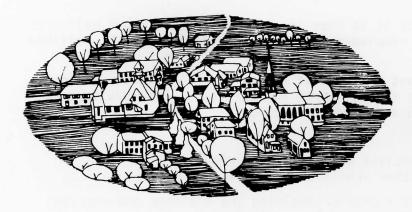
## THE SUTTON HISTORICAL SOCIETY

SUTTON, MASSACHUSETTS



# BULLETIN -VOL.XIX NO.3 OCTOBER 1990

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### A NATURAL FEATURE OF LITTLE PURGATORY CHASM IS RECONIZED AND REPORTED... A POTHOLE

PREFACE- Recently, Joseph Sinnott, State Geologist, whose interest in natures way of creating an unsuspected geological feature after studying a topographical map determined perhaps something unusal had occured in Little Purgatory Chasm. His visit did reveal to his trained observation that a pothole of extrodinary magnitude existed in the smaller chasm. The pothole is approximately 2500' west of the main chasm. His report follows. -EDITOR-

DEFINITION- POTHOLE, A kettlelike or circular hole generally deeper than wide, worn into the solid rock at falls and strong rapids, by sand, gravel and stones being spun around by the force of the current. OR, ... in glaciated valleys made by water plunging through holes in the ice. These are called "moulins" or "mills".

## LITTLE PURGATORY POTHOLE

BY- JOSEPH SINNOTT

During a recent field trip to Purgatory Chasm my attention was directed to an unusual natural feature located in the little Purgatory stream by a neighbor and abutter of the Reservation; John J. Carrol of Purgatory Road, Sutton.

We went off on a cross country traverse to the stream and followed it to a smaller version of the main chasm. Although smaller in size the chasm is formidable with large irregular, angular boulders covered with moss, litchens and moisture soaked logs that toppled into the breach many years ago. The area has not been improved by man since its creation.

At the lower end of the Little Chasm or Little Purgatory two streams converge to form a pool. Overlooking the pool is a bedrock cliff and the vestiges of a large, smooth, symmetrical Pothole. Preliminary estimates of the hole size are: twenty five feet high (deep) by fifteen feet in diameter, (25' x 15').

The causative factor in the creation of the Pothole is physical abrasion of soft rock by a harder one. The abrasive stone creating the chamber is itself worn down and replaced by other larger "grinders" to keep the process going. In active Pothole formation one can reach down to the bottom and pick up the scouring stones.

By way of information - one may bathe or swim in Potholes which are currently in progress (deepening) in the bed of the Sandy River in Kingfield, Maine, or in the Bear River in Bethel, Maine. Others are being formed in the river along the Kancamangus Highway in New Hampshire.

Approaching the Purgatory Pothole it is seen in cross-section with one half missing - destroyed by ice movement? The remainder perfectly formed with smooth, polished curved surfaces.

Many generations of seasonal plant decay, leaf accumulation and surace drainage have left a thick deposit of humus in the bottom of the structure. Some boulders and roots may also be found from cave-ins and slide callapse.

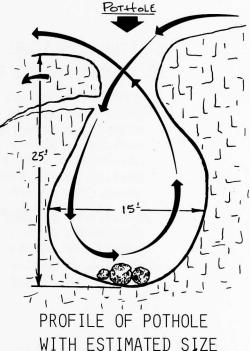
#### IMPACT OF DISCOVERY

It is a site geologists and scientists will initially visit in an effort to resolve its origin by nature and other scholars will follow in the future.

Each will be attempting to solve a puzzle involving the drainage and emptying of a glacial lake to the North. Also, was the release of glacial meltwater the causative mechanism in the formation of the Purgatory Chasm?



LITTLE PURGATORY CHASM POTHOLE



I am certain Doctor R. Lougee of Clark University would have welcomed the find as proof of his glacial research. It is just as certain that other scientists will see this as englacial phenomena.

A water fall of high capacity fed from streams within the ice mass is therefore considered a glacial rather than a post glacial feature. Which will it be?

A final report will be prepared after intensive fieldwork. Do more unreconized land forms exist in the Sutton area?

Bibliography- FIELD GEOLOGY, By Frederic H. Lahee, Ph.d., 1961, McGraw Hill Book Company, Inc., NY

> Note: This is a first time news release of the Purgatory Pothole...a "scoop" for the BULLETIN! -Editor-

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#### EIGHT LOTS SCHOOL REPORT

During the month of September a carpenter, Jim Swart, and a painter, Chet Klewiec (Kelvic)along with a Society member worked on the renovation of the Eight Lots School.

The gable roof end sections were reboarded, beams reinforced and a main spanning beam was resin epoxyed to prevent further decay. Also, a partial insert was applied to a rear sill. The studs and sheathing boards on the rear gable end were replaced. The chipped paint was throughly chipped and wire brushed before a primer oil base paint was applied and a finish coat was put on. Next year a second finish coat should be added. As of now the exteriors of the building are in good condition. The roof should be reshingled next year.

Access to the attic via a small trap door introduced one to a graveyard of deep bat guano sufficient to fertilize a garden. Matched boards covered the floor which seemed unusual in a two hundred year old structure, but presumably laid when the rock wool insulation was installed and the dry ceiling was put up in the schoolroom along with the electric lights. The BX wiring cable was in extremely poor condition and it was a dangerous fire hazard. New wiring and electrical boxes were installed.

Ten desks , each one providing for two pupils each were stored in the attic. The cast iron legs supported a seat and desk top which had a ink well hole in the center. Several of the Association members when when questioned could only recall single desks Evidently when the school was closed in 1896 and reopened in 1911 that the old double pupil desks were replaced by single ones.

Todate, the work and materials have been funded by the savings account monies the Association released to the Historical Society and added to it by the Phyllis MacLaren memorial fund.

Evidence is apparent that a center chimney went through the roof at one time. In the center of the five sided ridge pole is a half section cut out for chimney clearence. There are two charred places in the rafters where they became overheated in time past. Also, there are scorch marks in the middle of the schoolroom floor. The present chimney base rests on flat stones laid across ceiling joists.

The age of many old buildings is somewhat indeterminable unless there is existing historical documentation to date the original structure. Fairly accurate estimates maybe made from features inherent in its construction. Usually without little exception buildings were modified as required over the years. This does complicate the answer as to when it was first built. The Eight Lots School has been modified in the interior somewhat but not the main structure concerning the outer walls and roof. No appendages were made over the life of the building. Its usage as a school remains entirely in character to its intended purpose as established in the community.

A historical research project is ongoing at the present time. Hopefully the question of the original conception of the school will be found.

The photographs presented here with specific data are examples of items which illustrate characteristics of a time period in construction. Consideration must be given to the fact that certain items being in short supply at the time could be utilized over a span of years and therefore for dating purposes should be taken into account. Nails for instance might be of the hand forged type commonly used until about 1795 but may have been pulled out and re-used again.

Looking to the future it is expected that when the Waters Farm Living History program becomes effective the school will be a supportive activity. The environment of a mid-eighteenth century learning experience for the younger generation may have its merits. RING OUT THE SCHOOL BELL LOUD AND CLEAR!!!

Oct. 1990

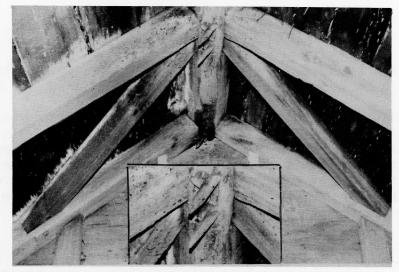


PHOTO "A"

Showing the attic 5-sided ridge pole rafters and wind bracing of ample dimensions. The wooden pegs (tree nails- see insert) are clearly demonstrated in this post and beam frame. Oak is used widely in this frame, roof and roof sheathing.



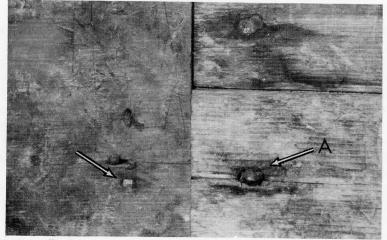
#### РНОТО "В"

The cross light on this roof rafter shows evidence of up and down sawmarks. The oak graining is visable.



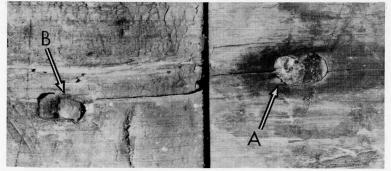
#### РНОТО "С"

The arrow points to a hand forged nail centered between two modern wire common nails. Thus giving evidence to the "original" roof sheathing stll in place as that nail just missed the rafter. It appears much of the original sheathing is still in place. due probably to the good maintenance of roof shingles over the years. Many machine cut nails are visible as well as the modern wire.



РНОТО "D"

Close-up, "a" of hand wrought nails in what appears to be their original location. Note the discoloration surrounding the heads. The board butting next to these "rosehead" nails have a squre head, machine made, and are probably used here in a replacement board.



РНОТО "Е"

Showing how boards were re-used in this building. On the right hand board is a "rosehead" nail , "a", in its original position. The board to the left indicates a "roseheaded" nain impression, "b", in the wood and is replaced later on renailing with a machine made square cut nail.

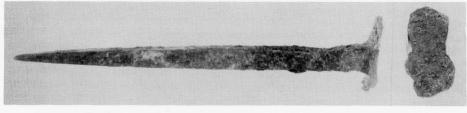


PHOTO "F"

A hand wrought nail with a view of the head. Note the tapering shank and "splay" of the butterfly shaped head.

oct, 1990

#### MONTHLY MEETINGS-

**SEPTEMBER** - The Society met in the Manchaug Baptist Church on September 4, with thirty three present. The Labor Day flea market raised \$635 and this sum combined with the monies from the July flea market defrayed the total cost of reshingling the south side of the Blacksmith Shop. The two men who had shingled the Shop roof will commence work on the renovation of the Eight Lots School on September 5. The Society voted to loan several farm items to the Waters Farm Day exhibit. Phillip Whitney offered to repair a corn husker that the Society owns. A letter from Dorothy Hamblin of the Northbridge Historical Society invited our Society to be guests at a joint meeting, April 1, 1991, when Anthony Borgatti of Spags Store will be the speaker. Announcement was made concerning events events in October; 6th,Douglas Tours, 12th, Sutton Tours, and 5th-6th, Waters Farm Day. The program was presented by Stephen LeClaire who showed a video documentary of the Waters family lifestyle of six generations. The historical scenes included local persons in period costumes and the equipment used in its respective eras. The meeting adjourned at 10:15PM.

OCTOBER - The Annual business meeting was held at the Manchaug Baptist Church. A report on the Eight Lots School house renovation was made by Malcolm Pearson who said required wood structual work was completed and the exterior painting was almost done. A detailed report will appear in a November issue of the BULLETIN. Directors elected to the Board until 1993 were; Francis Donnelly, Ralph W. Gurney, Jr., Betty Keene, Stephen L. LeClaire, Myra L. Pearson, and Margaret Ritchie. At a Directors meeting the following officers were elected for one year; President, Malcolm Pearson, Vice President, Daniel Griffith, Corresponding Secretary-Treasurer, Mary Arakelian, Assistant Treasurer, Pennie Linder, Recording Secretary, Janice Smith, Historian, Mary B. King, Curator, Marieta Howard, Assistant Curator, Ruth Putnam. The evening speaker, Mr. <u>Colman</u> narrated the history of shoemaking and merchandizing from 1648 to the present. Meetin adjourned 10PM.

WELCOME TO NEW MEMBERS-

M/M Paul D. Kinney

M/M Charles A Ziegler

IN MEMORIAM-

Fred G. Girard Alice Johnson Dorothy F. Ploch Ann M. Schellschmidt Charles Brown Clarence Elger Luella Gurney Richard Salo Dorothy H, Cook Olive McIntosh Herbert Putnam



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