potential buyer the right to match, within a certain time period, a bona fide offer to

Protecting Thunderbird

Since 1988, the Archeological Society of Virginia (ASV) and the Thunderbird Research Corporation (TRC), a non-profit archeological research organization that has conducted archeological investigation of the 11,000-year-old Thunderbird Site since 1971, have spearheaded an unprecedented campaign to purchase and protect the Thunderbird Paleoindian Site in Warren County.

The Thunderbird Site is a National Historic Landmark. It is also internationally recognized as one of the earliest habitation sites in the Eastern United States, dating from 9,200 to 6,800 BC. The site measures 4,400 feet by 2,500 feet and is about 3.5 feet in depth. It exhibits a continuous stratigraphic archeological record ranging from the Paleoindian period through the Early Archaic, preserved in a series of largely undisturbed, superimposed living floors. Additionally, Thunderbird contains documented evidence of one of the earliest human structures in the Western Hemisphere.

The complex of functionally different sites at the Thunderbird complex all fit into a total settlement pattern including jasper quarry site, lithic reduction stations, processing areas, and habitation sites. Until these discoveries, prevailing opinion among those working in eastern Paleoindian studies was that these early populations were highly migratory, inhabitating no permanent settlements.

In early 1988 part of the site was bulldozed by an individual lot owner in the private housing development on which Thunderbird is located. This loss prompted the first major statewide campaign to purchase an archeological site in Virginia, with the ASV making "Save the Thunderbird Site" its official 50th Anniversary project.

This partnership has received two highly competitive grants totalling $99,000 from the Virginia Department of Historic Resources and has raised an additional $33,000 from organizations, private foundations, corporations and individuals in 31 states to purchase over 21 acres comprising the five lots that encompass the core of the site.

TRC has donated protective easements to the Virginia Board of Historic Resources to ensure the long term preservation of all areas purchased through this project. These protection efforts were recognized in 1991 when Governor L. Douglas Wilder presented an Environmental Excellence Award to the Thunderbird Site Preservation Project. The project continues to be a major force in reshaping the direction of archeology and preservation in Virginia.

Federal Archeology Report
December 1991, pages 25-26

(Photo courtesy Heritage Resources Branch, Fairfax County, Virginia, Office of Comprehensive Planning)

purchase the property. Both of these legally binding strategies give an organization the opportunity to buy a piece of property, but neither commits the organization to purchase it. Both strategies also give the potential buyer time to raise acquisition funds.

Purchase and saleback or leaseback strategies are typically used by non-profit organizations or State or local government agencies, and are often financed through a revolving fund. After a piece of property is purchased, the new owner places restrictions on the future use of the land through easement or deed covenant, and either sells or leases the land to the previous owner or another sympathetic organization or individual. The land is protected and the original buyer is relieved of ongoing property management responsibilities. Proceeds from resales and leases reimburse the fund. This kind of strategy is most effective where there is a strong market for resale of properties with use restrictions. This technique can be a less complicated way for government agencies to acquire land, since a non-profit organization will often act as an intermediary for a public agency to acquire land and then either sell or donate it to the public agency. The private sector can often move more quickly and with greater flexibility than government agencies can to purchase lands requiring protection.

Donation of property to a non-profit organization or a public agency is certainly much simpler and less costly than other land acquisition strategies. Most conservation and preservation organizations prefer this method of acquiring land. In addition, such a donation may qualify the donor for a federal income tax reduction as a charitable contribution (see Chapter 9).

A common means of donating land is through a *bequest* in the donor's will. The donor has the benefit of continuing to use the property during his or her lifetime. In certain situations, such a bequest can reduce estate taxes (see Chapter 9). The landowner should seek legal advice and discuss making such a bequest with the intended recipient of the land to make sure that the recipient can accept the gift.

Alternatively, the landowner could donate the property (a *remainder interest*), retaining for himself or herself, and for any heirs if desired, the right to use the property during the remainder of the owner's lifetime (the *reserved estate*). Such a strategy may qualify as a charitable donation, reducing the owner's federal income taxes, and may also reduce estate taxes (see Chapter 9).

Easements

In cases where fee simple ownership is not possible or practical, easements offer the strongest protection for land areas and archeological sites. An easement is a partial interest or a right in property which is less than the full, or fee simple, interest. Typically, the rights or interests conveyed by an easement are only those needed to protect specific resources; all other rights remain vested in the landowner. Easements typically restrict uses of the land that would be incompatible with its preservation purposes, such as residential development, gravel mining, or filling of wetlands. Easements may be acquired by purchase, exchange, will, or eminent domain, but usually they are acquired by gift. Easements are recorded as legal documents and filed with the local recorder of deeds.

Easements are created to protect a variety of resources. *Conservation* easements protect environmental and natural resources, such as wildlife habitats. *Historic preservation* easements protect historic properties. A specialized historic preservation easement is the *façade* easement, created to protect the façade of a historic building. Other resources are protected by *open space* easements, *scenic* easements, and *agricultural preservation* easements. Whatever they are called, their primary goal is to protect specified resources. Another kind of easement is the *right-of-way* or *access* easement, such as utility easements which allow telephone, electric, or gas companies access to property to install or maintain utility lines or to read meters.

Easements offer a variety of benefits. Working in partnership with the easement holder, a landowner can protect valued resources while retaining ownership and use of the land, and the land remains on the tax rolls. Protection strategies are tailored to the specific needs of the resources and to the needs and interests of the landowner. If certain conditions are met, there may be substantial income, property, and estate tax benefits for the landowner who donates an easement or sells one at less than fair market value (see Chapter 9). In addition, easements can offer some protection in eminent domain proceedings because the states cannot condemn an easement held by the federal government, and local governments usually cannot condemn an easement held by the state or the federal government. Condemnation of an easement through eminent domain is, however, a complex issue, and how it works will vary from state to state.

Easements may be held by the federal government, state governments and institutions, local governments, national non-profit charitable organizations such as the National Trust for Historic Preservation and the Nature Conservancy, or state or local non-profits and land trusts such as The Trustees of Reservations and the Berkshire County Land Trust and Conservation Fund both in Massachusetts, by universities, historic preservation organizations, and historical societies. To qualify for federal tax benefits, the easement must be donated or sold at less than fair market value to an organization meeting the Internal Revenue Service 501(c)(3) criteria for charitable organizations.

An easement can be established for a specified period of time (known as a *term* easement), if permissible under state law. There may be perfectly valid reasons for establishing a term easement, such as providing interim protection while funds are being raised to purchase the property. However, only perpetual easements, or those intended to last forever, qualify the donor for federal, state, and local tax benefits. A perpetual easement runs with the land; subsequent owners are bound by the conditions and restrictions of the easement.

The distinction among conservation easements, historic preservation easements, open space easements, scenic easements, and the like is not an important one. There are, however, important differences between *positive easements* and *negative easements*, and between *easements appurtenant* and easements *in gross*.

A *positive easement* conveys an affirmative right to use the land, such as for a utility company's right of access to read the electric meter. A positive easement for archeological protection has been used to protect sites in New Mexico by the Mimbres

Litchfield, Connecticut Easement Program

In 1983 the Town of Litchfield decided to publicly stress the importance of conservation easements and officially encourage the private sector to preserve open space through conservation easement donations by incorporating these concepts into its plan of development. The amendment (Litchfield Comprehensive Plan of Development, page C-25: "Private Initiative") served to recognize, clarify, and extend the potential contributions from the private sector for the preservation of open space, rural agriculture, and environmental quality. Historical and archaeological sites are specifically mentioned:

"Private Initiative"

The preservation of critical farm, forest, and other conservation areas can be accomplished in part through the cooperation of landowners who are willing to donate land, conservation restrictions, and restrictive covenants and use other conservation techniques available in the private sector. The policy of the town's plan is to support the use of these private sector techniques to protect the following critical natural and cultural resources: Prime and important farmlands; streambelts, wetlands, and aquifers; historical places and structures and important archaeological sites; important plant and animal habitats; large forest tracts; scenic open spaces and vistas; and recreational areas facilities. The protection of these areas and sites will contribute to the maintenance of the public health, safety, and welfare of the citizens of Litchfield through the protection of the town's natural resources and through the retention of open space and historical spaces essential to the maintenance and understanding of Litchfield's present and past character.

"Archeological Resource Protection Handbook"
Betsy Kearns and Cece Kirkorian

Foundation. According to "A Proposal for an Archeological Conservancy" by Steven LeBlanc, in these easements, the Foundation "has the right to conduct full and exclusive archeological exploration and scientific studies upon the real estate described" and "the Foundation shall take title to and shall be the owner of any artifacts...and all other items of historical, archeological or scientific value or significance to the foundation" as well as have the right of access. Since these easements provide for the excavation and ownership of the archeological remains by the easement holder, they resemble traditional timber or mining rights easements.

Negative easements are those that place restrictions on the use of the land. Most easements established for conservation and historic preservation purposes are negative easements, because the kinds of activities the owner can carry out on his or her land are restricted.

An *easement appurtenant* gives access to one owner's land through the land of an adjacent owner. For example, an easement appurtenant can allow access for a driveway through one parcel of land to a neighboring parcel that has no access to a public road. An *easement in gross*, on the other hand, conveys rights in a parcel of land to an individual or organization that is not an adjacent landowner. This is the typical type of conservation or historic preservation easement.

In 1974, Mr. and Mrs. Conrad H. Goodwin, Jr. donated an open space easement in gross to the Virginia Historic Landmarks Commission in order to protect Corotoman, the site of Robert "King" Carter's early 18th-century mansion house. In the easement, Mr. and Mrs. Goodwin agreed not to do certain things that would damage the site, including:

> *in order to preserve for future generations information to be gained from properly conducted archeological excavations of the above described premises, that portion of the above described premises lying below the zone of cultivation shall not be disturbed without the prior written approval of the Grantee* (Lancaster County, Virginia, Deeds, Book 186, p. 64).

Mr. and Mrs. Goodwin did not, however, give the state the right to excavate the site. In 1978, with the Goodwin's permission, the state conducted extensive archeological excavations, which "revealed what indeed must have been the most prodigious and richly appointed house in the colony for its period," according to Calder Loth in *Preserving a Legacy*. The locations of additional features that may represent outbuildings were identified but not yet studied.

Common law does not look kindly on negative easements in gross, and they are likely to be cut short by nonassignability from one holder to another, the failure of the easement to run with the land, and other difficulties. To counter these problems, many states have passed laws specifically providing for negative easements in gross to be used in the preservation of natural and historic resources (see works by Russell Brenneman, Ross D. Netherton, Yvonne Stewart, and Michael A. Mantell, Stephen F. Harper, and Luther Propst in the bibliography).

The use of easements drawn specifically to protect archeological sites is not very common. However, easements established to protect natural and above-ground historic resources offer considerable coincidental protection to archeological sites. For example, the Land Trust Alliance's Model Conservation Easement and Model Historic Preservation Easement both include language forbidding soil disturbances and changes in topography (see Chapters 13 and 14 in *The Conservation Easement Handbook* by Janet Diehl and Thomas S. Barrett). Clearly, an easement with such restrictions could offer considerable protection to archeological sites on the property. Stronger protection could be provided if an assessment were made of the archeological potential of the property and the easement tailored to the specific situation.

The easement agreement must be carefully drafted. The landowner and the potential easement holder should secure the services of an attorney and reach agreement on the rights to be conveyed and the kinds of restrictions needed to protect the resources. A thorough inventory and assessment of the resources to be protected needs to be compiled as part of the baseline conditions of the property. This is critical not only in

justifying a request for taking a charitable gift deduction on federal income taxes, but also in monitoring the easement effectively. The agreement must carefully outline what rights are retained by the property owner and what rights have been given up to the easement holder. Establishing an easement does not mean that the property cannot continue its current uses. Some activities, such as farming or carefully located development, may be compatible with the preservation purposes of the easement, but care needs to be taken in determining which activities are, in actuality, compatible with the easement's preservation objectives. For example, Mr. and Mrs. Goodwin's easement on Corotoman specifically mentions the importance of the site and that the protected area is "below the zone of cultivation." While this definition of the protected area takes into account the needs of both site preservation and the owners' continuing use of the land, the phrasing is not as precise as it could be. Modern agricultural practices, such as deep plowing and subsoiling, may greatly extend the zone of cultivation downward, thus permitting portions of the site to be damaged despite the easement.

Another critical consideration in establishing an effective perpetual easement is ensuring that any third party rights or legal interests in the property, such as that of a mortgage holder, are subordinated to the rights and interests of the easement holder. Without subordination of the mortgage, the easement may be voided if the mortgage holder forecloses on the property. According to the National Center for Preservation Law, "As real estate investors know to their peril, foreclosure by a first mortgage holder extinguishes what are known as 'junior liens.' A preservation easement would count as such a junior lien unless existing mortgages were subordinated to it" when it was established.

The Conservation Easement Handbook reports that the success of a conservation or preservation easement in protecting the resources it was designed to protect depends upon a good relationship with the property owner, an easement document with clear and enforceable restrictions, and a program of regular, systematic, and well-documented monitoring activities. When considering the acquisition of an easement, an organization or agency must carefully take into account its ability to commit to long-term easement maintenance and monitoring. Even though the costs involved in monitoring the easement over the long haul may be nearly as high as fee simple purchase of the property, these costs should be evaluated against the easement benefits to the property owner and to the community by easing the owner's tax burden, allowing property use to continue, keeping the property on the tax rolls, and relieving public agencies from property management responsibilities. Some organizations establish a special fund for this purpose, supported by contributions from easement donors.

Chapter 6 Land-Use Compatibility

When resources are not available for site acquisition, land use planning and regulatory techniques become vital preservation alternatives in their own right.

"Civil War Heritage Preservation"
Elizabeth B. Waters

Archeological sites are inextricably linked to land. Since the preparation and uses of land can be major threats to archeological sites and the values associated with them, approaches to archeological preservation are most productively sought in those processes which govern how land can and cannot be used. These processes include land-use planning, zoning, subdivision, development review, and permitting review.

Local government authority for land-use planning and control derives from the *police power* of government to intervene in the lives of private citizens for the protection of public health, safety, and welfare. The use of private land is subject to the police power. Although federal and state governments exercise the police power over public and private lands, much of the authority to regulate the uses of private lands is delegated by states to local governments through state enabling legislation.

State enabling legislation that delegates this authority to local governments may be strong or weak, and the particulars are different in each state. In order to understand the specific authorities your local community has, and the limitations that may exist on the exercise of that authority, it is important to be aware of the laws of your state that deal with local government, local planning, land-use control, and taxation, as well as the extent to which state law identifies and regulates activities relating to critical areas, such as coastal areas and wetlands.

A few states exert greater influence over local land-use regulatory and decision-making processes through the adoption of state growth management laws. Nine states — Oregon, Florida, New Jersey, Maine, Vermont, Rhode Island, Georgia, Washington, and Maryland — have adopted such laws. Growth management programs in these states require or encourage the preparation of local comprehensive plans covering specific subjects, such as affordable housing or environmental protection; the compatibility among plans of neighboring jurisdictions; consistency in land-use policies among local and state plans; and consistency between a local community's plan and its land-use regulations (see the article by Dennis E. Gale in the bibliography). Some of these nine states (e.g., Oregon, Vermont, Georgia) specifically include historic and cultural resources in their growth management programs.

Local land-use control is exercised through four major, linked mechanisms:

- The comprehensive plan, which establishes policies and goals for community growth;
- Ordinances, regulations, standards, and criteria adopted to implement the plan;
- Project reviews to ensure compliance with the plan and its implementing regulations; and
- Project inspections to ensure that construction proceeds in accord with approved project plans and permits.

All but the last of these are discussed in greater detail below.

Planning

Local land-use planning and plans are critical components of a local government's power to regulate how land is used. *Planning* is a systematic process for establishing the public policy framework for a community's future physical growth and development. The resulting *plan* lays out the community's vision for its future, and the policies, goals, and objectives necessary for achieving that future. According to *The Practice of Local Government Planning* edited by Frank S. So and Judith Getzels, the plan "guides and influences the many public and private decisions that create the future of the community." The plan may be called a *comprehensive plan*, a *master plan*, or some other name. Whatever it is called, the plan is a guide to the community's development. It is long range, it is geographically and functionally comprehensive, it is a statement of public policy, and it guides decision-making by the planning commission and the community's elected body or chief elected official. This decision-making would consider archeological site protection only if protection policies and goals are a part of the plan.

In theory, zoning ordinances, subdivision ordinances, building codes, permitting procedures, and the local government's capital improvement program and operating budget are major decision-making processes that should be guided by the plan. In reality, this does not always happen because too many local plans gather dust on shelves. To counter this "ad hoc" approach to community growth, "some state legislatures are requiring that the zoning ordinance be consistent with the city or county plan, and some courts are hesitant to uphold a land use control measure that is not supported by a plan," according to *The Practice of Local Government Planning*.

Zoning and Archeological Site Protection[1]

Zoning is one of many ordinances affecting the use of land in a local community. Others include building and fire codes, environmental regulations, subdivision ordinances, and the land use policies expressed in a comprehensive plan. Of all these, however, zoning is the most far reaching and, perhaps, the best established. Historic properties and archeological sites occupy land area and, like other land uses, are subject to zoning regulations. When properly applied, zoning can be a powerful tool in protecting historic properties. Although zoning may be more effective in protecting historic buildings than archeological sites, it is important to understand how zoning works and the ways it can affect archeological sites in order to determine how zoning could be used to protect sites.

State zoning enabling legislation generally specifies which local jurisdictions are authorized to adopt a zoning ordinance. In some states, both municipalities (cities and towns) and counties can adopt zoning laws; in others, zoning is a function reserved for municipalities, leaving some land areas unzoned. The right of local governments to

[1] Much of this discussion is taken from "Zoning and Historic Preservation" by Stephen A. Morris, *Local Preservation*, Interagency Resources Division, National Park Service, 1989.

The Plan as a Guide to Decision-Making

The good planning agency does not keep its plans on dusty shelves but uses plan in day-to-day decision making. This example shows how planning agencies use plans.

Let us say that a private developer wants to build a 150-acre development that is predominately residential (135 acres) and partly commercial (15 acres). Let us assume that a mixture of housing types – single-family homes, rental apartments, and condominium apartments – is proposed. How does the planning agency use the plan in reviewing such a development?

The agency first checks the land use plan to determine whether the general area is designated residential, then examines the proposed densities to see how well they fit with the plan's proposals and projections. The planning staff also checks to determine any physiographic characteristics – soil conditions, stream profiles, and important stands of trees – to see the environmental constraints that will influence site planning. The staff also determines the land use plan policies concerning the amount and location of commercial space in the center of the community.

On the basis of the land uses and anticipated population to be served, the staff in turn checks other plans for sanitary sewers, storm runoff, major and minor streets, and public facilities to determine how well the proposed development "fits into" the community's plans. For example, the parks and recreation plan may call for a neighborhood park site within the general area. Or the school plan may have identified the area as being served by an existing school; therefore, no additional school facilities are anticipated. The staff also examines the capital improvements program to determine how public facilities that are or are not programmed in the future will serve the new development.

There will be times when the development raises major policy issues not covered by the general plans. Perhaps the plan is out-of-date, or perhaps it was not detailed enough to make a judgment. In these cases planning staffs will carry out supplemental studies that amplify or update a plan element. •

Finally, the planning staff prepares a staff report that will be presented to various decision makers in government, such as the planning commission, the mayor, the local manager, and the local council.

"The Practice of Local Government Planning"
edited by Frank S. So and Judith Getzels

NOTE: If the plan contained policies on historic and cultural resources, the planning staff would review the plan to determine whether the development proposal would affect any resources.

zone was affirmed by the Supreme Court's landmark decision in *Village of Euclid v. Ambler Realty Co.* in 1926, which upheld that, in principle, zoning was a valid expression of the police power (i.e., the power of the government to regulate activity by private persons for the health, safety, morals, and general welfare of the public).

Under state enabling legislation, a local government is authorized to divide the land area in its jurisdiction into districts, or *zones*, each with a set of regulations governing the development of private land. The districts are marked on a zoning map, which is an official government document. Generally, the text of the ordinance specifies the categories of uses allowed in each district (typically residential, commercial, industrial, or agricultural), the density of development, the maximum height and dimensions of the buildings, and other requirements for development, such as the building setback from the lot line and the number of off-street parking spaces.

The zoning ordinance and its supplemental map are adopted by the local governing body, such as the city or county council or town board, based on the recommendations of the planning commission, or a specially appointed zoning commission. After the ordinance and map are finalized and adopted, an appointed zoning board of appeals or board of adjustment is established to decide when exceptions to the ordinance can be granted to particular property owners. A zoning administrator or officer administers the zoning ordinance on a day-to-day basis, granting zoning permits for proposed developments that comply with the terms of the ordinance.

Changes to the text of a zoning ordinance or a zoning map can be in the form of *zoning amendments* or *revisions*. A revision is considered to be more comprehensive than an amendment and usually results in a completely new ordinance. Both require following the legal process established by the state enabling legislation and must be approved by the local governing body. If state law requires that the zoning ordinance be consistent with the local comprehensive plan, policies in the plan must be considered. Often the planning commission reviews proposed amendments and makes recommendations to the town council. The term *rezoning* applies to both amendments and revisions and does not distinguish between changes that apply to a small area or to the entire community.

Given the unique characteristics of each parcel of land, zoning authorities recognized early on that although every property owner within a district would be bound to the same requirements, in certain cases exceptions would have to be made. One common type of exception is a *variance*, in which a property owner is exempted from all or a number of the provisions of the zoning ordinance. Variances require the property owner to prove to the zoning appeals board that, due to the particular physical surroundings, shape, or topographical condition of the property, compliance with the zoning regulations would result in undue hardship. Variances may cover any aspect of the zoning requirements, such as use, number of parking spaces, size of the building, or setbacks (the required distance between buildings and lot lines).

Special exceptions, also known as *special permits* or *conditional uses*, apply to uses that, although they don't conform to the zoning regulations, are considered to be desirable in a particular district under certain circumstances, such as a school in a residential zone.

Unlike variances, special exceptions are listed in the text of the zoning ordinance along with those uses permitted *by right* under the ordinance. The conditions required for the zoning board to grant a special exception are also set forth in the ordinance, although sometimes the board negotiates particular conditions to be placed on a proposed development with a property owner.

An *overlay zone* is an additional layer of regulations for a particular area which is superimposed on the existing or base zoning regulations. There are many different kinds of overlay zones, such as those that establish additional controls on development in areas subject to airport noise or those that promote downtown retail development. The base zoning provisions, which relate to use and density, are subject to the additional regulations of the overlay zone. The overly zone approach most familiar to historic preservationists is the historic district overlay zone (discussed in more detail in Chapter 7), which typically adds design controls to the underlying zoning regulations.

Zoning regulation of uses and densities can come into conflict with a community's goals to protect historic and cultural resources. The most typical problems arise when the current and historical uses do not match the current zoning designation. Often a historic residential neighborhood may be zoned for retail, office, or industrial uses. The pressure to convert to one of these possibly more profitable uses can result in the demolition or inappropriate remodeling of historic residences. Additionally, but often not considered, the process of demolition or conversion of the buildings to more profitable uses could damage or destroy archeological remains that may exist on the property.

A related conflict between zoning and resource protection is density. In many cases, the current uses of a historic property may conform with the uses permitted under the zoning regulations, but the density of the property's actual use may be lower than the zoning allows. This is frequently the case in older commercial districts where historic commercial buildings are an average of two or three stories in height, but the zoning allows much taller buildings. This also happens when farm acreage is zoned, for example, at a density of three houses per acre. The greater economic return generated by larger commercial buildings or more intense residential development creates pressure to demolish the existing buildings, or to build incompatible additions to smaller buildings.

For archeological site protection, allowable density may be the critical factor. Higher density means greater square footage of floor space (either horizontally, vertically, or both) or a greater number of housing units permitted per acre. If in certain zoning categories, the zoning ordinance allows a density that essentially fills up the entire property, there will be no opportunity for protecting an archeological site in place. The site protection goal conflicts with the allowable density. On the other hand, the lower the permitted density in a particular zoning category, the greater the opportunity to find ways to protect archeological sites in place.

If the current zoning allows development at densities far higher than existing buildings, rezoning might involve what is known as *downzoning*, or reducing the permitted density and the height and bulk of buildings. Downzoning can be controversial since

affected property owners may perceive it as diminishing the value of their property. If this issue can be resolved, downzoning can be an effective protection measure because it substantially removes the pressure for high density development from the district.

Another technique that may benefit archeological site protection is *conditional zoning.* The local government may grant a landowner's request for rezoning only if certain conditions are met, such as the dedication of land for a community park, the provision of a playground, or street improvements to accommodate traffic associated with the new development. Sometimes called *proffers*, these conditions are negotiated and agreed upon by local government staff and the property owner. Once approved, these conditions become legally binding as part of the property's zoning.

This technique has been successfully used in Fairfax County, Virginia, where archeological sites have been surveyed, excavated, set aside in open space, and donated to the county's park system, and historic buildings have been incorporated into development project designs as residences and community centers. This technique is also used effectively in Massachusetts, as reported by Brona G. Simon, State Archaeologist and Deputy State Historic Preservation Officer. For example, in Sharon, Massachusetts, proffers helped protect the Stoughtonham Furnace Site, listed on the National Register of Historic Places for its remains of the iron foundry where cannons were made during the Revolutionary War. The developer of a large residential development donated the site to the town for conservation land and donated a preservation restriction (or easement) to the Massachusetts Historical Commission.

There are some drawbacks, however, to the use of this technique. The success of such an approach depends upon local government staff being knowledgeable about archeological protection issues, being able to communicate archeological values, understanding the business objectives of development, and having skills in effective negotiation. Where knowledgeable and skilled staff are lacking, archeological protection may never receive consideration unless citizens raise the issue during public hearings.

Another technique is *incentive* or *bonus zoning*, which gives developers an increase in density, building height, or other physical aspect if the developer will provide a contribution beneficial to the community, such as open space or affordable housing.

Transfer of development rights (TDR) is another innovative technique that has been used to promote urban, rural, and open space preservation. Basically, the TDR technique separates the rights to develop a parcel of land from other rights associated with the parcel. The development rights of agricultural land or low density historic buildings, for example, are transferred or sold for use in another location where higher density development is permitted or encouraged. Subsequent development on the land from which these rights have been transferred can be limited to very low density or precluded altogether, depending upon the community's regulations. The cost and expertise required to administer a full-scale TDR program have presented difficulties, especially for smaller communities which lack full-time planning staff. Additionally, according to Elizabeth B. Waters in her assessment of strategies for preserving Civil War battlefields and sites,

> *TDR programs require very special conditions for success. The land to be protected must be close enough to a growing metropolitan area for development pressure and a market for development*

rights to exist. Another problem sometimes faced by communities attempting to establish TDR programs is the reluctance of citizens to have their portion of the county designated as a receiving zone, with the higher development densities that accompany that. Despite these considerable hurdles to establishing successful TDR programs, they remain an option for conserving large areas of sensitive lands.

Subdivision Regulation and Archeological Site Protection[2]

In the language of land-use planning and regulation, the term *subdivision* refers to the process by which a tract of land is split into smaller parcels, lots, or building sites for the purposes of sale and eventual development. The regulation of land subdivision by local governments is one of the principal means of guiding the direction and quality of land development. Under local subdivision regulations, a landowner is not permitted to divide and sell his or her land until the governing body or its designated local agent has approved a plat (map) of the proposed subdivision design. In many suburban and rural areas, subdivision regulation rivals zoning in importance as a public control on land development or redevelopment. In urban areas, subdivision regulation determines whether or not large lots in established neighborhoods can be split up into smaller lots for new or *infill* development which may alter the character of the neighborhood. Like zoning, subdivision regulations can be either harmful or helpful in the preservation of historic properties. The subdivision of large tracts of land often signals and sets the stage for future development, even though construction may not occur immediately and the uses of the land may remain unchanged for years.

When a parcel of land is subdivided for development, both standing structures and archeological sites on that land become vulnerable to destruction if the proposed new development is not carefully designed. For example, a 1990 excavation for the foundation of a house in a recently subdivided tract of land in Ledyard, Connecticut uncovered human remains and funerary objects associated with an unmarked Mashantucket Pequot cemetery which had been in use between 1667 and 1721. Field examination revealed that 15 to 25 graves had already been destroyed by the excavation. The approval of this subdivision had not considered the impact of development on archeological sites. Following the discovery, Mashantucket Pequot tribal authorities worked with the landowner, town officials, and state officials to allow construction of the home to continue while at the same time ensuring that the remaining portions of the cemetery would be preserved. As a result of this incident, the Ledyard Planning Commission amended its subdivision regulations to require that archeological resource inventories be conducted in all areas covered by newly proposed subdivisions and that all subdivisions should be laid out to preserve significant historic resources. Even when historic resources are not directly threatened by demolition or destruction, the resource's immediate surroundings, including, for example, secondary buildings or structures and important landscape features such as woodlots or hedgerows, can be destroyed by insensitive land development. Subdivision regulations that include provisions to protect historic

[2] Much of this discussion is taken from "Subdivision Regulation and Historic Preservation" by Stephen A. Morris, *Local Preservation*, Interagency Resources Division, National Park Service, 1992.

After the Civil War Battle of First Manassas in 1861, Confederate troops settled into their winter camps. The fortifications in the Union Mills area of Northern Virginia, some of which are shown here, were part of that encampment during the fall and winter of 1861-1862. A large residential and golf course complex is being developed in the same area. Through proffers the developer has redesigned the project to avoid the more significant sites, including this earthwork, by donating about 300 acres as environmental green space to the Fairfax County Park Authority. Included within this protected area are the sites of Union Mills, a Civil War hospital, other historic sites, and a number of Native American sites, including a soapstone quarry studied by the Smithsonian Institution in the late 19th century. The developer also intends to hire staff archeologists to salvage and study other important sites that could not be protected in green space. Proffers have been very successful in Virginia, resulting in improved relationships with the developer community. (Photo courtesy of Heritage Resources Branch, Fairfax County, Virginia, Office of Comprehensive Planning)

properties can help prevent this destruction by ensuring that the developers or subdividers take historic resources into account as they lay out lots, blocks, and streets.

Modern subdivision regulations are an outgrowth of colonial laws relating to the layout of new towns and 19th-century laws that sought to ensure the maintenance of proper land records by requiring accurate surveying and platting (mapping) of land as it was sold. Many states adopted modern subdivision enabling legislation following the publication of the Standard City Planning Enabling Act by the U.S. Department of Commerce in 1928. As a result, subdivision ordinances were transformed into development controls with design standards for lots and blocks and, eventually, design and construction standards for new roads and other subdivision improvements. The public interest in land subdivision derives from the fact that once land is divided into streets, blocks, and lots and is publicly recorded, the pattern of development in the community is set for years to come and is difficult to change. Communities have adopted such controls to prevent poor quality development within their jurisdiction. For example, subdivisions with inadequate streets, water mains, sewers and other facilities, if built, could result in health and safety problems and diminished property values. Increasingly,

Cultural Resource Language in the Subdivision Ordinance of the Town of Ledyard, Connecticut

Definition: *Cultural resources consist of historic and prehistoric archaeological sites and standing structures; cemeteries, human skeletal remains, and associated funerary objects; and distributions of cultural remains and artifacts.*

Cultural Resource Preservation: *Subdivisions and resubdivisions shall be laid out to preserve significant cultural resources and unique natural features.*

Cemeteries and Human Burials: *All cemeteries within a proposed subdivision shall be deeded either to the Town of Ledyard, an existing cemetery association, a homeowners association, or other responsible party,...along with a twenty (20) foot protective buffer...*

Archaeological Assessment: *An on-site archaeological assessment shall be required, if in the opinion of the Planning Commission, there is a likelihood that significant cultural resources or undetected human burials will be adversely impacted by construction activities.*

Determination of Need: *The Commission's determination of need for an archaeological assessment shall be based on: (a) proximity to identified cemeteries, human burials, archaeological sites; and/or (b) natural terrain features..., where these factors reflect scientifically documented settlement patterns preferred by Native Americans or European Colonists.*

Management Plans: *Cultural resource management plans submitted to the Commission by the applicant shall consist of: (a) a written investigative report prepared by a professional archaeologist...; (b) an evaluation of the impact of the proposed subdivision; (c) a description of measures to be undertaken by the applicant to mitigate adverse impacts of construction activities on identified cultural resources; (d) copies of all investigative reports and management plans shall be submitted to the Office of State Archaeologist and State Historic Preservation Officer for review and comment prior to any Planning Commission public hearing.*

NOTE: *Since the Town of Ledyard does not have a staff member with archaeological responsibilities, the Planning Commission consults with the Office of the State Archaeologist and the State Historic Preservation Office to ensure that state standards are complied with.*

(Excepted from "Regulations Governing the Subdivision of Land," Town of Ledyard, Connecticut, Adopted March 22, 1962, Amended June 11, 1991.)

subdivision regulations have been used by local governments as a way of sharing with the private sector (or the developers creating the subdivisions) the financial burdens of building and maintaining the new roads, sewers, and other infrastructure associated with new development.

The definition of subdivision varies widely from state to state. In most states, subdivision for the purposes of local regulation is defined in the state enabling legislation (although some states, such as Virginia, allow local governments to adopt their own definition). One state defines subdivision as "the division of a lot, tract, or parcel of land into two or more lots, tracts, parcels, or other divisions." Another defines it as the division "into three or more lots or parcels of less than five acres each for the purpose of transferring ownership of building development." In some jurisdictions, large-lot subdivisions (two, five, or ten acres) are exempt from regulation. Conversely, in some states, such as North Carolina, small-scale subdivision (involving land in single ownership whose entire area is no greater than two acres) is exempt.

In communities which have a comprehensive or master plan, both zoning and subdivision ordinances carry out or implement the plan's policies. Zoning regulates the uses of land as well as the intensity of use (such as the number of dwelling units), while subdivision ordinances regulate the division of tracts into building lots and the provision of infrastructure. In terms of their relationship to each other, both zoning and subdivision regulations may specify minimum lot size, shape, and access requirements; some of the standards from the zoning ordinance are typically incorporated by reference into the subdivision ordinance. While historically zoning and subdivision have been seen as separate kinds of regulations, the distinction between them is blurring and both come into play in all but the simplest development project.

Typically, subdivision ordinances cover the following kinds of issues:

- Street design, which deals with the layout or pattern of streets, their width, the spacing of intersections, the location of pedestrian walkways, and the relationship of the subdivision streets to the community's existing streets.
- Lot layout and design, including the size and shape of lots and minimum width where lots meet the street (frontage requirements).
- Provision of utilities to serve the residents of the new development, including water supply, gas and electrical service, and sanitary sewers.
- Hazardous and environmental areas requiring special attention, such as steep slopes, floodplains, unstable land, wetlands, woodland conservation areas, and habitats for endangered species.
- Stormwater management, which deals with providing for safe and environmentally appropriate drainage of stormwater through installation of storm sewers and other drainage systems.
- Soil erosion and sedimentation of streams and rivers, which seeks to limit the extent of grading and land disturbance and the length of time graded areas can be exposed without ground cover.
- Water quality, which deals with the impact of new development on water supply watersheds and seeks to limit the pollution of drinking water supplies.

- Landscaping and aesthetics, which deals with protecting existing vegetation, such as street trees, and providing buffers or planting strips to shield new subdivision residents from the effects of adjacent land uses.
- Mandatory dedication of land for public facilities, such as roads, parks, and schools needed to serve the residents of the subdivision.

The way in which subdivision regulations are adopted and administered varies from jurisdiction to jurisdiction and from state to state. In some states, such as Arizona, the legislative body both adopts the regulations and approves plats. In most states, locally appointed planning commissions or boards are delegated authority to regulate subdivisions. In some states, the Planning commission both adopts the subdivision regulations and reviews subdivision plats; in others, the planning commission acts only as a plat approval agency, while the local legislative body adopts the regulations. In many states, plat approval authority is delegated to staff technical review committees or the planning director.

Typically, there are two steps in the review of subdivision proposals — preliminary (or sketch plan) and final plat review. The review of preliminary plats usually begins with a pre-filing conference between the developer and planning department staff. The subdivision application is submitted to the authorized review body (planning department) and is distributed for review to other local and state agencies (such as the state health department, utilities, transportation, and in some communities historic preservation). A field inspection may be conducted as a part of this review. The planning department compiles all comments on the application into a report, and approves the plat, often with conditions, or disapproves it (or recommends approval or denial to the planning commission or local governing body). A public hearing may be required as part of the approval process.

If approved, the applicant goes on to final plat review, generally within a specified period of time; if not, the applicant is informed and generally given the opportunity to redesign the subdivision to conform with the requirements of the community's regulations and to reapply for approval. Final plat review and approval follows a similar sequence. A large part of final plat review involves ensuring compliance with the conditions established during preliminary plat approval; major changes to the subdivision layout (such as streets, lots, nondisturbance areas) are not usually permitted at this time. The final plat is recorded as a legal document in the land records with metes and bounds description. Many communities have simplified review and approval process for "minor subdivisions" which might be defined as those involving fewer than five lots, requiring no new streets or roads, and requiring no new extension of water or sewer lines.

There may be opportunities for raising archeological site preservation issues during this review process. When an application for subdivision is submitted for parcels of land that contain historic resources or archeological sites, or for parcels that are adjacent to historic resources, the local historic preservation commission should have an opportunity to review and comment on the application. Ideally, local laws should include provisions that require consideration of historic resources and archeological sites, such as

in Ledyard, Connecticut. If this is not the case, it is important to keep in mind that, even if the local governing body holds a public hearing, it may not have the power to deny the subdivision application if the subdivision requirements are met. It is important to be familiar with subdivision regulations and what impact they may have on historic resources and archeological sites. If the regulations are silent on archeological sites, it may be worth considering ways the subdivision regulations could be revised to incorporate preservation considerations.

Subdivision regulations can be specifically written to require that developers give the same care in protecting historic resources and archeological sites as they do to sensitive environmental features, such as wetlands, floodplains, and steep slopes. Requirements relating to historic preservation and archeological site protection are sometimes included in the environmental section of the subdivision ordinance. The Subdivision Design Standards section of Sarasota County, Florida's Land Development Regulations contains the following requirement:

> *The size, shape and orientation of lot(s) and siting of buildings shall be designed to provide building sites logically related to vegetation (trees), topography, solar orientation, natural features, streets, and adjacent land uses. Lots and streets shall be designed to maximize the preservation of natural features, trees, tree masses, unusual rock formations, watercourses, and sites which have historical significance, scenic views and similar assets.* (Section B3.1, Land Development Regulations, Sarasota County, Florida, 1989)

When a developer in Prince George's County, Maryland, proposes to subdivide land containing a cemetery (and does not plan to relocate the human remains to another cemetery), the County's subdivision regulations require stringent conditions to be met, including a complete inventory of existing cemetery elements and their condition as well as placement of lot lines in a way that promotes maintenance and protection of the cemetery (Subtitle 24. Subdivisions. Prince George's County Code 1987 edition, 1989, 1990 supplements, Prince George's County, Maryland).

As discussed above, Ledyard, Connecticut amended its subdivision regulations to allow the Planning Commission to require a developer to prepare an archeological assessment if, in the Commission's opinion, "there is a likelihood that significant cultural resources or undetected human burials will be adversely impacted by construction activities associated with the proposed development." The ordinance also includes a provision which obligates the Commission to seek the advice of the State Archeologist or State Historic Preservation Officer in determining the need for an assessment. If significant archeological resources are identified, the developer is required to submit a management plan describing measures to be taken to reduce the impact of new construction on the resources (such as conservation easements, redesign or relocation of roads, drainage features, or buildings). Similarly, at the earliest stages of the subdivision review process, the Anne Arundel County, Maryland Office of Planning and Zoning routinely requires developers to conduct an archeological survey if the subdivision has known archeological sites or a high probability of containing sites. Developers are requested to avoid significant sites or to mitigate their destruction by retrieving information through excavations.

There are some additional measures that can be used as part of the subdivision process to protect archeological sites. *Mandatory dedication* of some part of the tract of land for public use, such as a park, can be useful. As part of the mandatory dedication requirement, many subdivision ordinances require developers to set aside a certain percentage of the land in their subdivision for public right-of-way, open space, conservation areas, and recreational use to ensure that adequate public facilities will serve the development. If this open space or conservation area can be located where there are archeological sites, for example, the sites will be protected while passive recreational facilities such as nature and exercise trails (carefully sited to avoid damaging the archeological sites) can still be accommodated. The Westport, Connecticut subdivision regulations contain provisions for the establishment of "Open Space Subdivisions" in residentially zoned districts. Among the purposes of allowing such subdivisions are:

> *To permit the best possible design of a parcel of land after consideration of its particular topography, size, shape, soils or other unique features such as valuable trees, watercourses, waterbodies, and historical, archeological and/or paleontological sites.* (Open Space Subdivisions, Chapter 6, Section 56-1.3 of the Subdivision Regulations, Town of Westport, Connecticut, Adopted 1963, and subsequently amended)

Another technique is *cluster subdivision*. Clustering helps reduce sprawl and cuts infrastructure costs by allowing the developer to build on lots smaller than those specified in zoning and subdivision regulations. This technique concentrates new buildings in one part of the tract to be subdivided, leaving the remainder of the tract undeveloped. This undeveloped portion could be reserved for permanent common public use, such as recreational open space under the responsibility of a homeowners' association, or it could be dedicated for a local park, set aside as a nature preserve, or leased for farming operations. When cluster development is combined with a creative design that is sensitive to environmental features and cultural resources, it does not generate greater density and can protect sensitive resources. The actual number of lots is the same as if the tract had been subdivided in a conventional manner. In jurisdictions that allow cluster subdivisions, developers can take advantage of it by shifting development to portions of the tract where there are no historic resources or archeological sites. Cluster development is seen as a valuable strategy in preserving rural landscapes and community character in *Dealing with Change in the Connecticut River Valley: A Design Manual for Conservation and Development*, by Robert D. Yaro, Randall G. Arendt, Harry L. Dodson, and Elizabeth A. Brabec. These authors present a comprehensive approach to balancing resource preservation and economic development by considering a variety of community values, including agricultural uses, rural landscapes, historic features, scenic views, environmental resources, and community character.

Subdivision regulations are an important public control over private land development, especially in rural and suburban areas with large tracts of undeveloped land, but also in historic neighborhoods with traditionally large lots. When written to include preservation concerns, they can be a powerful tool to ensure that new development does not destroy historic resources and archeological sites.

Review of Development Proposals

Proposals for development, called *development plans* or *site plans*, are reviewed by local government staff (usually the planning office) or a special site review committee to evaluate whether or not they are in compliance with the comprehensive plan, the zoning ordinance, subdivision regulations, and various other standards and criteria such as those for urban design, neighborhood conservation, revitalization, construction, transportation, public facilities, and environmental quality. These requirements are typically written to cover classes of land use or development activity, and usually don't provide detailed specifications for each parcel of land. When a developer proposes to develop a particular parcel, whether or not a zoning change or a subdivision is requested, the specifics of the project must be reviewed to determine if they comply with the community's regulations and standards. Larger projects tend to receive more intense review than smaller projects, some of which may be exempt from most review aspects.

A development site plan is essentially a detailed scale map of the proposed project's design, which could include, depending upon the regulations and submission requirements, the locations, dimensions, and other characteristics of the development's physical features. Such information could include the delineation of the lot lines, easements, locations and uses of existing and proposed buildings, size and material of new buildings, streets, sidewalks, parking areas, traffic flow, utilities, sewers, landscaping, topography, and natural features. The development site plan may also include a grading and sedimentation control plan detailing what areas will be graded or filled, the depth of grading or filling, and how soil erosion will be controlled. A development site plan contains a great deal of information that can help in evaluating potential impacts to archeological sites. Most importantly, it shows where construction, grading, and other ground-disturbing activities will and will not occur. If discussions between the developer and the advocate for archeological protection occur early enough in the development process, there may be enough flexibility in the project's budget and schedule to redesign the development to set aside the archeological sites in protected areas.

The review of the development site plan proceeds much the same way as described for a subdivision application, with review conducted by a variety of state and local government agencies with responsibilities for certain aspects of the development. If local ordinances and regulations require that historic resources and archeological sites be taken into account, the review will make sure that this is done in accord with established standards. For example, the review process in Greenwich, Connecticut requires the submission of an archeological report detailing the results of a literature search, contacts with the archeological community, and field investigations. If archeological sites are present, the project will be approved only if the developer takes action to reduce or eliminate the impacts on the sites. Between 1981 and 1986, 15 archeological sites have been protected through this process. When a zoning change is requested as part of the site plan approval, it is during the review process that conditions or proffers can be negotiated and agreed upon.

Development Permits

For a development project to proceed once the site plan has been approved, the developer will need to obtain a number of permits, such as grading, demolition, building, and occupancy permits. Perhaps most important for archeological protection purposes is the grading permit, one of the first permits obtained on a project, and which is required before grading, filling, and other land modification takes place to prepare the project area for construction. These activities can be very damaging to archeological sites, and if permit review and approval procedures do not take into account the presence of archeological sites, the sites could be lost.

Even if a proposed development will be privately funded and occur on private land, federal and state governments may have an interest in regulating development activities, especially if they could degrade wetlands or water resources. For example, under authority of Section 404 of the federal Clean Water Act, the U.S. Army Corps of Engineers regulates the alterations of wetlands through a permitting process. Work proposed in or near streams, rivers, floodplains, ponds, swamps, marshes, bogs, or any area that is wet for part of the year requires a permit from the Corps of Engineers. Many states and local governments have similar wetlands permitting programs. In addition, the Clean Water Act also requires developers of projects larger than five acres to obtain a stormwater permit in order to reduce the impact of untreated stormwater on the environment, wildlife, waterways, and the water supply.

Both of these federal permitting processes trigger the assessment of possible project impacts on historic properties listed or eligible for listing on the National Register of Historic Places, as required by Section 106 of the National Historic Preservation Act. The Section 106 process is carried out by the federal agency, the State Historic Preservation Office, and the Advisory Council on Historic Preservation, but there are opportunities for the public to offer comment. Contact your State Historic Preservation Office (see Appendix G) for more information about the Section 106 process and these and other federal permits that may be required for private development projects.

Environmental Quality and Archeological Site Protection

Environmental laws can often support and strengthen preservation objectives. They apply to many situations where other preservation laws may not.

A Handbook on Historic Preservation Law
edited by Christopher J. Duerksen

Many states have state environmental policy or quality acts (SEPA or SEQA) that mirror the National Environmental Policy Act of 1969, which requires federal agencies to assess the impacts of their proposed actions on the environment, including historic and archeological resources. In general, these laws are concerned with air and water pollution control, hazardous and solid waste management, wetlands and waterways conservation, natural resource and wildlife habitat protection, and, where appropriate, coastal zone management. In addition, many SEPAs include historic resources and archeological sites, and require that state agencies, and in some case local governments, consider and when possible minimize the adverse environmental impacts of projects they fund, approve, license, or permit. According to *A Handbook on Historic Preservation Law*,

The most important contribution of SEPAs may be in government activities that are generally outside the scope of [the National Environmental Policy Act and the National Historic Preservation Act]. States and localities are generally much more involved than the federal government in day-to-day land-use activities and permitting, giving SEPAs greater applicability to the many different types of projects that affect historic resources. Even state registers [of historic places], which apply to state and sometimes local government activities, are limited to listed or eligible sites, instead of the environment in general as are SEPAs. Thus SEPAs can force consideration of historic resources into several kinds of projects that primarily involve nonhistoric places or structures. Moreover, in some states, SEPAs have the potential to inject historic preservation concerns far deeper into state and local agency decision-making than any of the more strictly preservation-related laws. By imposing a duty on agencies to pursue less damaging alternatives where possible or at least to institute measures to reduce adverse effects when approving a project, SEPAs have the potential to force more preservation-oriented decisions than many of the state registers.

Some state environmental protection acts provide a modest amount of protection for historic resources and archeological sites, while others afford considerable protection, as in New York and California.

New York's State Environmental Quality Review Act (SEQRA) requires state agencies, and often permit applicants, to prepare environmental impact statements on any proposed action that would have a significant effect on the environment, which includes archeological sites. In addition, the State Environmental Conservation Law authorizes the Department of Environmental Conservation to take into account the cumulative impact upon all environmental resources when processing any license, order, permit, certification, standard or criterion.

The California Environmental Quality Act requires and enables local governments to regulate private land through discretionary actions such as building and grading permits and tract map approval. Environmental impact reports may be required, and permits may be issued with conditions attached. Under CEQA, cities and counties may wield considerable power to protect archeological sites.

Local environmental land-use regulations often mimic SEPAs, and may be part of the zoning ordinance or subdivision regulations, or they may be a separate ordinance. They generally cover many of the same resources as do SEPAs, but may only be applicable in specifically defined resource areas. For example, the core of Fairfax County, Virginia's environmental regulations are Environmental Quality Corridors, which are concentrated on stream valleys, and are established to provide wildlife habitats, greenbelts, vegetative buffers, and pollution reduction areas.

In 1977, New York City implemented SEQRA with Mayoral Executive Order No. 91. If a developer proposes a project that needs a change in zoning, an environmental assessment and review is required. This must include a developer-funded assessment of impacts on archeological sites. During the 1980s, the New York City Landmarks Preservation Commission's two staff archeologists saw their review workload increase by more than 350%, with a number of successful projects completed, such as the 175 Water Street Project (see box).

Environmental Review Success

The 175 Water Street site was the great success story. This is the site of New York's famous sunken ship. The site, located in the South Street Seaport area of Manhattan, was flagged for its potential to contain merchants' shops from the late eighteenth and early nineteenth centuries. The contract archaeologists did uncover thousands of glass and pottery sherds from these shops, but it was the ship that brought fame to the site.

The ship was purposefully sunk around 1750 to landfill the block. The ship, a 100-foot merchantman, was stripped of all its sellable or usable parts, filled with garbage, and sunk. Over a 20-year period, the block was filled in. The ship was excavated in the early 1980s by a joint team of underwater and land archaeologists and the bow and beak of the ship were recovered and conserved. The project developer, Howard Ronson, decided voluntarily to undertake the conservation of the ship, and then donated it to the Mariners' Museum in Newport News, Virginia.

The project was important on many levels. It was the first project where the terms of the archaeological work were negotiated by the City Archaeologist and the developer's architect rather than by attorneys. This project demonstrated that archaeological work could be done both thoroughly and expeditiously so that the developer did not incur expensive delays while waiting for the contract archaeology project to be excavated, reviewed, and approved. The lack of delays in each stage of the environmental review process has led to better working relationships between the Landmarks Preservation Commission and most developers.

The site was opened for tours near the end of the excavation. On one Sunday, 10,000 New Yorkers came and saw the ship. Tours were also given to city personnel who were involved in the CEQR process. This site heightened the interest of city planners and made them more aware of the need to review sites throughout the city for archaeological potential.

The public relations aspect of this project – the tours for the other city agency personnel and the public, the public lectures, the media coverage highlighting the site – have helped to raise the public's appreciation and support for our work at the Landmark's Preservation Commission to save the archaeological heritage of New York City.

"Environmental Protection and Archaeology"
Jeremy Woodoff and Sherene Baugher

In California, Orange County exceeds CEQA requirements in that the developer must pay for the background research, surface and subsurface survey, and monitoring of grading (Resolution of the Board of Supervisors of Orange County, California, April 20, 1982). The developers redesign projects and pay for the mapping and collection of surface scatters. By law, the county must pay the full cost of salvage excavation when it would cause an unreasonable burden on the developer.

San Diego County has recently updated its Resource Protection Ordinance (Compilation of Ordinance Nos. 7739, 7685, and 7631 (New Series) effective April 27, 1990),

in which the county Board of Supervisors has affirmed their policy that environmental resources are vital to the general welfare of all residents, and that "special controls on development must be established for the County's wetlands, floodplains, steep slopes, sensitive biological habitats, and prehistoric and historic sites" (Article I). The ordinance requires a Resource Protection Study prior to approving certain types of projects. If the study identifies "environmentally sensitive lands," then open space easements, rezoning to protect these lands, or other actions may be required as a condition of approving the project. Uses in sensitive lands are restricted to those that would be compatible with environmental resource protection, and specific development standards and criteria apply. For example, "development, trenching, grading, clearing and grubbing, or any other activity or use damaging to significant prehistoric or historic site lands shall be prohibited, except for scientific investigations with an approved research design prepared by an archaeologist certified by the Society of Professional Archaeologists" (Article IV Section 7).

Open Space and Archeological Site Protection

As more of the countryside gives way to suburbs, open space becomes a precious commodity. The quality of life offered by a community, including the scenic character, recreational opportunities, and environmental health of the area, helps to determine whether it is a desirable place to live and work. The best opportunities for preserving open space occur before it is an absolute necessity, while land costs are low and development can be logically directed to areas best suited for it. A community's open space needs cannot be met by just 'left-over' land."

"What Price Glory? A Commonsense Approach to Preserving Civil War Battlefields"
Katherine Boonin

Open space is generally land in natural condition free from development. Depending upon the locality, however, it may be defined as including not only farms, forest, wildlife habitats, natural resources, and waterways, but also recreational resources and opportunities, such as parks and hiking trails. Open spaces provide many benefits to local communities, by protecting property from flooding, protecting water quality and quantity, protecting fish and wildlife habitat, and promoting scenic and recreational values.

Since undeveloped open space is an ideal condition for archeological site protection, techniques being used to protect open space can also benefit archeological sites. In fact, Missouri statutes specifically provide for the protection of archeological and historic sites in open space. Merely applying open space protection techniques to areas containing archeological sites doesn't necessarily protect the sites. Agriculture, forestry, and recreation uses may continue and threaten the archeological sites. Archeological protection in open space is incidental unless the open space protection techniques specifically address archeological protection and management issues.

Open spaces are often protected in the form of greenways, which are coherent resource areas that are comprehensively planned, regulated, and managed for public use, and may include rivers, streams, wildlife refuges and migration corridors, scenic roads, hiking and biking trails, public parks, floodplains, farms, pastures, mountains, and hillsides.

Open space protection requires a combination of various techniques, including planning, land-use regulation, public acquisition, tax incentives, and capital spending programs. Some of these techniques, such as planning, easements, mandatory dedications, cluster development, transfer of development rights, and environmental quality assessments, have already been discussed. Other techniques include agricultural zoning, special zoning districts, such as agricultural and forestal districts, and greenways.

Agricultural districts are established to promote the continuation of farming activities by providing incentives such as land assessment at actual use value rather than market value, and by protecting the farmer against nuisance suits, municipal annexation, and extensions of public facilities that encourage suburban or urban development. By 1986, 12 States had agricultural or agricultural and forestal district programs. Farmers voluntarily apply to become a part of the program, agreeing to use their land exclusively for agricultural or agriculturally related purposes for a specified period of time, which is renewable. In New York's program, the minimum acreage permissible in a district is 500 acres, while in Virginia, the minimum acreage is 200. Virginia's program also enables local governments to establish local districts with a minimum district size of 25 acres based on locally defined criteria, which must be consistent with certain factors, including "scenic and historic features of land uses within the proposed district" (Virginia State Code, Title 15, Counties, Cities and Towns, Chapter 36, Agricultural and Forestal Districts, Section 15.1-1506 through 1513.8).

Agricultural zoning is widely used in various forms, with varying degrees of effectiveness, to ensure that suburban and urban development does not intrude into viable agricultural districts. Large-lot zoning is typically used to encourage retention of agricultural practices and discourage suburban development, but such a practice can also foster increased urban sprawl through inefficient subdivision. To counter this, innovative approaches are being used, such as the establishment of lot sizes based on the amount of land needed to support an economically viable farming operation and restricting uses that are unrelated to agriculture.

Other resources, such as woodlands, trees, and waterways can also be protected through regulatory means. Tree ordinances protect specified trees within a development project. Woodland protection ordinances preserve trees and ground cover by limiting development in sensitive areas. River corridors and wetlands can be protected through a combination of buffer zones and zoning and subdivision requirements which limit ground-disturbing uses.

Protecting archeological sites in open space can be more of a challenge in urban areas where, according to James B. Walker of the Archaeological Conservancy, "land use is intensive and the success or failure of a development project hinges on the number of developable square feet available." Since in urban settings heavy use demands are placed on all kinds of land, even open space, it is important to identify land uses that are compatible with archeological site protection. Walker further notes that the Newark Earthworks mound site in Ohio has been incorporated into a golf course, as was a Mayan ruin in Cancun, Mexico, and a group of Middle Woodland mounds were preserved by a developer in Cass County, Minnesota by constructing a walkway and observation deck from which residents can appreciate the space.

A 2,000-to-4,000-year-old bird effigy mound is protected in Burrows Park, a city park in Madison, Wisconsin. The mound, only about three feet high, is in the shape of a bird with outstretched wings measuring 128 feet from wing-tip to wing-tip. According to Geoffrey M. Gyrisco of the Wisconsin State Historical Society, "in the early part of this century, more than 100 mounds were preserved in small public parks as the city of Madison expanded and the buildings of the University of Wisconsin's main campus were erected around them. Effigy mounds are clearly visible in the lawns of the parks and campus, marked by plaques. It is probably the nation's most successful case of conscious preservation of archeological resources in a city." (Photo from the files of the National Register of Historic Places, National Park Service, Washington, D.C.)

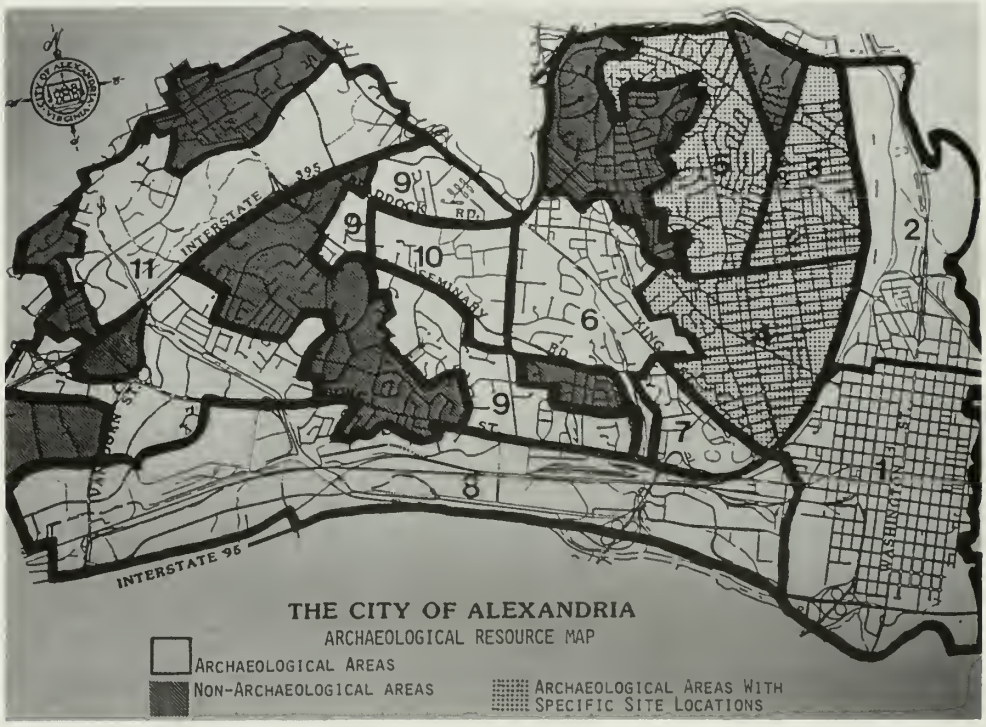
Integrating Archeological Site Protection Into Land-Use Regulations

As has just been seen, there are a variety of mechanisms that local communities use to regulate land use and protect sensitive lands. Some of these mechanisms have been used to protect archeological sites. In fact, an ordinance that requires the development design to be sensitive to archeological site protection can be the most effective preservation strategy. What is so important about protecting archeological sites through land-use control mechanisms is that they integrate archeological considerations into existing processes which are already familiar to developers and local government decision-makers. This approach provides the opportunity to evaluate each case on its own merits, and usually does not require an additional layer of approval by a separate board or commission.

An example of one community that took such an integrative approach to archeological protection is Alexandria, Virginia. In November, 1989 the city council adopted an "Archeological Protection Ordinance." Rather than a "stand-alone" ordinance, this

ordinance instead amended certain sections of the City Code to provide for the consideration and protection of archeological sites in the city. The ordinance added a definition for "ground disturbing activity" that describes potentially site damaging activities covered in the ordinance. The ordinance amended grading permit procedures to prohibit granting a permit for alteration of grade unless the project site plan has been approved. The ordinance also amended requirements for preliminary and final site plan to require that the applicant consult with the city archeologist for a preliminary assessment of archeological potential. If there is potential for significant archeological sites to exist, the applicant must, prior to filing for preliminary site plan approval, have a qualified archeologist prepare an archeological evaluation report and, if significant sites are present, a resource management plan. Only projects of certain sizes in any of the eleven archeological resource areas are covered by the code amendments.

This ordinance has been successful due to several key factors. The first factor is that developers are required to consider archeological protection very early in the planning stages of their projects. Secondly, the City employs professional archeologists to administer the ordinance. The archeological resource areas identified and mapped in the ordinance do not cover the entire city, and were defined on the basis of nearly 30



This map of Alexandria, Virginia's eleven archeological zones was adopted as part of the city's Archeological Protection Ordinance. Proposals for ground-disturbing activity in the eight unshaded zones are required to consider their possible impacts on archeological sites. In the three lightly shaded zones, the ordinance applies only to ground-disturbing activity in specified locations. The ordinance does not apply in the darkly shaded areas. The establishment of these zones was solidly based on extensive historical and archeological research and a visual inspection of properties along every city street. (Photo courtesy of Alexandria Archaeology, Office of Historic Alexandria)

years archeological and historical research in the city. Additionally, the process required in the ordinance had been tested and refined through voluntary cooperative efforts between developers and city staff over a number of years. With the experience gained by, and the goodwill established between, developers and city staff, and with the process codified, everyone involved in the process understands what is required and that the developers will be treated fairly.

Key Factors for Effective Local Ordinances

A local archaeological protection ordinance must be sensitive to local factors, especially the political acceptibility of a new regulatory system. Many local governments are tightly constrained by state law in the type of ordinance they may adopt. In addition to legal restrictions, a review process which is foreign to the government regulators and development community will encounter serious resistance. The most effective procedures adapt to the local customs and practices.

"Local Archaeological Protection Ordinances"
Jonathan P. Rak

Chapter 7 Stand-Alone Historic Preservation Ordinances

Ordinances designed to preserve historic properties are usually drafted as separate regulatory processes, rather than as amendments to existing land-use regulations. Typical "stand-alone" historic preservation ordinances establish a preservation commission and procedures for listing properties on official registers of historic places, for delineating historic districts, and for reviewing and approving *certificates of appropriateness* for proposed changes to historic properties. Not all local historic preservation ordinances contain all of these features, and some may have more, depending on state enabling legislation.

Registers of Historic Places

Registers of historic places formally recognize those historic properties and archeological sites that meet certain criteria of significance. The registration, or *designation*, procedure provides a systematic, reasoned process for affirming a property's historic importance. There are such processes at the national, state, and local levels. Most registers offer an informal measure of protection derived from the honor and prestige associated with having one's property judged to be historically important. It is important to note that listing a historic property on a register does not provide legal protection or restrict the owner's use of the property unless state and/or local laws have been adopted to do just that.

The National Register of Historic Places[1]

The National Register, authorized under the 1935 Historic Sites Act and expanded under the National Historic Preservation Act of 1966, was designed to be an authoritative guide for use by federal, state, and local governments, private groups, and citizens in identifying the nation's historic resources of local, state, and national significance and to indicate what properties were worthy of preservation and consideration in the planning process. The National Register is maintained by the National Park Service, U.S. Department of the Interior, in Washington, D.C.

The primary way that properties are listed in the National Register is through nominations by the State Historic Preservation Officers. Potential entries to the National Register are reviewed against established criteria for evaluation which are worded in a flexible manner to provide for the diversity of resources across the country (see box).

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[1] This discussion is taken from National Register Bulletin 24, *Guidelines for Local Survey* by Anne Derry, H. Ward Jandl, Carol D. Shull, and Jan Thorman. Additional information on the National Register can be obtained by contacting the National Park Service at the address listed in Appendix G.

The National Register Criteria for Evaluation

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- *That are associated with events that have made a significant contribution to the broad patterns of our history; or*
- *That are associated with the lives of persons significant in our past; or*
- *That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or*
- *That have yielded, or may be likely to yield, information important in prehistory or history.*

The National Register is central to a number of federal programs that encourage protection and improvement of the built environment. Federal agencies, and states and communities using federal assistance, such as federal highway funds or Community Development Block Grants, are required to consider the effects of their projects, and of the projects they license, permit, or assist, on properties included in or eligible for the National Register.

Federal tax law provides incentives for the preservation of properties listed in the National Register or included in registered historic districts. Investment tax credits are available for the rehabilitation of National Register properties qualifying as *certified historic structures* when rehabilitation work is certified by the National Park Service as meeting the *Secretary of the Interior's Standards for Rehabilitation*. Tax deductions are permitted for the charitable contribution of easements on historic properties to qualified organizations. Current information on federal tax incentives can be obtained from the State Historic Preservation Officer.

The National Register has become an important component of many state and local historic preservation programs. Criteria for designating local landmarks and local historic districts, which by local ordinance may qualify properties for special tax rates or trigger special review when changes to the property are proposed, are often modelled after the National Register process and its criteria. National Register listing often follows and reinforces state and local designations, extending the concern for preservation and protection to the federal level.

State Registers of Historic Places

About two-thirds of the states have a state register of historic places. Some of these mimic and duplicate the National Register (such as in Arizona, Iowa, Virginia), but others, such as in California and Nevada, have a broader focus. Some state registers, such as those in Alabama, Idaho, Iowa, and New Mexico, confer honor by recognizing the historical importance of properties, but impose no restrictions on property owners as a result of listing. Other states, such as New York, California, Rhode Island, and Kansas, link state register listing to protective regulations, such as requirements for assessing the impacts of state, local, and/or private actions on register properties, although the implementation of these regulations has not always been successful. Some states offer grants and other financial assistance and tax relief to owners of register properties.

Local Registers of Historic Places

Local registers, sometimes called landmarks registers, are established in accordance with state enabling legislation to recognize individual properties and sites that are important to a local community. Recognition for groups of properties are generally covered under historic district ordinances (see below).

Local registers have important honorific purposes, but some communities also regulate certain actions, such as demolition or alteration of historic buildings, without the approval of a local landmarks preservation commission. In a recent National Park Service survey of 236 certified local governments, an overwhelming majority of the respondents reported that a local register or list of designated historic properties is a feature of their local preservation regulations; about half of these specifically address archeological sites.

Local regulations that provide the local preservation commission with the responsibility for reviewing and approving applications for demolition and alterations generally apply only to buildings, and tend not address issues of archeological protection (see, for example, the model landmarks ordinance provisions in Appendix A of *A Handbook on Historic Preservation Law*, edited by Christopher J. Duerksen). There are exceptions, however. About one-third of the respondents in a 1991 survey of the National Center for Preservation Law subscribers noted that their local historic preservation ordinances authorize the commission to protect designated archeological sites, and several commissions had actually reviewed projects which would have affected an archeological site.

Historic District Ordinances

More frequently, local communities tend to adopt ordinances to protect clusters of historic properties, or historic districts. Enacted under state enabling authority, local historic district ordinances generally establish a preservation commission, procedures and criteria for designating historic districts and individual landmarks, and a process for reviewing and approving or granting a *certificate of appropriateness* for proposed alterations, demolitions, and new construction. Where the historic district ordinance is established through the zoning ordinance, it is often referred to as historic zoning or historic district overlay zoning.

The Jean Bonquet Historical and Archeological District in New Mexico was listed on the National Register of Historic Places for its complex of adobe buildings that date from the mid-19th century and for its archeological record of human occupation from at least the mid-18th century if not centuries earlier. This district contains a rich history of Southwestern settlement: Native American lifeways, the Ortiz land grant, the Bonquet ranch, and Anglo-American village life. If a historic district, such as this one, is covered by an ordinance that does not provide for archeological protection, the community can lose a large portion of its heritage. (Photo from the files of the National Register of Historic Places, National Park Service, Washington, D.C.)

While historic district zoning can reduce demolition, thereby protecting archeological resources from damage or destruction, alterations to buildings can result in massive ground disturbance. This occurs in both the front and back yards as utilities are renewed, basements waterproofed, entrances altered, new additions put on in back, and the yard relandscaped. The archeological remains on such properties need to be perceived and protected as part of the historic resources of the district. Alteration of the ground surface needs to be controlled just as do alterations to the building's fabric.

The Historic Districts and Landmarks Zoning Ordinance of San Antonio, Texas is a good example of integrating archeological and historic building concerns in one ordinance and set of procedures. San Antonio's ordinance provides a means to designate and protect both archeological sites and historic buildings and establishes a Review Board whose membership must include an archeologist. A permit is required before construction, reconstruction, alteration, rehabilitation, relocation, stabilization, sign installation, and demolition on a property containing a designated historic resource or archeological site. The effects of the proposed work on designated, or inventoried but

not yet designated, archeological sites must be assessed by the property owner prior to the Board's review of the permit application. The Board's review of all applications for alteration and restoration considers the extent to which reasonable effort has been made to protect and preserve archeological resources affected by the project. Unfortunately, the review criteria for demolition of a landmark merely requires the Board to balance the value of the landmark against the merits of the proposed replacement project. No guidance is provided in the ordinance to help the Board evaluate the appropriateness of protecting the site in place, professionally excavating the site or, conversely, allowing the site to be destroyed. Additionally, the Board's review criteria for new construction and building or structural relocation ignore the potential impacts of these actions on archeological sites.

In its Historic Resource Commission Ordinance, the City of Albany, New York, like San Antonio, established a commission, which may include an archeologist as a member, a process for designating landmarks and districts that includes archeological sites, and procedures for reviewing proposed construction, alteration, demolition, and other work affecting designated properties. In contrast to San Antonio's ordinance, however, Albany's ordinance established "The Downtown Albany Archeological District and Fort Orange" as an area (or district) of special archeological significance. This is the only archeological area established, although conceivably additional areas could be established through the designation process by amending the ordinance. Applicants proposing ground-disturbing activities in this district may, depending upon project specifics, be required to conduct an archeological assessment as part of New York State's environmental review process. Guidelines for the commission's review of proposed work in other historic districts are similar to those used in San Antonio, except that the potential for damage to archeological sites is not a consideration in reviewing applications for demolition permits.

Chapter 8 Laws Specific to Archeology

Virtually every state has adopted laws specifically to protect archeological sites. Protection tends to be achieved through controlling the practice of archeology, such as how or by whom a site is excavated, rather than regulating the uses of the land of which the archeological site is a part. The establishment of a permit system and prohibitions on unscientific investigations, a practice commonly called *looting*, *pot-hunting*, or *relic-hunting*, are common. Many of the state laws mimic those at the federal level that govern activities on federal lands.

Antiquities Statutes

About two-thirds of the states have antiquities laws that are designed to protect archeological sites and materials. Some of these laws also cover geological and paleontological materials, underwater or submerged sites, caves, or human burials. Under these laws, a permit is required to conduct archeological investigations on lands owned or controlled by the state, although in some states (such as Colorado and North Dakota) this requirement extends to lands owned or controlled by local governments, and in other states (such as Vermont and Virginia) a permit is required for archeological work within the boundaries of designated state archeological landmarks. Several state laws provide for regulations and standards to guide permitted archeological investigations. These laws prohibit activities that can damage archeological sites, such as unauthorized collecting, digging, and use of metal detectors. Ownership of materials recovered through permitted investigations is usually specified, often a state agency with collections management responsibilities such as the state museum. The State Archeologist or the State Historic Preservation Officer is typically charged with the responsibility of administering the antiquities statute.

A few cities and counties have passed similar "antiquities-like" ordinances to protect archeological sites. Some of the earliest of these appeared in California. Under pressure from Native Americans in 1967, Inyo County started regulating the excavation of Indian burials. Excavation was limited to professional archeologists holding county permits, and to cemeteries not in active use. In that same year, Marin County passed a law to regulate the excavation of shell middens by requiring that 60 days be allowed for salvage. In 1977, the city of Larkspur, California, passed a law stating that "it shall be unlawful for any person to excavate or disturb, in any fashion whatsoever, any archeological resource prior to issuance of an archeological investigation permit" (Larkspur Municipal Code 15.42.030(a)). In 1989, the City of Alexandria, Virginia adopted an ordinance declaring that "it shall be unlawful for any person, while located on city property to possess or use a...metal detector or any other device...to search for objects in, on or below the surface of the soil; dig, excavate or in any other way disturb the surface of the soil; and remove any object found in, on or below the surface of the soil," unless permission is given by the director of the department of recreation, parks and cultural activities to recover lost personal objects (Code of the City of Alexandria, 13-1-40(a)). City employees carrying out their duties are exempted from the provisions of the ordinance. Violations are considered a class three misdemeanor.

Added strength is given to state and local laws by Section 6(c) of the federal Archaeological Resources Protection Act, which states that

> *No person may sell, purchase, exchange, transport, receive or offer to sell, purchase, or exchange, in interstate or foreign commerce, any archaeological resources excavated, removed, sold, purchased, exchanged, transported or received in violation of any provision, rule, regulation, ordinance, or permit in effect under State or local law.*

Under this provision, federal law enforcement capabilities can be brought to bear in investigating and prosecuting violations of federal, as well as state or local laws (for more information, see *Archeological Resource Protection* by Sherry Hutt, Elwood W. Jones, and Martin E. McAllister, and *Protecting the Past* edited by George S. Smith and John E. Ehrenhard).

Cemeteries, Graves, and Human Remains

Of all the issues facing archeology, few, if any, are more complex or fraught with conflict than the proper treatment of human burial sites. Human remains possess both spiritual and scientific values, or according to some, one of these values but not the other, or neither. In a review of the diverse opinions on this issue, Douglas H. Ubelaker and Lauryn Guttenplan Grant explain that Native Americans, African Americans, and other groups are quite concerned about the excavation, analysis, and museum display of their ancestors' bones, some even viewing such activities as outright desecration. In contrast, report Ubelaker and Grant, archeologists and physical anthropologists view human remains and mortuary sites as important scientific data for understanding the health, diet, diseases, mortuary practices, and demography of past populations. These often contradictory viewpoints can arise quickly and have the potential for generating conflict when unmarked burials are encountered in a development project. Compromises, however, have been reached to allow a specified period of time for scientific study before reburial, with opportunities for involvement in project decision-making by Native American, African American, or other groups that can demonstrate a relationship to the human remains.

These issues have been the driving force behind the federal Native American Graves Protection and Repatriation Act of 1990 and the recent flurry of new and revised state statutes. These laws are designed to protect human burials from vandalism, to ensure professional treatment and reburial in ways sensitive to the concerns of related groups, and to return human skeletal remains and associated funerary objects that can be related to modern tribes or family descendants. Summaries of state laws can be found in "Legal Background of Archeological Resources Protection" by Carol Carnett and in "Human Skeletal Remains: Preservation or Reburial?" by Douglas H. Ubelaker and Lauryn Guttenplan Grant. In general, these laws tend to regulate the archeological removal of Native American and/or unmarked burials, although marked historic cemeteries and abandoned cemeteries may also be specified. The particular approach taken by these statutes in any state will vary depending upon the existing legal and political system and the nature of citizen interest in the issues.

Other state and local laws on human burials, however, are broader, governing the establishment and operation of active cemeteries, interments and reinterments, and

penalties for desecration and unauthorized disinterments. In these laws, specific procedures are established for authorized removal and reinterment of burials, and for condemning or transferring title of abandoned cemeteries. The administration of these laws at either the state or local level may or may not be coordinated with the administration of laws governing archeological removal of human burials. A number of State Historic Preservation Offices, such as Hawaii and Illinois, have prepared pamphlets explaining these complex laws and the responsibilities of the general public, property owner, and archeologist.

Underwater Archeological Sites

Although it has been stated throughout this chapter that archeological sites are inherently bound up in land, this is not always the case. Archeological sites also exist under water, either on or embedded in the bottoms of rivers, lakes, bays, and oceans. Some may once have been land sites, such as farmsteads or villages now inundated by reservoirs. Many are wrecks of commercial and naval ships and boats and associated maritime facilities such as wharves and piers.

Through the federal Abandoned Shipwreck Act of 1987, states were given title and management responsibility for abandoned shipwrecks in their waters. Title to shipwrecks on Native American lands was transferred to the tribe owning the lands. Not covered by the Act are vessels commissioned by the United States and foreign governments, and merchant vessels that, although sunk, have not been abandoned by their original owners or insurers. The Act called on states to develop mechanisms to protect underwater natural resources and habitat areas, to guarantee recreational and educational opportunities for sport divers, and to allow archeological investigations consistent with the historical and environmental values of the shipwrecks and sites.

In 1989, less than half of the states had laws covering shipwrecks, but by 1993 most states have adopted new laws, revised existing statutes, or are in the process of doing so. These laws tend to establish a permitting system similar to that required in antiquities laws. For example, South Carolina's "Underwater Antiquities Act" (S.C. Code Ann. 54-7-400 through 540) covers archeological and paleontological materials unclaimed for 50 years, including sunken ships and all historic or prehistoric artifacts. The South Carolina Institute of Archaeology and Anthropology issues licenses for hobby, search, or salvage activities.

Protecting and regulating the use of, or access to, underwater archeological sites is complicated by a number of factors, such as location, ownership, presence of gravesites, and safety.

Located in a fluid and mobile environment, shipwrecks can move due to the forces of water currents and tidal flows. These same forces can repeatedly bury sunken ships in sand and silt, and then uncover them again. Additionally, as rivers meander, they can change course, leaving a sunken river boat buried in dry land a mile or more from the present river bank.

Ownership and control of underwater sites is very complex as multiple jurisdictions can get involved in any proposed action. Responsible for the nation's navigable waters, the U. S. Army Corps of Engineers dredges channels and issues permits for archeologi-

The National Park Service Submerged Cultural Resources Unit stresses non-destructive documentation practices such as this project documenting a shipwreck at Isle Royale National Park on the Great Lakes. (Photo courtesy of the National Maritime Initiative, History Division, National Park Service, Washington, D.C.)

cal investigations. There may be several state agencies, in addition to the State Historic Preservation Office, that have responsibilities for approving actions or issuing permits related to state waters. Even local agencies, such as a port or harbor authority, can be involved. For example, the James River shipping channel into Richmond, Virginia required maintenance dredging when it had become silted in various places. Dredging, however, would jeopardize four Confederate naval vessels that were scuttled as Union forces marched on Richmond in early April 1865. The various players in this drama include the Army Corps of Engineers, which would dredge the channel, the Port of Richmond, which needs a functioning shipping channel, the Virginia Marine Resources Commission, which issues permits for activities in state waters, and the Virginia Department of Historic Resources, which is charged with protecting historic sites in the State. All of these agencies are currently in the process of negotiating a solution that will benefit both commercial shipping and shipwreck protection.

Sinking vessels often claim lives, especially in wartime. Where that has happened, shipwrecks are also gravesites. In such cases, state laws covering burials may also apply.

Issues of technology and safety may be addressed in statutory standards for work performed on underwater sites in order to make sure that sites are not damaged or divers injured. The marine environment in which these sites exist can be dangerous and demands the use of sophisticated technology to ensure safety and to identify site locations and conduct investigations. Archeologists working on wreck sites may need to meet certain diver certification requirements. Various remote-sensing technologies, such as side-scan and bottom-penetrating sonar, are essential for locating wreck sites. Additionally, artifacts and other materials recovered from wet sites require skilled treatment in the archeological laboratory.

Chapter 9 Tax Benefits for Site Protection

Real Property Taxes

In the United States, land has traditionally been viewed as a commodity to be bought and sold, although attitudes are changing and land is increasingly being seen as a resource deserving of stewardship. Nevertheless, the standard method for assessing property value for tax purposes is the property's value on the open market. Property taxes can be one of the single highest expenses of a private landowner or developer.

Local government's power to tax is derived from State constitutions and statutes, and "the property tax historically has been one of the most important sources of local government revenue," according to *The Practice of Local Government Planning* edited by Frank S. So and Judith Getzels. The property tax is based on the assessed value of the land and any improvements (such as buildings, landscaping, and utilities). Property assessments are typically based on the property's "highest and best" use, which is usually development at the highest density permitted under the property's zoning classification, even if the property is currently vacant. The procedure for assessing property for tax purposes requires a determination of its market value and its assessed value, which may be the actual market value or less, depending on whether or not state law has established different assessment ratios for different kinds of properties (such as residential, commercial, or industrial). The tax rate is set by the local government, and is applied to the assessed value minus any adjustments (such as a reduction for the elderly) that have been made.

The practice of assessing and taxing land on the basis of its development potential, or its "highest and best" use, creates conflicts with private and public conservation and preservation goals. Urban sprawl and the market demands for land that can be developed may drive up the value of undeveloped, agricultural, or environmentally sensitive land. Additionally, market demand and zoning can increase the value of land far above the value of any buildings present, creating an incentive for demolition and new construction. States and local governments have established property tax benefit programs to reduce these conflicts.

One technique is *actual use assessment*, also called *preferential assessment* or *use-value assessment*. The property value is based on its current use rather than on its full market value according to its development potential or "highest and best" use. Frequently used to encourage farmland or open space preservation, it has also been applied to natural, scenic, recreational, and historic resources in some states.

State statutory requirements that local tax assessors take into account the reduction in property values due to easements are a variation of actual use assessment. The reduction in assessed value and in property taxes following the recording of an easement is not automatic. Usually, the taxpayer is responsible for requesting the reduction. Whether or not a property tax reduction is granted will depend upon the willingness and knowledge of local assessors. Even if state law requires such reductions, local government officials may not welcome the decrease in tax revenues.

Assessment freezes and *tax abatements* are two other techniques that provide incentives for preservation. Freezing the assessed value of a property and reducing property taxes

for a specified period of time are incentives usually linked to relieving an owner's burden of increased property taxes as a result of historic building rehabilitation. In some states, property tax reduction is available to owners of historic properties as a benefit of listing on the National Register of Historic Places or the state register. For example, in Arizona, archeological sites are included in the state's Historic Property Assessment Program, which assesses non-income-producing historic properties listed on the National Register at 5% of their market value for up to 15 years.

Income Tax Reduction for Easement Donation

A landowner's federal income tax can be reduced following the donation or bargain sale of an easement, provided that the easement or bargain sale qualifies as a charitable contribution under federal income tax regulations. The amount the landowner can deduct as a charitable contribution is the difference between the property's fair market value assessed at its highest and best use and the property's fair market value at its most profitable use given the easement's restrictions, or the difference between the property's fair market value and its bargain sale price. Depending upon the landowner's individual tax situation, the deduction may be carried over into succeeding tax years, and calculation of the Alternative Minimum Tax may be required. Some states, such as Virginia, also allow a similar deduction from state income taxes.

According to *The Conservation Easement Handbook* by Janet Diehl and Thomas S. Barrett, "To qualify for a federal income tax deduction, an easement first must be donated in perpetuity. Second, it must be given to a qualified organization such as a land trust or historic society or a public agency. Third, it must be given 'exclusively for conservation purposes.'" Conservation purposes, as defined by the Internal Revenue Code Section 170(h)(4)(A) are:

i) the preservation of land areas for outdoor recreation by, or the education of, the general public,
ii) the protection of a relatively natural habitat of fish, wildlife, or plants, or similar ecosystem,
iii) the preservation of open space (including farmland and forest land) where such preservation is —
    (I) for the scenic enjoyment of the general public, or
    (II) pursuant to a clearly delineated Federal, State, or local governmental conservation policy, and will yield a significant public benefit, or
iv) the preservation of an historically important land area or a certified historic structure.

Reporting on a study conducted by the National Park Service, Yvonne Stewart notes that for an easement drawn specifically to protect an archeological site, the conservation purpose it must serve will be "the preservation of an historically important land area." For the easement to qualify as a charitable donation for income tax reduction, the archaeological site must be listed on the National Register. Further, if an historically important land area contains a significant building (such as an archeological site that contains both a significant surface building and subsurface material), a Certification of Significance as well as listing the site in the National Register is necessary.

Information about certification and the appropriate forms can be obtained from your State Historic Preservation Office (listed in Appendix G). This does not necessarily mean that archeological sites could not be included in easements that meet one or more of the other "conservation purpose" criteria. Archeological sites can be protected by easements established for outdoor recreation, natural habitat conservation, scenic protection, farmland preservation, etc. A tax attorney should be consulted to determine whether or not restrictions specifically designed for archeological protection in these easements would require National Register listing before income tax benefits could be obtained.

The Santa Cruz Island Archeological District, Santa Barbara, California contains over 3,000 known Chumash Indian sites. When the Nature Conservancy purchased the island, the difference between the $50-per-acre price paid and the estimated $5,000-per-acre market value gave the owner a tax deduction stretched over several years. (Photo from the files of the National Register of Historic Places, National Park Service, Washington, D.C.)

Estate Tax Reduction

There can be considerable estate tax savings as a result of an easement donation. When a landowner dies, his or her heirs are responsible for paying inheritance taxes on the combined value of all assets at the time of death. This tax bill can be staggering, especially of large land areas are owned, since the land is valued and assessed at its most profitable use, and payment of the tax may require selling some of the assets.

The value of the estate, and its tax, however, can be reduced by the donation of an easement, since the evaluation of the highest and best use of the land is reduced by the easement's restrictions. The easement may be made during the landowner's lifetime or in his or her will; a tax reduction cannot be received if the estate executors donate the easement. This tax reduction can only be taken if the easement is donated in perpetuity for "conservation purposes." The use of "conservation purposes" here, although undefined in estate tax law, is not the same as for income tax purposes. If an easement donation does not qualify as a charitable contribution for income tax reduction, it may qualify for a reduction in estate taxes.

For those interested in pursuing archeological protection strategies that offer tax benefits, it is critical to consult with an attorney and financial advisor. Tax law is very complicated and frequently changing.

A Note on Artifact Donations

While artifacts are not discussed in any of the tax statutes, their analysis and comparison may be the most significant result of excavation, testing, or survey. Artifacts recovered from private property belong to the property owner, even when excavated with public funds, but may be donated by the private property owner to a local, State, or Federal conservation facility or to a qualified non-profit conservation facility.

Such a donation may be considered a charitable contribution by the IRS. However, since archeologists hesitate to develop a system of artifact valuation out of concern that an antiquities market would develop, and since IRS will not accept an unsupported value in a charitable contribution deduction, a "Catch-22" situation has emerged.

The approach used at the Averbuch Site in Tennessee has been suggested by several authors (Gyrisco 1980), and is being discussed by the archeological community as the solution to the problem. As commonly heard or read, the donor simply takes a deduction equal to the cost of excavation of the artifacts donated.

However, taking this deduction is a big risk for the property owner, whether a developer or a private person. If audited, this type of donation will NOT be allowed and the donor will have to pay back taxes plus interest. At a 1985 meeting between IRS and NPS on this subject, NPS was told that deductions of this type would definitely NEVER be allowed. This method conflicts with previously accepted universal valuation principles. Artifacts must be valued in exactly the same manner as antiques or museum properties are valued. Of course, this is specifically the type of valuation that archeologists fear because it could increase traffic in illegal artifacts, and because the donation of research collections, many of which have no real monetary value, may cease to be attractive to potential donors.

"Tax Treatment of Archeological Sites"
Yvonne Stewart

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Part 3 Non-Regulatory Strategies

Archeologists, preservation organizations, and state and local government officials have had great successes in protecting archeological sites through legal mechanisms such as those described in Part 2. It may, however, be unrealistic or even impossible to try to protect all archeological sites using these approaches. Legal means may not suit an individual property owner's needs and situation, and the job of protecting ALL important archeological sites is simply too large a task for only a few organizations or agencies. Important archeological sites are, nevertheless, being damaged and destroyed. Even so, more laws or stronger laws may not necessarily be the answer. There are a number of non-regulatory strategies that, either alone or in combination with regulatory approaches, may help protect archeological sites. Discussed in Part 3 are stewardship programs, site management strategies, and local archeology programs.

The archeological project at the Hartwell Site in Fairfax County, Virginia is an excellent example of voluntary cooperation for site protection. Portions of the site, which contained extensive shell middens dating ca. 1400, were slowly being eroded away into the river. The owner invited the County Archaeologist and a crew of volunteers from the Northern Virginia Chapter of the Archeological Society of Virginia to rescue those parts of the site that would have to be sacrificed for the construction of erosion control along the river bank. An excellent relationship was established between the landowner, County staff, and the avocational archeologists, resulting in a heightened landowner commitment to site protection and new insights into Virginia Indian lifeways in the centuries before European settlers arrived. (Photo courtesy of Heritage Resources Branch, Fairfax County, Virginia, Office of Comprehensive Planning)

Chapter 10 Stewardship Programs

The general public has a high level of interest in archeology and site protection, even though many view sites and artifacts as fascinating curiosities unrelated to the concerns of modern society, rather than as valuable resources that enrich our lives by helping us understand the past and affirming our community's cultural traditions. Stewardship programs tap this fascination with archeology and create opportunities for the public not only to learn about the past and embrace archeological values, but also to become involved in helping protect sites from potentially damaging forces. Used in tandem with existing site protection legislation, or especially in the absence of such laws, stewardship programs offer an extremely effective technique for archeological site protection.

The term *stewardship* describes an affirmative approach to archeological site protection. A steward is an administrator entrusted with the management of property, finances, or other affairs not his or her own. When associated with archeology, stewardship embraces a preservation ethic concerned with the protection of archeological sites, an attitude of caring for sites that "belong" to everyone, present and future.

A number of stewardship programs have arisen around the country. Some, such as those in Arizona and Texas, are "watchdog" programs, whose stewards monitor archeological sites for damage, and other programs, such as Kentucky's, rely on site stewardship and management by landowners. All programs are characterized by their voluntary participation, educational opportunities, and deterrence of site vandalism through human presence and vigilance.

Good Stewardship Matters

Stewardship is simply taking good care of something. It comes from the Old English words "stig" and "weard," referring to the warden or the one who cares for the house. Today we apply the term to the land, including our natural heritage, and talk of private land stewardship meaning simply taking good care of the land while we use it.

The term "stewardship" implies two things. First, it suggests a concern for the future, specifically for future generations. As an Ontario [Canada] farmer said ..."If I can't pass this land on to my children in better shape than it was when I bought it, then I have done something wrong."

Secondly, the idea of land stewardship is at least partly a moral or ethical responsibility. It extends our ethical obligations beyond the human community to include the rest of the species on earth and the land on which we all live.

In a sense, we have not inherited our land from our parents, nor have we merely purchased it. We are borrowing it from our children and their children and should leave it undamanged for their future use. This does not mean absolute preservation, nor does it allow for unbridled exploitation. Rather it is the middle road of responsible and careful use.

"Good Stewardship Matters to Our Land"
Stewart Hilts

The Texas Archeological Stewardship Network, established in 1983, was one of the first programs in the country. Administered by the Office of the State Archeologist, the Stewardship Network consists of avocational archeologists who volunteer to be the eyes and ears of the State Archeologist in different regions of the state. The Office of the State Archeologist publishes a quarterly newsletter, the *Stewardship Network News*, and holds a Spring and Fall stewardship meeting to share information about fellow stewards, stewards' activities, archeological techniques, and stewardship strategies.

Stewards' duties are quite numerous and varied, and may include monitoring known sites, recording newly discovered sites, helping nominate sites as Texas Archeological Landmarks, assisting professional archeologists in emergency site investigations, documenting private artifact collections, distributing educational materials, and giving slide presentations to students and civic groups.

Concerned that publicity about archeological sites could lead to vandalism and looting, the Stewardship Network holds the locations of known sites confidential. Applicants for membership in the Stewardship Network are asked to support this policy by adopting the Network's code of ethics (see box), which also calls for stewards to comply with federal, state, and local preservation laws; to honor local cultural values; and to respect the personal, property, and privacy rights of landowners.

Texas Archeological Stewardship Network

Code of Ethics – Statement of Adoption

I, the undersigned, recognize that archeological resources are irreplaceable, nonrenewable cultural resources. I will not misuse or misrepresent my position in this program for personal gain to obtain access to archeological sites or materials. I realize that the value of an archeological site is context as well as content. The only justifiable reason for disturbing a site is for scientific study and for preserving the information contained in the site that might otherwise be lost. In the event that I learn of ongoing destruction of archeological resources, I consider it my responsibility to notify the State Archeologist, Texas Historical Commission. I adopt the Texas Archeological Stewardship Network Code of Ethics.

_____

Signature

_____

Date

From the Handbook for Archeological Stewards, 1990, Office of the State Archeologist, Texas Historical Commission.

In a report on stewardship activities between 1989 and 1991, Phil Parisi noted that during that period stewards recorded over 50 new archeological sites, monitored 165 known sites, gave lectures to over 2,500 Texans, and distributed over 2,000 pieces of educational literature, including bilingual materials in the state's border regions. Indeed, the Texas Archeological Stewardship Network experienced such marked success that it inspired other states, most notably Arizona, to set up similar programs of their own.

In 1985, then Governor of Arizona Bruce Babbitt directed the Arizona Archaeology Advisory Commission to explore the feasibility of starting an archeological stewardship program based upon the Texas model. By mid-1988, the Arizona Site Steward Program, jointly developed by the State Historic Preservation Office, Arizona State Parks, the Archaeology Advisory Commission, the State Land Department, the U. S. Bureau of Land Management, the U. S. Forest Service, and the Hopi Tribe, was off and running.

The primary objective of Arizona's stewardship program is to prevent the destruction of archeological sites through site monitoring. As in Texas, Arizona's stewards act as liaison between local communities and the State Historic Preservation Office, performing such tasks as documenting private collections or giving educational presentations to increase public awareness about archeology. The program's voluntary stewards are selected, trained, and certified by the State Historic Preservation Office and the Archaeology Advisory Commission.

In Arizona's efforts to combat site vandalism, the stewards' role as deterrent to vandalism is stressed; they are instructed not to participate in law enforcement activities, unless they are qualified to do so through formal law enforcement training. Although one of the site stewards' prime responsibilities is to discover signs of recent site vandalism, they "have an equally strong responsibility not to endanger evidence nor deter or impair the investigation that must follow [their] reports," according to the Arizona State Historic Preservation Office.

By mid-1990, 354 Site Stewards had spent over 7200 hours monitoring 205 archeological sites. In May of that year, the Site Steward Program received the Governor's Award for Historic Preservation in recognition of "its outstanding role in preserving and protecting the State's cultural heritage," according to Teresa Hoffman writing in "Stewards of the Past."

Kentucky has taken a slightly different approach with its stewardship program. Recognizing that landowners have nearly total control over the protection of archeological sites on private land, the Kentucky Heritage Council developed a landowner contact/site registry program, the Kentucky Archaeological Registry, in 1987.

According to a recent status report of the program, Gwynn Henderson explained that, "each landowner is informed and educated about the significance of the archeological site he or she owns, and the landowner's aid is enlisted in the site's protection and preservation. The goal is to encourage the landowner to make a conscious, voluntary commitment to protect his or her site, which leads to voluntary stewardship of the site."

Not all sites, however, are eligible for Kentucky's program. To be considered for registration, a site should have some clear archeological significance. Factors

Community involvement in field survey, archival research, laboratory analysis, site monitoring, and other activities is a critical factor in protecting archeological sites. Volunteer participation was a major contribution to the successful rescue of parts of the 600-year-old Hartwell Site in Northern Virginia from being destroyed during installation of riprap along the river bank. The owner of the site delayed construction until rescue excavations could be completed. Recognizing the site's importance, the owner committed to her stewardship role over the site, voluntarily setting aside the remainder of the site in open space, allowing the County Archaeologist and the volunteers to collect information on the rest of the site, and plans to nominate the site to the National Register of Historic Places. (Photo courtesy of Heritage Resources Branch, Fairfax County, Virginia, Office of Comprehensive Planning)

determining a site's significance include its integrity, its rarity, its potential research value, and the degree to which it is threatened. After an appropriate site is identified, a member of the Registry staff visits the landowner and inspects the site. In order to achieve its goals, the Registry seeks landowners who are genuinely interested in making a long-term preservation commitment.

Willing landowners are asked to preserve and protect their sites as best they can, and to notify the Kentucky Heritage Council of any damage or threat to the site and if they intend to transfer title to the site. In turn, the Registry agrees to provide site management assistance and, upon request, help the landowner select appropriate tools for stronger site protection.

At first glance, the Registry program does not seem to offer archeological sites any concrete protection because there is no legally binding agreement to do so. Furthermore, since the preservation commitment is formed only between the Kentucky Heritage Council and the site's current owner, such an agreement terminates when the land changes ownership. The Registry is then obliged to try to secure another agreement with the new owner, whose opinions about site protection may differ from the previous owner's. Despite these apparent shortcomings, the Registry has had a surprisingly high degree of success.

Frequent communication, mutual respect, and trust between the landowner and Registry staff are critical to the program's success. As important to this success is monitoring the site to ensure damage does not occur.

In its first two years of operation, the program registered 19 archeological sites which total some 300 acres. Included among these sites are burial mounds, temple mounds, villages complexes, and a rockshelter. Some of the participating landowners subsequently inquired about other measures that could strengthen the protection of their sites. The Registry has proven to be a successful, cost-effective strategy for protecting archeological sites on private land.

Chapter 11 Site Protection Through Management

An archeological site cannot be protected merely by buying it, acquiring an easement on it, or setting it aside as open space in a residential development. Responsible site protection can best be achieved through an aggressive long-term management program that includes thorough documentation of site characteristics and condition, site stabilization, security, maintenance, monitoring, compatible use, and, where appropriate, eventual research. Effective long-term management begins with the preparation of a site management plans that addresses these issues.

Maintenance and security needs are critical in site management, according to Mark Michel and James B. Walker of the Archaeological Conservancy. Fences surround lands owned by the Conservancy so that property boundaries are unmistakable. Although a fence, by itself, may not keep anyone off the property, it serves notice that trespassers and vandals could be sent to jail. Ongoing, maintenance of the property is important, since, according to Walker, "a fenced-in, weed-covered acre in the middle of a posh subdivision not only represents an eyesore, but it also invites vandalism." Well-cared-for property provides no cover for site vandals.

Based on over ten years of experience in archeological site ownership and management, the Archeological Conservancy has learned that it is easier to manage protected archeological sites if uses compatible with site protection can be encouraged. For example, Walker reports that a conservation easement is held by the Archeological Conservancy on Horace C. Cabe Mounds, Bowie County, Texas, an eight-mound Caddo ceremonial complex that is used as an active pecan orchard and cattle pasture. On other Conservancy properties and easements, plowing is not allowed but hay is cut and the land leased for grazing. These activities not only provide income to defray some of the management costs, but the regular visits of a farmer or rancher to the property tend to discourage trespassers and vandals. In urban areas it can be more difficult to set aside land in open space to protect archeological sites within a development project. There are, nevertheless, numerous opportunities for uses compatible with site preservation, such as incorporating sites within a golf course, passive recreation park, or natural conservation area (see Chapter 6).

Monitoring the Protected Site

Once an archeological site is protected in place, it cannot be left alone. The importance of regularly monitoring the condition of the protected site should not be overlooked during the complex negotiations surrounding the acquisition of the property or easement or the dedication of the property in open space. A monitoring program needs to be designed for periodic site visits to check on site condition, perform routine maintenance, and determine if the site is being damaged or is in imminent danger of damage or loss. If damage is observed, strategies can be put in place to correct, reduce, or eliminate the actions causing the damage.

One of the immediate benefits of a monitoring and maintenance program is that regular human presence at the site is a strong deterrent to vandals and looters. The importance of a regular human presence at a protected archeological site cannot be

stressed too strongly. The involvement of concerned citizens as volunteer monitors and stewards is critical in deterring vandals and looters and in identifying other damaging actions before they become critical.

A monitoring program is especially important in enforcing the terms of an easement. There is potential for conflict when more than one individual or group hold rights to the same piece of land, and it is essential for the easement holder and the landowner to establish a good relationship with each other. Some easement holders use other strategies in addition to open communication and regular visits to maintain good rapport with property owners, such as recognition of good stewardship through plaques and certificates, providing professional advisory services, and sharing information through newsletters.

Monitoring the Easement

From a practical point of view, there is no such thing as a perpetual easement if there is not a commitment to enforce the terms of the easement. ...Do not allow easement enforcement to be an afterthought. If you catch yourself or others saying, "We'll worry about that later," STOP! You're making a big mistake.

Paul Hartmann, Realty Officer
U.S. Fish and Wildlife Service
quoted in "The Conservation Easement Handbook"

Site Stabilization

Protecting an archeological site in place emphasizes site stability, on maintaining or repairing the site's physical integrity in order to reduce or eliminate damaging actions such as erosion or vandalism. A wide variety of technical expertise and technologies that have been developed by biologists, botanists, soil scientists, and environmental and structural engineers can be used to control surface and shoreline erosion, harmful vegetation growth, and vandalism. Not only have these technologies been made available for site protection, but these professionals have also been extremely interested in working on challenging projects that do not typically fall within their routine work. Information about the application of these techniques in specific cases has been difficult to come by for archeologists and land managers who are responsible for managing archeological sites protected in place. To meet this need, the National Clearinghouse for Archaeological Site Stabilization was established at the University of Mississippi (see Appendix G for address). The Clearinghouse maintains an annotated bibliography, evaluates various stabilization and maintenance techniques, and provides training opportunities. Two stabilization techniques that have been used successfully are intentional site burial and revegetation.

Intentional Site Burial

Burying a site on purpose can be an effective technique for site stabilization and protection. A site with highly visible surface materials can be damaged by too many people walking or climbing on the site, increased looting and vandalism, or heavy traffic from trucks, jeeps, and off-road vehicles. Although installing informational and warning signs and rerouting trails and roads away from the site may reduce or eliminate these damaging actions, in some cases the most effective protection strategy might be to bury the site entirely. Intentional site burial has been effective in a number of situations in protecting archeological sites from damage or loss (see, for example, articles by Anthony J. Ardito, by Robert M. Thorne, and by Roger Grosser in the bibliography).

Benefits from site burial can be significant. Vandalism can be totally eliminated because the site is neither visible nor, in many cases, accessible. Looting of a buried site can be more difficult, if not impossible. Erosion of the site's deposits from rainfall, flowing water, and strong winds can be eliminated because an entirely new surface layer is produced through site burial. The effects of damaging freeze-thaw cycles can also be eliminated by covering the site with fill that is thicker than the depth of the frost line. A very important benefit, according to Ardito and Thorne, is that under the right conditions site burial can provide protection from development activities by protecting the site from the compression effects of heavy earth-moving equipment. In fact, studies described by Ardito and Grosser demonstrate that burying an archeological site to protect it from construction impacts, is less destructive, less expensive, and less time-consuming than excavating the site to preserve the information it contains.

Before deciding to protect an archeological site by burying it, it is important to consider the characteristics of the site's artifacts and features to determine how they will react physically and chemically to burial. An archeologist, geologist, and engineer may need to be involved in this assessment in order to determine the preservation needs of the artifacts, appropriate fill materials, the structural mechanics of burial, and other factors such as the extent to which drainage patterns might be affected. Thorne cautions that introducing additional soil layers on top of an existing site could increase the rate by which artifacts and ecofacts decay. Therefore, it is important to ensure that the burial materials and the process do not increase decay or introduce new destructive processes, such as changing the soil pH characteristics, intensifying the consequences of wet-dry or freeze-thaw cycles, or creating more favorable conditions for animal or micro-organism activity. Additionally, since one of the goals of protecting a site in place is for it to be available for future research, Grosser advises that it is important to ensure that the fill material, such as tons of riprap, does not make it impossible to gain access to the site in the future for research.

Following site burial, the new land surface should be planted with a protective vegetation cover to ensure stability of the new surface (see below). The new surface could even be put to a variety of uses, such as cash crops or even a parking lot, given the appropriate fill type and thickness.

The buried site will require periodic inspection to monitor the condition of the surface and its stability. Electronic monitoring devices such as metering gauges can be

used to measure pressure and soil movement. Opportunities to inspect the condition of the buried site itself, which will require subsurface test excavations, can be built into the burial program design. Thorne recommends against soil boring as a technique for inspecting the site's deposits, because it could damage artifacts and features.

Site burial was the stabilization strategy selected to protect a Late Archaic site with intact subsurface features that was being damaged by shoreline erosion, wave action, and periodic inundation on the shores of Harry S. Truman Lake in southwestern Missouri. In addition, according to Grosser, "planned recreational development would include the construction of a campground adjacent to the site which could cause substantial irreparable damage by pedestrian and vehicular traffic." Under the direction of the Kansas City District of the U.S. Army Corps of Engineers, a two-inch gravel layer was spread over the site surface to protect it from heavy earthmoving equipment and to distinguish site deposits from covering fill layers. A four-inch layer of soil fill was laid on top of the gravel. Although the intention was to plant switchgrass to stabilize and camouflage the new surface, native vegetation sprouted and provided an effective groundcover before the switchgrass could be planted. When the campground is constructed, a fence will be installed to divert campground and other traffic away from the site.

The Rock Creek Site, Natchez Trace Parkway, Alabama, was protected by intentional site burial and cultivation allowed to continue. According to Robert M. Thorne in his article, "Intentional Site Burial," "care must be exercised in allowing agricultural production to continue after fill is in place, and there must be regular monitoring to insure that post-burial damage is minimized." Two years after the Rock Creek Site was intentionally buried, it showed evidence of damage from farm equipment. (Photo courtesy of Archeological Assistance Division, National Park Service, Washington, D.C.)

Revegetation

An effective, low-cost strategy for protecting archeological sites from erosion and excessive pedestrian and livestock traffic is the planting and maintenance of vegetation over the site. Thorne notes that in addition to its site protection benefits, vegetation is not visually intrusive and helps blend the site into its environmental surroundings. Plant foliage and roots dissipate the forces of wind and water that can erode archeological deposits. The installation and maintenance of vegetation is a low-cost stabilization technique. In fact, hay-cutting can produce income to off-set maintenance costs.

In deciding whether or not to use vegetation as part of an overall site protection and management strategy, Thorne and James A. Hester advise that several issues should be considered. How the site area is to be used will affect the selection of species to be planted. If public access to the site is anticipated, dense plant growth will not promote a positive visitor experience, and some modification and deterioration of the land surface should be expected. In such public access situations, it is important to demonstrate that the site is valued through careful maintenance of the vegetation. If the archeological site will not be accessible to the public, dense vegetation may protect the site from erosion as well as undesired pedestrian traffic. On the other hand, vegetation that is too dense or too high may offer excellent cover for vandals and looters, thereby creating ideal conditions for site destruction.

The selection of which plant species to be used is critical, according to Thorne and Hester. Species that require relatively little care are ideal, and species native to the site vicinity will be the most effective. Plant roots can disturb archeological sites, but on most sites such disturbance has already taken place. It is important to chose species that will not increase this disturbance. Large vegetation, especially trees with heavy crowns and broad, lateral root systems should be avoided, as should species with massive, deep root systems. In fact, uprooted trees can cause serious damage to an archeological site's deposits. If root growth into a site's deposits is unacceptable, a layer of fill could be spread over the site surface to provide a medium for non-invasive root growth.

A number of archeological sites have been protected by vegetation cover. Thorne reports that the Newark Earthworks in Ohio has been protected through the upkeep of golf course grasses, and at the Winterville Mound group in Mississippi, dense stands of tall grass have been used to stabilize the sides of the mounds as well as to direct the movement of visitors along mown pathways.

Albany Mounds, a 34-acre Middle Woodland village and mounds site located on bluffs overlooking the Mississippi River in Whiteside County, Illinois, was being destroyed by the construction of homes, farm buildings, and highways, according to Hester. The site was purchased by the Illinois Department of Conservation in 1971 and transferred in 1987 to the Illinois Historic Preservation Agency. Neither of these agencies had staff, facilities, or budgets to undertake a major protection project for the site, so a low-cost, minimum maintenance preservation strategy was needed. Revegetation was chosen. The critical archeological areas were seeded with native prairie grass, which would restrict weed growth but not impact archeological materials and not require frequent maintenance. Hester reports that this approach was only partially

These signs are located at the site of the home of William and Sally Fairfax, who were close friends of George and Martha Washington's and often visited them at Mount Vernon just up the river. While the signs do not explain the site's history, the legal protection afforded the site and the penalties for violations are clearly explained. (Photo courtesy of Heritage Resources Branch, Fairfax County, Virginia, Office of Comprehensive Planning)

successful. Although removing the mounds from agricultural use and planting them in grass did benefit site protection and the area did require little maintenance, such a strategy did not deter looters from visiting the site. Hester explained that there was no regular human presence at the site, and the eight-foot high prairie grass provided good cover for looters, who dug into two mounds, totally destroying one tomb. As a result of this experience, public access and interpretation programs overseen by a local group are being developed to provide public awareness and a human presence at the site to deter looters.

Signs as Protection Tools

It would seem that placing a sign at an archeological site merely issues an open invitation to vandals and looters. In fact, as John H. Jameson and Mark Kodack report, that has not been the experience at sites where signs have been effectively used to reduce looting, vandalism, and damage by explaining site values, interpreting site history, identifying prohibited uses, and warning of penalties for violations.

The purposes of installing signs to protect archeological sites are to provide notice of the boundaries of the protected property; to prevent damaging activity, such as walking or climbing on ruins, graffiti, or looting; to notify the visitor of legal protection and the penalties for violation, and to provide interpretive information about the site's history and importance. These kinds of messages have a positive effect on all but commercial looters, who are not interested in archaeological protection, according to Jameson and Kodack. Furthermore, prosecution of looters in court is easier when the site has a sign displaying a legal warning and penalty statement.

Signs are rarely used alone as a protection strategy. Jameson and Kodack explain that signs are typically one component of a broader site protection program that also includes law enforcement and regular site monitoring. Before deciding to use signs as a protection technique, it is important to consider the possibility that the sign could increase the threat of damage, the nature of the threat to the site, the visibility and accessibility of the site, and the purposes the sign is to serve (such as site interpretation, prohibition of damaging activity, legal warning). Experience has shown that signs do not measurably increase site looting or vandalism and generally do decrease cases of site damage.

Archeological sites that are not threatened or that are in remote areas should probably not be signed, in the off chance that the sign might call attention to the site. On the other hand, highly visible and accessible sites should have prominent signs that interpret the site and caution against damaging activity. Signs can also be placed along trails and roads, near camp sites, and as part of wayside exhibits.

Chapter 12 Community Archeology Programs

"Archaeology enriches communities and provides a focal point for energy and enthusiasm. One project can create a ripple effect throughout the community leading to museums, school curricula, neighborhood histories, condominium and hotel newsletters and historic street names. All these things have happened in Alexandria, Virginia, and in other cities across the country. Baltimore, Maryland, Pensacola, Florida, and Cleveland, Ohio, have all reported that archaeology makes a difference. Every community in America has an archaeological heritage which, if managed properly as a public resource, can help us recognize and celebrate the accomplishments of our predecessors. Archaeology brings the American legacy to life."

"Community Archaeology in Alexandria, Virginia"
Pamela J. Cressey

Many local communities have historic preservation ordinances and programs, but only a few of these incorporate archeology. If a local community is interested in legally protecting its archeological sites, a long-term program commitment and access to professional archeological expertise will be necessary to administer and enforce the ordinances, monitor the protected sites, and manage the program's activities. Although individual landowners can take on a stewardship role for their own properties, for most of the archeological site protection strategies previously discussed, a permanent professional staff will be essential to administer and manage the local program. In addition, whether or not local ordinances incorporate archeological protection policies, an archeological staff's permanent presence in the community creates a valuable focus for citizen interest in the past and provides opportunities for developing community stewardship of its own history. Permanent, full-time staff may not be an option for some smaller communities. In these cases, responsibilities for ordinance administration, protected site monitoring, and other program activities may be undertaken by a local preservation commission whose membership include a professional archeologist or by a local college or university with an archeology faculty. In any case, all communities can obtain advice and guidance from their State Historic Preservation Office (see Appendix G).

There is more to local archeological protection efforts than getting an ordinance passed and establishing mechanisms to administer and enforce it. The ordinance and mechanisms must be part of comprehensive program that is based on thorough surveys, that provides economic and technical assistance, and that is coordinated with other community policies and ordinances.[1]

There are a number of legal and practical reasons for a local government to establish a comprehensive preservation program. Of primary legal concern, according to *A*

[1] Much of the remainder of this chapter relies on *A Handbook on Historic Preservation Law*, edited by Christopher J. Duerksen, pages 32-58.

Handbook on Historic Preservation Law, is that "if a local government can demonstrate that it has made preservation part of its overall effort to foster and promote the general welfare and well-being of the community as a whole, the local [preservation] law has a better chance of surviving judicial scrutiny." On a practical level, historic and archeological preservation goals can be strengthened within the broader context of community development by coordinating and integrating preservation and other local policies for economic development, transportation, recreation, and environmental and open space conservation. Such coordination "injects an element of certainty into the preservation regulatory system" because landowners know exactly what they can and cannot do with historic properties, "making ownership less burdensome and development plans less risky." Such an approach will reduce or even eliminate the potential for conflict over eleventh-hour attempts to turn back bulldozers, which have seriously impaired the credibility of archeologists, historic preservationists, and developers.

A comprehensive community preservation program can give local governments greater access to federal and state funding and greater influence over federal projects that affect historic properties in the community. Under the National Historic Preservation Act amendments of 1980 and 1992, local governments have been given greater authority over nominations of local properties to the National Register of Historic Places if their local programs meet certain standards. A local government preservation program that has been certified as meeting those standards is eligible to receive federal historic preservation grant funds administered by the State Historic Preservation Office. Additionally, the local government can have greater leverage over federal projects that may adversely affect local historic areas. Under the National Environmental Policy Act, for example, federal agencies are required to take local land-use plans into account when assessing the impacts of a proposed development.

Local preservation programs will vary from community to community, but there are four components that all should have: a survey and study element that establishes the basis for designation and regulation; coordination with the community's comprehensive master plan, the zoning ordinance, and other regulatory programs; technical and economic assistance; and a public education element.

A survey and study element is the foundation of an effective preservation program. A historic property or archeological site cannot be protected if its existence and character are unknown. The courts frown upon last-minute attempts to get a property listed on a landmarks register in order to stop the bulldozers or wrecking ball. By systematically carrying out field surveys to identify archeological sites, conducting historical research, evaluating site significance, assessing actual and potential threats, and identifying preservation strategies, essential information is compiled for use in community and project planning and in development review.

Field surveys should be conducted or at least supervised by trained professionals to maintain high documentation standards. Volunteer citizen participation is important in raising public awareness and support. It is highly unlikely that in any but the smallest communities will a single survey be able to cover the entire community for archeological sites, historic buildings, historic landscapes, and other historic properties that residents

may value. In such cases, it would be helpful to prepare a plan to guide the surveys. Such a plan should be based on both the Native American and Euro-American history of the area to determine the kinds and locations of properties that were constructed, used, and abandoned over time. Basing decisions about priority scheduling of surveys on which areas of the community may be developed soon or where archeological sites are being threatened increases the opportunities to protect sites from damage or destruction. Attention to detail is important in collecting survey information. Information must be compiled to determine site significance, justify site boundaries, identify threats, and recommend protection strategies. Previously surveyed areas should be revisited periodically to see if the survey information needs to be updated. Some properties may have been overlooked during the original survey, and some sites may assume new significance as research expands knowledge and as community values change over the years.

Community archeology programs provide an important focal point for citizen interest in the community's archeological heritage, as exemplified here by the bright blue canopy used by the program in Alexandria, Virginia at sites being excavated, at community block parties, and at city-wide festivals. Not only does the canopy announce that something exciting is happening, but it also provides shade for the hundreds of volunteers every year who help excavate sites and participate in organized community archeology events. This photo of a group of archeology volunteers was taken at "Family Dig Day," a special event hosted by the city to provide parents and children an opportunity to experience archeology first-hand. (Photo courtesy of Alexandria Archaeology, Office of Historic Alexandria)

Coordinating historic preservation and archeological protection goals with broader community planning and development goals and regulations strengthens the preservationist's position if the preservation ordinance is ever challenged in court. Incorporating preservation goals within the local government's comprehensive master plan, ordinances, and regulations establishes the link between preservation and its public purpose, provides a basis for demonstrating that the government's actions are not arbitrary and capricious, and ensures that government actions and decision-making take preservation into account. Such integration of preservation and community policies and goals also reduces uncertainty and conflict which could arise in the absence of effective coordination.

Economic and technical assistance programs are an important element of a comprehensive local preservation program. Since most local preservation plans and ordinances focus on controlling how an owner or developer uses a historic property or archeological site, economic and technical programs help alleviate any financial burdens that may be imposed as a result of preservation designation or regulation. Courts tend to look favorably on these programs, especially if the owner faces economic hardship. Economic assistance can be provided through grants, revolving funds, easement programs, low-cost loans, loan guarantees, and transfer of development rights programs. Providing technical assistance and advice to owners and developers on appropriate techniques for preserving their historic properties helps ensure that the properties will not be damaged inadvertently.

A public education and volunteer program is an extremely valuable component of a local archeology program. Although not strictly required to maintain a legally defensible local program, it makes good sense to offer educational and volunteer opportunities to community residents. At the very least, such a program provides residents with direct benefit from the local taxes they pay that support the program. More importantly, it offers residents opportunities to get involved in the discovery of their own community's past, thereby raising the community's awareness of the need for protecting its archeological heritage, and increasing the public's sense of stewardship in the community's historic places. Supervised by a professional archeologist, volunteers can help survey, record, and excavate archeological sites; monitor protected sites; clean and catalog artifacts; research historical documents; prepare museum exhibits; and serve as docents in museums or at archeological sites being excavated. Volunteers are also essential in stewardship programs such as those described earlier in Chapter 10.

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Part 4 A Final Word and Caution

Protecting archeological sites can be more successful when coordinated with the goals and expertise of other groups, especially local elected officials. Here Patricia S. Ticer, the Mayor of the City of Alexandria, Virginia, and Col. Bernard Brennan, Chairman of the Alexandria Archaeology Commission, greet and offer the city's support to the archeology volunteers and visitors during a refreshment break at an open house at the Fort Ward Park excavations. (Photo courtesy of Alexandria Archaeology, Office of Historic Alexandria)

Chapter 13 Coordinated Site Protection

Whenever a conflict arises between an archeological site and a development project, the odds are that most planners and environmental compliance officials will turn to archeological salvage excavations on the theory that this merely relocates the important values of a site from point A (the original site location) to point B (a museum repository). Of course, nothing of the sort really happens and frequently a great loss of historical materials is suffered. Additionally, such site removal without consideration of the site's traditional cultural values can cause disruption in a community's sense of identity and even in the ability of a community to continue traditional practices. The solution to the problem of an archeological site being threatened with destruction should not automatically be to dig it up. The preferred preservation approach should always be to take the initiative rather than react to crises, in order to protect the site in place and establish effective long-term management strategies for it. The strategies discussed in the preceding chapters offer viable alternatives to the "digging the site up so the project can proceed" approach.

All of the strategies described here should have a place in the preservation "tool kit," and they will be most effective when used in combination. An effective approach will depend upon the specific nature of each situation, including site characteristics, population density, development trends, economic climate, legal authorities, and the needs and wishes of the community.

For those of you who might be thinking of applying one or more of these strategies, it is important to become familiar with the relevant preservation, archeological, and land-use laws and regulations in your state and local community. Remember that courts and attorneys are quite familiar with land-use law; they are less familiar with historic preservation law, and legal protection for archeological sites may be uncharted territory for them. However, since archeological site protection is not well-covered in historic preservation law, you may benefit from finding an attorney who is willing to be creative in exploring avenues for archeological protection in environmental conservation or land-use law. Your State Historic Preservation Office or local government attorney should be able to provide guidance. It is important for you not to try to be your own attorney. The legal issues surrounding land use are extremely complex.

Protecting archeological sites requires creativity, cooperation, and planning. A host of opportunities exist to borrow from strategies developed to preserve historic structures, protect environmentally sensitive lands, and encourage economic development. Because important archeological, ecological, scenic, and architectural resources so often occur together in the same place, much can be gained through cooperation with those who are concerned about environmental conservation, protecting community character, and preserving historic buildings. If you are unfamiliar with legal tools such as easements or zoning you may benefit from the expertise of lay persons and lawyers in natural conservation and architectural organizations. Providing expertise in legal techniques may be one of the biggest contributions fellow preservationists can make to help protect archeological sites.

Likewise, those concerned with architectural preservation and natural conservation need to recognize archeology as another related heritage value with an important constituency working to preserve the resource. Architectural preservationists are increasingly aware of the importance of preserving the whole — the setting and district as well as the key buildings, the later additions as well as the original structures and the houses of workers as well as those of the wealthy. Archeological remains are a part of that whole, enhancing understanding and enjoyment of the complex historic and natural resources of an area. Archeological remains provide evidence of how the other resources came to be the way they are, and on how they were used by previous generations. Legal protection for historic resources must not stop at the ground level.

Many methods used to preserve land, natural resources, and historic structures can and should be used to preserve archeological sites. The minor role these legal tools have thus far played in archeology is evidence of the emphasis on salvage at the expense of the conservation ethic in American archeology. Not only can archeologists learn from what natural conservationists have done, but also there is much to be gained through cooperative projects that will preserve all the important irreplaceable resources of an area, including the archeological resources. Archeological protection must be incorporated into every aspect of planning and administration at all levels of government. The protection of our archeological heritage deserves to be a part of a broader vision of what we want our communities and our nation to be.

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Part 5 Appendices

Archeological sites can be difficult to recognize, like the Civil War fortifications that are, indeed, in this photo. Quite often, additional information, assistance, and expertise are needed to identify archeological sites effectively. Deciding how best to protect important archeological sites can be as difficult. What strategies should I use? Where can I get more information? Who do I need to talk to? The appendices that follow provide some additional information and sources where more guidance can be obtained. (Photo courtesy of Heritage Resources Branch, Fairfax County, Virginia, Office of Comprehensive Planning)

Appendix A Summary of Protection Strategies[1]

GOVERNMENT OWNERSHIP OPTIONS

TECHNIQUES	EXPLANATION	ADVANTAGES	DISADVANTAGES
FEDERAL	Acquisition by National Park Service, Forest Service, U.S. Fish and Wildlife Service, Bureau of Land Management.	Acquisition at federal level eliminates financial obligation for locality. Federal law and regulations require management practices sensitive to resources.	Acquisitions are limited due to agencies' specific criteria for acquisition. Needs congressional authorization. May remove land from tax base. Site protection and agency primary mission may come into conflict.
STATE	Acquisition by state parks, natural resource or conservation, environmental protection, or historic preservation agency.	Statewide bond acts or proceeds from lottery sales can provide significant funding for important land acquisitions throughout a state. Provides revolving loan funds to leverage nonprofit activity. If state laws exist, sensitive resource management required.	Government may miss acquisition opportunities due to long time frame for acquisition approvals. May remove land from tax base. State agencies may not be required to manage sites for protection.
LOCAL	Acquisition by county or municipality.	Local government can be more flexible about the type of land it acquires. May or may not be required to manage resources sensitively.	Limited local funds and expertise limit the number of acquisitions. May remove land from tax base. May not be required to manage sites for protection.

NONPROFIT PURCHASE AND OWNERSHIP OPTIONS

ACQUISITION & MANAGEMENT	A national, regional, or local nonprofit or land trust retains ownership and assumes management responsibilities.	Offers greatest control for site protection. Local nonprofit allows for ownership within the community; local citizens can provide responsible care and management of the site.	Land must fit criteria of acquiring organization. It must be prepared to assume long-term management responsibilities and costs.
ACQUISITION & SALEBACK OR LEASEBACK	A nonprofit can purchase property, limit future development through restrictive easements or covenants, and resell or lease back part or all of property. May involve subdivision of property.	Acquisition is financed by resale or leaseback. Resale at less than fair market value (because of restrictions) makes land affordable for buyer. Sale can finance preservation of part of property.	Complex negotiations. A leaseback means the nonprofit retains responsibility for the land.

[1] This summary chart is a modified version of that presented in *Tools and Strategies: Protecting the Landscape and Shaping Growth*, prepared by the Regional Plan Association, The Trust for Public Land, and the Recreation Resources Assistance Division of the National Park Service, Washington, D.C., 1990.

TECHNIQUES	*EXPLANATION*	*ADVANTAGES*	*DISADVANTAGES*
ACQUISITION & CONVEYANCE TO PUBLIC AGENCY	A nonprofit can help to implement government programs by acquiring and holding land until a public agency is able to purchase.	A nonprofit can enter the real estate market more easily than government, and can often sell to government at under fair market value if property was acquired through a bargain sale.	Must have a public agency willing and able to buy within a reasonable amount of time.
OWNERSHIP OPTIONS			
FEE SIMPLE	Outright purchase of full title to land and all rights associated with it.	Owner has full control of land. Allows for permanent protection.	Acquisition can be costly. May remove land from tax base if government acquires. Ownership responsibility includes liability and insurance.
EASEMENT	A partial interest in property transferred to an appropriate nonprofit or governmental entity either by gift or purchase. As ownership changes, the land remains subject to the easement restrictions.	Less expensive for purchasers than fee simple. Landowner retains ownership and property remains on tax rolls, often at a lower rate because of restricted use. Easement may allow for some development. Potential for income and estate tax benefits from donation.	Easement must be enforced. Restricted use may lower resale value.
FEE SIMPLE & LEASEBACK	Purchase of full title and lease back to previous owner or another, subject to restrictions.	Allows for comprehensive preservation program. Income through leaseback. Liability and management responsibilities assigned to lessee.	Land must be appropriate for leaseback (e.g., agricultural land).
LEASE	Short or long-term rental of land.	Low cost for use of land. Landowner receives income and retains control of property.	Lease does not provide equity and affords only limited control of property. Temporary nature of lease does not assure permanent protection.
UNDIVIDED INTEREST	Ownership is split between different owners, with each fractional interest extending over the whole parcel. Each owner has equal rights to entire property.	Prevents one owner from acting without the consent of the other(s).	Several landowners can complicate property management issues, especially payment of taxes.
TRANSFER OF TITLE OPTIONS			
FAIR MARKET VALUE SALE	Land is sold at a price equivalent to its value at highest and best use.	Highest sale income (cash flow) to seller.	Can be expensive to acquire.

TECHNIQUES	*EXPLANATION*	*ADVANTAGES*	*DISADVANTAGES*
BARGAIN SALE	Part donation, part sale. Property is sold at less than fair market value.	Tax benefits to seller since difference between fair market value and sale price may be considered a charitable contribution. Smaller capital gains tax.	Seller must be willing to sell at less than fair market value. Bargain sale price may be high.
OUTRIGHT DONATION	A donation by landowner of all or partial interest in property.	Allows for permanent protection without direct public expenditure. Tax benefits to seller since property's fair market value may be considered a charitable contribution.	A receiving agency or nonprofit must be willing to accept donation, and capable of management responsibilities.
OTHER DONATION	**By Devise:** Landowner retains ownership until death. **Reserved Life Estate:** Landowner donates during lifetime but has lifetime use.	Management responsibility for acquiring entity often deferred until donor's death. Heirs can benefit from reduction in estate taxes. In a Reserved Life Estate, landowner retains use but receives tax benefits from donation.	Date of acquisition is uncertain with either option. In By Devise, donor does not benefit from income tax deductions.
LAND EXCHANGE	Public agencies or nonprofits can exchange developable land for land with high conservation value.	Relatively cost-free technique if trade parcel is donated. Reduces capital gains tax for original owner of protected land.	Property owner must be willing to accept exchange. Property must be of comparable value. Complicated and time-consuming transaction.
EMINENT DOMAIN (GOVERNMENT)	The right of the government to take private property for public purpose upon payment of just compensation.	Provides government with a tool to acquire desired properties if other acquisition techniques are not workable.	High acquisition costs. Can result in speculation on target properties. Potentially expensive and time-consuming litigation.
AGENCY TRANSFER (GOVERNMENT)	Certain government agencies may have surplus property inappropriate for their need which could be transferred to a parks agency for park use.	Agency transfer eliminates the need for any expenditure on parkland acquisition.	Surplus property available may not be appropriate for park use or the owning agency may want to sell to a private party to generate revenues.
RESTRICTED AUCTION (NONPROFIT)	Government can restrict the future use of their sale property to open space.	Property still sold to highest bidder but restriction lowers price and competition.	It may be difficult for a nonprofit to convince government that a restriction will serve to benefit the general public. Purchase price may still be expensive.

NONPROFIT FINANCING OPTIONS

INSTITUTIONAL LENDER	Conventional loan from bank or savings and loan.	Less time-consuming process than fundraising.	Long-term financial commitment for nonprofit. Higher interest costs than owner financing. Mortgage lien.

TECHNIQUES	*EXPLANATION*	*ADVANTAGES*	*DISADVANTAGES*
INSTALLMENT SALE	Allows buyer to pay for property over time.	If seller-financed, can lower taxes for seller. Buyer can negotiate better sale terms or lower interest rates.	Long-term financial commitment for nonprofit. Mortgage lien.
FUNDRAISING	Through foundations, corporations, and local community. Program-related investments (foundations), non-standard investments (corporations), or charitable creditors (community) can provide no- or low-interest loans for acquisition.	Fundraising creates publicity and support throughout community.	Obtaining grants and ontributions is a long, uncertain and time-consuming process.
REVOLVING FUND, LOANS OR GRANTS	A public or private organization makes grants to localities or nonprofits for land acquisition based on a project's revenue-generating potential.	Encourages project with revenue-generating potential.	Since projects with low revenue-generating potential have lower priority, may have limited use for preserving archeological sites in place.
PARTIAL DEVELOPMENT, SALEBACK OR LEASE	A nonprofit can purchase property, limit specific land uses or future development through restrictive covenants, and resell or lease back part or all of the property.	Acquisition is financed by resale or leaseback. Resale at less than fair market value (because of restrictions) makes land affordable for buyer. Sale can finance preservation of part of property.	Complex negotiations. If leaseback, nonprofit retains responsibility for land. Finding a buyer for restricted property may be difficult.
GOVERNMENT FINANCING OPTIONS			
FEDERAL HISTORIC PRESERVATION FUND	Federal funds provided to States on a 60-40 matching basis to fund grants for the identification, evaluation, registration, and treatment of historic places. Administered by State Historic Preservation Offices, at least 10% of the state's allocation must go to Certified Local Governments.	Provides financial support to local communities to locate sites, nominate properties to the National Register of Historic Places, prepare preservation plans, and develop preservation strategies.	Funds rarely available for acquisition. Local communities must be able to match the grant funds.
FEDERAL LAND AND WATER CONSERVATION FUND	Federal funds are provided to local governments on a 50-50 matching basis for acquisition and development of outdoor recreation areas.	Cost of acquisition for local government is lowered by subsidy.	Receipt of funds is dependent upon Federal approval. Limited funds available. Archeological site protection goals may compete with recreation goals.

TECHNIQUES	EXPLANATION	ADVANTAGES	DISADVANTAGES
GENERAL FUND APPROPRIATION	Appropriation from general state or local government treasury.	Avoids interest and debt service cost.	Unpredictability of budget allocations. Might not provide sufficient funds can compete with other programs.
BOND ACT	Borrowing money through issuance of bonds is a common way to provide funds for open space. Usually approved through referendum on a local or statewide basis.	Availability of funds allows for immediate purchase of open space. Distributes cost of acquisition.	Requires approval of general public. Can be expensive; interest charges are tacked on to cost of project.
STATE GRANTS, LOW INTEREST LOANS	Some states provide matching grants or low interest loans for municipalities to acquire open space, greenways, and other land for preservation purposes.	State funding encourages localities to preserve important lands by leveraging limited local funds. Donated lands may be used as match.	Localities must compete for limited funds and be able to match state funds.
REAL ESTATE TRANSFER TAX	Acquisition funds obtained from a tax on property transfers, which is a small percentage of purchase price. Percentage and amount exempted varies with locality.	Growth creates a substantial fund for land acquisition. Enables local communities to generate their own funds for land and resource protection, reducing reliance on scarce state funds.	Discriminates between new and existing residents. Can inflate real estate values. Works effectively only in growth situations.
PAYMENT IN LIEU OF DEDICATION	Local government requires developers to pay an impact fee to a municipal trust fund for acquisition of lands for public purpose, e.g., schools, parks, open space.	New construction pays for its impact on lands needed for public purposes.	Acquisition funds dependent upon development. May be lack of accountability for funds. Legality of method depends on relationship of development to public land needs.

DEVELOPMENT REGULATORY TECHNIQUES

LARGE LOT ZONING	Large minimum lot sizes restrict the density of development.	An established land-use control used as part of a comprehensive plan. Effective at maintaining low densities and protecting water resources, particularly in rural areas.	Not an effective device for permanent preservation since zoning is subject to change. Can increase real estate values and infrastructure costs and can foster urban sprawl.
PERFORMANCE ZONING	A zone is defined by a list of permitted impacts (based on natural or historic resource data and design guidelines) instead of permitted uses.	Directs development in appropriate places based on a comprehensive conservation or preservation plan. May be implemented through cluster development. Greater flexibility in design compatibility with land.	Difficulties in implementation since impacts on historical and environmental resources can be hard to measure and effective criteria are hard to establish. Plan can be expensive to prepare.

TECHNIQUES	*EXPLANATION*	*ADVANTAGES*	*DISADVANTAGES*
CLUSTER ZONING OR PLANNED UNIT DEVELOPMENT (PUD)	Maintains regular zoning's ratio of housing units to acreage but permits clustered development through undersized lots, thus allowing for open space preservation. A PUD provision allows clustering for a large, mixed-used development.	Flexibility in siting allows preservation of open space areas within development. Can reduce construction and infrastructure costs.	Open space often preserved in small separate pieces, not necessarily linked to a comprehensive open space system. May increase processing time for development approval. Lack of infrastructure can inhibit use of technique. Homeowner association may be unprepared to take on the responsibility for long-term management of common open space.
OVERLAY ZONING	At discretion of municipality, overlay zones with development restrictions can be established to protect agricultural, historic, and natural areas; scenic views, and historic neighborhoods.	Special zones have regulations specific to the needs of a unique area and may be subject to mandatory clustering, performance standards, special permits, and site plan and design review.	Language in special district ordinance must be specific enough to avoid varying interpretations and to ensure that archeological sites can be protected. Does not address protection needs outside the zone.
AGRICULTURAL AND FORESTAL DISTRICTS	Special district established to promote continuation of agricultural and forestry activities by protecting against suburban expansion and assessing property based on its actual use.	Maintains land in agricultural and forestry use. Reduces owner's property tax through actual use assessment.	Voluntary participation. Minimum acreage criteria. Does not provide long-term protection. Reduces local government tax revenue. Most effective in areas with development pressure.
MANDATORY DEDICATION OR EXACTION	As a condition of obtaining subdivision approval, local government requires developers to pay a fee or dedicate land for open space or parkland. Also, states can require open space set-asides as part of environmental review.	New construction pays for its impact on open space.	Acquisition of land or funds dependent upon residential development. Commercial development often not subject to exaction fees. Developer's fair share of costs hard to calculate.
DEVELOPMENT OR SITE PLAN REVIEW	Process of reviewing, approving, approving with conditions (proffers), or denying specific development project proposals for particular parcels of land.	Ensures project compatibility with the community's established policies, regulations, standards, and criteria for development. Through proffers, allows regulations to be tailored to the specific needs of each project and parcel of land.	Success requires established regulations, standards, and criteria for resource protection, and the presence of skilled review staff.
TRANSFER OR PURCHASE OF DEVELOPMENT RIGHTS (TDR OR PDR)	Under an established program, an owner of publicly designated land can sell or transfer development rights to other landowners or to other property of one landowner where increased density can be supported. Under PDR, local or state government purchases development rights to maintain land in farm use or open space.	Cost of preservation absorbed by property owner who purchases development rights. Under PDR program, landowner can derive income from selling development rights and continue to own and use land. Lower property value should reduce property taxes.	Difficult to implement. Preservation and receiving areas must be identified, and residents in receiving area may be unwilling to accept increased density. Under PDR programs, acquisition of development rights can be costly, particularly in communities with high real estate values.

TECHNIQUES	EXPLANATION	ADVANTAGES	DISADVANTAGES
ENVIRONMENTAL REVIEW			
FEDERAL & STATE REVIEW	Through legislation, government agencies can require public environmental impact statements and measures to reduce impacts of specific developments or can restrict development through permit review.	Encourages preservation of significant natural areas, historic places, and archeological sites, and allows for objectivity and creative solutions to development conflicts.	If not done early enough, environmental impact assessment and review can be a time-consuming and complicated process which can stall development, adding to project costs.
LOCAL ENVIRONMENTAL ORDINANCES	Often, under mandate of federal or state legislation, localities must regulate development in sensitive areas. Includes floodplain, wetland, watershed, and tree ordinances. Some communities are authorized to require environmental assessment similar to federal and state programs.	Development in protection areas requires permit. Permit issued only if proposed development is within ordinance guidelines.	Ordinances do not always prohibit development (e.g., in floodplains). Regulatory guidelines are often broad enough to allow subjectivity in permit application approval.
LAWS SPECIFIC TO ARCHEOLOGY			
ANTIQUITIES STATUTES	Protects archeological sites by requiring a permit to excavate sites on public land or specially designated sites. Provides penalties for violations.	Permit process ensures that archeological work is conducted according to professional standards. Prosecutions of looters and vandals serves as deterrent.	Effective only when application is made. Needs monitoring and enforcement to catch violators. May not cover private lands. Doesn't control land uses that can damage or destroy sites.
BURIAL LAWS	Similar to antiquities laws, burial laws regulate the archeological removal of human burials by a permitting system, and require the return of human skeletal remains and associated funerary objects that can be related to modern tribes or descendants. Provides penalties for violations.	Permit process ensures archeological work is conducted according to professional standards. Prosecutions of looters and vandals can serve as deterrent	Only applies if burial is to be disinterred or excavated. Requires monitoring and enforcement. Does not control land uses that can damage or destroy human burials. May not cover all types of burials.
ABANDONED SHIPWRECKS	The federal law gave states title to abandoned shipwrecks in their waters. States followed with laws of their own to protect underwater sites and allow sport diving.	Permitting system ensures archeological work is done according to professional standards. Penalties for violations can deter looters.	Effective only when permit application is made. Needs monitoring and enforcement. Multiple agency jurisdiction can complicate statute administration.
NON-REGULATORY STRATEGIES			
STEWARDSHIP PROGRAMS	Voluntary community participation in site protection through field survey, site recording, site monitoring, site management, and other activities.	Relatively low cost. Builds preservation ethic and sense of community responsibility and pride.	Voluntary. Success depends upon participants' strength of commitment. Requires coordination and management. Protection may cease when ownership changes.

TECHNIQUES	*EXPLANATION*	*ADVANTAGES*	*DISADVANTAGES*
COMMUNITY ARCHEOLOGY PROGRAM	Local government staff administration and management of archeological protection programs.	Professional staff administration of local archeology ordinance; provides focal point for community interest in archeology; opportunities for citizen involvement and education in archeology; tourism benefits from interpreted archeological sites.	May be costly for some smaller communities.
AVOCATIONAL AND PROFESSIONAL ARCHEOLOGICAL ORGANIZATIONS	Membership organizations typically for purposes of sharing information among members, learning about archeology, carrying out archeological projects, and promoting archeological values to others.	Organized group of people committed to archeology can be very effective in doing field survey, monitoring protected sites, conducting other projects, educating the public, and influencing decision-makers.	Effectiveness of organizations depends on nucleus of active members and ability to coordinate with other groups with similar goals.

FINANCIAL INCENTIVES

ACTUAL USE OR PREFERENTIAL ASSESSMENT	Under some state laws, open space, historic properties, and agricultural and forestal districts can be assessed at the land's actual use rather than at its highest and best use.	Promotes resource conservation and management. Especially benefits landowners in areas with development pressure. Tax base loss can be partially reclaimed through penalty tax on landowners who terminate enrollment.	Voluntary participation. May not provide long-term protection. Strength of program depends on penalty from withdrawals. Local government bears burden of reduced tax base.
INCOME TAX REDUCTION	Donation or bargain sale of full or partial interest in land to a qualified organization for conservation purposes in perpetuity can reduce a landowner's federal income taxes; state tax reduction may also be taken.	Landowner retains use of property and land remains on local property tax rolls.	Must meet IRS rules for charitable donation.
PROPERTY TAX REDUCTION	Property taxes are reduced due to change in method of assessment (e.g., actual use), property is listed on the National or State Register of Historic Places, or its value is reduced due to protective restrictions.	Landowner's tax bill is reduced.	Local government property tax revenues are reduced. Some property tax reduction programs may be temporary.
ESTATE TAX REDUCTION	The donation or bargain sale of full or partial interest in land reduces the assessed value of the land due to the restriction placed on its use. The resulting lowered land value is reflected in a lower estate value, which reduces estate taxes.	Reduction in inheritance taxes. Heirs may not need to sell land to pay the tax.	Must meet IRS rules for estate taxes.

Appendix B The Archeological Assessment Process

The archeological assessment process is a critical first step in making decisions about applying specific strategies to protect archeological sites. It is extremely difficult to protect archeological sites if their existence and characteristics are unknown. However, the absence of information about archeological sites in an area does not necessarily mean that sites do not exist there. It may only mean that archeological work has not been done in the area.

It is also important to keep in mind that the distribution of archeological sites over the landscape can be quite variable. In some parts of the country human settlement historically was sparse and spread out. The density of archeological sites in these areas, or the number of sites per acre or square mile, will be low. Conversely, in areas where human settlement was intense, site density can be quite high. This last is particularly true in urban areas, where archeological sites of the earlier periods of the city's history, as well as Native American sites dating to before the city was founded, can exist beneath more recent buildings and streets. Furthermore, in some areas 12,000-year-old sites, as well as much more recent sites, can be found on the ground surface, while in other areas sites of these same time periods can be deeply buried. A review of the results of archeological investigations and historical studies that have already been done in your area should give you insight into the locational characteristics of archeological sites in your community.

When Should An Archeological Assessment Take Place?

An archeological assessment should be done well before threats of site damage become critical so that well-informed decisions can be made about site protection, study, or interpretation. In all but the smallest communities, an archeological assessment of the entire community may be too large a project to carry out at one time. In larger communities, the assessment can be done in stages, focusing first on areas where development is expected to occur, where archeological sites are being threatened, or where information is needed in order to nominate sites to the National Register of Historic Places or to state or local equivalents.

How Long Should An Archeological Assessment Take?

There is no set formula for determining the amount of time needed to complete an archeological assessment. It depends on a number of factors, such as the size and complexity of the area to be studied, the nature of the work to be done, and the number of people doing the work. Clearly, it will take less time to assess a small area than it will for a large area. A *reconnaissance* field survey carried out to collect a minimal level of information on the presence of sites in an area will take less time than an *intensive* field survey designed to collect detailed information about those sites. Obviously, the more people working on the project, the quicker it will go, provided there aren't so many that they trip over each other. The archeological assessment process, however, is not completed when the field work is done. All of the information collected must be processed and analyzed in the archeological laboratory and a report written. The amount of time spent in the field dictates how much time is spent in

analysis and report writing. A general rule of thumb used by archeologists is that for every hour spent in the field, three hours are needed to process the information and prepare the report. Professional archeologists, especially those in consulting firms, are experienced in balancing these and other factors so the archeological assessment takes a reasonable amount of time.

Who Should Do the Archeological Assessment?

Professional archeologists have the training and expertise to conduct high quality archeological assessments that can be used for effective decision-making. Even though a professional archeologist should direct the assessment, it makes good sense to involve community members in all phases of the work. Not only do they have knowledge about the community's history, but their involvement can help ensure public support for the project. For more information, see Appendix C, "How to Get Archeological Expertise When You Need It."

What Information Should Be Collected?

During the archeological assessment, enough information should be collected so that decisions can be made about archeological site protection, study, or interpretation. In addition, State Historic Preservation Offices have established standards for the kinds of information included in archeological inventories they maintain. Your State Historic Preservation Office can provide guidance on its requirements and procedures (see Appendix G for addresses). If a goal of the assessment is to nominate one or more archeological sites to the National Register of Historic Places, certain types of information are required. National Register Bulletin 16, *Guidelines for Completing National Register Forms*, provides guidance on the information necessary for nomination. In general, however, the following information is typically collected during an archeological assessment:

- what archeological sites exist in an area and their characteristics, such as type of site; site boundaries; depth of deposits; nature of the deposits, artifacts, and features; and associated buildings and structures, if any.
- where the sites are located and where no sites were found.
- the importance or significance of the sites to the community or for research.
- the condition of the sites (the extent to which any have been damaged).
- actual or potential threatening forces that may damage or destroy the sites.
- history of the community or region.
- environmental characteristics of the area.
- individuals or groups, such as a developer or an Indian tribe, who may have an interest in the sites.
- local, state, or federal planning goals for the area.

What Records Should Be Kept?

A critical component of all types of field work is the accurate documentation of the information collected. Field information is typically recorded on site forms for each site, field maps showing locations of sites and where work was done, excavation forms, photographs of work in progress, and field journals describing methods used. Maintaining precise field records, especially during full-scale excavations that destroy parts of a site, is essential in being able to analyze the information gathered, describe the work done and its results, and to justify recommendations made.

What's Involved In An Archeological Assessment?

There are four major steps in carrying out an archeological assessment (see box). State Historic Preservation Office staff have considerable experience in designing and carrying out archeological assessments and can provide valuable guidance and assistance in complying with state standards (see Appendix G).

Steps in an Archeological Assessment

1. *Preparation for Field Work*
   - *Research design or project plan*
   - *Archival research*
2. *Field Work*
   - *Field survey*
   - *Site testing*
   - *Site excavation*
   - *Salvage archeology*
3. *Laboratory Analysis and Curation*
4. *Report Preparation*

1. Preparation for Field Work

A *research design*, sometimes called a scope of work or a project plan, must be developed before an archeological assessment takes place. A research design describes the purpose and goals of the assessment, previous work that has been done in the area, research topics to be addressed, the area to be covered, the kinds of information to be collected, what work will be done, what methods will be used, who will do the work, a schedule of work, and where the records and material produced during the assessment will be stored. It is also essential to make sure before any field work begins that the landowner has given permission for the work to be done on his or her property.

Through *archival research*, information is collected about the history of the area and results of archeological and historical studies that have already been done in the area or region. The study of historic records, maps, photographs, other research, and interviewing community members provides information on where sites of different kinds may be located, environmental characteristics, historical events and patterns in the community's development, and the individuals or groups who may have built and occupied the sites. It is essential that archival research begin before the field work starts, so that field work can be carried out efficiently and findings in the field can be accurately understood. In fact, some initial archival research is necessary in order to develop an effective research design, and archival research often continues during field work and lab analysis as those activities raise new avenues of study.

2. Field Work

A *field survey* is a physical inspection of a specified area in order to locate and collect information about archeological sites. A major product of a field survey is an inventory or listing of information on the sites found during the field survey. There are two basic types of field survey — *reconnaissance* and *intensive* survey.

Reconnaissance survey is designed to gather general information about archeological sites in an area. Information from this type of survey is often used as a basis for making decisions about carrying out future archeological work. An intensive survey is a thorough inspection of an area designed to collect detailed information about archeological sites, their locations, boundaries, and the nature and extent of subsurface evidence.

Site testing, sometimes called *site survey*, concentrates on gathering detailed information on a particular site through small subsurface excavations, such as *shovel tests*. This method is frequently used during intensive survey to gather information about site boundaries, the depth and characteristics of the archeological deposits, and the types of features and artifacts that are present. Some of this information can be obtained without digging, through the use of non-invasive scientific instruments such as the electrical resistivity meter and the proton magnetometer. The electrical resistivity meter registers variations in soil moisture by measuring the degree to which electrical current flows through rock and soil. The proton magnetometer measures variations in the magnetic fields of buried deposits. When operated by skilled technicians, these instruments can produce readings that distinguish between archeological deposits and features and naturally occurring soil and rock formations.

Site excavation is a large-scale, comprehensive investigation of a particular site typically carried out for purposes of in-depth study and research. When a site is excavated because site protection is not possible, this method is sometimes called *salvage archeology* or *rescue archeology*. This should be a method of last resort since not only can it be much more costly than protecting the site in place, but salvage excavations may often be done in a hurry, leaving large unexcavated portions of the site to be destroyed.

3. Laboratory Analysis and Curation

Field work usually produces collections of artifacts and other specimens that need to be processed in the archeological laboratory. Lab work often begins as soon as field work gathers materials so that results of lab analysis can be used to refine methods used in the field. Artifacts are cleaned, identified, labelled, and stored, with information recorded in an artifact catalog. Specimens, such as samples of soil, charcoal, or pollen, are analyzed by specialists to coax out information about past environmental conditions, uses of the site, and site dating. This information is integrated with other field and archival information in order to explain the history of the area surveyed or the site excavated, to evaluate the significance of the site, and to begin formulating recommendations for archeological site protection, future study, or public interpretation.

Once the analysis of the materials and records produced during field work and archival research is concluded, these important records need to be carefully stored or

curated so that others may use them for decision-making, research, or exhibit preparation. If not properly cared for, this valuable information may, over time, be lost through decay and deterioration. Guidance on professional standards that have been established for the proper storage and maintenance of archeological collections can be obtained from your State Historic Preservation Office (see Appendix G). It is important, however, to remember that artifacts and other materials collected during field work belong to the owner of the land from which they were recovered, unless the landowner has donated them to a proper curation facility.

4. Report Preparation

Preparing and publishing a report that describes the results of the archeological assessment makes this information available to planners and other local decision-makers and helps increase the community's awareness of its archeological heritage. The report should describe why the archeological assessment was done, the methods used, the area covered, what kinds of sites were found, areas where no sites were found, knowledge gained, why certain sites are important and worthy of protection, forces that may damage the sites, and recommendations for site protection, future field work, and public interpretation. If the report is intended to be distributed widely, consideration should be given to omitting references to specific locations of archeological sites to protect them from possible looting activity.

What If A Site Is Discovered During Construction?

If an archeological assessment was not done before or during the planning stages of the construction project, there may be little that can be done. Blockading the bulldozers in an attempt to save the site is usually unsuccessful and can result only in conflict and controversy. It may be possible, however, that with careful negotiation the developer or construction manager can adjust the project work schedule slightly to allow time for archeological salvage. This is not an ideal situation, and it is far more desirable, not to mention less costly and time-consuming, to have a thorough archeological assessment done and its results taken into account at the earliest possible stages of planning for the construction project. When this has been done, discovery of unexpected sites is rare.

The information in this appendix is intended to describe in general terms sequence of activities involved in an archeological assessment. It is not meant to serve as a detailed manual for actually conducting an archeological assessment. For additional information, contact your State Historic Preservation Office (see Appendix G), and National Register Bulletin 24, *Guidelines for Local Surveys: A Basis for Preservation Planning*, is highly recommended.

Appendix C

How to Get Archeological Expertise When You Need It[1]

When Should Archeological Expertise Be Sought?

Archeological expertise should be obtained if you are planning a field survey of your community's historic places; if you are planning to nominate a historic building, a historic district, or a landscape to the National Register or to a state or local register; if construction will take place in an area where little is known about archeological resources; or if federal, state, or local law requires the consideration of a proposed project's effects on historic and archeological resources.

Where Can Archeologists Be Found?

In academic institutions in the United States, archeologists are usually found in departments of anthropology. Some archeologists may be employed in departments of classics, art history, or humanities, but these are usually "classical" archeologists who specialize in the archeology of such places as Greece, Rome, and Egypt, and are usually not knowledgeable about the archeology of the United States. Many archeologists who do specialize in U.S. archeology are trained as anthropologists, and many are employed in anthropology departments, so the anthropology department of your local college or university is a good place to start looking. Archeologists are also often employed by historical, anthropological, and natural history museums.

Some academic institutions and museums have special research units that specialize in consulting work, or other work under contract to local, state, and federal agencies or private firms. These units are often called *cultural resource management* programs or *salvage archeology* units, and are usually attached to anthropology departments.

Some academic and museum-based archeologists are not particularly interested in working as consultants, however, and in many cases, you may find that your local anthropology department is more interested in studying African or Asian cultures than your community's local history. You should never assume that you have exhausted all possibilities once your have checked your local universities, colleges, and museums.

In recent years, a number of private consulting firms have been organized to provide archeological services. Some of these are non-profit institutes; others are profit-making firms. Many large architecture and engineering firms have also developed archeological capabilities. Most State Historic Preservation Offices maintain a list of archeological consulting firms, but a firm's being listed does not represent a recommendation for that firm's services.

Government agencies are another source of archeological expertise. Agencies like the National Park Service, the Bureau of Land Management, the Forest Service, the Army Corps of Engineers, many state parks agencies, and an increasing number of local

[1] Most of this appendix is taken from "Choosing An Archeological Consultant" by Patricia L. Parker, *Local Preservation*, Interagency Resources Division, National Park Service, 1987.

governments employ archeologists who may be able to provide informal advice or assistance, or even work under contract if such work does not conflict with their official duties.

Finally, there are many avocational archeological organizations that do highly competent work, and often specialize in the archeology of particular areas. If there is such a group in your area, it may be able to provide excellent service at low cost. Care should be taken, however, that the work of avocational archeologists, no matter how skilled, should always be supervised by a professional archeologist.

The State Historic Preservation Office (SHPO) is an excellent source of information on where to find archeological expertise, and SHPO staff can help you with recruitment, evaluation of qualifications, proposals, and fees, and with the design of archeological contracts. You may also find it helpful to consult the *Directory of Professional Archeologists*, published annually by the Society of Professional Archeologists (see Appendix G for address). It should be noted, however, that not all archeologists have applied for certification by the Society, so there may be highly qualified archeologists in your area whose names do not appear in the directory.

What Should I Look For In An Archeologist?

Relevance to the work to be done. The archeological consultant should have knowledge and skills appropriate to the work you need to have done. For example, if you need assistance in evaluating the site where an old mill is reported to have stood, you will want to obtain the services of a specialist in *historical archeology* — the archeological study of sites created or occupied since the coming of Europeans to America. This specialist should also be able to provide the services of an experienced historian. On the other hand, if you are undertaking a survey to identify sites representing your community's Native American cultures before European arrival, you will probably want to consult a specialist in *prehistoric archeology*. If you are seeking an archeologist to excavate a site that is threatened by a federally assisted construction project, such as a project using Community Development Block Grant funds, you should be sure that the consultant understands the laws and regulations under which such work is done (such as Section 106 of the National Historic Preservation Act, the National Environmental Policy Act, the regulations of the Advisory Council on Historic Preservation, and relevant regulations of the federal agency involved). Additionally, if such work is subject to similar kinds of state or local laws, your archeologist should be familiar with the requirements of those laws.

Experience and education. A healthy mix of experience in your local area, or at least in your state or region, and advanced education is important. The archeologist you select should have an MA or PhD in anthropology, archeology, or closely related field, and have experience managing archeological projects. At the same time, the archeologist should be able to demonstrate substantial experience in the archeology of the area, the state, or similar regions. If the archeologist does not have such experience, her or she should have people on staff with such experience.

If the consultant will be expected to work with the SHPO, prepare National Register nomination forms, evaluate properties for possible inclusion in the National Register,

or conduct work to help an agency comply with Section 106 of the National Historic Preservation Act, experience with federal and state historic preservation programs is very desirable. Prior work with local governments is equally desirable, so that the archeologist may be expected to understand the governmental context in which sites may be protected.

Skills in working with non-archeologists. Archeologists, like other scientists and academics, can have difficulty communicating effectively with the general public. Particularly if your consultant will be expected to oversee non-archeologists in the conduct of survey or excavations, participate in training or education programs, or provide oral reports to the City Council, planning board, or historical commission, you should give special attention to the archeologist's communication skills. The archeologist should be able to provide you with examples of material that he or she has prepared for the general public, or otherwise demonstrate his or her effectiveness with written and oral communication.

Record of performance. The archeologist's record of performance on other jobs should document a history of delivering high quality products, such as reports, on time. Particularly if the archeologist's report will be needed to comply with grant conditions or to comply with the terms of an agreement under Section 106, it is obviously vital that the archeologist be able to deliver an acceptable product on time. If the archeologist's work in the past has been subject to review by the SHPO, the National Park Service, or other federal or state agencies, his or her record should document not only timely delivery of products, but timely products that the review agencies have found acceptable.

Costs for archeological services. Consulting archeologists, like other consultants, charge for their services. In some special circumstances, you may be able to obtain service for free, but this is rare, and there is always the danger of "getting what you paid for." Generally speaking, you can expect the cost of archeological services to be equal to what you would pay for a consulting engineer, architect, or other professional working an equivalent amount of time. There are no set costs for a typical archeological project; costs will depend upon the specifics of each project. Costs can be reduced, however, where volunteers are available to assist the archeologist, where cost-sharing arrangements can be developed, or where cooperative agreements can be worked out with local institutions or organizations. The SHPO should be able to help you evaluate what a given archeological project should cost.

How Can I Obtain Archeological Services?

Remember that you are obtaining professional services, and it is usually impossible to put a hard-and-fast price tag on such services. If you simply contract with the lowest bidder you are very likely to get low quality services.

The National Park Service recommends obtaining archeological services on the basis of competitive proposals. This involves developing a scope of work or request for proposal for the project and inviting multiple prospective consultants to offer separate proposals and bids. The scope of work should clearly describe the project, the work needed, legal requirements, work schedule, and desired products. Proposals submitted

should be evaluated by a panel made up of knowledgeable people (but not necessarily all archeologists). The panel ranks the proposals based on the quality of the proposal and the capabilities of the consultant. Then the bids, or project cost proposals, are evaluated and negotiations take place with the most qualified consultant with the best proposal to get the job done for the best price. Price is one consideration, but it is only one, and it is not the prime consideration. The prime consideration is obtaining a quality product from the best possible consultant.

If you anticipate having the need for archeological assistance on a periodic or occasional basis and it is too complicated to seek competitive proposals on each project, it may be appropriate to seek competitive proposals for all archeological services needed for a period of time — perhaps a year, or several years. It must be expected that proposals and bids by individuals and organizations offering such open-ended services will be more general and open-ended themselves than would be proposals for the conduct of specific projects, but the same system can be used to evaluate them and winnow out the best offers.

The SHPO can provide assistance in the development of strategies for obtaining archeological services, and may be able to suggest or provide knowledgeable people to serve on proposal evaluation panels. For additional information, see National Register Bulletin 24, *Guidelines for Local Surveys: A Basis for Preservation Planning.*

Appendix D *Working With Developers*

By Jonathan P. Rak, Esq., Hazel and Thomas
Alexandria, Virginia

Preventing development is not the only way to protect archeological resources. In most cases, in fact, the most effective way to protect archeological resources is to work WITH developers. Archeological protection and real estate development are not antithetical. Often development provides opportunities for protection that would not otherwise be available for sites on private land. Yet, to work effectively with developers, you must understand who they are, how they work, and what they really want. This appendix offers a view from the developer's perspective.

Who Are the Development Players?

The development process involves numerous decision-makers. They include not only the developer and his consultants but also government officials, lenders, and, of course, the landowner.

The Development Team

The Landowner. In some cases the landowner and developer are one and the same person. But often a landowner has an agreement with a developer such as a joint venture agreement or contract for sale. The landowner usually shares in the risk of the project because the contract is contingent upon obtaining needed government approvals or the developer has agreed to share the profits as payment for the land.

The Developer. The developer is usually a businessperson knowledgeable about planning, constructing and selling homes, offices, stores and other buildings. He may know or care very little about archeology but the development process usually requires that he deal, in some way, with archeological issues that are raised.

The Attorney. The attorney advises the developer on process. In many localities, developers use attorneys to guide them through the governmental review process and to speak for the developer as an intermediary with the government and citizens groups.

Planners, Engineers, and Architects. Planners, engineers, and architects advise the developer on what can be built and how it should be designed.

The Review Team

The Planning Staff. Local governments employ professional planners who review applications for land development and advise the Planning Commission and the Governing Body on planning issues.

The Planning Commission. The Planning Commission usually consists of local residents appointed by the elected officials to advise them on land-use applications and other planning issues. The Planning Commission is sometimes delegated the authority to approve certain applications, but usually makes a recommendation to the governing body.

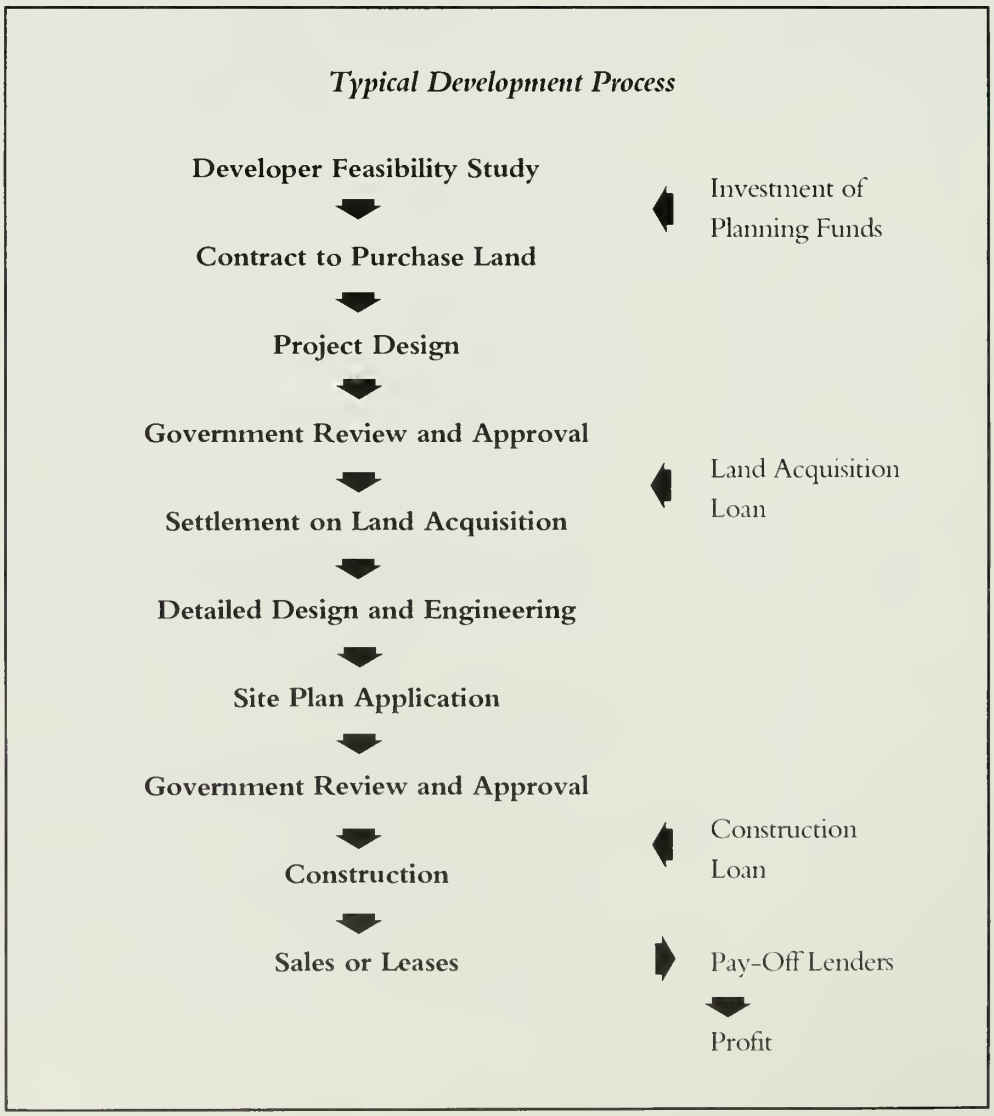
The Governing Body. The governing body is the group of elected officials empowered to make legislative decisions for the local government. They are variously called the City or Town Council, Board of Supervisors, Board of Aldermen or other title depending on the jurisdiction. The governing body makes the ultimate decision on land-use applications.

The Finance Team

Very few developers have the independent financial resources to pay the costs of buying land, hiring consultants, and constructing roads and buildings without borrowing money. Sometimes the lender is a bank or thrift, but often the money is lent by an insurance company or pension fund.

What Are the Steps in the Development Process?

The accompanying flow chart is a simplified example of the typical development process. Each jurisdiction and each project will vary somewhat from this example, but it offers a rough sketch of the process.



Developer Feasibility Study

At this first stage in the development process, the developer is looking for suitable properties for development. Any information collected will be of a general nature.

Contact to Purchase the Land

Once a suitable property has been identified, the developer will sign a contract with the landowner to purchase the land.

Detailed Study of the Development Site

At this point the developer will conduct a thorough study of the property to determine its suitability for development, to identify what constraints, if any, there will be on the development, and determine what local regulations apply to the property. Environmental tests will be done now. This is the ideal opportunity to factor in information about archeological protection needs.

Designing the Project

Once environmental, geological, and other information about the property has been collected, the developer's planners, engineers, and architects begin designing a project that will provide a maximum profit for the developer's investment.

Government Review and Approval

The developer prepares various applications for government consideration and approval of the preliminary designs for the development project. Depending upon the size of the project, these could include requests for rezoning and subdivision. Planning staff will review the applications and make recommendations to the Planning Commission, which will make its recommendations to the Governing Body, which will make its decision. If archaeological issues are raised for the first time, there may be opportunities to redesign the project.

Settlement on Land Acquisition

Having received governmental approvals on the project, the developer obtains the loan to purchase the land and goes to settlement.

Detailed Design and Engineering

Final detailed project plans are developed, and final site plans are submitted for approval.

Government Review and Approval

Again, planning staff and staff of various other local government agencies review the detailed project site plan. If archaeological protection issues are raised at this point, it is more difficult to find enough flexibility to incorporate protected areas into the project.

Construction

Once all approvals have been received the developer secures a loan to cover construction costs and begins construction. Earth-moving equipment appears on the property. This is not the time to raise archeological protection issues.

What Are the Developer's Objectives?

Profit

A developer is in business to provide physical facilities — houses, offices, retail centers, roads — that the community needs and earn a profit. Profit is determined by a number of different factors in addition to the real estate market.

Yield of dwelling units or square footage of floor area. The amount of profit (and sometimes the success or failure) of a development project is largely determined by the number of houses or amount of square footage of building floor area allowed on a development site. This is often referred to as "density". The developer paid a certain price for the land that assumes the ability to sell a certain density. He may also need to sell a certain number of homes or amount of office space to pay for roads and other improvements required. If protecting archeological sites or historic buildings causes a reduction in density, the potential profit in the project may be eliminated.

Planning and construction costs. As the development process goes forward, a developer must spend greater sums of money to pay for plans of increasing detail and to begin constructing improvements. Changes to plans in order to protect archeological sites become much more expensive the later in the process that they occur. Therefore, a developer will be much more willing to consider changes early in the process.

Speed of development. Developers have a strong interest in obtaining approval of their plans quickly and constructing buildings without delay. Because they have almost always borrowed money to pay for the land or development costs, they are paying interest for every day until they can pay off the loan. Even if they have no loans, the economic value of a dollar earned today is greater than a dollar earned months or years from now. In addition, most construction contracts include penalties against the developer if work is delayed for long periods of time.

Integrity of Design

Density, costs and speed are not the only factors affecting the success of a project. Often the ability to sell or lease the homes or buildings depends on intangibles such as the character or overall design concept. Archeological site protection can positively affect the design in such ways as adding attractive open space. Protecting an archeological site can negatively affect a project if it means the loss of a key feature such as a fountain or a recreational facility.

Reducing Risk

In addition to maximizing profit, developers and investors want to minimize risk. They would often rather spend a limited amount of money now than gamble on avoiding a larger expense later. This makes developers and, especially, lenders reluctant to agree to preserve or record archeological resources found during the construction

phase. It is preferable to spend the money up front to find out if there are archeological sites in the project area and to identify the costs associated with their protection. Then there should be no surprises during construction.

Practical Tips

Be honest about your objectives.

Historic and archeological preservation is often raised as a pretext for opposing development by groups who are motivated by other reasons to stop a project. If you do not articulate your preservation objectives clearly, the developer may assume you are only interested in preventing his project and will not want to negotiate. Determine your real objectives and communicate them honestly to the developer. This initiates a cooperative dialogue and allows the developer to identify solutions that achieve your preservation goals without necessarily damaging his interests.

Start the dialogue early.

As the flow chart demonstrates, it becomes much more difficult to change project plans later in the process.

Offer creative solutions

Don't hesitate to suggest unusual ways to accommodate both preservation and development. Solutions that avoid delay and result in predictable costs are often the best from the developer's perspective.

Appendix E Sources of Financial Assistance

Historic Preservation Fund

The National Historic Preservation Act provides financial support to state historic preservation programs from the Historic Preservation Fund managed by the National Park Service. Using these funds allocated to each state, State Historic Preservation Offices provide grants for historic preservation activities throughout the state. At least 10% of the HPF allocated to each state must be granted to local governments whose preservation programs have been certified by the State Historic Preservation Officer and the Secretary of the Interior. The certified local government can use these funds for a variety of historic preservation activities, subject to guidelines established by the National Park Service.

Community Development Block Grants

Available through the U.S. Department of Housing and Urban Development, these grants to local governments are intended to support community development by providing adequate housing, suitable living environment, and expanded economic opportunities for low- and moderate-income families. Within this broad scope, local communities have a great deal of flexibility in deciding which activities to fund. These grants can be used not only to increase low- and moderate-income housing and to improve neighborhood services, but also to rehabilitate historic buildings, conduct field surveys of historic and archeological resources, and a variety of other preservation activities.

Transportation Enhancement Funding Under ISTEA

The Intermodal Surface Transportation Act of 1991, commonly referred to as "ISTEA" (see Appendix F for summary), requires that at least 10% of a state's funding allocation under the Surface Transportation Program be used for transportation enhancement activities, which include the acquisition of scenic easements and scenic or historic sites, preservation of abandoned transportation corridors, and archeological planning and research. Other programs established under ISTEA may also provide opportunities, albeit incidentally, for funding support for archeological protection, such as the Scenic Byways Program, the national Recreational Trails Trust Fund, and environmental research. Each state has its own procedures for determining enhancement funding priorities.

State Financial Assistance

According to a study conducted by the National Council of State Historic Preservation Officers, a number of states have state-funded grant or loan programs to support historic preservation activities, such as the purchase, rehabilitation, and acquisition of easements on historic properties.

Foundations and Endowments

Federal granting agencies such as the National Science Foundation, the National Endowment for the Arts, and the National Endowment for the Humanities provide funding support for archeological and historic preservation projects. State arts and humanities councils are also possible sources of funding for particular preservation projects. In addition, there are a variety of private foundations and charitable organiza-

tions that fund projects in special fields of interest. Check your local library for directories of foundations, such as *The Foundation Directory*, *The Foundation Grants Index*, and *The Directory of New and Emerging Foundations*, published by The Foundation Center, which has offices in New York, Washington, D.C., San Francisco, and Cleveland. Your library may also have *Corporate 500 — The Directory of Corporate Philanthropy*, which may contain information about corporations that provide funding support for archeological and historic preservation projects.

Contact your State Historic Preservation Office for additional information on these and other programs that may be available in your state.

Appendix F Summary of Federal Laws

National Historic Preservation Act of 1966 (16 U.S.C. 470 et seq.)

This act authorizes the Secretary of the Interior, through the National Park Service, to expand and maintain a National Register of districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering, and culture, of national, state, and local significance. The Act mandates public and local government participation in the nomination process, and prohibits listing of properties if the private property owner objects. It provides for the gubernatorial appointment of State Historic Preservation Officers. The Act requires that regulations, standards, and guidelines be established for the establishment, operation, and oversight of federal historic preservation programs, state historic preservation programs, certified local government programs, and Tribal historic preservation programs. The Act establishes the Historic Preservation Fund and from it the Secretary administers a matching grant program for states for the purpose of identification, evaluation, registration, and preservation of National Register properties and to otherwise meet State Historic Preservation Office requirements as specified in the Act. The Act also establishes grant programs for the National Trust for Historic Preservation to implement its programs; for Certified Local Governments; for Indian tribes, Native Alaskan corporations, and Native Hawaiian organizations; and, for the Freely Associated Micronesian States. The Advisory Council on Historic Preservation was established through this act to advise the President and Congress on matters relating to historic preservation and to comment on federally licensed, funded, or executed undertakings affecting National Register properties. Under Section 106 of the act, federal agencies are required to take into account the effect of their proposed undertakings on properties listed in or eligible for inclusion in the National Register before the expenditures of federal funds or the issuance of any licenses, and to allow the Advisory Council a reasonable opportunity to comment.

The Act establishes the statutory responsibilities for federal agencies to manage federally owned historic properties, surveys and nominations, recording of buildings to be lost, appointment of agency preservation officers, leasing of historic federal buildings, and increased sensitivity of federal programs to meeting preservation objectives. The Act requires the Department of the Interior to develop regulations for ensuring that federally owned or controlled archeological collections are deposited in institutions with adequate long-term curatorial capability.

Antiquities Act of 1906 (16 U.S.C. 431-33)

This act authorizes the President to designate historic and natural resources of national significance located on federally owned or controlled lands as national monuments. It provides for the protection of all historic and prehistoric ruins and objects of antiquity located on federal lands by providing criminal sanctions against excavation, injury, or destruction of such antiquities without the permission of the Secretary of the department having jurisdiction over such resources. The Secretaries of the Interior, Agriculture, and Defense are authorized to issue permits for archeological investigations on lands under their control to recognized educational and scientific institutions for the purpose of systematically and professionally gathering data of scientific value.

Archeological Resources Protection Act of 1979 (16 U.S.C. 470aa-mm)

This act protects archeological resources on public lands and Indian lands. It establishes a permit application procedure for the excavation and removal of archeological resources located on these lands, and provides for criminal penalties for the excavation, removal, damage, sale, exchange, purchase, or transportation of these archeological materials unless such activity is carried out under a permit issued by authority of the act. Penalties can also be imposed for the sale, purchase, exchange, transport, or receipt of archeological materials if they were excavated in violation of state or local law. The act also establishes rewards for information leading to convictions under the act and authorizes the issuance of regulations for the exchange and ultimate disposition of archeological resources removed from public and Indian lands.

Amendments in 1988 strengthened the act by lowering the limit of felony violation of the act the $500.00 worth of damage to archeological sites and prohibiting the attempt to damage a site. The amendments also required federal agencies develop public awareness programs, prepare plans and schedules for surveying land under their jurisdiction, and develop documents for reporting suspected violations of the act.

Abandoned Shipwreck Act of 1987 (43 U.S.C. 2101 et seq.)

In this law, the United States asserts title to any abandoned shipwreck that is embedded in submerged lands of a state; embedded in coral formations protected by a state on submerged lands of a state; or on submerged lands of a state and is included in or determined eligible for inclusion in the National Register. The title of the United States to these shipwrecks is transferred to the state in whose submerged lands the shipwreck is located, except for shipwrecks in or on public lands of the United States and Indian lands. The act also requires the Department of the Interior to issue guidelines for use by the states and federal agencies in developing legislation and regulations to carry out their responsibilities under the act. The act makes the Law of Finds and the Law of Salvage inapplicable to shipwrecks subject to the act.

Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. 3001-3013)

The Native American Graves Protection and Repatriation Act (NAGPRA) describes the rights of Native American lineal descendants, Indian tribes, and Native Hawaiian organizations with respect to human remains, funerary objects, sacred objects, and objects of cultural patrimony with which they can demonstrate lineal descent or cultural affiliation. NAGPRA affirms the right of such individuals or groups to decide disposition or take possession of such items. The law requires federal agencies and museums receiving federal funds to inventory holdings of such remains and objects, and work with Indian tribes and Native Hawaiian organizations to reach agreements on the repatriation or other disposition of these remains and objects. Once lineal descent or cultural affiliation has been established, and in some cases the right of possession also has been demonstrated, lineal descendants, affiliated Indian tribes, or affiliated Native Hawaiian organizations generally make the final determination about the disposition of cultural items.

NAGPRA also protects Native American burial sites and controls the removal of human remains, funerary objects, sacred objects, and items of cultural patrimony on federal and tribal lands. Many historic or prehistoric artifacts, however, may remain in

federal or museum ownership. For example, pottery, stone tools, and metal artifacts not from burial sites are not covered by NAGPRA. The law stipulates that illegal trafficking in human remains and cultural items may result in criminal penalties.

American Indian Religious Freedom Act of 1978 (42 U.S.C. 1996)

This act makes it a policy of the government to protect and preserve for American Indians, Eskimos, Aleuts, and Native Hawaiians their inherent right of freedom to believe, express, and exercise their traditional religions. It allows them access to sites, use and possession of sacred objects, and the freedom to worship through ceremonial and traditional rights. It further directs various federal departments, agencies, and other instrumentalities responsible for administering relevant laws to evaluate their policies and procedures for consultation with Native traditional religious leaders to determine changes necessary to protect and preserve Native American cultural and religious practices.

Department of Transportation Act of 1966 (23 U.S.C. 138, 49 U.S.C. 1651-1659)

Section 4(f) of this act directs the Secretary of Transportation not to approve any program or project that requires the use of land from a historic site of national, state, or local significance as determined by federal, state, or local officials having jurisdiction thereof unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm to such historic property. This means that the Federal Highway Administration, the Federal Aviation Administration, the Urban Mass Transportation Administration, and the U.S. Coast Guard must consider the potential effects of their projects on historic resources whether or not the historic resource is listed in or determined to be eligible for the National Register.

Intermodal Surface Transportation Efficiency Act of 1991 (49 U.S.C. 101 et seq.)

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) declares that it is national policy "to develop a National Intermodal Transportation System that is economically efficient, environmentally sound, provides the foundation for the Nation to compete in the global economy and will move people and goods in an energy efficient manner." ISTEA requires coordination in transportation planning between state transportation departments and metropolitan planning organizations, and these planning efforts must have a significant public participation component. An important feature of ISTEA is that a minimum of 10 percent of Surface Transportation Program funds allocated to each state must be used for "transportation enhancement activities." Eligible enhancement activities include bicycle and pedestrian facilities; acquisition of scenic easements and scenic or historic sites; scenic or historic highway programs; landscaping; rehabilitation and operation of historic transportation buildings, structures, or facilities; preservation of abandoned transportation corridors, as in rails-to-trails programs; archeological planning and research; control and removal of outdoor advertising; and mitigation of water pollution due to highway runoff.

National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.)

Under this act federal agencies are obligated to consider the environmental costs of their projects as part of the federal planning process. For major federal actions significantly affecting the quality of the human environment, federal agencies are to prepare an environmental impact statement. The Department of the Interior and the Advisory Council on Historic Preservation comment on environmental impact statements to evaluate impact on historic resources.

Housing and Community Development Act of 1974, as amended (42 U.S.C. 5300 et seq.)

The housing and community development laws change frequently, and since 1974 many provisions have been included that affect historic preservation. In 1974, the existing law was changed to combine a number of categorical grant programs into a single program under which the Department of Housing and Urban Development (HUD) provides Community Development Block Grants (CDBG) to local governments, which have broad discretion in their use. CDBG funds can be used to support historic preservation activities, as well as activities that may damage historic properties. The local government that receives the grants, not HUD, is responsible for compliance with the National Environmental Policy Act and Section 106 of the National Historic Preservation Act. Participation in a local government's housing and community development program is an important activity for many local preservation programs.

Section 170(h) of the Internal Revenue Code of 1986 (Qualified Conservation Contributions)

The Internal Revenue Code permits income and estate tax deductions for charitable contributions of partial interests in historic property. Generally, the donations of a qualified real property interest to preserve a *historically important land area* or a *certified historic structure* meets the test of a charitable contribution for conservation purposes. For purposes of the charitable contribution provisions only, a certified historic structure need not be depreciable to qualify, may be a structure other than a building, and may also be a remnant of a building, such as a facade, if that is all that remains, and may include the land area on which it is located.

Appendix G Sources of Additional Information

ARCHEOLOGICAL SITE STABILIZATION TECHNIQUES

National Clearinghouse for Archaeological Site Stabilization
Center for Archaeological Research
University of Mississippi
University, Mississippi 38677
(601) 232-7129

U.S. Army Corps of Engineers
Waterways Experiment Station
3909 Halls Ferry Road
Vicksburg, Mississippi 391-6199
(601) 634-3111

ARCHEOLOGICAL SOCIETIES

Society for American Archaeology
900 2nd Street, NE, Suite 12
Washington, D.C. 20002
(202) 543-7164

Society for Historical Archaeology
P.O. Box 30446
Tucson, Arizona 85751

Society for Professional Archaeologists
Larry D. Banks, President
4909 Weyland Drive
Hurst, Texas 76053

For information on professional and avocational societies in your state, contact your State Historic Preservation Office.

CERTIFIED LOCAL GOVERNMENTS

Contact your State Historic Preservation Office.

COMMUNITY ARCHEOLOGY PROGRAMS

Contact your State Historic Preservation Office.

CONSERVATION ORGANIZATIONS

The Archeological Conservancy has three offices across the country:

National Office:
5301 Central Ave., NE, Suite 1218
Albuquerque, New Mexico 87108
(505) 266-1540

Midwestern Regional Office:
91 Fletcher Court
Groveport, Ohio 43125
(614) 836-3603

Western Regional Office:
1217 23rd Street
Sacramento, California 95816
(916) 448-1892

Southeastern Regional Office:
5435 Royce Drive
Duluth, Georgia 30136
(404) 664-0507

The Conservation Foundation
1250 24th Street, N.W.
Washington, D.C. 20036
(202) 293-4800

Land Trust Alliance
900 17th Street, N.W., Suite 410
Washington, D.C. 20006
(202) 785-1410

The Nature Conservancy
1815 North Lynn Street
Arlington, Virginia 22209
(703) 841-5300

The Trust for Public Land
116 New Montgomery Street
San Francisco, California 94105

Other organizations are listed in *The Conservation Directory* from

National Wildlife Federation
1412 16th Street, N.W.
Washington, D.C. 20036

FINANCIAL ASSISTANCE

Contact your State Historic Preservation Office.

National Endowment for the Humanities
1100 Pennsylvania Avenue, N.W., Suite 318
Washington, D.C. 20506
(202) 606- 8310

National Science Foundation
1800 G Street, N.W.
Washington, D.C. 20050
(202) 357-7804

National Endowment for the Arts
1100 Pennsylvania Avenue, N.W.
Washington, D.C. 20506
(202) 682-5437

The Foundation Center
1001 Connecticut Avenue, N.W.
Washington, D.C. 20036
800-424-9836 toll-free

HISTORIC PRESERVATION ORGANIZATIONS

Contact your State Historic Preservation Office for information on state and local organizations.

The National Trust for Historic Preservation
1785 Massachusetts Avenue, N.W.
Washington, D.C. 20036
(202) 673-4100

INVENTORIES OF ARCHEOLOGICAL SITES

Contact your State Historic Preservation Office.

LAW

Your local library should have copies of your state laws and local ordinances.

The National Center for Preservation Law
1333 Connecticut Avenue, N.W.
Washington, D.C.
(202) 338-0392

The Environmental Law Institute
1616 P Street, N.W.
Washington, D.C.
(202) 939-3800

LOCAL PRESERVATION COMMISSIONS

Contact your State Historic Preservation Office.

National Alliance of Preservation Commissions
Hall of the States, Suite 332
444 North Capitol Street, N.W.
Washington, D.C. 20001

NATIONAL REGISTER OF HISTORIC PLACES

Contact your State Historic Preservation Office.

National Register of Historic Places
Interagency Resources Division (413)
National Park Service
P.O. Box 37127
Washington, D.C. 20013-7127

PLANNING

Contact your local government planning office.

American Planning Association (has chapters in each state)
1313 E. 60th Street
Chicago, Illinois 60637
(312) 955-9100

PUBLICATIONS FROM THE NATIONAL PARK SERVICE

For publications about the National Register and other publications issued by the Interagency Resources Division, contact:

Publications Coordinator
Interagency Resources Division (413)
National Park Service
P.O. Box 37127
Washington, D.C. 20013-7127

For publications issued by the Archeological Assistance Division, contact:

Publications Coordinator
Archeological Assistance Division (436)
National Park Service
P.O. Box 37127
Washington, D.C. 20013-7127

For information on *CRM*, a periodical providing cultural resource management information for parks, federal agencies, Indian tribes, states, local governments, and the private sector, contact:

Editor, CRM (400)
Cultural Resources
National Park Service
P.O. Box 37127
Washington, D.C. 20013-7127

SECTION 106 PROCESS

Contact your State Historic Preservation Office.

Advisory Council on Historic Preservation
1100 Pennsylvania Avenue, N.W., Suite 803
Washington, D.C. 20004
(202) 606-8672

STATE HISTORIC PRESERVATION OFFICES

ALABAMA
Executive Director
Alabama Historical Commission
725 Monroe Street
Montgomery, Alabama 36130
(205) 242-3184

ALASKA
State Historic Preservation Officer
Division of Parks
Office of History & Archeology
P.O. Box 107001
Anchorage, Alaska 99510-7001
(907) 762-2622

AMERICAN SAMOA
Historic Preservation Officer
Department of Parks and Recreation
American Samoa Government
Pago Pago, American Samoa 96799
(684) 699-9513

ARIZONA
State Historic Preservation Officer
Arizona State Parks
800 West Washington, Suite 415
Phoenix, Arizona 85007
(602) 542-4009

ARKANSAS
State Historic Preservation Officer
Arkansas Historic Preservation Program
Suite 1500, Tower Building
323 Center Street
Little Rock, Arkansas 72201
(501) 324-9346

CALIFORNIA
State Historic Preservation Officer
Office of Historic Preservation
Department of Parks and Recreation
P.O. Box 942896
Sacramento, California 94296-0001
(916) 653-9054

COLORADO
State Historic Preservation Officer
and President, Colorado Historical Society
Colorado History Museum
1300 Broadway
Denver, Colorado 80203-2137
(303) 866-3355

CONNECTICUT
State Historic Preservation Officer and Director
Connecticut Historical Commission
59 South Prospect Street
Hartford, Connecticut 06106
(203) 566-3005

DELAWARE
State Historic Preservation Officer
Division of Historical and Cultural Affairs
Hall of Records
15 The Green, P.O. Box 1401
Dover, Delaware 19901
(302) 739-5313

DISTRICT OF COLUMBIA
State Historic Preservation Officer and
City Administrator
1350 Pennsylvania Avenue, NW
Washington, DC 20004
(202) 727-6365

FLORIDA
State Historic Preservation Officer and
Director, Division of Historical Resources
Department of State
R.A. Building
500 S. Bronough St.
Tallahassee, Florida 32399-0250
(904) 488-1480

GEORGIA
Chief, Office of Historic Preservation
205 Butler Street, SE
1462 Floyd Towers East
Atlanta, Georgia 30334
(404) 656-3500

STATE HISTORIC PRESERVATION OFFICES

GUAM
Guam Historic Preservation Officer
Department of Parks and Recreation
490 Naval Hospital Road
Agana Heights, Guam 96910
(Overseas operator) 477-9620 ext. 4

HAWAII
State Historic Preservation Officer and Chairperson
Department of Land and Natural Resources
P.O. Box 621
Honolulu, HI 96813
(808) 5480-6550

IDAHO
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Idaho Historical Society
210 Main Street
Boise, Idaho 83702
(208) 334-3890

ILLINOIS
Associate Director
Illinois Historic Preservation Agency
1 Old State Capitol
Springfield, Illinois 62701-1512
(217) 782-4836

INDIANA
State Historic Preservation Officer and Director
Department of Natural Resources
402 West Washington Street, Room 274
Indianapolis, Indiana 46204
(317) 232-4020

IOWA
Executive Director
State Historical Society of Iowa
Capitol Complex
Des Moines, Iowa 50319
(515) 281-6825

KANSAS
Executive Director
Kansas State Historical Society
120 West 10th Street
Topeka, Kansas 66612
(913) 296-3251

KENTUCKY
State Historic Preservation Officer and Director
Kentucky Heritage Council
300 Washington Street
Frankfort, Kentucky 40601
(502) 564-7005

LOUISIANA
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Office of Cultural Development
P.O. Box 44247
Baton Rouge, Louisiana 70804
(504) 342-8200

MAINE
Director
Maine Historic Preservation Commission
55 Capitol Street
Station 65
Augusta, Maine 04333-0065
(207) 289-5900

MARYLAND
Executive Director
Historical and Cultural Programs
Department of Housing and Community Development
100 Community Place
Crownsville, Maryland 21032-2023
(410) 514-7600

MASSACHUSETTS
State Historic Preservation Officer and Executive Director
Massachusetts Historical Commission
80 Boylston Street, Suite 310
Boston, Massachusetts 02116
(617) 727-8470

STATE HISTORIC PRESERVATION OFFICES

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Supervisor of the Historic Preservation Section
Bureau of History
Department of State
717 W. Allegan
Lansing, Michigan 48918
(517) 373-6362

MINNESOTA
Director
Minnesota Historical Society
345 Kellogg Boulevard West
St. Paul, Minnesota 55101
(612) 296-2747

MISSISSIPPI
Director
State of Mississippi Department of Archives and History
P.O. Box 571
Jackson, Mississippi 39205
(601) 359-6850

MISSOURI
Director
Department of Natural Resources
P.O. Box 176
Jefferson City, Missouri 65102
(314) 751-2479

MONTANA
State Historic Preservation Officer
Montana Historical Society
225 North Roberts
Veterans Memorial Building
Helena, Montana 59620-0990
(406) 444-7715

NEBRASKA
Director
Nebraska State Historical Society
1500 R Street
P.O. Box 82554
Lincoln, Nebraska 68501
(402) 471-4787

NEW HAMPSHIRE
Director
Division of Historical Resources
P.O. Box 2043
Concord, New Hampshire 03302-2043
(603) 271-3483

NEW JERSEY
Commissioner
Department of Environmental Protection
CN-402, 401 East State Street
Trenton, New Jersey 08625
(609) 292-2885

NEW MEXICO
Director, Historic Preservation Division
Office of Cultural Affairs
Villa Rivera, Room 101
228 E. Palace Avenue
Santa Fe, New Mexico 87503
(505) 827-6320

NEW YORK
Commissioner
Office of Parks, Recreation and Historic Preservation
Agency Building #1, Empire State Plaza
Albany, New York 12238
(518) 474-0443

NORTH CAROLINA
Director
Department of Cultural Resources
Division of Archives and History
109 East Jones Street
Raleigh, North Carolina 27611
(919) 733-7305

NORTH DAKOTA
Superintendent
State Historical Society of North Dakota
North Dakota Heritage Center
Bismarck, North Dakota 58505
(701) 224-2672

STATE HISTORIC PRESERVATION OFFICES

NEVADA
State Historic Preservation Officer
Department of Conservation and Natural Resources
Division of Historic Preservation and Archeology
Nye Bldg, Room 213
201 So. Fall Street
Carson City, Nevada 89710
(702) 687-4360

NORTHERN MARIANA ISLANDS
Historic Preservation Officer
Department of Community and Cultural Affairs
Commonwealth of the Northern Mariana Islands
Saipan, Mariana Islands 96950
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OHIO
State Historic Preservation Officer
Historic Preservation Division
Ohio Historical Center
1985 Velma Avenue
Columbus, Ohio 43211
(614) 297-2470

OKLAHOMA
Executive Director
Oklahoma Historical Society
State Historic Preservation Office
Wiley Post Historical Building
Oklahoma City, Oklahoma 73102
(405) 521- 6249

OREGON
State Historic Preservation Officer
State Parks and Recreation Department
525 Trade Street, SE.
Salem, Oregon 97310
(503) 378-5019

PENNSYLVANIA
State Historic Preservation Officer and Executive Director
Pennsylvania Historical and Museum Commission
P.O. Box 1026
Harrisburg, Pennsylvania 17108-1026
(717) 787-2891

PUERTO RICO
State Historic Preservation Officer
La Fortaleza, P.O. Box 82
San Juan, Puerto Rico 00901
(809) 721-2676

RHODE ISLAND
State Historic Preservation Officer
Historical Preservation Commission
Old State House
150 Benefit Street
Providence, Rhode Island 02903
(401) 277-2678

SOUTH CAROLINA
Director
Department of Archives and History
P.O. Box 11669, Capitol Station
Columbia, South Carolina 29211
(803) 734-8592

SOUTH DAKOTA
Director
State Historic Preservation Center
South Dakota Historical Society
900 Governors Drive
Pierre, South Dakota 57501
(605) 773-3458

TENNESSEE
Commissioner and State Historic Preservation Officer
Department of Environment and Conservation
701 Broadway
Nashville, Tennessee 37243-0435
(615) 742-6758

TEXAS
Executive Director
Texas State Historical Commission
P.O. Box 12276, Capitol Station
Austin, Texas 78711
(512) 463-6094

STATE HISTORIC PRESERVATION OFFICES

UTAH
State Historic Preservation Officer
and Director
Utah State Historical Society
300 Rio Grande
Salt Lake City, Utah 84101
(801) 533-5755

VERMONT
State Historic Preservation Officer and Counsel
Agency of Development and Community Affairs
c/o Pavilion Office Building
58 East State Street
Montpelier, VT 05602
(802) 828-3226

VIRGIN ISLANDS
State Historic Preservation Officer
and Commissioner
Department of Planning and Natural Resources
Nisky Center, Suite 231
No. 45A Estate Nisky
St. Thomas, U.S. Virgin Islands 00802
(809) 774-3320

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State Historic Preservation Officer and Director
Department of Historic Resources
221 Governor Street
Richmond, Virginia 23219
(804) 786-3143

WASHINGTON
Assistant Director
Community Preservation and
Development Division
Department of Community Development
111 West 21st Avenue, KL-11
Olympia, Washington 98504
(206) 753-4011

WEST VIRGINIA
State Historic Preservation Officer
and Commissioner
Division of Culture and History
Capitol Complex
Charleston, West Virginia 25305
(304) 348-0220

WISCONSIN
State Historic Preservation Officer
and Director
Historic Preservation Division
State Historical Society
816 State Street
Madison, Wisconsin 53706
(608) 264-6500

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Wyoming State Historic Preservation
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Cheyenne, Wyoming 82002
(307) 777-7013

National Conference of State Historic Preservation Officers
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Washington, D.C. 20001
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STEWARDSHIP PROGRAMS

Arizona Site Steward Program
Site Steward Program Coordinator
State Historic Preservation Office
Arizona State Parks
800 W. Washington Street, Suite 415
Phoenix, Arizona 85007
(602) 542-4174

Kentucky Archaeological Registry
Kentucky Heritage Council
677 Comanche Trail
Frankfort, Kentucky 40601
(502) 564-7005

Texas Archaeological Stewardship Network
Office of the State Archeologist
Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711
(512) 463-6090

TAX INCENTIVE PROGRAMS

Contact your State Historic Preservation Office