

How to Identity and Distinguish Native American Ceremonial Stone Structures from Historic Farm Structures

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Abstract

A Native American ceremonial site can contain some or all of the following types of structures: Stone Cairns; Enclosures; Niches; Niche-Shafts; Miniature Chambers; Standing Stones; Manitou Stones; Pedestal/Perched/Rocking/Balanced Stones; Stone Chambers; Modified Rockshelters. Some of these structures can look similar to historic farm structures. For example stone cairns can be confused with field clearing stone piles, stone chamber for a root cellar, a standing stone with a property boundary marker, etc. How does one distinguish between the two? On the following pages are some basic criteria for making distinctions between Native American stone structures and historic farm structures.

Ceremonial Cairns / Field Clearing Piles

Native American ceremonial sites are places where a number of different ritual activities took place. Some rituals involved only a single person, others a small group of people, and some were attended by the whole community (A general inference drawn from the anthropological literature, here is a reference: Gage & Gage 2015: 207-208). This diversity of different rituals and the number of people involved is reflected in a group of cairns having a variety of different designs. Cairn groups may also be accompanied by other types of ritual structures like niches, enclosures and the occasional Manitou stones.

Farms had stone piles for utilitarian purposes. Farmers built stone piles for three reasons (a) to get rid of stones cleared from crop and hay fields and, occasionally, orchards (b) to stockpile stones for wall building, or (c) to mark property boundaries. The vast majority of stone cleared from farm fields ended up in stone walls and subsurface field drains. On some farms, the field stones were placed in field clearing piles along the edges and corners of the field, a single pile in the middle of the field, places in the field that could not be farmed, or dumped along a stream embankment. Occasionally, farmers built groups of piles in the field. The piles in these groups are evenly spread out from each other and have the same basic shape and design although the size may vary.

Stone wall building piles are easily identified. They are a set of piles built in a straight line. In some cases they may extend from the end of an existing stone wall. (See Gage 2014 for a more in-depth discussion of 18th and 19th century farm clearing activities, their by-products, and historic references describing them.)

It should be noted that the presence of stone walls, house & barn foundations, or a well does NOT automatically mean a group of stone piles is farm related. Farmers would many times clear a tract of land of trees and brush and then pasture horses, cows, or sheep on it. These tracts of land sometimes contained ceremonial sites. The livestock could easily graze around the cairns and therefore the farmer left them untouched (*Ibid*).

Native American Cairns Criteria

Designs *On Ground* Sizes range from 3' diameter up to 40' + long,

- Shapes - Mound, conical, vertical walled, etc.
- On Top of Boulder* Many variations of this basic design.
- Split Boulder* Split with stones inside split and/or on top of split boulder.
- Group Characteristics** Spacing between cairns is irregular and uneven.
Designs are mixed, two or more designs per cairn group.
- Other stone structures** Many cairn sites have additional structures like niches, enclosures, and standing stones.

Note: Stone walls are frequently found at both farm and ceremonial sites. It is often difficult to identify which culture built the walls.

Field Clearing Criteria

Design *On ground mound* – Shape: circular/oval or oblong, size of pile may vary

Locations (1) Edges and corners of an old field.

(2) Single pile in the center of field.

(3) Dumped along stream embankment or in a ravine.

(4) Unfarmable location in the field like exposed bedrock.

(5) Group of piles in the field.

- Generally they will be evenly spaced out from each other.

- They will have the same basic shape (circular, oval, oblong) but the size of the piles may vary.

Stone Wall Building Piles Criteria

Design *On ground mound* – They will all have same basic shape (circular/oval or oblong). Size of pile may vary.

Location Line of piles evenly spaced out. May or may not be associated with an existing stone wall.

Boundary Pile

Design *On ground mound* Most common design for boundary marker.

On top of boulder Rare but occasionally mentioned in deeds.

Identification Generally a single isolated pile. Occasionally, a series of similar piles evenly spaced out in a line. A metal pipe is a good indicator.

Further Reading

Field Clearing:

Mary Gage, "Testing the Stockpiling and Field Stone Clearing Pile Theory." *Massachusetts Archaeological Society Bulletin* 76:1 (Spring 2015) pp.2-27.

James Gage, "Field Clearing: Stone Removal and Disposal Practices in Agriculture & Farming" *Bulletin of the Archaeological Society of Connecticut* 76 (2014) pp.33-81.

Native American Cairns:

Mary Gage & James Gage, *A Handbook of Stones Structures in Northeastern United States*. Expanded 1st Edition (2015). Amesbury, MA: Powwow River Books.

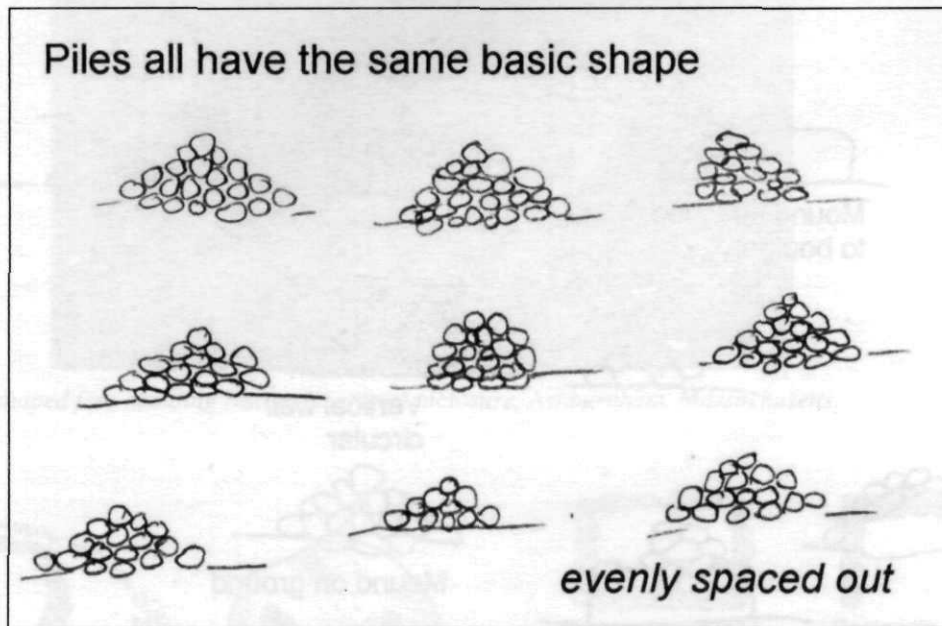


Figure 1. Field Clearing – Group of Piles in the Field.

Enclosures

Native American enclosures defined a sacred space in which a ceremony or ritual likely took place (Gage & Gage 2015: 37-43). These enclosures were built with stone walls and come in a variety of shapes: circular, “C”, “U”, “V”, “L”, rectangular (with or without an opening), and irregular. They range in size from those accommodating a single person to those large enough for a small group of people. They may incorporate a boulder or outcrop into their construction. They may be free-standing structures or attached to a stone wall. They may have additional features like a niche or spirit portal. Enclosures are generally (but not always) associated with a nearby group of cairns.

Farms had enclosed areas referred to by farmers as various types of animal pens and paddocks. Pens for pigs, chickens, and other small barnyard animals generally had wooden fences but were occasionally fenced with stone walls. Paddocks were used for livestock like cows, horses, and sheep. They were enclosed by wooden fences or stone walls. Pens and paddocks in most cases were built near to or even attached to the barn.

Native American Enclosure Criteria

Shape “C”, “U”, “V”, “L”, circular, square / rectangular (with or without an opening), and irregular shapes.

Size Range from enclosing one person to a small group of people.

Additional Features Attached to boulder or outcrop or chamber, built-in niche or spirit portal.

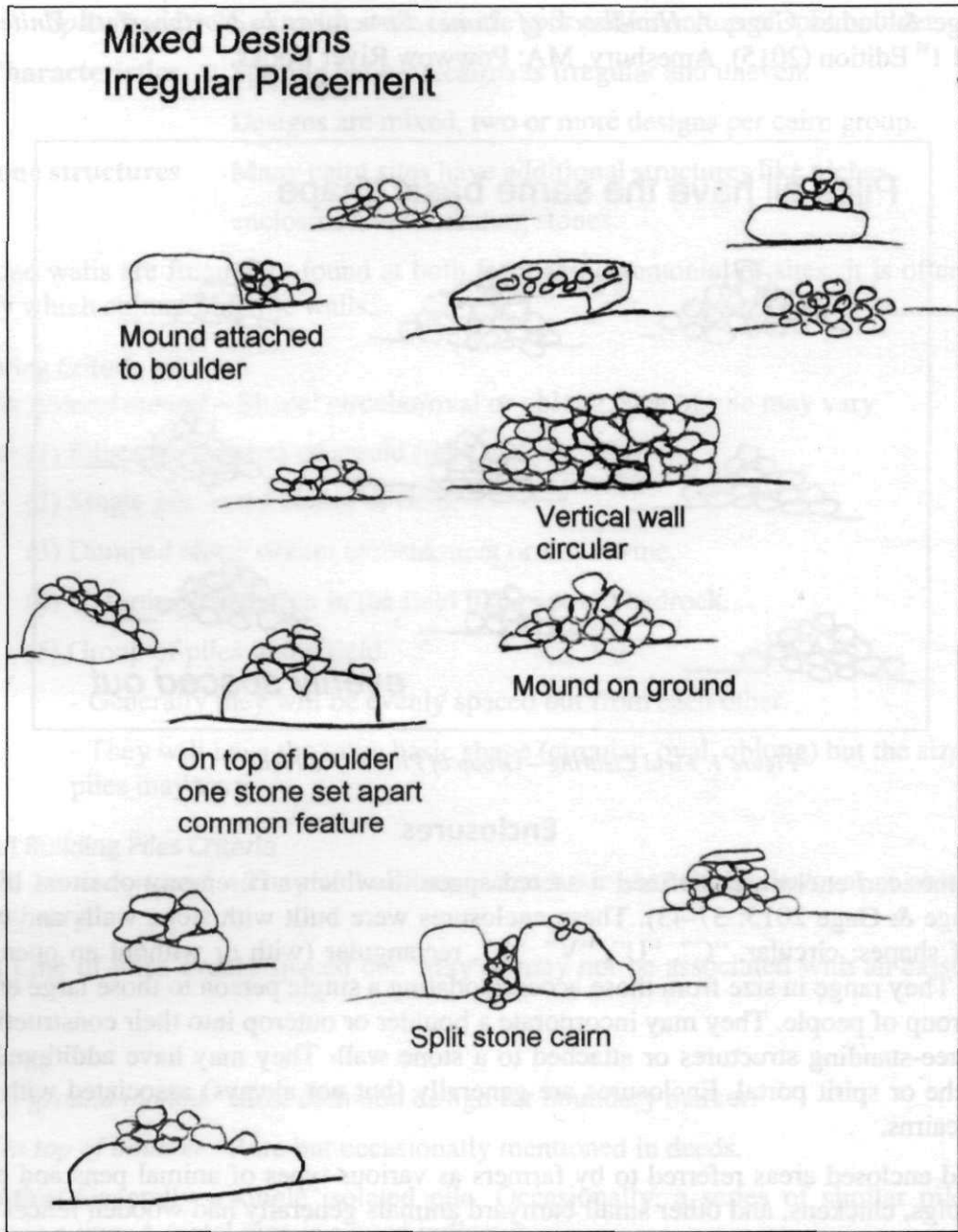


Figure 2. Native American Cairn Group

Location Generally associated with a group of cairns or other ceremonial structures. It may be within the cairn group or separated from it. In rare cases, the site may only contain a group of enclosures spread out.

Farm Animal Pen and Paddock Criteria

Location Attached to a barn foundation or in the general area of the barn.

Shape Generally square or rectangular with an opening for a gate.



Figure 3. C-shaped free-standing Native American enclosure, Ashburnham, Massachusetts.

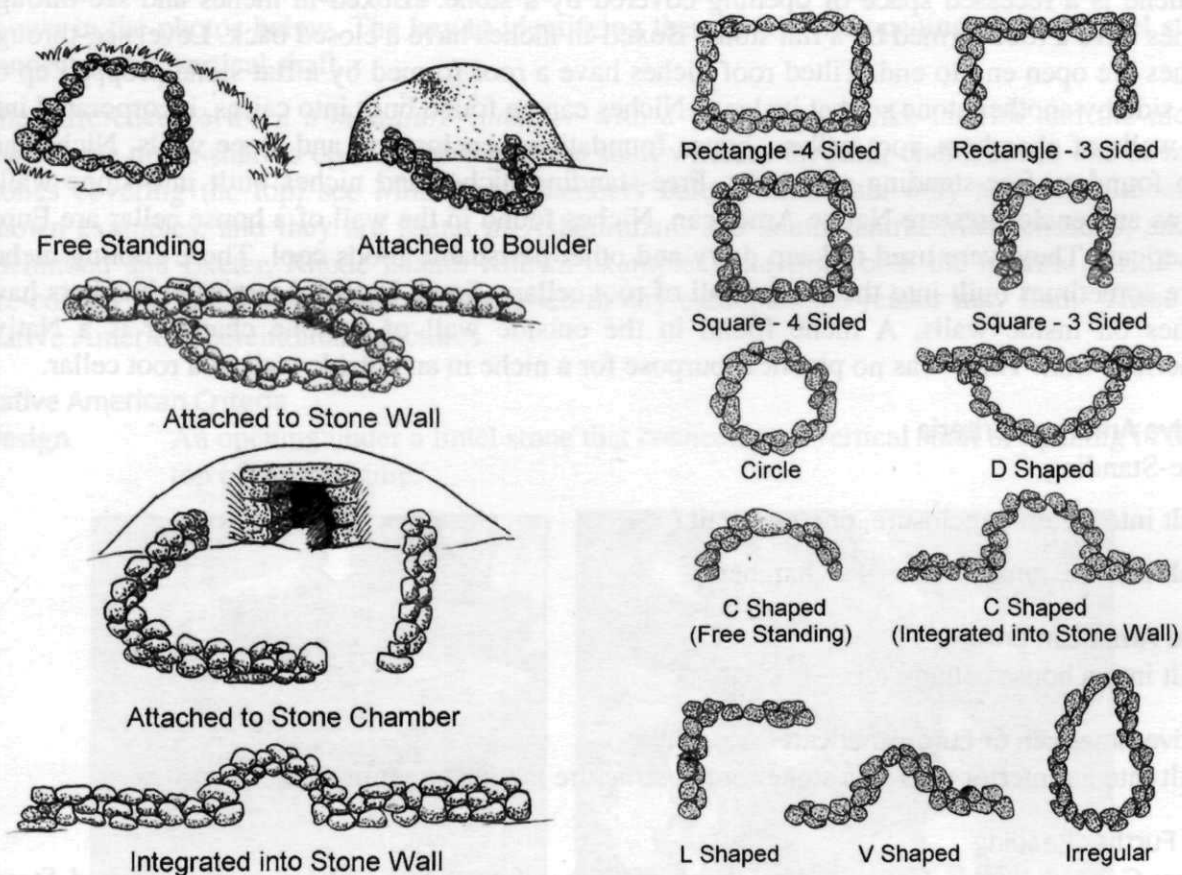


Figure 4. Native American Enclosures.



Figure 5. Native American enclosure attached to boulder, West Greenwich, Rhode Island. (Photo courtesy of Steve DiMarzo Jr.).

Niches

A niche is a recessed space or opening covered by a stone. Boxed-in niches and see-through niches have a roof formed by a flat stone. Boxed-in niches have a closed back. Level see-through niches are open end to end. Tilted roof niches have a roof formed by a flat stone propped up on one side by another stone so that it slants. Niches can be found built into cairns, incorporated into the walls of chambers, root cellars, house foundations, enclosures, and stone walls. Niches are also found as free-standing structures. Free-standing niches and niches built into stone walls, cairns and enclosures are Native American. Niches found in the wall of a house cellar are Euro-American. They were used to keep dairy and other perishable foods cool. These cooling niches were sometimes built into the inside wall of root cellars. Some Native American chambers have niches on inside walls. A niche found in the outside wall of a stone chamber is a Native American trait. There was no practical purpose for a niche in an outside wall of a root cellar.

Native American Criteria

Free-Standing.

Built into a cairn, enclosure, or stone wall.

Built into the outside wall of a chamber.

Euro-American Criteria

Built into a house cellar wall.

Native American or Euro-American

Built into an interior wall of a stone roofed structure (i.e. chamber or root cellar).

For Further Reading

Mary Gage & James Gage, *A Handbook of Stones Structures in Northeastern United States*. Expanded 1st Edition (2015). Amesbury, MA: Powwow River Books.

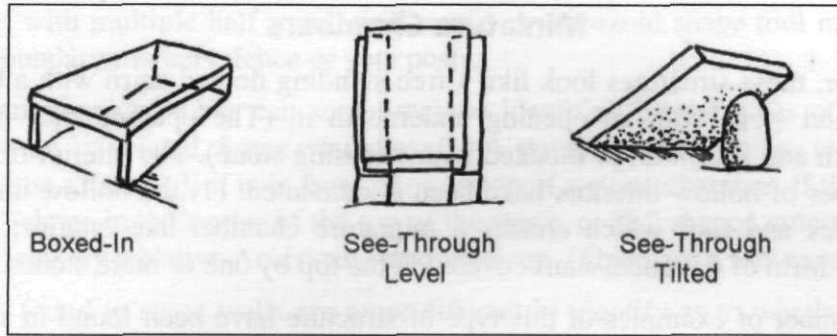


Figure 6. Three basic types of niche designs.

Niche-Shaft

This structure has a lintel stone with an opening underneath it (like a boxed-in niche). The opening connects to a vertical shaft which is open at the top. The top of the shaft may be level with the roof of the niche or may extend upwards above the niche. The overall design and style tends to be highly individualistic with this type of structure. The size of the shaft varies from small to large. The walls of the structure can be built of typical dry masonry construction or using slab wall construction (stone slabs set up vertically). Most are free-standing structures but one example has been found integrated into an enclosure. They may not look like the example shown in the photos below. The key to identifying them is a niche opening under a lintel stone connected to a vertical shaft.

The difference between a *miniature-chamber* with a vertical shaft-like interior and the niche-shaft is the niche-shaft is open at the top of the shaft whereas the mini-chamber has one or more stones covering the top; see Miniature Chambers below. There are only a small number of known examples, and they are found in Ashburnham and south-central Massachusetts, and in Richmond and Exeter, Rhode Island. Known examples date from both the historic period and pre-contact period. The authors are interested in any examples the reader may find. These are Native American ceremonial structures.

Native American Criteria

Design An opening under a lintel stone that connects to a vertical shaft or opening in the top of the structure.

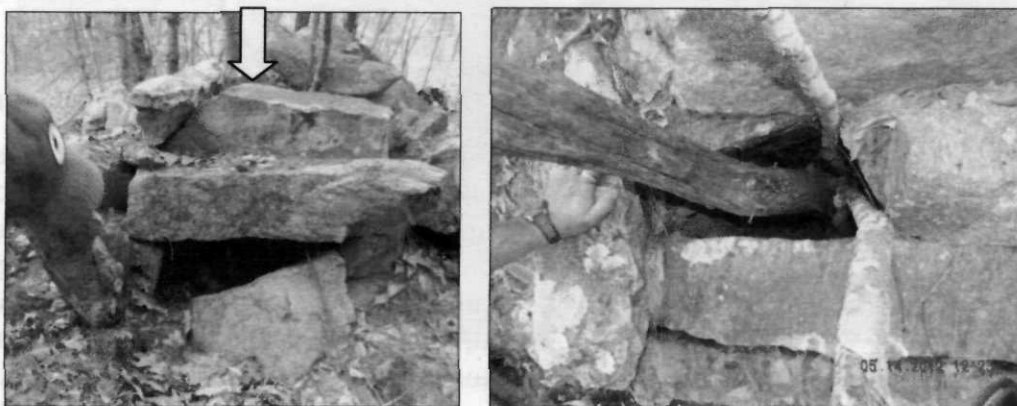


Figure 7. (Left) Opening into a niche-shaft, Exeter, Rhode Island. Arrow points to the location of the vertical shaft. (Right) View of the top showing the shaft. A small tree is growing out of it (Photos courtesy of Steve DiMarzo Jr.).

Miniature Chambers

From the exterior, these structures look like a free-standing domed cairn with a boxed-in niche. They have a lintel stone with an opening underneath it. (The opening may be obscured by accumulated earth and leaf litter, or blocked with a closing stone). The interior of the structure is hollow. Two types of hollow interiors have been documented: (1) the hollow interior is formed by corbelled sides and roof which creates a miniature chamber-like interior; (2) the hollow interior takes the form of a vertical shaft covered at the top by one or more stones.

Only a small number of examples of this type of structure have been found in southern RI and eastern CT. The authors are interested in any examples the reader may find. Please do NOT remove roof stones to look inside. (Native American ceremonial features are culturally sensitive. Please **DO NOT** move any stones, add any stones, alter them in anyway, or excavate the feature.) The shape of the interior can be ascertained by feeling around the inside with your hand (gloves are recommended). Be sure to check for animals and insects before putting your hand inside. Try putting a small camera inside: place it on a glove or hat to protect it, set it on automatic and take an interior photo. Experiment with flash. These are Native American ceremonial structures.

Native American Criteria

Design See description above.



Figure 8. (Upper Left) Miniature chamber with a lintel stone & opening underneath it, Hopkinton, Rhode Island. The dome is hollow inside. (Below) Interior photo (Photos courtesy of Steve DiMarzo Jr. and Todd Carden).

Standing Stones/Boundary Markers

Standing stones are long post-like stones or flat stone slabs placed in a vertical position. They come in a wide range of shapes and sizes. Flat stone slabs can be square, rectangular, or triangular in shape. The top of the stone can be flat, triangular, rounded, or slanted. It can have a

notched corner, a notch in the top center of the stone or two shoulders. Standing stones with a surveyor's drill hole or located at a known property corner are easily identified as boundary

markers. Stones with multiple half round drill marks or trapezoid shape tool marks are in most cases historic boundary markers, fence or gate posts.

Native American standing stones can sometimes be identified by the types of stone structures with which they are associated. Some examples: (1) A standing stone is close to stone cairns, (2) it is leaning against a cairn, (3) it is in front of or on top of a stone chamber. If the standing stone has a "V" or U" shape in the center of the top of the stone, or "L" shaped cutout/notch in one or both corners, it is likely a Native American standing stone. (There are a few exceptions).

Standing stones found in stone walls are more difficult to identify as to whether they are Euro-American or Native American. A single standing stone in a wall with a center notch is likely to be Native American. A series of standing stones with a center notch equally spaced apart along the wall likely support a single rail on top of the stone wall. These are farm-related. Stone walls that marked the boundary between two farms sometimes have a standing stone in them. The stone divided the wall into two different sections with each farmer being responsible for the maintenance and repair of one section. It is not uncommon to find standing stones for which there is simply not enough evidence to determine who setup it. These should be documented. Another researcher may figure it out in the future.

Native American Criteria

Corner and center notches are in most but not all cases a good indicator of Native American production.

A single standing stone with a center notch in a stone wall.

Standing stone associated with a stone cairn or chamber.

Boundary Marker Criteria

Surveyor's drill hole or located at a known property corner.

Fence Post Criteria

A line of post-like standing stones spaced apart at equal distances (6+ feet).



Figure 9. (Left) Pair of Native American post-like standing stones, Ashburnham, Massachusetts; (Right) Boundary post, Newbury, Massachusetts.

Manitou Stones

The Manitou Stone is a specifically shaped standing stone with a neck, two shoulders and a torso. Manitou Stones have been found at a number of sites in Massachusetts, Connecticut, and Rhode Island. Their size varies but not their general shape. They are found as free-standing stones, placed in cairns, integrated into enclosures, adjacent to stone walls, and other locations.

The term Manitou can be roughly translated as “spirit.” Native Americans viewed their world as being full of many spirits. (Williams 1643:122-123; Mavor & Dix 1989: 2) Manitou stones could represent or even be thought to contain one of a number of different spirits. These are Native American ceremonial stones.

Native American Criteria

Design A standing stone with a short neck, two shoulders, and torso.



Figure 10. Manitou stone, Newbury, Massachusetts.



Figure 11. Manitou stone, Ashburnham, Massachusetts.

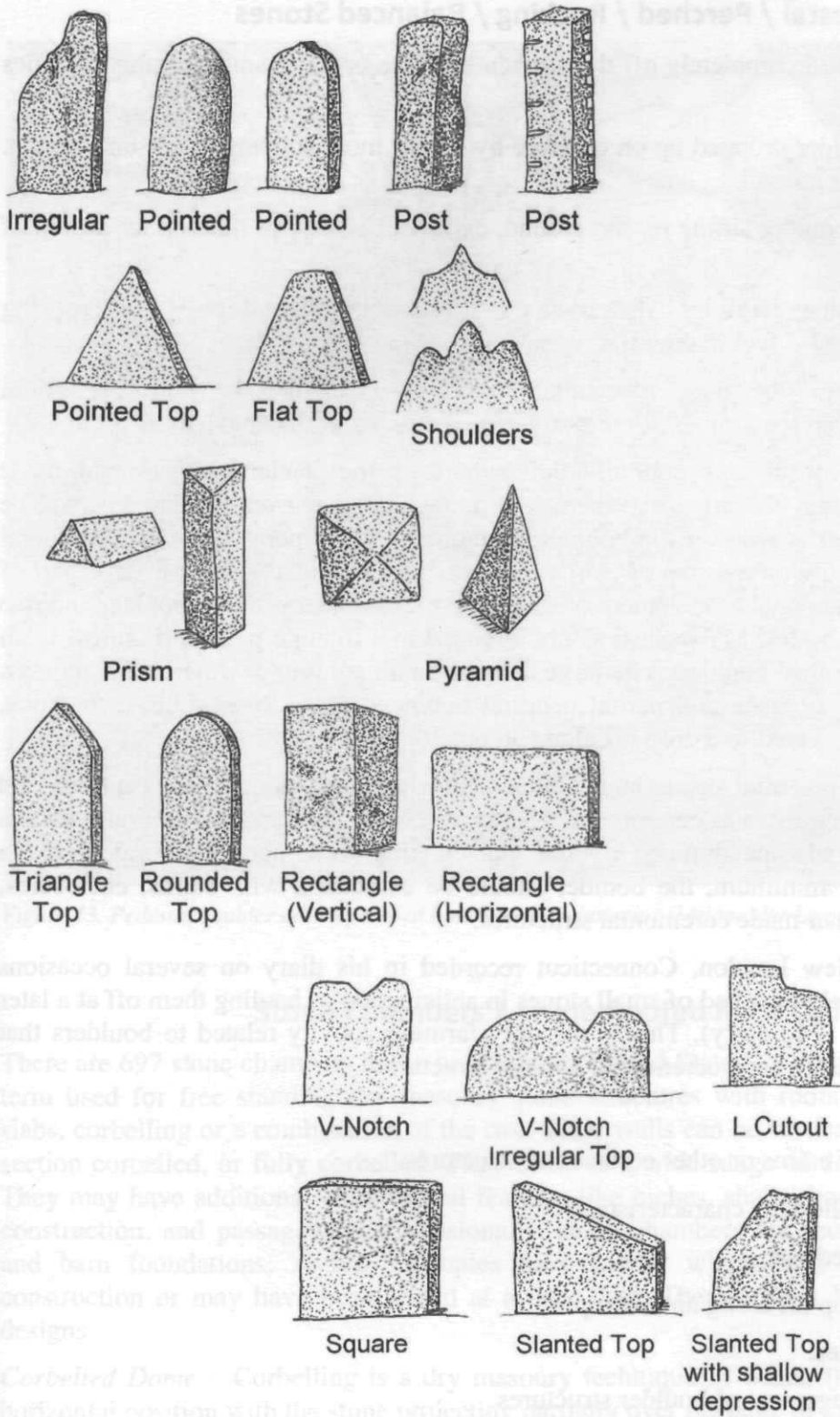


Figure 12. Examples of various types of standing stones.

Pedestal / Perched / Rocking / Balanced Stones

Pedestal – A boulder raised completely off the surface by three or more smaller support stones underneath.

Partial Pedestal – A boulder propped up on one side by one or more support stones underneath. The other side touches the ground.

Perched – A prominent boulder sitting on the ground, exposed bedrock or outcrop, or on top of another boulder.

Rocking – A stone or boulder carefully balanced so that it can rock back and forth. Some rocking stones can be fairly small (1-2 feet in length)

Balanced – A boulder that is “balanced” on a small point on its underside. The rest of the bottom of the boulder doesn’t touch the ground. It currently does not rock but may have in the past.

These types of boulders occur both naturally (left behind by the glaciers) and as man-made structures. Identifying which of them are man-made is a real challenge even for the experts. The easier question to consider is whether the boulder structure was incorporated into a ceremonial site or not. Is it associated with a group of cairns or a nearby ceremonial structure? Is it part of what appears to be an intentional arrangement of stones? For example a pedestal boulder and two perched boulders in Gloucester, Massachusetts are arranged in a triangle pattern (Figure 13). In Rhode Island, pairs of perched boulders, one large and one small are found. Other characteristics one should look for are: pedestal and partial pedestal boulders placed over splits in bedrock, pedestal boulder positioned next to a drop off along an outcrop.

It is good to document potential ceremonial boulders but it is also good to be cautious and conservative in interpreting them as ceremonial. There are tens of thousands of natural boulders scattered through the landscape dumped by the glaciers that were not incorporated into a ceremonial site. At bear minimum, the boulder should be associated with cairns, enclosures, niches, or other clearly man-made ceremonial structures.

Joshua Hempstead of New London, Connecticut recorded in his diary on several occasions placing boulders in his field on a bed of small stones in anticipation of hauling them off at a later date (e.g., February 11, 1740 entry). This is the only farming activity related to boulders that could potentially be mistaken for a ceremonial boulder structure.

Native American Criteria

Part of or near a group of cairns or other ceremonial structures.

It may have one of the following characteristics:

- Placed over a split in bedrock.
- Positioned next to a drop off along an outcrop.
- Pair of boulder structures.
- Part of intentional arrangement of boulder structures.

Farm Criteria

Boulder placed on a bed of small stones in what was once a farm field.



Figure 13. Pedestal boulder & two perched boulders in an intentional triangular layout, Gloucester, Massachusetts.

Stone Chambers / Stone Roofed Root Cellars

There are 697 stone chambers in the northeastern United States.¹ “Stone chambers” is a catchall term used for free standing dry masonry stone structures with roofs constructed using stone slabs, corbelling or a combination of the two. Their walls can be vertical, vertical with the upper section corbelled, or fully corbelled. They come in a wide range of designs, shapes, and sizes. They may have additional architectural features like niches, shafts, boulders integrated into the construction, and passageways. Occasionally, stone chambers are found integrated into house and barn foundations. A few examples have mortar which may be part of the original construction or may have been added at a later date. There are six basic types of stone roof designs:

Corbelled Dome – Corbelling is a dry masonry technique in which flat stones are placed in a horizontal position with the stone projecting partially over the edge of the stone below it.

¹ This figure does not include stone arch root cellars. This statistic is courtesy of Professor Curtiss Hoffman (personal communication, 2015).

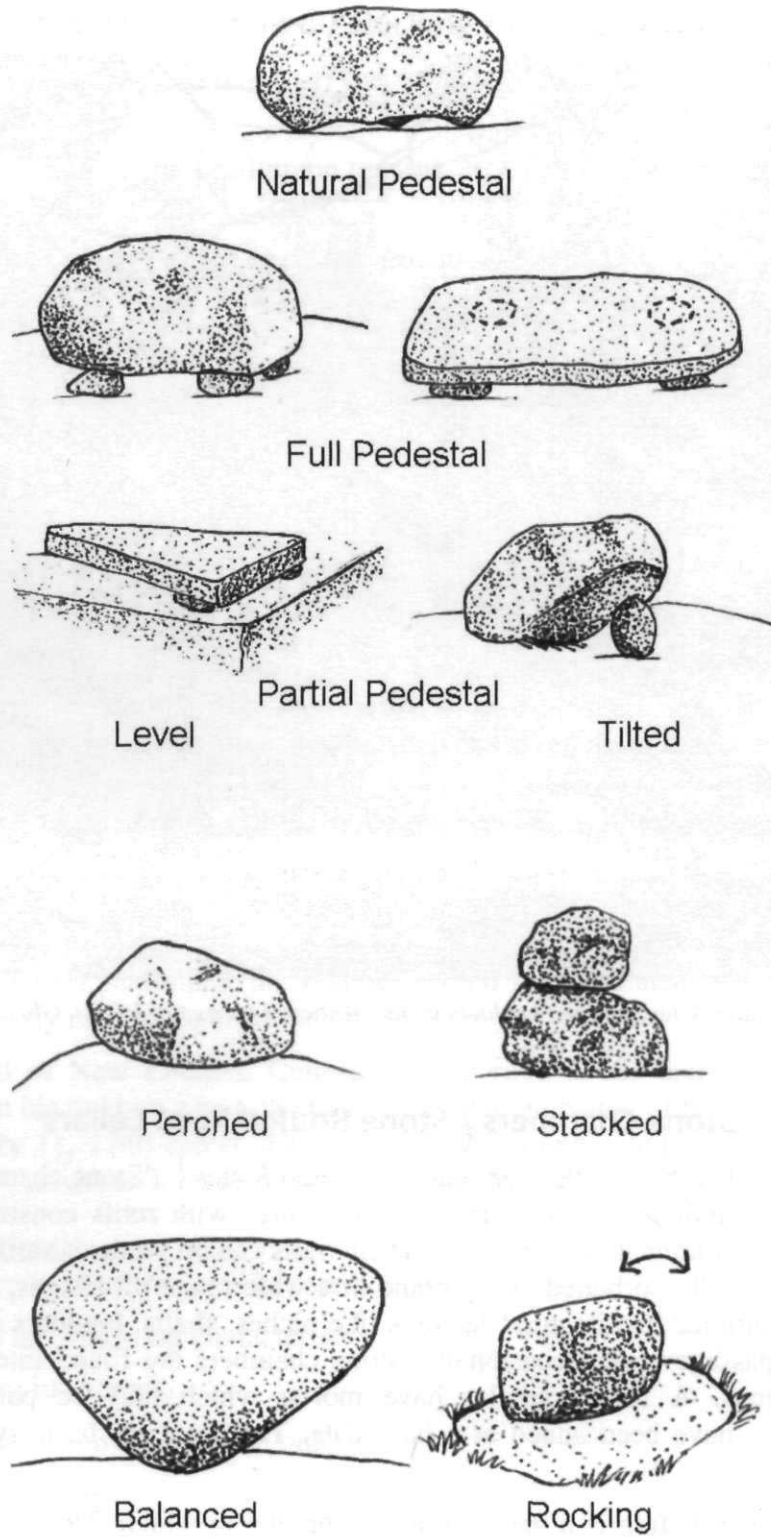


Figure 14. Pedestal, Partial Pedestal, Perched, Balanced, & Rocking Stones
Drawings based on actual examples in the field.

Each subsequent layer of stone projects over the edge of the layer below it. The layers are built up creating a dome shaped roof. The top of the dome is covered with a flat stone.

Slab – The roof is covered by a series of long flat slabs.

Overlapping Slab – The flat roof slabs overlap each other.

Corbelled wall to slab roof – It is found in chambers with rectangular or tunnel-like rooms. These chambers have two long parallel side walls. The lower portion of each wall is vertical and the upper portion is corbelled. The amount of corbelling can range from 2 to 3 layers near the top to the upper 1/3rd being corbelled. The corbelling of the two parallel walls narrows the width between them. This narrow width is spanned by a series of flat stone slabs. The purpose of the corbelling is to reduce the length (and weight) of the stone slab needed to span the distance between the walls.

Gable – \wedge shaped roof covered with flat stone slabs or bars. There is only one known example and it is an historic root cellar (Westford, Massachusetts).

Arch (barrel vault) – Arch construction is a Euro-American technique and automatically identifies it as a historic root cellar.

Documentation

Stone chambers are the most technically challenging type of structure to document and interpret. It is important to begin with some good basic documentation of the chamber. On the outside, all sides and the top of the chamber should be photographed. Inside, photograph the entrance, each wall and the roof. Photograph any interesting or unusual features like niches, shafts, or potential tool marks. Using a tape measure take some basic length / width / height measurements inside and outside. If there is an old farm house or barn, or a foundation for one nearby please note how far away it is. Photographs of the latter foundation would be helpful.



Figure 15. Inside photo showing the corbelled domed roof of a chamber in Thompson, Connecticut.

Identification

This section on identification comes from research done by the authors. The characteristics listed under “Criteria” are based upon an architectural study of stone chambers and historic buildings. There is evidence that Native Americans and farmers both built free-standing stone chambers, albeit for different purposes. For

more information on this study please see the authors’ article on stone chambers (Gage & Gage, this volume).

The characteristics for Native American stone chambers are based on archaeologically dated prehistoric chambers and chambers identified as Native American from other types of evidence. For example, the Hunts Brook Chamber in Montville, Connecticut was built in an isolated location, is associated with ceremonial stone cairns, and has a 37 foot long narrow tunnel you have to crawl through on your hands and knees, which is completely impractical for a root cellar.

The characteristics for ceremonial chambers are distinctly Native American. It is highly unlikely you will find any of these characteristics in an historic structure.

Farmers stored potatoes, carrots, turnips, and other root crops in root cellars during the cold months. In New England, most root cellars were a room in the house or barn cellar. However, some farmers did build root cellars as a separate free-standing structure. In building them, the farmer or stone mason drew on their knowledge of house & barn cellar construction techniques along with traditional American architectural design values. The characteristics which are found in American architecture and stone masonry structures are listed below. These characteristics are NOT exclusive to historic Euro-American structures. Some Native American chambers have some of these characteristics. This creates a gray zone for interpreting some chambers. These characteristics should be treated as a minimum set of criteria for considering an historic interpretation for a chamber.

Farmers needed to carry bushel baskets or boxes of vegetables in and out of the cellar. Many root cellars were accessed on a daily or weekly basis to get vegetables for the kitchen table or to feed to livestock. The passageway or doorway into the cellar needed to be of a practical size for getting in and out, especially with snow on the ground. Furthermore, in most cases, the cellar needed to be located within a reasonable distance from the house or barn. Evaluating whether a chamber could function as a practical root cellar may offer additional insights into interpreting it.

Stone chambers are occasionally found with metal tool marks from blasting (single long half round hole), plug & feather splitting (half round drill holes spaced 6-7 inches part), and flat wedge splitting (trapezoid shaped holes spaced 3-4 inches part). A single stone with tool marks is likely a later repair job and does not date the chamber nor prove it is historic. (There is evidence that farmers sometimes repurposed Native American chambers and repaired them.) A chamber needs a substantial amount of quarried stone to consider it historic. For example, a chamber with a roof made from quarried stone with tool marks, or with walls made from quarried stone. Quarried stone roofs or walls would indicate it was built after 1740.² A few chambers have mortar. It is important to determine if the mortar was added later (i.e. stonework was “repointed” with mortar) or whether it was part of the original construction. A stone mason can help you answer that question. If the stones were laid in mortar during the original construction then it is an historic structure.

In the vast majority of cases, a chamber with evidence of historic construction will have been built as a root cellar or for some other utilitarian purpose. However, there is evidence that Native Americans continued to practice their traditional ceremonies well into the historic period, including building various types of stone structures. There is a small possibility that a historic chamber may still be a ceremonial structure.

Historic Root Cellar Criteria

Vertical walls – From top to bottom, masonry walls are either vertical or vertical with corbelled upper section. Bottom is vertical with several top layers corbelled. They do not lean inward or outward (except due to structural failure), bulge out, or have other odd non-vertical configurations.

² Blasting (1740-early 20th century), Plug & Feather Method (commercial version 1820-present), Flat Wedge Method (1800-circa 1870). See Gage and Gage, 2005, 2015a.

Straight Linear walls – From one end of the room to the other end, the wall follows a straight line. It does not undulate, bulge out, or follow an irregular line.

Square corners – Where two walls meet, the corner forms a right angle (90 degrees).

Flat faced – Masonry wall surfaces are flat or semi-flat. The quality of the flat face of the wall varies with the type of stone used, skill of the builder, and effects of freeze-thaw cycle on the wall. Overall, the wall exhibits an intentional attempt to create a neat flat faced surface.

Native America Ceremonial Stone Chamber Criteria

Undulating Walls – walls weave in and out along their lengths.

Curved Walls – wall curves out in a crescent shape.

Irregular Stones – non-descript shapes, sometimes mixed with slabs and blocks.

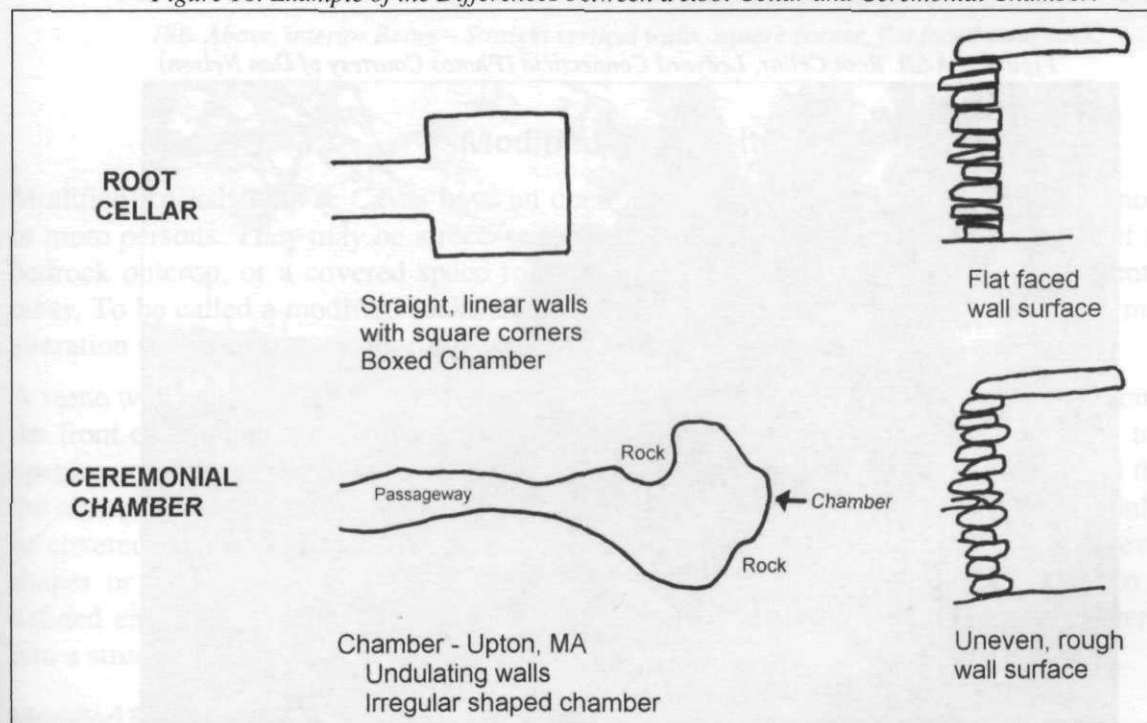
Uneven rough surface – stones jut in and out on the face of the wall.

Irregular shaped interior room – it does not conform to a circular or rectangular or square shape.

For Further Reading

Mary Gage & James Gage, *Stone Chambers: Root Cellars, Ice Houses, or Native American Ceremonial Structures?* *Bulletin of the Archaeological Society of Connecticut*, this volume.

Figure 16. Example of the Differences between a Root Cellar and Ceremonial Chamber.



* Outline of Upton chamber based upon a plan of the chamber by James Mavor and Byron Dix in the book *Manitou* (1989). ** Root Cellar plan based upon photos of an example in Ledyard, Connecticut (next page).



Figure 17. Entrance to the Upton, Massachusetts Stone Chamber.

Figure 18A&B. Root Cellar, Ledyard Connecticut (Photos Courtesy of Dan Nelson).



18A. Above, exterior entrance (Note farm house in background).



18B. Above, interior Room – Straight vertical walls, square corner, flat faced stonework.

Modified Rockshelters

Modified Rockshelters & Caves have an open interior space large enough to accommodate one or more persons. They may be a recessed space or shallow cave under the overhang of a cliff or bedrock outcrop, or a covered space formed by two or more glacial boulders adjacent to each other. To be called a modified rockshelter or cave, the natural formation must have a man-made alteration such as a stone wall, roof stones, or stones added to re-shape the entry.

A stone wall can be used to block one or more of the openings into the interior or be built along the front edge under the overhang. The stone wall can extend from the bottom to the top of the opening, or extend from a $\frac{1}{4}$ to $\frac{1}{2}$ way up leaving an open space between the wall and the top of the shelter. A large crevice in an outcrop or the space between two parallel glacial boulders can be covered with roof stones to form a chamber-like space. An entrance can have stonework that shapes or narrows the width of the entry into the interior. The stone walls help to create a defined enclosed space within the shelter. These modifications convert the rockshelter or cave into a structure similar to a stone chamber.

Modified Rockshelter Criteria

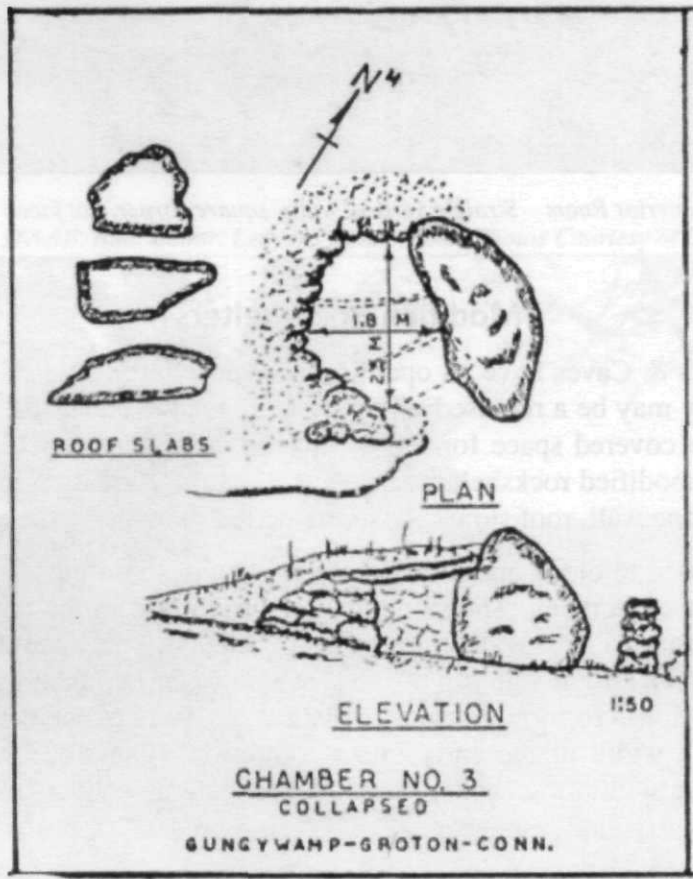
Shallow cave or covered spaced formed by glacial boulders.

Natural feature is modified with man-made alterations.

Figure 19A&B. Native American Chamber – Gungywamp Chamber #3, Groton, Connecticut.



19A. The chamber incorporated a large boulder into its construction (roof has collapsed). It has a curved (crescent) shaped side wall (Photo by Ted Hendrickson used with permission).



19B. James Whittall's (1976) drawing of the chamber.

- Examples:
- Stone wall partially or completely blocking an opening.
 - Stone wall under the overhang creating an enclosed space.
 - Roof stones over a large crevice or gap between stones.

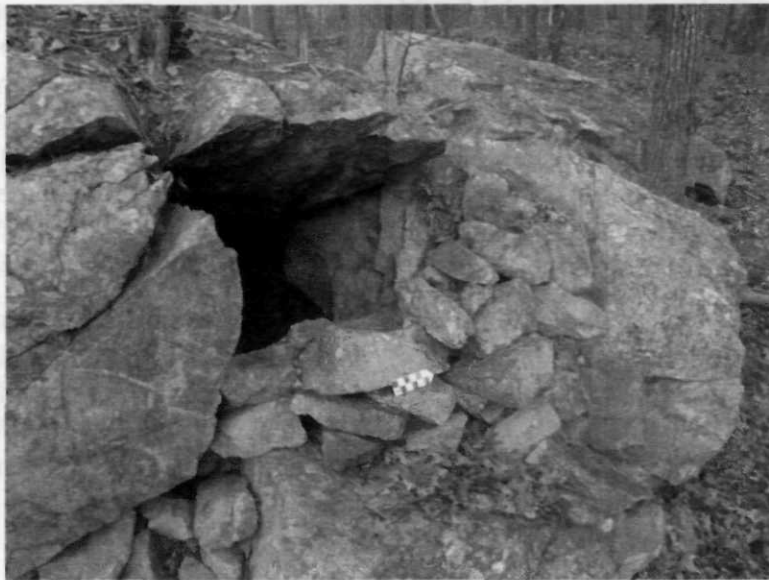


Figure 20. Modified rockshelter with stone wall partially blocking opening, Groveland, Massachusetts.

Stone Walls

Farmers built thousands of miles of stone walls. Native Americans also built stone walls. In most cases, it is impossible to identify Native American stone walls with any level of certainty. Farm and property boundary stone walls have characteristics which can be easily mistaken for Native American walls. Some examples are walls that end at wetlands or go into a swamp, short segments of walls, and walls that incorporate boulders into them.

Stone walls on farms were usually built in segments as time allowed. It could take several years for the whole length of wall to be completed. The uncompleted portion of a crop field and pasture walls was usually fenced with wooden rails. When these fields were abandoned the wooden fencing rotted away leaving lengths of stone wall that end abruptly for no "apparent" reason.

Field and boundary stone walls are sometimes found crossing swampy areas. This can seem odd and illogical. There are a couple of practical explanations. Firstly, the area may have been dry at the time the wall was built. Beaver dams, roads, clogged culverts, changes in natural drainage patterns can all create swamps that were not present at the time of the farm. Secondly, the swamp could be seasonal and the wall was built during a dry period.

Some Native American stone walls intentionally end at or connect to a swamp, stream, or other water sources. This can pose a challenge for interpretation of the cultural affiliation of the wall. It is important to evaluate the overall layout of the wall system in the area. In New England, farm walls rarely follow a strictly square or rectangular grid pattern layout. However, when you do a

sketch map of the walls, you can see an organized system of fields. Often, you will find field walls will run parallel with each other. (If the wall that ends at the swamp has a parallel wall within a few hundred feet it is likely an old farm wall.) Many times there will be entrances in the walls to allow travel between the fields. It can be useful to find a piece of conservation land which was a former farm and walk the walls to get a sense of the farm wall layout.

Some farm stone walls have large glacial boulders or even outcrops incorporated into them. It is tempting to think that these walls may be Native American. Farmers were practical, if a large boulder or outcrop was along the line of the intended wall they would use it and save themselves some time. Native American stone walls will change directions to meet or connect with a boulder. These changes in direction create an irregular zigzag wall with boulders in it. If you find a zigzag wall that has even in/outs then you have a farm wall. Farmers sometimes built zigzag wooden fences (i.e., a Virginia rail fence). Stones were sometimes piled / stacked against the wooden fence and replaced it when it rotted away.

Native American stone walls can be identified by various structures and features built into them. Sometimes one will find a single c-shaped or v-shaped embrasure in the wall ^. This is a Native American ceremonial feature. Other Native American structures found attached or integrated into stone walls include a single notched standing stone, boxed-in and see through niches, and enclosures. **Note:** A stone wall with notched stones spaced evenly apart along the length of the wall is farmer built. The notches once supported a wooden rail.

Serpentine walls have an “S” shape curve to them and look like a snake. They occur as both stone walls and stone rows (a “row” is a wall which is one stone high). Examples have been found with a stone cairn or boulder attached to one end which can be interpreted as the head of a snake. Serpentine walls are a Native American structure and may be snake effigies.

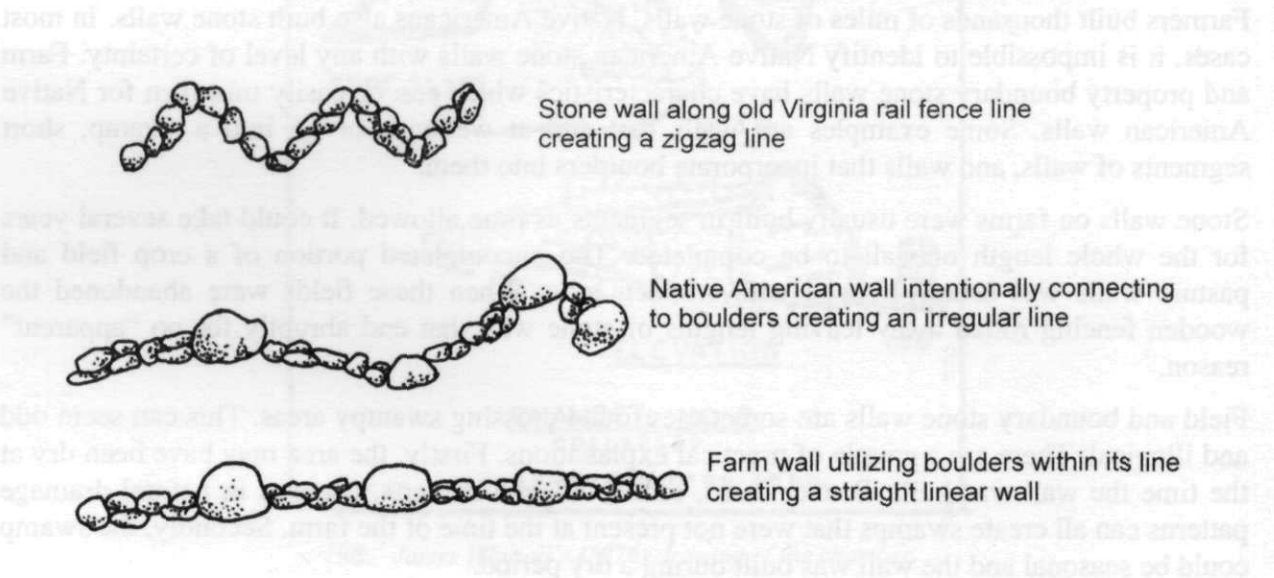


Figure 21. Identification of Native American versus farmer walls.

Farm Wall Criteria

A sketch map or aerial photo shows an organized layout of fields.

There are openings in the wall to allow access to the fields.

May have a stone wall lined “road” leading to the fields called a cow lane or cow path.

May have a wall with multiple notched stones evenly spaced out (about 6 ft apart).

Native American Wall Criteria

Difficult to identify because of extensive farm and boundary walls in the landscape.

Walls that follow a rambling (non-straight) path and link natural features (water source, boulder, crevice in bedrock, etc.) and/or man-made structures together.

Serpentine wall with a boulder or cairn at one end creating the appearance of a snake effigy.

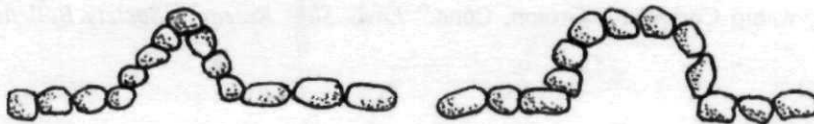
Look for Native American features attached or integrated into the wall:

C-shaped & V-shaped embrasures.

Single notched standing stone.

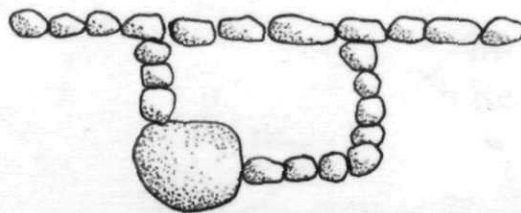
Attached enclosure.

Boxed-in and See-through Niches.



V-Shaped & C-shape Embrasures

Figure 22. Two types of embrasures in stone walls.



Enclosure attached to stone wall

Figure 23. One example of an enclosure attached to a stone wall.

For Further Reading

Mary Gage & James Gage, *A Handbook of Stones Structures in Northeastern United States*. Expanded 1st Edition (2015). Amesbury, MA: Powwow River Books.

– Good illustrations of various types of stone walls, construction methods, wall junctions, and additional features.

James Mavor & Byron Dix, *Manitou* (1989) Rochester, VT: Inner Traditions Inc.

– Discusses the idea of Native American ritual landscapes including the use of walls to link or accentuate natural features.

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