Rectangular Kiln Ruin Found in Rutland County

Finding a charcoal kiln in Vermont is not news. Over 130 kiln ruins and remains have been found in the state in the last three years. But all of them are remains of mound, round or conical kilns. This one is rectangular, which makes it noteworthy. A 19th-century paper on charcoal-making discusses merits of rectangular, round and conical charcoal kilns in New England as well as outside the area, leading to the conclusion that rectangular charcoal kilns should have been a common occurrence in Vermont (Eggleston, 1879:378-85). Accordingly, a watchful eye was maintained for clues to rectangular kilns as part of the continuing IA survey of Vermont, but finally finding one was more accidental than intentional.

On a cold Saturday afternoon, May 3, 1986, Bob West and I were inspecting an area about a mile southeast of Chittenden Village for remains of a "coal kiln", as indicated on Scott's (1854) Map of Rutland County. While we were querying local residents, someone asked if we meant "the old kiln near Leffert's Pond." It wasn't what we were looking for, but since we were having no luck in our search for the 1854 "coal kiln", we followed directions to the site, which led us about two miles east of Chittenden Village along the dirt road that skirts the southern edge of Leffert's Pond. To our surprise, what we found in some low brush was the kiln of a rectangular, stone-built, partially standing charcoal kiln.

Outside dimensions of the ruin (VT-RU-156) are 37 feet long, 16 feet wide and walls generally four to six feet high. One section of wall stands a precarious ten feet high. The kiln is made of stone throughout, insofar as the remains indicate. Insides of the walls are blackened with hard, black pitch. Except for some breakdown outside one end, most of the collapsed stonework has fallen into the kiln; the actual floor of the kiln is hidden beneath many feet of breakdown. The walls are about two feet thick with signs that some mortaring was used. It was common practice not only to mortar the stones in place, but also to liberally coat the outside walls with lime mortar during the burning process to prevent air...
Rectangular Kiln in Rutland County

leakage into the kiln.

Vent holes are visible in the walls in generally horizontal levels starting at the ground and spaced about two or three feet apart up the walls, and the same distances laterally from each other. Dimensions of the vent holes suggest that bricks were used to close the holes, another common occurrence in almost all stone-built charcoal kilns found thus far in Vermont.

Charging and discharging the kiln was apparently carried out at one of the 16 foot wide ends of the kiln, suggested by indications of an opening at that end. Much loose surface charcoal was found outside this opening. A large, flat sill stone is the base of the opening, possibly supporting a ramp from it to the slightly elevated ground adjacent. Also as this end, a two foot wide ditch runs the width and a few feet around each corner of the base of the kiln, probably to keep rain runoff from leaking through the base into the kiln floor.

There is no visible indication how the kiln was roofed. The walls are vertical with no visible reinforcement to support a peak or archtype roof. The roof may have been large, flat sheets of cast iron, removable to facilitate additional charging and discharging access. The only significant piece of hardware found, a section of railroad track rail sticking up through some stone wall breakdown outside one end of the ruin, further hints at a flat (or slightly slanted) iron roof supported by rails, spanning the tops of the walls across the width of the kiln. But there might not have even been a structural roof. The top of the kiln could have been left open and the cordwood covered with wet leaves and coal dust, another common occurrence and one similar to covering techniques employed in older moundtype kilns. There is insufficient stone breakdown inside the ruin to justify speculation of a stone arch roof to the kiln.

In his report on charcoal kilns, Eggleston described rectangular charcoal kilns in New England measuring 12 to 15 feet wide, 40 to 50 feet long and 12 to 15 feet high. Capacity of the kilns was 55 to 70 cords of wood. These kilns, however, were described as having been made of brick, with arch roofs, and with walls supported on the outside with vertical wood beams. Cast iron rods were tied at the bottoms and tops of opposite beams and the rods run through the inside of the kiln. There is no evidence of that type of construction/reinforcement at this kiln site.

The advantage of rectangular over round and conical kilns was its ease, speed, and low cost of construction. Also, larger retangular kilns could be constructed in sections, divided by internal walls across the width of the kiln, so that each section could be operated separately. But savings at the construction end cost at the production end. The square corners made for inefficient burning due to lack of proper venting and air circulation. To avoid the waste of partially charred wood, some operators of retangular kilns didn't stack wood into the corners, thus effectively creating an oval/circular mound of cordwood inside the rectangular kiln.

Child's Gazetteer lists "Benjamin N. Lampman, manufacturer and layer of concrete roofing and pavement, coal kiln, and farmer." (Child, 1881:310.) Chittenden local historian Bert Muzzy confirmed this as the kiln operated by Lampman, making the operating period of this thus-far-unique Vermont charcoal kiln contemporary with Eggleston's description of retangular kilns in New England. The site is on the property of a cooperating landowner and within the proclamation boundary of the Green Mountain National Forest. Later in 1986, we found a second, more recent vintage, rectangular charcoal kiln in Stratton (VT-WD-66), built of modern concrete blocks and operated in the 1950s, however unsuccessfully, by an enterprising Vermonter. We never did find our 1854 "coal kiln" in Chittenden.

References cited:

New Faces at DHP

he enrolled for graduate study at the University of Maine, where he is a candidate for an MS degree in Quaternary Studies. He supervised several excavations in Maine before moving to New York to direct a project for the Rochester Museum and Science Center.

Dave became the Division's Survey Archeologist in August 1986. His responsibilities include preparation of archeological narratives for the State Comprehensive Plan, preparation and implementation of a five year archeological survey plan, maintenance of the State archeological inventory, management of underwater resources, and review and evaluation of compliance-related archeological reports to ensure federal guidelines are met by various consultants.

Dave would like VAS members to contact him in regard to new site locations. He also looks to members to keep watchful eyes on known archeological sites and to contact him.
immediately should signs of vandalism occur. Through VAS members and landowners, it is the Division's intention to thwart such destructive activities as they become known.

Cindy Cook and Dave Skinas can be contacted by phoning 802-628-3226, Monday through Friday, between 8:30 and 4:30, or writing: Division for Historic Preservation, 58 East State Street, Montpelier, VT 05602.

VR

Membership List, 4-3-87

We did it again! The last issue of the NEWSLETTER contained an old dues schedule ($5 "individual" instead of $7.50). Many of you took advantage of it and got an unexpected bargain (1976 rates). You can make up for it next year by becoming a "Contributing" member.

Please read this information carefully before looking through the membership list below. The first column shows membership year paid. If it says 87 in front of your name, you are paid up for this calendar year; if 86, you owe dues for 1987. If it says 86, you owe dues for two years. If your dues are not paid by the Spring Meeting, your name will be dropped from the mailing list. WE HOPE YOU'LL OPT TO MAINTAIN YOUR MEMBERSHIP.

The second column contains a code letter for your type of membership. At the request of many members, each name gives place of residence. Life members are listed in bold type. The code for type of membership is: I=Individual, F=Family, N=Institutional (non-profit), S=Student, J=Under 18, C=Contributing, X=Exchange (other societies), L=Life.

If our record of your membership does not agree with yours, please contact the Treasurer (Joe Popecki) at Box 663, Burlington, VT 05402-0663 or call 802-685-2000, ext. 2401 (days).

86 I Jules Atel (Bangor, ME)
86 I Roger Ashton (Cambridge, NY)
85 N Bailey-Howe Library, UVM (Burlington)
86 I Louise Basa (Schenectady, NY)
86 I Will. Bayneather III (Boston, MA)
87 C Armand Beilue (Williston)
86 I Jan Bender-Lamon (Grand Isle)
86 I Kristine Blaney (Randolph Ctr)
86 I Eric Bowman (Rochester)
86 I Marjory Breston (Danby)
85 I Deanna Brightstar (Fairfax)
86 I Richard Brousseau (Hartland, Four Corn)
86 I Cathy Brown (Colchester)
87 I Michele Butterfield (Burlington)
87 S Lilian Baker Carisle (Burlington)
86 I Bob Carpenter (Bristol)
86 I Daniel Cassedy (Binghamton, NY)
86 I Rachel Cogbill (Plainfield)
86 I Arthur Cohn (Fairfield)
87 I Cynthia Cook (Montpelier)
87 S Grace Cook (East Montpelier)
86 J Sarah Cook (South Burlington)
85 F Frank & Lyn Cowan (Rochester, NY)
86 C Fred & Joan Cowan
85 T Kevin Crisman (Montpelier)
87 S Arlene Cummings (Barre)
86 C Joyce Daniels (Essex Junction)
86 I Kevin Dann (Huntington)
87 I James Dawson (Peru, NY)
87 S Gordon Day (Ottawa, Ontario)
85 I Richard DeBones (Middlebury)
86 I Mark Desautels (Colchester)
86 S Warren Dexter (Rutland)
00 L Scott Dillon (Milford)
86 I Prudence Doherty (Westford)
86 I Elizabeth Dunbier (Burlington)
86 I David Dubrul (Colchester)
00 X Eastern States Archaeological Fed (PA)
86 F John & Judith Farmer (Stowe)
86 I Muriel Farmington (Wildes)
86 F H & M Francis Fenn, Jr. (Brownsville)
86 I Bruce Flewwelling (Rochester)
86 I Michael Folsom (Boston, MA)
87 I Barbara Formichella (North Williston)
86 I Douglas Frink (Westford)
87 F Priscilla Gadsdenhi (White River Jct)
86 I Suzanne Gallagher (Lyndonville)
86 I Paul Garrett (Richmond)
87 C James Griffin (Milton)
85 I Nathan Hamilton (East Holden, ME)
86 I Jane & Lucien Lanks (North Bennington)
87 I David Hardy (Keene, NH)
00 L William Haviland (Jericho Ctr/Burlington)
86 I Mike Heckenberger (Burlington)
86 I James Heller (East Montpelier)
85 I Bird Wilson Hether (Putney)
85 I Thomas Hemmings (West Newbury)
85 I Shelley Hight (Bennington)
87 N Hillman Lib., Univ. of Pittsburgh.
85 I Billee Hoornbeek (Laconia, NH)
87 S Carleton Howe (Manchester)
86 I Charles Hudson (Cambridge)
87 S Jewell Peterson Hunter (Middlebury)
87 I Eleanor Johnson (St. Johnsbury)
87 S Arthur Johnson (Menands, NY)
86 I Carolyn Peebles Kerson (Manchester Ctr)
86 I Nancy King (Burlington)
86 I Kenneth Klingler (Cabot)
86 I Geraldine Kohon (Williston)
87 S Edward Krause (Fort Ann, NY)
85 I Laureen Labar (Farmington, ME)
86 I David Lacy (Greenfield, MA)
85 I Margaret Lambeth (Hyde Park)
86 I Harriet Lange (Stowe)
86 I Gage Lawrence (Richmond)
85 I Thomas Lawrence (****)
87 S Charles Leeuw (Colts Neck, NJ)
87 I Chester Liebs (Burlington)
87 I Edward Lenick (Wayne, NJ)
86 C Anna Lind (Burlington)
86 I Charles Lord (Plattsburgh, NY)
85 I Kelly Lord (Colchester)
86 I Stephen Loring (Chatham, SC)
86 I Anthony Lubold (Randolph)
00 L Richard Malouf (Rolla, MO)
87 F Lee E Barbara Marion (Poultney)
85 I Andrew Marshall (Charlestown)
00 X Massachusetts Archaeological Soc
86 J W Mc. Matthew (Burlington)
The Vermont Archaeological Society

Spring Meeting 1987
April 25

Program

Odd Fellows Hall, 214 Main Street  St. Albans, Vermont

10:00-10:30  REGISTRATION
            $1 Registration Fee.

10:30-12:00  PRESENTATIONS
            Welcome, by President Prue Doherty.
            Presentations by Giovanna Peebles and Peter Thomas.

12:00-2:00  LUNCH
            TOUR of Franklin County Historical Society Museum.
            (Information about the Tour will be available
            at the meeting.)

2:00-4:00  PRESENTATIONS
            Vic Rolando, Scott Dillon.

LUNCH  Chicken and biscuits, salad, dessert and beverage. The
       meal will be catered by the Rebekkahs at the Odd Fellows
       Hall, 214 North Main Street, St. Albans. The cost of
       lunch is $6 and is available only by reservation. (See
       page 5.)

SPEAKERS  * GIOVANNA PEEBLES, State Archeologist.  "A Decade of
          Cultural Resource Management in the Missisquoi Valley."
          * PETER A. THOMAS, Director, Consulting Archaeology
            Program, UVM.  "Life Along the Missisquoi River, 9000 to
            6000 B.C."
          * VIC ROLANDO, Society for Industrial Archeology.  "An
            Overview of Selected Industrial Archeology Sites Along the
            Missisquoi."
          * SCOTT DILLON, Consulting Archaeology Program, UVM.
            "VT-FR-140: The Rest of the Story- 6000 B.C. to A.D.
            1600."

Archeological artifacts will be displayed and books and VAS T-Shirts will be on
sale.

For information on how to reach the Odd Fellows Hall, and how to make lunch-
eon reservation, see p. 5.
3 Membership List

87 I Martha McClain (Randolph)
87 J Scott McLaughlin (Jericho)
86 I Robert Mead (East Arlington)
86 N Middlebury College Library
86 I June White Miller (Hudson, MA)
85 I Barbara Mills (Hartland)
87 I John Moody (Sharon)
86 F M & K Keith Morgan (Fairfax)
87 I Ronald H. Morgan (Milton)
86 C William Murphy (Middlebury)
86 F Sharon Murray/Robt Fett (Burlington)
87 I Manjorie Napoli (St. Albans)
87 I Stephen Nelson (Providence, RI)
87 C Graham Newell (St. Johnsbury)
00 X New Hampshire Archeological Soc.
87 I Gordon Nielsen (Hinesburg)
86 I William Noel (Burlington?)
86 N Norwich University Lib. (Northfield)
85 I Stephen Oderon (Trenchay, NC)
87 I Herbert Olson, Jr. (Proctor)
86 T Elkanan Ott (Cataraqui)
86 I Lauren Kelley Parren (Hinesburg)
00 L Samson Partridge (Proctor)
86 F Philip & Mira McPeak (St. Albans)
86 I Giovanna Peebles (Montpelier)
87 I Charles Paquin (Farmington, ME)
86 I James Petersen (Farmington, ME)
86 F Jeanne and Joseph Popeck (Burlington)
86 I William Potts (Pittsford)
86 I Marjory Power (Underhill)
86 I Douglas Reeves (Fairfax)
86 I Dave Richmond (Essex Junction)
85 I Sherry Riley (St. Johnsbury)
86 I Joslyn Robinson (Burlington)
87 C Vic Rolando (Pittsfield, MA)
00 L Frederick Royce (North Ferrisburg)
87 S Donald Russell (Rutland Town)
85 I Rutland Historical Society
87 I Barbara Sager (Wolcott)

Don't Miss "Prehistory and the First Inhabitants" Series

The University of Vermont's Center for Research on Vermont has been offering a major series, "Lake Champlain: Reflections on Our Past: a Celebration." Maxie Ewins, M.C. Reception follows.

Luncheon Reservation

Since lunch is catered, a reservation is necessary. Please call now or send in the form below to VAS, Box 663, Burlington, VT 05402-0663. Phone Prudence Doherty or Scott Dillon at 802-656-3029 (days) or 802 878-0236 (evenings).

NAME
Number in party:
Phone number:

00 L Robert Schuyler (Philadelphia, PA)
86 S Rosamond Sheldon (Marlboro)
86 I Elizabeth Sincerebeaux (Woodstock)
87 T David Shins (Montpelier)
86 I Julian Skurdeski (Bronxville, NY)
86 F Robert Small (Milton)
00 L Sue Smith (Plainwell, MI)
86 N Sociology/Anthropology, Middlebury Coll.
86 I Faye Snyderberg (Essex Junction)
00 L Anne Felton Spencer (Cuttingsville)
86 I Marielle Squire-Hakey (Glover)
86 I David Starlack (Troy, NY)
85 I John Stearns (Underhill)
87 S Joseph Sullivan (Burlington)
85 S Gordon Sweeney (Bennington)
85 I Cynthia Thayer (Pittsburgh, PA)
86 I Peter Thomas (Richmond)
87 S Enoch Tompkins (Shelburne)
86 N U.S. Forest Service (Rutland)
00 L Kenneth Varney (Hampden, ME)
85 I Poliamon Vaughan (Bridgewater Corners)
86 N Vermont Dept. of Libraries (Montpelier)
85 C Richard Ward (Plattsburgh, NY)
85 I John Warren (****)
85 I Faye Women (West Rutland)
00 X Wisconsin Archeological Society (Milwaukee)
87 F N H Jonathan Wood (Woodstock)
87 C Warren Wood (Woodstock)

3 The Odd Fellows Hall

From south: Drive north on Main St. (Rt. 7) to traffic light at Upper Newton St. (Next after Grand Union Shopping Center,.) 214 Main St. will be third building on your left.

From north: after passing Eveready Plant on left and Hungerford Ford on right, continue south on Main St. The Hall is third building on right from the corner with next traffic light.

3 Luncheon Reservation

The University of Vermont's Center for Research on Vermont has been offering a major series, "Lake Champlain: Reflections on Our Past: a Celebration." Maxie Ewins, M.C. Reception follows.

The Library will also offer the exhibit, "Original Vermonters", April 13-May 23.
VAS Awards Grant for Boucher Project

After many years, work on the materials excavated from the Boucher site in Highgate is now moving ahead quickly. Michael Heckenberger, a student in Anthropology at UVM, is undertaking an ambitious and exciting project analyzing and curating the perishable fiber items that were uncovered at Boucher. These fragments of prehistoric textiles have not been recovered from any other sites in Vermont, and are rarely found anywhere in the Northeast. The textiles appear to have been made from plant fibers and animal hairs, and some appear to be decorated.

Heckenberger will use a $175 grant from the VAS to provide photodocumentation of these extremely fragile items. He will produce color slides that can be used for presentations and will also take black and white photographs that will be used to create an archival record of the textiles. The archival prints will be produced and stored in accordance with the latest archival standards. He is being assisted in this photographic project by VAS member Steve Nelson.

Heckenberger will share the results of his study with VAS members in a slide lecture and in a publication in the VAS monograph series.

APPLICATION FOR [ ] MEMBERSHIP OR [ ] RENEWAL, 1987

I subscribe to the purposes of the Society and apply (or reapply) for membership as checked:

Please print or type:

NAME ________________________________

ADDRESS ________________________________

CITY OR TOWN ________________________________

STATE _______ ZIP ________________________________

COUNTRY __________________ PHONE __________________

DATE _______ AGE (If student or senior citizen) __________________

If you want a membership card, include a stamped, self-addressed envelope. You may photocopy this form.

MAKE CHECKS PAYABLE TO THE VERMONT ARCHAEOLOGICAL SOCIETY, INC. AND MAIL TO SOCIETY, BOX 663, BURLINGTON, VT 05402 0663

Vermont Archaeological Society, Inc.
Box 663
Burlington, VT 05402 0663

FIRST CLASS

TO

Giovanna Peebles
P.O. Box 1115
Montpelier, VT 05602

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