

Acquisition and Archaeology of the Dresden Falls Archaic Site

Arthur Spiess

Maine Historic Preservation Commission

Introduction

This story starts with a phone call in the summer or fall of 2007 from Ed Friedman of the Friends of Merrymeeting Bay (FOMB). Ed said something like: “The Houdlette property in Dresden has been sold, and a gravel subdivision road had been built from Route 128 out to the river.” He was talking about a parcel of land that contains one of the largest Archaic sites in Maine.

The site is located on the Kennebec River near Richmond, just upstream from where the river widens out into Merrymeeting Bay (Figure 1). The site is a former farm field on the east side of the Kennebec River from which many artifacts had been surface collected by avocational archaeologists, including scores of stone tools from the Early and Middle Archaic. And then it seemed that work on a subdivision had started. In fact the new owners, Rick and Wanda Lang, had applied for a permit to put in a road to a possible 8 lot subdivision in June of 2007.

The farmer who had owned the property had never allowed a professional archaeologist to test the site. Although several avocational archaeologists had collected on the site, only the MAS’s Dick Doyle had had his collection from

the site photographed at the Maine State Museum. In Nov. 2007 Dick shared his knowledge of the size and contents of the site with me. Dick is one of the heroes of this story, because his archaeological information on site size and content was critical to starting the effort to preserve the site.

The site itself is an approximately 20 acre field on the east bank of the Kennebec River opposite the north end of Swan Island (Figure 2). This is a large habitation and workshop site, not a burial site. Maine Archaeological Survey site number 25.45 was assigned by Spiess to the site in 1996, again following Dick Doyle’s information. The site has gone by several names: “Houdlette Complex” being used by Bruce Bourque (Bourque et al. 2006:310), and “Allie’s Field” being an alternative name. We are calling the site the Dresden Falls Archaic site to avoid using any landowner’s name.

The Land for Maine’s Future Program

The Maine Historic Preservation Commission (MHPC) archaeology staff have worked closely with the Land for Maine’s Future (LMF) program for 20 years. Until this project, all that



Figure 1. Location of the Dresden Falls Archaic site, on the east bank of the Kennebec River, opposite the north end of Swan Island.

work has been after-purchase assessment of land for the presence or absence of archaeological sites, so that any sites that happen to be present can be avoided and protected. But we could not ask LMF to buy an archaeological site.

Then, in the 2007 legislative session, Passamaquoddy Representative Donald Soctomah successfully worked in the Legislature to pass a

bill to add significant, undeveloped archaeological sites to the list of purchase criteria for LMF spending (recreation, working farms and forests, hunting, fishing, conservation, wildlife habitat, vital ecological functions, and scenic beauty). So we can now work to protect specific, significant sites that are also undeveloped and may also have significant wildlife, botanical, or water access values. The Dresden Falls Archaic site is the first archaeological site purchased.



Figure 2. Dresden Falls Archaic site occupies the field in the middle of the photograph, looking east. Subdivision access road and garage on site visible, ice in the river. Aerial photograph from helicopter, courtesy of Ed Friedman.

For each LMF land purchase, there must be a sponsoring state agency, and that sponsoring agency's staff does a lot of the work. The MHPC is the sponsoring State Agency for archaeological site purchases using LFM funding. I have not calculated my time contribution to this project, but it has been at least five or six months of time spread over four years.

The Land Purchase

Houdlette is an old family name in Dresden, and

it appears on the USGS topographic map. The farmer (Philip Houdlette) had passed away a few years ago. His property had been subdivided into three lots of about 30 acres each, each one long and thin with frontage on Route 128 and on the Kennebec River. One of the Houdlette siblings (heirs) sold most of his land to Rick and Wanda Lang in 2006. The Langs had owned and run a trailer park, which they had sold to buy the Houdlette parcel. Their dream was to subdivide, build their dream house on the river, and sell off the other lots. Rick



Figure 3. Four lot subdivision plan superimposed over aerial photograph of the property. Note the access road and garage location. Lot 4 in this plan comprises much of the Dresden Falls Archaic site. Another version of the subdivision plan has Lot 4 divided into four lots, making 8 total.

Lang had been a code enforcement officer for various regional towns and so he knew the ordinances and State laws for building and subdivision. He was also quite handy with a small Kubota tractor that he owns.

Rick Lang and a surveyor developed subdivision plans (variously 4 or 8 lots), and Lang had a subdivision gravel road built to access the lots (Figure 3), and started clearing brush on the river front piece where he wanted to build a house. He had a drilled well put in, brought in

power along poles to the lot corner (Figure 4), built a two car garage and workshop on a concrete slab which was right in the middle of the dense part of the archaeological site as it turned out, and dug a narrow trench and ran a 70 meter long power cable underground from a power pole to the garage. At the same time, he filed his subdivision plan with the Town of Dresden and asked for Planning Board consideration. This subdivision was too small to trigger State level review, so it was a Town matter.



Figure 4. Power pole and powerline trench partially filled in, looking west to the garage on site.

This was the state of affairs when I got the call from Ed Friedman of FOMB in 2007. Spiess wrote a letter to the Dresden Planning Board stating that there was an archaeological site on the property that was probably significant, and that no construction should proceed without prior archaeological data recovery excavation. At the same time, Ed Friedman announced that FOMB would fight the subdivision, in keeping with their general principles of trying to limit development around Merrymeeting Bay and to protect its water quality.

Spiess first met with the Langs in the fall of 2007, and found out that they had been unaware of the archaeological site on their dream home location when they had purchased the property. Rick took a real interest in the archaeology, ended up making a surface collection of artifacts, and made it clear that we could come do archaeology (with our money) at any time. The Langs also gave us their support, in writing, for an application to the LMF Board for a grant for part of the money to acquire part of the property. They were, in the language of the LMF program, a willing seller, at least for part of the property.

Contacting Andy Stout of The Archaeological Conservancy (TAC) in the fall of 2007, we agreed that this would be a good joint project. TAC could own the land and the MHPC would hold an archaeological conservation easement, or a Preservation Agreement, as the State of Maine's interest. TAC (www.americanarchaeology.org) is a nationwide land trust dedicated to preserving archaeological sites. They already own several sites in Maine (including the Brigham site in Milo), and part of the Jefferson complex of Paleoindian sites in New Hampshire.

This work allowed us to write and file a grant application for the LMF Round 5 of funding in March, 2008 (Figure 5). We used what we knew of the site from Dick Doyle's

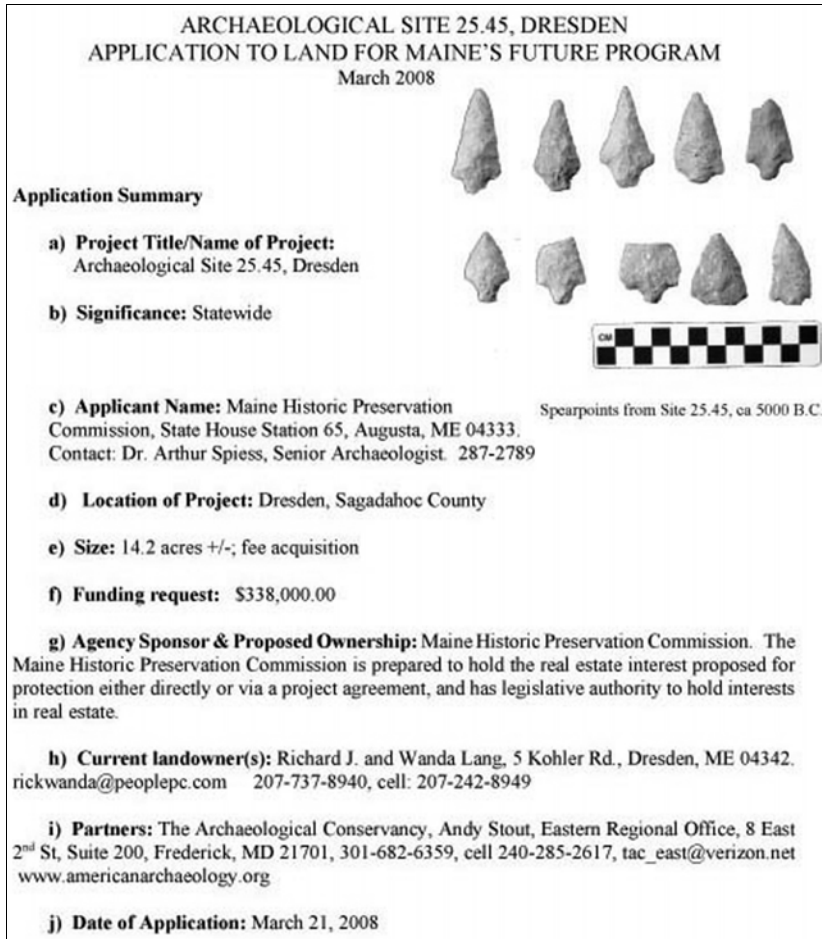


Figure 5. Cover sheet, Land for Maine's Future application.

information, made an educated guess that the project would cost between \$400,000 and \$500,000, and asked the Board for \$338,000. Bruce Bourque wrote a letter of support for the application, as did the Selectmen of the Town of Dresden. Somewhat to my simultaneous surprise, joy, and trepidation at what I had gotten myself into, in May the LMF Board obligated \$228,000 to help fund the purchase, and reminded me that their funding had to be matched with half that amount, or another \$114,000.00.

And we would probably need more than that! TAC, thank goodness, committed \$75,000 to the purchase.

We began a process of two years of negotiations with Rick and Wanda Lang. We needed an appraisal, and the first one came in at \$1/2 million. We needed a survey and boundary description, and a zillion other details. The first appraisal had been done in early 2008. Then, as you may remember, the housing bubble burst in the fall of 2008, the stock market crashed, and the economy tumbled into a recession. Negotiations with the Lang's dragged on, then they advertised the property for sale on the Inter-

net. Of course property in general was not selling. As the winter of 2009/ 2010 moved along, I was resigned to losing the site or simply putting the project on hold.

Enter an unsung hero of this story, and re-enter FOMB. Peter Axelson, a friend of FOMB who lives in Massachusetts and runs a business there, negotiated a purchase of the entire 26+ acres of land, and the garage, for about \$400,000.00. He would act as a willing seller to

complete the deal for part of the land with the LMF Board participation (on roughly half the land toward the river), and FOMB would try to raise the funds to purchase the inland half of the property (which is worth much less), and reimburse Peter Axelson for all his costs, without profit to him. So, Peter Axelson and Ed Friedman are the real heroes of the story.

The LMF Board, FOMB, TAC, and the MHPC purchased 14.2 acres of the site on March 1, 2011, with TAC owning the property. FOMB purchased the inland 12.5 acres from Peter Axelson and turned it over to The Archaeological Conservancy. So, now, the entire 26.7 acres of the Lang parcel is owned by TAC, including the road and garage.

The MHPC holds a Preservation Agreement on the 14.2 acre river frontage, which is the core of the archaeological site. Among other things, the Preservation Easement establishes the fact that permission from the Director, MHPC, and TAC is needed to dig on the site. Digging without this permission is a violation of state law (27 MRSA ss 371-378), punishable by a fine of up to \$1000.00 per day.

That is not quite the end of the story. The up-hill quarter of the original potato field also has some of archaeological site 24.45 on it. It was owned by another Houdlette heir and his wife, who are happy that they are not faced with

an 8 lot subdivision next door. They sold the upper part of the field to FOMB. That parcel, about 5 acres of field, has become Around 2" with LMF funding, and partial funding from TAC and FOMB. At the time of this writing, the closing on the property is imminent, and the upper field will be also be deeded to TAC. The entire Dresden Falls Archaic archaeological site, plus access and road frontage, will be owned and managed by TAC, jointly with MHPC's Preservation Agreement on the archaeological site, and a conservation easement on the biological values of the property held by FOMB.

For the future, TAC will form a local stewardship committee. They intend to include The Maine Archaeological Society and the Town of Dresden, of course. Digs may be run on the property, with the joint approval of TAC and MHPC, but they will have to be funded, properly managed, and the results will have to be integrated into what we know about the site.

Archaeological Results

Let us now turn from the paperwork saga to the archaeology of the Dresden Falls Archaic site. What we know about the age range of occupations at the site comes from Dick Doyle's collection, photographed by Bob Lewis at the Maine State Museum, and one much smaller collection that I saw more recently.

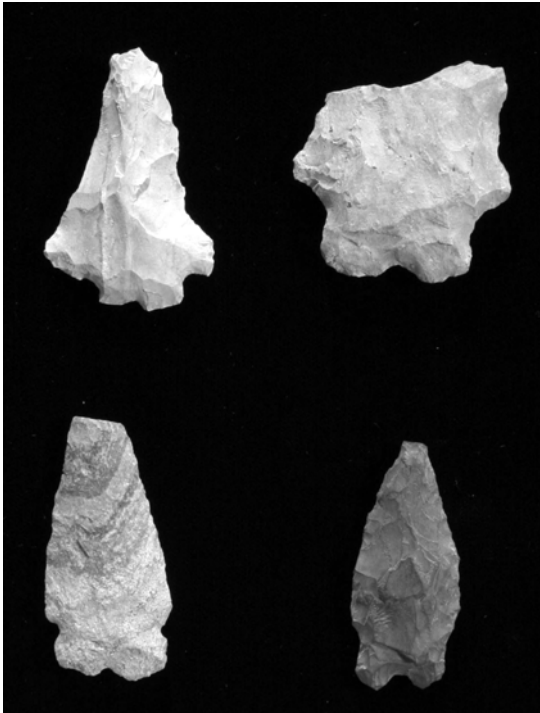


Figure 6. Bifurcate base points from the Dresden Falls Archaic site, Richard Doyle, Jr. collection. Photo courtesy of Richard Doyle.

The oldest points are typologically Early Archaic: large stemmed points and large and small bifurcate base points (Figure 6). Large bifurcate points and the large stemmed points may date to 9000 B.P. Some of the smaller bifurcate points may be as recent as 7800 B.P.

Neville, and Neville-variant points are common on the site (Figure 7). These date between about 7800 and 7000 B.P. in western Maine, notably in the stratigraphic sequence from Rumford worked out by Nate Hamilton and John Mosher (Hamilton and Mosher 2000). Neville and Neville-variant points are quite common around Sebago Lake and west of the Kennebec, but are rare or absent east of the Kennebec drainage. The Dresden Falls Archaic site is the furthest east location where a large collection of these points has been found.



Figure 7. Neville and Neville variant points from the Dresden Falls Archaic site, Richard Doyle, Jr. collection. Photo courtesy of Richard Doyle.

A couple of Late Archaic Laurentian cultures are represented at the site by Otter Creek points and Brewerton series points (Figure 8). We suspect that the entire Laurentian culture sequence from about 6000 to about 4500 BP is present. The latest or most recent recognizable types of stone point on the site are the Brewerton Archaic points (e.g., Figure 8 lower row, center), so the site was apparently not inhabited more recently than about 4500 years ago.



Figure 8. Late Archaic points from the Dresden Falls Archaic site, Richard Doyle, Jr. collection. Photo courtesy of Richard Doyle.

Stone tools related to these Archaic occupations include stone rods (Figure 9), presumably whetstones for sharpening bone and stone gouges and other ground stone tools. One of these stone rods has an expanded end, a type that dates to the Early or Middle Archaic, such as from the Table Land site in New Hampshire or the Richmond-Castle site near Ellsworth (Robinson 1992:90, 2006; Cole-Will and Will 1996). Fragmentary stone gouges, celts and adzes are present. Ground slate ulus or semi-lunar knives (Figure 10) are Middle or early Late Archaic in age, and are present on the site.

There are also lots of high-backed quartz endscrapers (Figure 11), a tool that Maine archaeologists have learned is commonly present in all sorts of Laurentian Archaic and earlier Archaic cultures, including the Gulf of Maine Archaic (Petersen 1991:76-77; Petersen and Putnam 1992).

Professional archaeological testing on the Dresden Falls Archaic site so far consists of examination of the walls of the power line trench, and a week of formal testpit excavation by the MHCP crew in 2008 (Figure 12), at the



Figure 9. Stone rods from the Dresden Falls Archaic site, Richard Doyle, Jr. collection. Photo courtesy of Richard Doyle.



Figure 10. Ground slate ulu fragments from the Dresden Falls Archaic site, Richard Doyle, Jr. collection. Photo courtesy of Richard Doyle.



Figure 11. Quartz scrapers (and one rhyolite scraper) from the Dresden Falls Archaic site, Richard Doyle, Jr. collection. Photo courtesy of Richard Doyle.

invitation of Rick and Wanda Lang. The work was funded by the MHPC. We excavated about seventeen 1 x 1 meter squares. Spiess and FOMB also did one day of testpits excavation on the abutting property at the uphill portion of the field in 2010, excavating twenty-six 50 x 50 cm testpits. Thus, professional archaeologists have excavated about 25 square meters and examined about another dozen square meters of area along the walls of the powerline trench, say 40 square meters of underground testing. This is on a site that covers about 20 acres or about 80,000 square meters; so, approximately.05% of the site area has been tested.

In June, 2008, Rick Lang had re-excavated the 70 m long, narrow trench (50 cm wide) to the depth of the powerlines (65 cm) and had shut off the power, allowing us to examine the trench walls. The backdirt spread on each side of the trench yielded a surface collection of stone artifact fragments, fire-cracked rock, and calcined bone fragments. Soil stratigraphy in the trench included a 25 cm thick, red brown silty sand plowzone over layered silty fine sand and coarser, water-laid deposits. We learned that the landform was constructed of glacial outwash, with perhaps alluvial flood deposition over the outwash, with everything subsequently plowed to a depth of 25 to 30 cm.

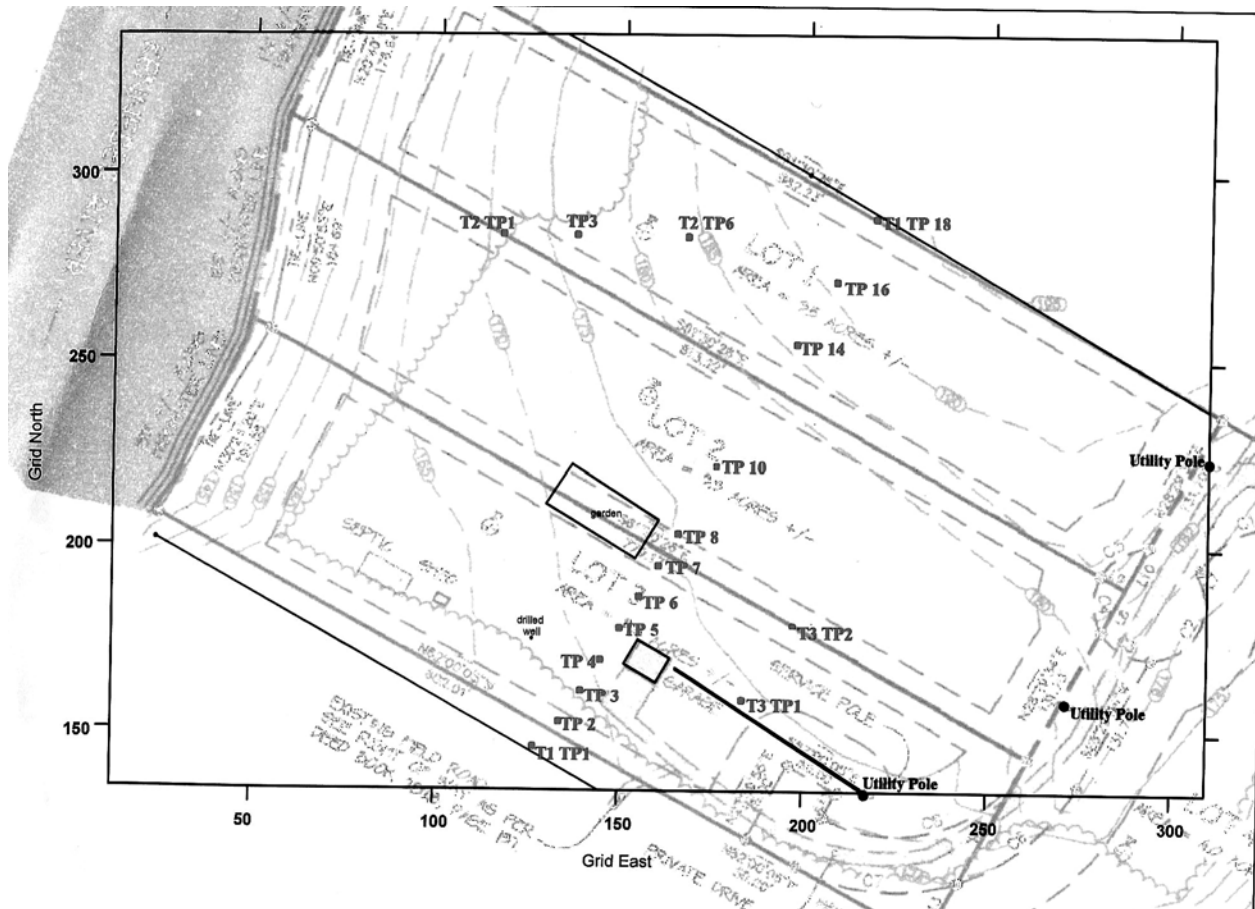


Figure 12. Testpit locations, 2008 MHPC testing, overlaid on subdivision lot plan.

We encountered two features in the power-line trench walls (Figure 13). Both features were clearly the bases of pits that had been backfilled with charcoal and other organic trash, then disturbed at the top by the plowzone. Lab flotation of two gallons of feature fill returned wood charcoal, white quartz chipping debris, calcined fish bone and one piece of fire-cracked rock. This work confirmed that features survive below the base of the plowzone, and thus confirmed that the site was definitely significant.

The base of Feature 2 yielded enough wood charcoal to split the sample in half and send half for an accelerator radiocarbon date: 6130 ±40 B.P. (Beta-246083, C13/C12 -23.6), which calibrates to between 5210 and 4950 cal B.C. The remaining charcoal was identified (see below).

As mentioned above, the MHPC crew did a week of testing in August, 2008 (Figure 14). We excavated 17 meter square test units, 12 in a line extending north from the treeline, past the

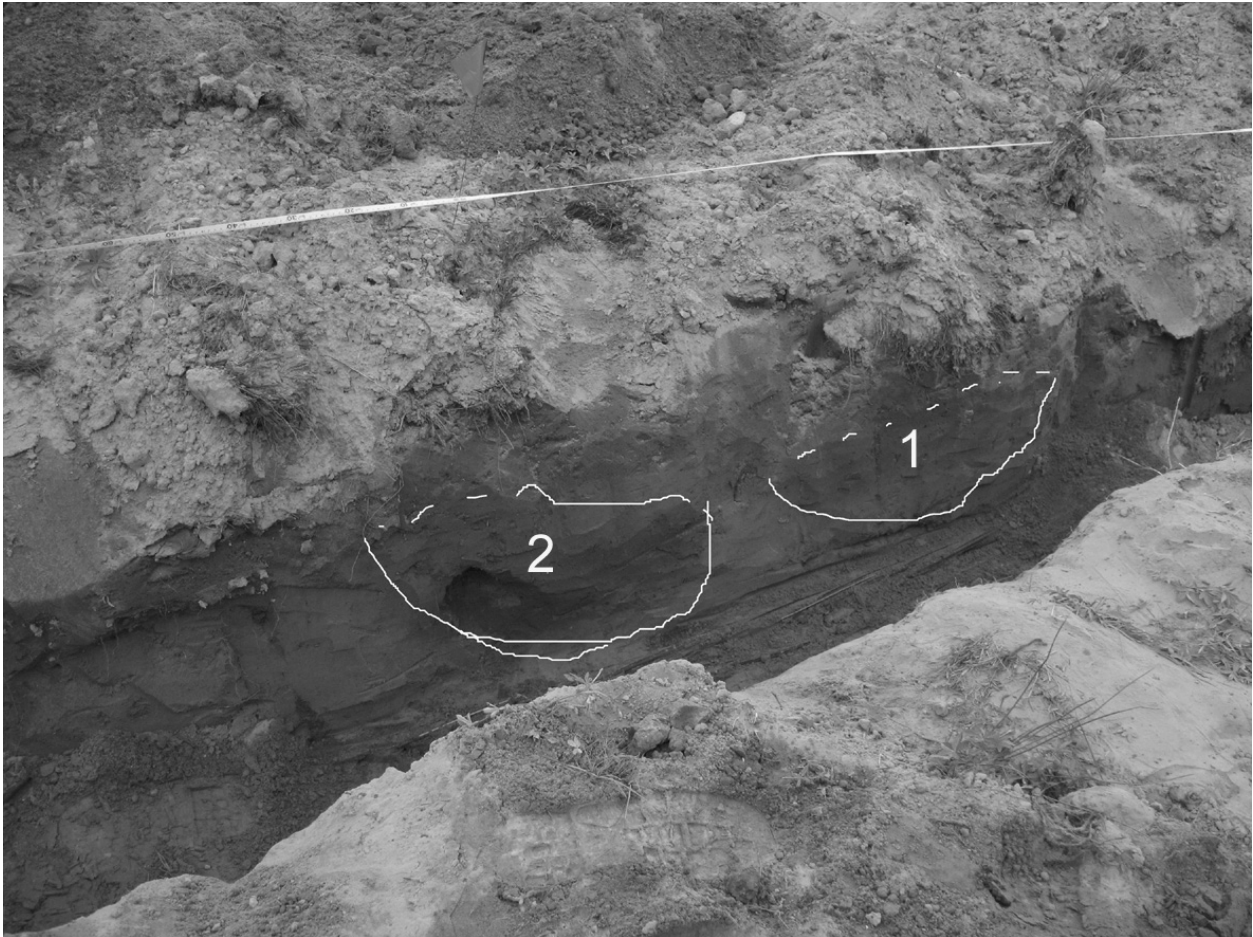


Figure 13. Features 1 and 2 (highlighted) in the powerline trench side wall, June, 2008.

west end of the garage and uphill to the property boundary. We collected enough elevation data for a sketchy site topographic map, and surface searched all soil exposures. The latter work confirmed that a light scatter of quartz and fire-cracked rock extended eastward, across the s-curve in the access road and down toward a small stream gully that would be the eastern limit of the land we really wished to acquire.

A plowzone of various depths and complexity was encountered in each unit, mostly shallow (about 25 cm). We encountered five prehistoric features below the plowzone in four meter squares in the densest part of the site near the garage (Figure 15; Test pit 8, features 4, 4A and 5). There is some fire cracked rock associated with some of the features, but whether they are fireplace bases or trash pits, it is hard to say. Some of the features were excavated, and some were left in situ for later work.

Acquisition and Archaeology of the Dresden Falls Archaic Site



Figure 14. Maine Historic Preservation Commission transect of testpits, looking north (uphill). Testpit 7 in the foreground.



Figure 15. Testpit 8 looking north. Features 4, 4a and 5 partially excavated.

We recovered a Neville point base from the plowzone subsoil interface, ground slate fragments, adzes, biface fragments, lots of quartz and chipping debris. Although the powerline trench had been filled in, piles of backdirt remained. Liz Trautman of the MHPC and volunteer Martha Spiess systematically screened the powerline trench backdirt, recovering many more fragmentary stone artifacts and larger pieces of calcined bone. We found enough to know that Dick Doyle's surface collection is representative of what is in the ground.

There is a lot of calcined bone on the site, most of it apparently from fire hearths used during the Archaic occupations (Figure 16). The bone is in the plowzone, sometimes exposed on the surface, and present in the feature fill. The bone in the plowzone must have originated (mostly) in feature fill that had been plowed up. Calcined bone identifications from the site include striped bass vertebrae and skull bone, sturgeon scute, a salmon vertebra; muskrat arm bone, turtle shell, and a large mammal longbone (probably deer by size). One of the

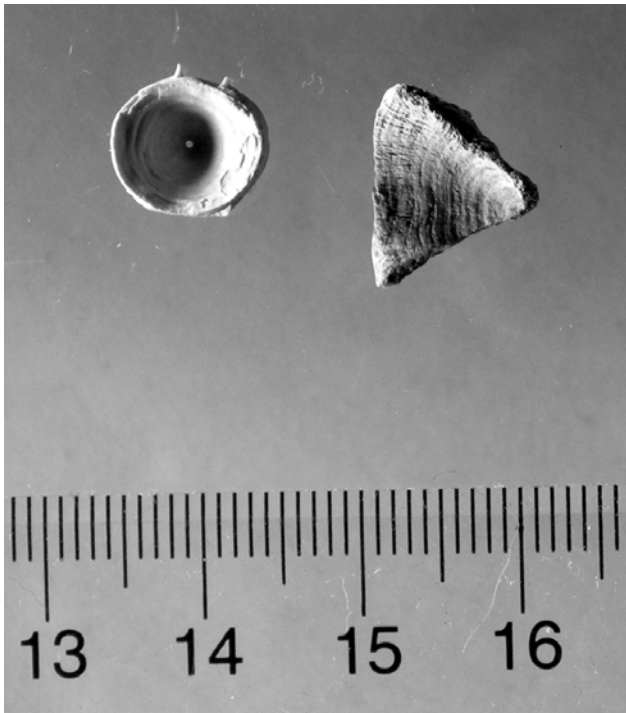


Figure 16. Salmon vertebra, calcined fragment from Dresden Falls Archaic site, at right. This is approximately 1/4 of the circumference of a round vertebral centrum. Modern salmon vertebra from approximately 6 to 8 lb fish at left. Millimeter/centimeter scale at bottom.

striped bass vertebrae is equivalent in diameter to a 15 kg (30 plus pound fish). One of the salmon vertebrae is 2 cm in diameter, representing a very large salmon, perhaps 10 to 15 kg (20 to 30 lbs) in size.

Nancy Asch Sidell examined and identified charcoal samples from Feature 2 (the one with the radiocarbon date) and three other features. Species identified include maple, birch, hawthorn, beech, ash, hornbeam, oak, elm and white pine. The hardwoods dominate the sample.



Figure 17. Fired clay object recovered from feature fill during floatation processing. Note grass or reed impressions.

There were a few pieces of acorn, but no other nut shell. At least for the season(s) people used the site, nut harvesting was not a focus of their economy. Fishing was the economic focus. The surrounding forest was hardwood dominated.

During the feature fill floatation we recovered a curious clay object from Feature 3 (Figure 17). This may represent a fortuitously preserved cast of what would normally be a perishable artifact. It is a thumb-sized piece of clay that comes to a point at one end. There is no temper added to the clay, and it had been baked hard in a fire, perhaps accidentally. The exterior bears impressions of large grass stems or small reeds. They seem to be partially aligned with the point of the object, but are not part of a woven object such as a reed mat. (There is no hint of regular warp/weft spacing). The

flattish end seems to have a rough surface on it, an impression of some other sort of material. There are no Native American ceramics appearing on the site, so this can't be a clay pot manufacture scrap. We are just guessing, but perhaps this is a piece of a much larger clay and straw wrapping that was used to bake a fish on coals or in an earth oven. Such baked artifacts of course would have been destroyed by the plowing to the depth of the plowzone base.

The Dresden Falls Site and Fishing

The Dresden Falls Archaic site was a major focus of at least seasonal activity for 4,000 or 5,000 years, from roughly 9,000 to roughly 4,500 years ago, then ceased to be used. We will be able to reconstruct the local forest vegetation cover from feature fill charcoal. We already know that fishing, including fishing for seasonal anadromous fish, was a major focus of the occupation. In fact, the huge size of the fish will be an important contribution to understanding early and mid-Holocene ecology on the Kennebec River.

At the time of site occupation, the site was adjacent to a falls in the river. Relative sea level has been rising, though actually the coast of Maine bedrock has been slowly sinking, since the end of the ice age. So the influence of tidal water has slowly crept inland along our estuaries. Merrymeeting Bay did not feel the

early effects of tidal action until about 5,000 B.P. or afterward, based only on the general Maine coastal sea level rise curve (ref). There are no specific geological studies of the flooding of Merrymeeting Bay which would provide more precision on timing and more detail (Daniel Belknap, personal communication 2011). With lower sea level and no tide, what is now the shallow river channel on the west side of Swan Island would have been fresh water marsh or dry land. The entire drainage of the Kennebec River was channeled through the narrows between Swan and Little Swan Islands and Goodwin Point.

A falls existed between Little Swan and Goodwin Point, now visible only as bedrock contours on the river bottom (Figure 18), since sea level rise has flooded them. These falls would have been a place where anadromous fish concentrated. Some species, such as sturgeon and striped bass, probably could not surmount the falls. And salmon would have had to pause before attempting to get over the falls. The falls here at Goodwin Point may have been flooded by rising sea level about the time the site was abandoned, maybe 4,500 years ago, and perhaps that is not a coincidence. However, the paleoenvironmental details await further research, both on the site itself and around Merrymeeting Bay.

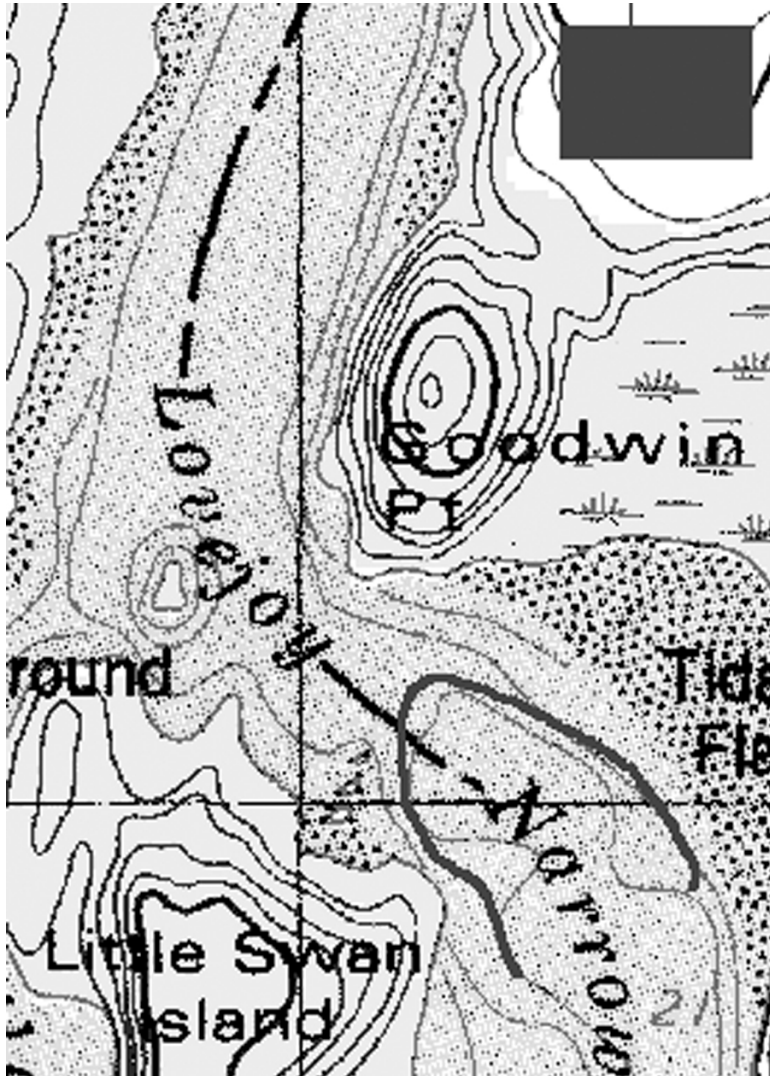


Figure 18. Dresden Falls Archaic site (rectangle) location relative to the (now drowned) falls in the Kennebec River in Lovejoy Narrows just south of Goodwin Point. The falls are indicated by a contour drop around the word “Narrows.”

Conclusions

The Dresden Falls Archaic site seems like an ideal place to teach archaeology and provide volunteer opportunities. The plowzone in

places is heavily populated with artifacts and calcined bone. Excavation of feature fill, and its processing by flotation, is another great learning opportunity. There is so much that we do not know about the millennia before 5,000 B.P., so who knows what we might learn with a decent sample from the site?

However, future work must await several steps. First, we need to complete a summary of the archaeological testing to date, and a National Register nomination. TAC, along with local advisors, needs to work out a management plan for the site, including such issues as parking for a few cars along the gravel access road. Use of remote sensing (ground penetrating radar perhaps) on the site, and high-resolution surveying with GPS to fix the site grid laid out initially in 2008 would be useful. Future excavation should be designed to ask and answer research questions,

although much of the process of excavation (at least of the plowzone) would be a valuable learning/teaching opportunity. A related paleo-environmental program focused on the pre-4,000 year old Kennebec river and its fisheries, and the formation of Merrymeeting Bay, would

be useful. The site is too valuable to start digging without a multi-institutional, multiple researcher, collaborative program.

Acknowledgments

I would like to thank those individuals who played large roles in the acquisition of the Dresden Falls Archaeological Site: (former) Representative Donald Soctomah, Land for Maine's Future staff (Tim Glidden, Steve Brooke, and Jim Connors, now all retired from State service), The Archaeological Conservancy and Andy Stout, Friends of Merrymeeting Bay and Ed Friedman, Peter Axelson, and Richard Doyle, Jr. Maine Historic Preservation Commission staff that completed the week of test excavation include: John Mosher, Leith Smith, William Burgess, and Kaare Mathiasson. We also thank about a dozen volunteers for the Friends of Merrymeeting Bay who turned out on a hot weekend day to test the upper field.

References Cited

Bourque, Bruce J., Steven L. Cox and Robert A. Lewis
2006 The Archaic Period of the Merrymeeting Bay Region, South Central Maine. Pp. 307-340 in *The Archaic of the Far Northeast*, edited by David Sanger and M. A. P. Renouf. The Uni-

versity of Maine Press, Orono.

Cole-Will, Rebecca, and Richard Will
1996 A Probable Middle Archaic Cemetery: The Richmond-Castle Site in Surry, Maine. *Archaeology of Eastern North America* 24:95-148.

Hamilton, Nathan D. and John P. Mosher
2000 Rumford Falls: A Holocene Cultural Sequence in Northwestern Maine. Report on file, Maine Historic Preservation Commission # 3092.

Petersen, James B.
1991 *Archaeological Testing at the Sharrow Site: A Deeply Stratified Early to Late Holocene Cultural Sequence in Central Maine*. Occasional Publications in Maine Archaeology 8. MAS and MHPC, Augusta.

Petersen, James B. and David E. Putnam
1992 Early Holocene Occupation in the Central Gulf of Maine Region. Pp. 13-61 in *Early Holocene Occupation in Northern New England*, edited by Brian S. Robinson, James B. Petersen, and Ann K. Robinson. Occasional Publications in Maine Archaeology 9. MAS and MHPC, Augusta, and the Haffenrefer Museum.

Robinson, Brian S.

- 1992 Early and Middle Archaic Period Occupation in the Gulf of Maine Region: Mortuary and Technological Patterning. Pp. 63-116 in *Early Holocene Occupation in Northern New England*, edited by Brian S. Robinson, James B. Petersen, and Ann K. Robinson. Occasional Publications in Maine Archaeology 9. MAS and MHPC, Augusta, and the Haffenreffer Museum.
- 2006 Burial Ritual, Technology, and Cultural Landscape in the Far Northeast: 8600-3700 B.P. Pp. 341-381 in *The Archaic of the Far Northeast*, edited by David Sanger and M. A. P. Renouf. The University of Maine Press, Orono.