TERRA FIRMA

PUTTING HISTORIC LANDSCAPE PRESERVATION ON SOLID GROUND

"The stones are objects for contemplation; the more you look the more you become aware of the journey each stone has made."

ANDY GOLDSWORTHY

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STONES THAT SPEAK: FORGOTTEN FEATURES OF THE LANDSCAPE

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PUBLIC ENGAGEMENT

DEBUNKING MYTHS

A Publication of the Massachusetts Department of Conservation and Recreation's Historic Landscape Preservation Initiative

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Massachusetts

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Mission: To protect, promote, and enhance our common wealth of natural, cultural and recreational resources.

The Massachusetts Department of Conservation and Recreation (DCR) is steward to over 450,000 acres throughout Massachusetts. For more information on the DCR and the Massachusetts State Park system visit www.massparks.org, call 617-626-1250, or write to DCR, 251 Causeway Street, Boston, MA 02114.

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The images of the colonial farmhouse on a hill, the brick mill village by a waterfall, or the austere church on a common are all undisputed icons of Massachusetts' history and culture. But the historic landscape of the Commonwealth is far more complex than these familiar snapshots, and contains many other, individual features that collectively contribute to the larger cultural landscape. Often made of stone, they may have a historic significance that makes them worthy of preservation in their own right; as it is often these stone details that are the only features to survive successive periods of care, development, abandonment, and neglect. They are the wells and cellar holes, the stone walls and dams, the boundary markers and quarries, examples of which are found scattered throughout Massachusetts, providing clues towards former land uses in places where the past is often obscured by development, neglect, vegetation, or theft. They are the traces that survive where more ephemeral materials have disappeared.

Yet how do we learn to recognize these features when toppled stone boundary markers or collapsed and tree-filled cellar holes often go unnoticed in the woods? Even when identified, it may be assumed that their isolation removes any relevance or historic significance. But it is exactly these types of landscape elements that tie the land to a past use and history that may no longer be immediately discernable, and without the skills needed to identify these features their eventual loss is assured. However, stone features can be protected through proper stewardship that addresses threats such as neglect, collapse, and damage from vegetation and theft.

In this issue of Terra Firma, *DCR has collaborated with the Massachusetts Historical Commission and The Trustees of Reservations to present* Stones that Speak: Forgotten Features of the Landscape, *to bring awareness to this often unappreciated and misunderstood historic resource type. The following pages contain introductory information on stone feature identification, research, and protection, including: methods for identification, threats and protections, engaging the public, basic research methods, debunking myths, and resources for further inquiry. Through this introduction, the reader will gain the basic tools for planning the future of historic stone features on private and public lands – empowering them to protect these important resources through local action and advocacy across the Commonwealth.*

This historic stone wall continues to demarcate working fields on a farm in Hudson

If you choose to document your historic resource following state guidelines and using inventory forms, the Massachusetts Historical Commission's Historic Properties Survey Manual outlines methods used for recording landscapes, structures, objects, and archaeological sites. Before starting your survey work, you should determine which approach works best by becoming familiar with the Manual and contacting the Massachusetts Historical Commission. For example, a Structure Form (Form F) might suffice for a single bridge or kiln, while a Landscape Form (Form H) or Area Form (Form A) might better capture the relationship among a variety of stone features in a larger, more complex landscape. Cellar holes and industrial archaeological sites should be recorded on a Historic Archaeological Site Form (Form D) under the guidance of a professional archaeologist.

IDENTIFICATION

Outlined below are some of the more common types of stone features found in the Massachusetts landscape. The list is not complete but represents those most often encountered across the state, varying in complexity from simple stone boundary markers to eighteenth-century cellar holes. The descriptions contain basic details to assist in identifying and understanding the history of the resources in order to more adequately plan for their preservation. It is important to remember that none of these were originally constructed in isolation, but as part of larger landscapes and may represent the sole remnant feature or part of a larger and more complex whole.

CELLAR HOLES AND FOUNDATIONS

Cellar hole and foundation remnants almost always mark former farmsteads and industrial sites, although today they may be found far from any contemporary activity, in a suburban backyard, or even as part of a contemporary functioning barn. They often cause confusion as each may have characteristics of the other and they may be clustered in close proximity, making proper identification difficult. A general rule of thumb is that cellar holes are fully-enclosed excavated pits lined with stone walls supporting the surrounding earth, and foundations consist of stone alignments on the ground or partially built into slopes.

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1. *This large barn foundation, built into a hillside, would soon be threatened by trees and their root systems if they were not maintained on a regular basis.*

2. *This cellar hole is almost completely intact, including the central chimney base, outer walls, and large granite sills. However, trees are established and threaten the stability of these features.*

"The finest workers in stone are not copper or steel tools,

but the gentle touches of air and water

working at their leisure

with a liberal allowance of time."

Henry David Thoreau

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Most eighteenth and nineteenth-century houses had cellars about five feet deep, but with varying widths from about 15 to 35 feet. When encountering a cellar hole, it should not be assumed that the house above it had similar dimensions, as portions of period houses were often built on foundations that lay on grade. Look for rows of stones (foundations) arranged at right angles or in alignment with the cellar hole, marking ells or other additions to houses. In addition, before 1830 many houses had a center chimney (still others had an end chimney) that was built on a massive stone foundation constructed either of large slabs of stone or a massive masonry stack that can be found in the center of the cellar hole.

Foundations, on the other hand, have various forms which reflect the size of the structure and its use. They may range from a simple line of stones on grade which formerly supported an ell off of a house, to massive stone blocks built into a hillside marking the location of a barn. In any case, the location and dimensions of these features may be a challenge to determine if they are obscured by collapse and vegetation; in addition, many low-lying stone walls may resemble collapsed foundations.

DRY LAID STONE WALLS

Dry laid stone walls are probably the most ubiquitous stone features in Massachusetts. The first stone walls were constructed in the seventeenth century to keep commonly grazed livestock out of privately worked fields, a system that was largely abandoned by 1830 when common lands all but disappeared and walls were generally constructed to keep livestock in private pastures. The walls are generally the byproduct of clearing stones from agricultural fields – a process that was exacerbated by erosion and frost

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heaving. Wall heights averaging about three feet – a physical consequence of constructing a wall using the least amount of labor. Much of a stone wall's form, however, was also dictated by the shapes and characteristics of the stones, the intentions of the builder, the amount of time available for construction, and available labor among other factors. Stone walls divided land uses on a farm as well as defined property boundaries, and most often had wood, and later wire fences along their tops.

By the mid-nineteenth century, up to three-fourths of southern New England was deforested as part of creating the open agricultural landscape – one that was laced with stone walls. But agriculture in the Commonwealth has progressively declined since then and today, 60% of Massachusetts lands are forested – much of this land contains stone walls (and other features) which offer clues to historic land tenure and spatial organization patterns.

Below are a handful of photo examples of different stone walls that illustrate how an apparently simple structure is represented by a wide variety of styles, shapes and forms that developed in response to geology, use, ownership, method and taste (for more information on identification and taxonomy, see the resources section at the end of this bulletin).

3. *These walls have been in place for some time as shown by the lichen and moss accumulations, which can be used as a method to generally date walls.*

4. *In its most basic form, a stone wall may simply be an elongated pile of unlaid refuse material marking field or property lines.*

5. *A well-built single thickness wall with small stones. Note the battered shape with a wide base and narrower top.*

6. *Originally, stone walls like this one were usually constructed with additional wooden or wire fencing along the top to exclude livestock.*

7. *This complicated wall remnant at an abandoned farm site boasts large end-stones and an integral livestock passage.*

8. *Made primarily of cut stone and large capstones, this old but high-end wall is both a practical structure that defines a boundary and a showpiece.*

9. *Constructed primarily of large stones abutting each other, these walls flank a former farm road.*

10. *A double wall is comprised of two parallel rows of stones, often up to a number of feet wide, with smaller fill material in between.*

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Built with generally flat stones, the walls of this well have also been cut to match the curve of the wall.

WELLS

As the primary or only source of water for home sites, wells are often but not always, found in close proximity to, or even in cellar holes. They may be up to 30 feet deep and only two or three feet wide. Usually lined with rectangular stones to insure stability, wells may also have some kind of stone cover. Extreme caution should be exercised when looking for wells as they are often obscured by dead branches and leaves and can be very hazardous. Once identified, they should be covered and clearly marked.

The stone pictured here marks the boundary between Upton and Sutton and bears the dates of town boundary perambulation (walking the boundary) by the Board of Selectmen, a practice that originated in the seventeenth century and continues in some towns today. Property and town markers, including those made of stone, are protected under Massachusetts law.

VERTICAL STONE FEATURES

As testimony to the legal and political history of a landscape, town and property boundary markers, mileage markers, and fence posts (among other vertical stone features) may be encountered in remote locations, particularly along town property boundaries. Even if current boundaries are different, these isolated sentinels may remain as placeholders of past land management history.

SLAB BRIDGES/STONE CULVERTS

Often overlooked are the slab bridges and culverts that carry secondary roads over small stream crossings. Their construction styles vary from single or multiple slabs laid on grade to dry laid stone culverts with cross members and stacked walls. The simpler slab examples are often collapsed where they carry two-track farm roads over streams, although the more substantial dry laid masonry examples may mark town road crossings. Culverts with metal or clay pipe, and concrete-filled joints are typically twentieth-century structures.

One of the two slabs from this crossing has broken and collapsed into the stream below.

The substantial amount of soil and vegetation on this still-functioning masonry culvert is testament to the skill of the builder.

Far left: This stone was split in a surface boulder quarry, note the hand drill marks along the edge.

Left: This restored and rare charcoal kiln shows how an appropriately cared for historic stone structure can remain structurally stable.

QUARRY SITES

Typically divided into boulder and ledge quarries, earlier quarrying sites were generally for local use and can be identified by abrupt changes in topography, numerous right-angle cuts, and drill-holes along the edges of remaining stone edges and boulders. There are a number of notable quarries throughout the Commonwealth including the famous marble quarries of western Massachusetts and the number of granite quarries near Boston. Still, numerous smaller and less well-known sites are found scattered throughout Massachusetts as reminders of the small-scale and local nature of most early stone-quarrying efforts.

KILNS

The kiln is one of the rarest stone feature types as most examples were left to collapse or were dismantled following changes in the production of charcoal and lime. Charcoal kilns were simple stone structures, often cut into a slope and usually with a stone floor and circular stone ring inside which wood was burnt and turned into charcoal. Limestone kilns were generally more substantial stone (or brick) structures in which limestone was burnt to produce lime, a key ingredient in mortar until the widespread use of Portland cement at the turn of the century. They are often conical structures with an opening near or at the top and an opening at the base for removing the burnt lime. A circular pile of rubble or a stone ring may be all that is encountered today.

"Never tell me that not one star of all

That slip from heaven at night and softly fall

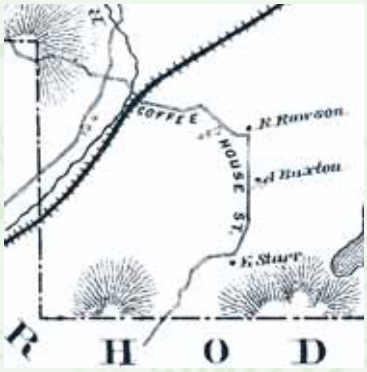
Has been picked up with stones to build a wall"

Robert Frost

DAMS AND RACEWAYS

Ranging from almost unnoticeable stream diversions, to large-scale complexes associated with mill sites, dams and their associated raceways (or stone-lined channels), take on many different forms. Heights and lengths can vary widely, and the dams themselves may be breached due to years of neglect. But it is the location along a waterway or pond edge that makes their discovery and identification easier.

The damage that high water, beavers and vegetation can do to abandoned dams and raceways makes them particularly vulnerable to collapse.



Three adjacent house sites in Douglas State Forest contain an excellent collection of cellar holes, stone walls, wells and other features. Basic research shows the changes in occupancy through these atlas maps from 1857, 1871, and 1898. A 1944 roads atlas lists no road here, narrowing the abandonment of the last occupied site to between 1898 and 1944. Online satellite imagery for the area (not shown here) displays many dirt roads and stone walls found on the property. (State Library of Massachusetts)

USING HISTORIC MAPS TO DATE SITES

Should an individual or organization wish to actively manage stone features or archaeological resources on their property, they need to know some basic information such as: when the structure was operated or lived in, what activity took place there, and who lived or worked there. This data can usually be derived fairly easily from basic archival research and can serve as the basis for determining their history and significance, and help frame management decisions regarding their treatment and preservation.

Traditionally, historic research on rural sites is largely based on historical maps and atlases that are commonly found in local public and university libraries and historical society collections. Earlier, pre-1850 maps may provide the spatial configuration of the area including: transportation networks, town boundaries, bridges, churches, and in later maps, specific domestic, commercial and industrial buildings identified by owner. However, the degree of precision and detail largely depends on the year of the map or atlas series, as many prior to 1850 cannot be relied on for accurate measurements but do show the basic configuration of essential features of the towns.

The 1856 H. F. Walling Topographic Map series illustrates transportation networks and is the earliest available map series that systematically shows the location of civic, religious, industrial, commercial and residential structures. Place names of villages and topographic features are included, although the scale is not specified. The 1870 F.W. Beers Atlases are slightly more detailed than 1856 H. F. Walling series as most features are reasonably well identified. Other later atlases, such as the 1904 Barnes and Farnham may also be useful; and fire insurance atlases such as those produced by the Sanborn Company may also provide valuable information, though primarily for urban areas. By using the maps in a chronological sequence it is often possible to track changes in ownership and property development through time, as well as find clues as to the dates and origins of stone features. Town and county histories, tax records, deeds, probate records, centennial and bi-centennial brochures, phone books, business atlases, and newspaper articles are a sampling of other sources that provide useful information for the researcher trying to determine the origins and history of stone features in the landscape.

STONE WALLS AND SATELLITES

Using aerial photographs, geographic information systems, and satellite imagery to assist in documenting historic sites used to be the domain of professionals. But with the advent of high-quality, publicly accessible imagery, combined with easy-to-use internet-based programs (such as Google Earth or MapQuest) these invaluable resources are now at the fingertips of anyone who is online. Fortunately, since aerial photographs are generally shot in the spring, some features such as dirt roads, cellar holes, and stone walls in particular are often visible through the leafless trees, offering the researcher a snapshot of what lies on the ground.

"A stone is ingrained with geological and historical memories."

Andy Goldsworthy

Above: Although of brick construction, this kiln displays the damage that natural elements and unmitigated vegetation can do to an abandoned historic masonry structure. This kiln may soon collapse as a result.

Below: This suburban development is in a town known for its historic stone walls – the contractor likely removed the original wall and used the stone to build the one shown here.

THREATS TO STONE FEATURES

A number of impacts may threaten historic stone features in the landscape, but vegetation, development pressure, theft and vandalism are the four primary forces that land managers and private citizens should actively manage for.

VEGETATION

Left to be reclaimed by the forest, stone features (cellar holes and stone walls especially) constantly battle collapse due to instability caused by tree roots and erosion. If left unmaintained, vegetation begins to establish itself within the crevices of dry laid masonry and can be well-established within a year with root systems wedged between stones. Cellar holes, with their sheer walls and free-standing masonry chimney bases are particularly susceptible to root instability. Consequently it is uncommon to find a cellar hole completely intact with no collapsed portions or bulging walls – highlighting the fact that cyclical maintenance is absolutely necessary for their survival. Once a cellar hole or stone wall portion is toppled, the deterioration of the entire feature is hastened by erosion and washing in of surrounding fill.

DEVELOPMENT

A second and far more insidious threat to stone features in the landscape is the development of rural private lands and the associated pressures it puts on stone features. With rural farmlands increasingly converted into suburban developments, stone walls are being lost at an alarming rate. Road widening to accommodate increased traffic demands often obliterates adjacent walls, as does the introduction of driveway and parking lot entrances. Further, landowners often use stone walls on their property as sources for new walls to be constructed or sell their stone walls to contractors to be used in new walls elsewhere. With the cost for new stone rising to as much as $500 a ton, "mining" existing walls is an economical way to build while using the lichen-covered aged stones that are the most in demand.

"A pile of rocks ceases to be a rock when somebody contemplates it with the idea of a cathedral in mind."

Antoine de Saint-Exupery

Right: These stones are heavily covered with mosses and lichens, a feature that makes this wall attractive to thieves who prefer these "older" examples for constructing new walls.

THEFT

Unfortunately, the economics of stone wall construction in developing areas have also given rise to the theft of stone walls from both private and public lands – an occurrence that has become all too frequent. Further, cellar holes in particular are often damaged by archaeological looting.

VANDALISM AND INDIRECT DAMAGE

As with archaeological looting, stone features are often the victims of direct or collateral damage from other illicit, recreational and commercial activities. Stone walls are particularly at risk from snowmobile and ATV enthusiasts who may use low-lying walls as "jumps" or dismantle sections to gain access to new lands. Logging operations are also often granted permission to dismantle sections of stone walls in order to gain access to stands of trees. While logging operations on public lands are sometimes required to rebuild the walls afterward, instructions, standards or inspections are rarely established.

Graffiti mars these large entrance stones flanking a cemetery gate. Prompt removal of graffiti and the timely rebuilding of dismantled walls sends a distinct message to the public affirming the significance of the resource.

Left: Workers remove saplings and leaves along a historic cemetery wall. The woodlot behind the wall is continually spreading into the cleared land.

Below: Trees, saplings and stumps may be most efficiently removed by pulling them out with a tractor or other powerful vehicle; but near stone features where wholesale removal is likely to damage the feature, cutting the potentially damaging growth at grade is the preferred method of removal.

PROTECTION STRATEGIES

MAINTENANCE AND STABILIZATION

Stone features encountered in the landscape may seem like relatively stable constructions, but without a regular maintenance program, their decay is assured. Building cyclic inspections into quarterly or yearly workplans, systematically performing basic actions such as immediately replacing falling stones back into a cellar hole, or seasonally mowing along stone walls to control vegetation can have impressive effects on the longevity of a historic stone feature.

However, without regular maintenance it is often a single event, the collapse in a rainstorm or toppling due to a frost heave, which turns these features to piles of rubble. When such a threat is imminent, stabilizing the historic stone feature is the first action that should be taken prior to additional work.

When the structural instability of a stone feature is noted, basic stabilization efforts can go a long way in maintaining its structural and historic integrity. By shoring up sagging cellar hole walls with wooden supports or straightening vertical features in danger of damage from falling over, simple efforts toward preventing further structural loss or collapse provide the breathing room needed to plan further preservation efforts. However, completely rebuilding collapsed dry laid walls or other masonry features, especially using concrete or other mortar when none was used historically, is likely an inappropriate method and may prove counter-productive or even dangerous without a professional understanding of historic masonry patterns and construction techniques.

VEGETATION REMOVAL

Although seemingly insurmountable, the onset of vegetation impacts on historic stone features can be mitigated or reversed through careful and consistent efforts at eradication. All saplings and shoots should be removed from any historic stone structure as well as from a five-foot circumference surrounding the feature as soon as detected. In addition, well-established vegetation should not be pulled directly from cellar holes and stone walls, but cut at the base and treated with an herbicide. Pulling larger stems and trunks directly will likely result in some collapse and possible personal injury, so extreme caution should be used.

Note: Vegetation/herbicide and stabilization work may be dangerous; consult a professional before attempting any of this work. Herbicides may require licensed professional application and may also be illegal if used within a certain distance from protected lands; check with your local Conservation Commission before applying and insure that no herbicides are applied to historic stone features themselves – they may stain the stone and kill characteristic surface lichens and mosses.

LEGAL ADVOCACY

Those who wish to protect stone features in Massachusetts have few legal tools at their disposal. Two Massachusetts laws – the Scenic Roads Act and MGL Chapter 266 Section 94, which prohibits the destruction of property markers - are statutes which specifically mention stone walls. But in general, compliance with certain laws and regulations may only be employed to protect stone features when they are listed as contributing elements of a larger district or protected by a local bylaw including: local historic or national register districts, the Community Preservation Act, vista protection bylaws, scenic overlay districts, great estates bylaws, easements and conservation restrictions.

Rice Road in Wayland is lined with numerous historic stone walls and trees protected under the town's scenic roads bylaw.

For further information on other legal options for preservation in Massachusetts, see the previous bulletins in the *Terra Firma* series.

SCENIC ROADS ACT

Under the Scenic Roads Act (MGLChapter 40 Section 15C) any city or town in the Commonwealth can designate a road in that municipality as a scenic road except state highways or numbered routes, if the length of the numbered route is contained within the municipality boundaries and no part is owned or maintained by the Commonwealth. With a scenic roads bylaw in place, the "cutting or removal of trees, or the tearing down or destruction of stone walls, or portions thereof" that lie within the road right-of-way is forbidden without prior consent of the planning board. As an example, the Town of Wayland has 18 roads designated as scenic through a well-written bylaw that can be used as a model.

LOCAL HISTORIC DISTRICTS

Under the Massachusetts General Laws any municipality can establish a local historic district under certain conditions. Established primarily to insure the "maintenance and improvement of settings" of historic buildings and places. This law allows for "structures" to be protected, and can used for resources on private property. As an example, Rochester has established a historic district that defines a structure as "a combination of materials other than a building, including but not limited to a sign, fence, wall and stone wall" that is protected at the same level as historic buildings, "no building or structure or part thereof within a district shall be constructed or altered in any way that affects the exterior architectural features ..."

This well inspection is being photo-documented and GPSed. The capstone was replaced following the inspection to ensure public safety.

EDUCATION AND INTERPRETATION

Education and interpretive programs enhance the experience of a place and directly support the preservation of open space and historic public landscapes. Recreational experiences are enriched by the interpretation of stone features, bringing history to life in areas where little evidence remains from past land uses. Stone walls, cellar holes, culverts and boundary markers can be highlighted along trails or linked together in a self-guided interpretive walk. Educational programs can include signage, brochures, or staffed programs and events and can often be combined with natural resource programs. Providing visitors with knowledge about the history and significance of a resource, even of something as apparently mundane as a stone wall, can bring about increased intellectual and emotional connections, building an ethic of stewardship that is carried away by every visitor.

MONITORING

Despite all of the protection methods listed above, stone features will deteriorate if left unattended for an extended length of time, as with any historic resource, a lack of monitoring equals neglect. Establishing a regular monitoring program is an essential part of

These students learned GPS and wall documentation techniques through their work with The Trustees of Reservations. Their involvement may build future interest and advocacy for the property. (TTOR)

any preservation effort but may be particularly relevant to stone features where the resource is often in isolated areas or only viewed at specific locations on a regular basis (such as where a road crosses a stone wall). Monitoring efforts are also a great opportunity to organize volunteers as they require little to no skilled labor and can amount to a nice walk in the woods. This way, damage done by hunters, snowmobiles, off-road vehicles, logging operations or even looters can be regularly corrected – sending the message that the damaged resource is something of significance that is being looked after. As Robert Frost and his neighbor who every spring met "to walk the line" of the stone wall between their properties, these periodic inspection schedules make good sense and are an excellent insurance policy against future deterioration.

A CASE STUDY IN PUBLIC ENGAGEMENT AND EDUCATION

THE TRUSTEES OF RESERVATIONS AND COPICUT WOODS

The Trustees of Reservations is gathering information on the history of the 500-acre Copicut Woods in Fall River while also looking for ways to engage the community in ongoing research and management to help build a constituency for their newly opened reservation. Copicut Woods is crisscrossed by massive character-defining estate stone walls that date to a nineteenth-century farm. For first time visitors to Copicut Woods, the forest is nice, but it's the walls that really make the place. So it seemed only natural to enlist the community's help in assessing, mapping, and restoring the stone walls at Copicut Woods.

The Trustees organized volunteer days to clear brush from the walls and reveal stones buried in a century's worth of accumulated dirt and debris. A local stone wall builder trained other volunteers in dry stone wall construction to begin rebuilding collapsed sections of wall. Local high school students were trained to use GPS units to map out the walls, fields, and foundations in addition to learning how to classify wall types. Since the stone wall project began, various groups of high school students have mapped and assessed over seven miles of stone wall.

When this mapping project is complete, the next group of high school interns will be tasked with writing and designing an interpretive brochure about the stone walls at Copicut Woods. Sharing the information collected with others and continuing to engage young people in work like the stone wall project is an excellent way to cultivate a new generation of visitors and volunteers who understand both the history of the land and the need to protect its future.

SAMPLE WALL PROTECTION LAWS IN NEW ENGLAND

Massachusetts cities and towns can refer to a handful of state and local laws from Connecticut and New Hampshire that indirectly address stone wall preservation; but they are often weak, unenforceable, or have negligible fines. Rhode Island has led the way with a law written specifically to protect historic stone walls. The 2001 *Leona Kelley Act* defines stone walls, specifically addresses their theft, and establishes a punishment of "the cost of replacing said stones and any other compensable damages related to said larceny." In addition, the town of Portsmouth, RI has enacted its own bylaw to protect stone walls along town and state roads with fines from $100 to $500 for their "alteration or removal". Smithfield, RI takes stone wall protection further than any other community in New England with an ordinance that protects against the "alteration, relocation or demolition of an historic stone wall or any portion thereof which is located in Smithfield." Further, the town has enacted a tax exemption not exceeding $5000 for the maintenance of certain historic stone walls on private property.

A PUBLICATION OF THE MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION'S HISTORIC LANDSCAPE PRESERVATION INITIATIVE 251 CAUSEWAY STREET STE. 600 BOSTON, MA 02114 617-626-1250

THE LAST WORD: DEBUNKING THE MYTH OF STONE WALLS, PILES AND CHAMBERS

The stone walls built by New England farmers helped define property lines, divide fields, woodlots and pastures, and shape animal pens. Coincidentally, the walls may match cardinal compass points or celestial phenomena – but for practical purposes rather than sacred. It was also common to construct cold cellars and pile surplus rocks within pastures for later use or sale.

Some have suggested a Native American origin for these features. There is no archaeological evidence to support this conclusion. When historians and archaeologists have researched stone walls, piles and chambers, they have invariably demonstrated that these features are associated with the activities of European settlers and have no Native American (or other) origin. In addition, Native American advisors have been involved in a number of excavations and have confirmed these findings. However, archaeologists do find stone features on Native American sites, hearths for example. But they rely on context to make the determination where, during a controlled scientific excavation, archaeologists analyze the entire site, all artifacts associated with the feature, and its placement in the soil. This provides the cultural and geological context needed to interpret and date the entire site.

Archaeologists also consider ethnographic and ethnohistorical information. For example, Native American oral traditions record that people did place small stones or twigs on a sacred spot as they passed by. Over time this might result in a small pile of pebbles, tiny cobbles, or sticks, but not large piles. Conversely there is a strong, documented ethnohistory of stone building traditions among the European settlers of Massachusetts. Together, archaeology and ethnohistory provide conclusive evidence that stone walls, piles and chambers are not the work of ancient cultures.

The Massachusetts Historical Commission is the guiding state agency for the protection of historic and prehistoric properties; if you have a question regarding the significance of a stone feature, please contact them at the address and number below.

RESOURCES

BOOKS AND GUIDES

The following is an overview of basic stone and stone wall printed resources. Much additional information on stone wall construction, stone material conservation and other associated subjects is easily gathered with simple bibliographic searches.

Allport, Susan. *Sermons in Stone: The Stone Walls of New England and New York*. New York: W.W. Norton and Company, 1990.

Everett, Mary. *A Preliminary Handbook for the Preservation of New England's Dry Stone Walls*. Sunderland, MA. Whynaught Press, 2006.

Gage, Mary and James. *The Art of Splitting Stone: Early Rock Quarrying Methods in Pre-Industrial New England, 1630-1825*. Amesbury, MA: Powwow River Books, 2005.

Sanford, Robert et al. *Stone Walls and Cellarholes: A Guide for Landowners on Historic Features and Landscapes in Vermont's Forests*. Waterbury, VT: Vermont Dept. of Forests, Parks, and Recreation, 1994.

Thorson, Robert M. *Exploring Stone Walls: A Field Guide to New England's Stone Walls*. New York: Walker and Company, 2005.

Thorson, Robert M. Stone by Stone: *The Magnificent History in New England's Stone Walls*. New York: Walker and Company, 2002.

LEGAL

Connecticut General Statutes
www.cga.ct.gov/2007/pub/titles.htm

Massachusetts General Laws
www.mass.gov/legis/laws/mgl/mgllink.htm

Portsmouth, Rhode Island Ordinances
www.portsmouthri.com/frames.htm

Smithfield, Rhode Island Ordinances
www.smithfieldri.com/ordinances.htm

Wayland, Massachusetts Scenic Road Bylaw
www.wayland.ma.us/planning/Scenicroads.htm

WEB-BASED

Below is an edited list of non-commercial stone feature oriented web sites. Further internet research will highlight additional resources.

Dry Stone Conservancy
www.drystone.org

National Center for Preservation Technology and Training – Dry Stone Training Videos
www.ncptt.nps.gov/

Secretary of the Interior's Standards for the Treatment of Historic Properties With Guidelines for the Treatment of Cultural Landscapes
www.nps.gov/history/hps/tps/standguide

Stone Wall Initiative
www.stonewall.uconn.edu

Department of Conservation and Recreation
Historic Landscape Preservation Initiative
617-626-1250
www.mass.gov/dcr/stewardship/histland/histland.htm

Massachusetts Historical Commission
617-727-8470
www.sec.state.ma.us/mhc

The Trustees of Reservations
978.921.1944
www.thetrustees.org