

Nova Scotia Archaeology Society

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The Board has made the following appointments:

Webmaster	Steve Powell steve.powell@ns.sympatico.ca
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About the Society

The Nova Scotia Archaeology Society was formed in 1987 in response to a growing interest in the province's heritage resources.

Membership is open to all persons endorsing the objectives of the Society. The Society's year runs from September to August. Membership entitles the individual to attend Society functions, vote on Society matters and hold office. The public is welcome at monthly meetings and special events.

Monthly meetings are held at 7:30pm on the fourth Tuesday of the month in the Auditorium of the Museum of Natural History, located at 1747 Summer Street, Halifax. During each meeting, business is briefly discussed, and a guest speaker gives a presentation on a provincial, national, or international archaeological topic. Afterwards everyone is welcome for coffee and conversation.

Throughout the year special events are held, including field trips to archaeological sites, workshops, and special guest lecturers. The Society produces a newsletter and maintains a website for its membership. Special publications of the Society are available to members at reduced rates.

NSAS membership fees are as follows: Individual \$20, Family \$25, Student \$15, Senior Citizen \$15, Institution \$45, and Class (Secondary School) \$45. The Nova Scotia Archaeology Society is a registered charitable organization. You can join the Society at any regular meeting, or by mailing an application form (available on the website), with a cheque for the appropriate amount, to:

Nova Scotia Archaeology Society
P.O. Box 36090
Halifax, Nova Scotia
B3J 3S9

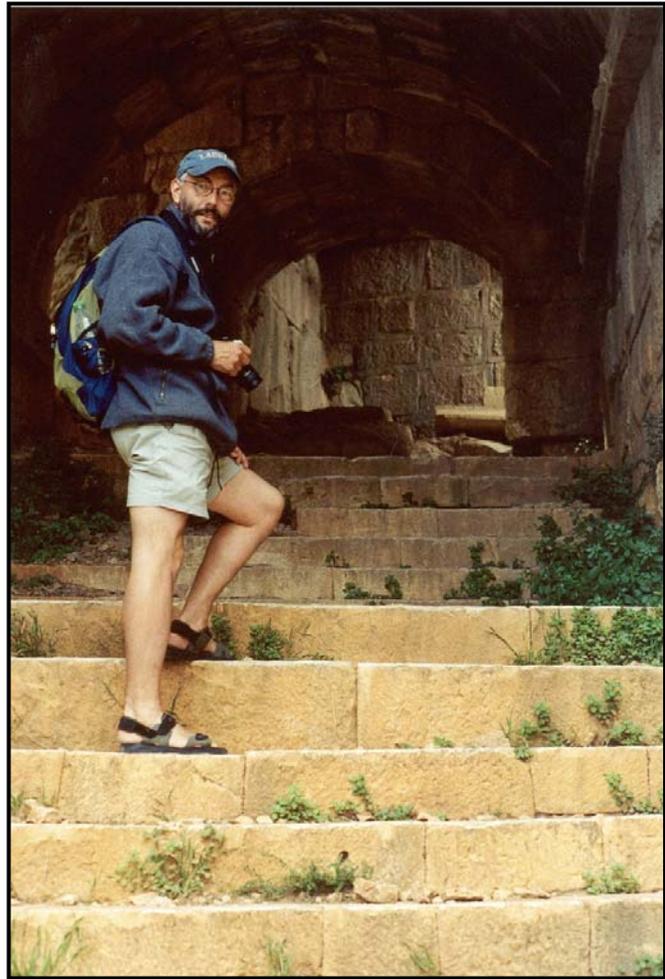
President's Message

As I look out my office window, the snow is gently falling, covering the ice left behind by the brief 'January' thaw we experienced over the weekend. Although the ground is frozen and the shovels and trowels are put away for another season, there is still a lot of exciting archaeological activity underway in the province.

This past Friday, the Nova Scotia Museum hosted the annual Archaeological Workshop for archaeologists active in the province over the past year. Despite a slight drop in the number of Heritage Research permits issued by the Museum in 2002, Museum staff continue to chart an upward trend in the annual number of projects undertaken in the province. This past year witnessed an interesting range of projects including a couple of field schools, the modelling of archaeological potential as part of a pilot program of natural resource management, assessments for proposed residential, highway, golf course and mining developments, the salvage of historic graves exposed by coastal erosion, and a major urban mitigation excavation. In addition, there were a smaller number of underwater projects which included underwater reconnaissance and wreck recording. Based on all indications at the meeting, activities expected during the upcoming year should be just as diverse and interesting.

Speaking of interesting, the Society continues to offer a fascinating range of Public Lectures for members and guests. This past fall our topics included the assessment of urban archaeological resources in Halifax, the recording of siege features at the Fortress of Louisbourg and the identification and interpretation of Mi'kmaq fishing weirs in Southwest Nova. Coming up this winter/spring, our guest speakers will be tackling such topics as the commemoration of interpretation of Mi'kmawey Debert, archaeological mysteries of Nova Scotia, the original Scottish fort at Fort Ann, and students' experiences at the 2002 Grand Pré field school. The society is also planning a couple of field trips: the Parks Canada conservation lab in February; and, the Ross Farm Museum in April. Members, will be updated on specifics via e-mail or snail mail.

Another area of activity in the coming months will be the Society's Advocacy Committee. Over the past few months several issues have come to the attention of the NSAS Executive which we feel warrant some action and lobbying on the part of Nova Scotia's archaeological community. While it is too soon to discuss specifics, we will keep the membership informed as these issues solidify.



In closing, we encourage you to support the Society by participating in the field trips and attending the Public Lectures. And please, be sure to let us know how the Society can serve you.

W. Bruce Stewart
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Do you have any questions, comments,
or concerns regarding the Newsletter?
We'd like to hear from you.

Contact us at:
cchandler@seacorcanada.com
or call Craig Chandler at 420-0040.

J. Duncan McNeill

Recipient of the 2001 *NSAS Friend of Archaeology Award*

Duncan McNeill has been an active friend to archaeology in Atlantic Canada for over fifteen years. During that time he has trained many archaeologists in geophysical surveying for subsurface cultural features, using the EM-38 Ground Conductivity Meter. I first met Duncan in 1987 when I began an archaeological survey for an 18th-century French community at Port La Joye National Historic Site, PEI. The success of his instrument in locating archaeological sites was being highlighted at national conferences, and I was anxious to try it out. I was immediately impressed by Duncan's commitment to archaeology (he spent his holidays in November running the instrument across cold fields on the site), and by his patience with someone as technologically challenged as myself. That initial survey led to the discovery of the original French fort and a residence on the property of the first Acadian to settle on PEI, Michel Haché-Gallant. Since then, Duncan's EM-38 has been used at many sites in the Maritimes, including among others, Fort Beausejour (NB), Havre Saint-Pierre (Greenwich, PEI), Grassy Island (Canso, NS), Fortress of Louisbourg, and Grand Pré.

Duncan is a native son of Nova Scotia. He received a BSc in physics from Dalhousie University, and an MA in radio astronomy from the University of Toronto. Early in his career, he became interested in the development of electromagnetic techniques for mapping subsurface geology. In 1974 he became owner and president of Geonics Ltd., located in Mississauga, Ontario, a "world leader in the design, manufacture and service of practical and reliable electromagnetic geophysical instrumentation," according to the Geonics website. He developed and refined a number of EM instruments, and has authored 25 Technical Notes for the company. In 2002 he received the Dr. Frank C. Frischknecht Leadership Award of the Environmental and



Duncan McNeill conducting a survey at Grande Pre National Historic Site

Engineering Geophysical Society (EEGS) for "extraordinary leadership" in advancing the cause of shallow geophysics.

Although the technology is primarily of use in groundwater and environmental investigations, Duncan's personal interest in archaeology has led him to develop applications for archaeologists throughout the world. The EM-38 has been used extensively in the Middle East. Most recently (2001), archaeologists used it to recover 1st and 2nd-century documents & artifacts at the Cave of Letters by the Dead Sea, and to locate burials at Qumran, site of the Dead Sea scrolls. Duncan is also a frequent instructor at remote sensing workshops throughout North America, including regular programmes of the US National Parks Service.

Despite the international renown of his work, Duncan has devoted much of his time to furthering research within the Maritimes. He recently retired to Chester, where he lives with his wife Sylvia, a geologist and fellow enthusiast. This has

allowed him to indulge in his love of Acadian history. To further that interest, he has conducted extensive surveys at Grand Pré National Historic Site, working closely with archaeologist Jonathan Fowler to locate traces of the original Church of St. Charles and the priest's residence. The site is particularly difficult to survey due to the extensive modifications to the ground and the presence of modern intrusions such as underground water pipes throughout the park. Tweaking the data and revealing the hidden anomalies has been an intensive labour of love and results are promising. Jonathan's archaeological field school with the Department of Anthropology, Saint Mary's University, has helped to verify Duncan's interpretation of the data. A cellar probably associated with the priest's house has been under excavation for the past two summers.

Duncan has had a remarkable career in the field of geophysics. His place in archaeology is marked by the selfless devotion he has shown to archaeologists anxious to apply his research, and by his personal commitment of time and energy to the study of the buried history of the Maritimes. He has been and remains a true friend of archaeology.

Rob Ferguson
Archaeologist, Parks Canada



Above and Left: Duncan at Port La Joye/Fort Amherst National Historic Site in 1989



Visit our Web Site:
<http://nsas.ednet.ns.ca/>

Our 2002 Friend of Archaeology: Dr. Sherman Bleakney



Dr. Sherman Bleakney shares his insights with members of the Saint Mary's University archaeological field school at Grand-Pré in July 2002.

corrected many earlier errors in interpretation and given us - for the first time - a clear understanding of how the Grand Pré dykes took shape. This includes detailed mapping of the marsh, indicating the sequence of Acadian and Planter dyke construction - a task complicated by the fact that most of the early dykes, made redundant by the expansion of the dyking program, have been destroyed. His work has also plotted the probable locations of several *aboiteaux* (wooden sluices introduced by the Acadians to drain the marshes) that likely remain *in situ*.

By working closely with the local community, Dr. Bleakney has not only stimulated interest in the area's history, but has raised public awareness of heritage conservation issues. The implications of his work for the disciplines of archaeology, history and cultural geography are certain to be profound, and for this, and for his continuing contributions as a great educator, we are very pleased to grant him the 2002 Friend of Archaeology Award.



For the past several years, Dr. Sherman Bleakney, a biologist and retired Acadia University professor, has devoted his time and talents to archaeological research. In his most recent research efforts, he has focused on the natural and cultural history of the marshlands around Wolfville and Grand Pré in an effort to reconstruct the complex dyke building sequence initiated by the Acadians in the 1680s. Building on research begun in the 1950s by Harcourt Cameron, another Acadia University faculty member, he has

**Learn more about the
Friend of Archaeology
Award at:
<http://nsas.ednet.ns.ca/>**

NEWS FROM THE NOVA SCOTIA ARCHAEOLOGY SOCIETY

Friend of Archaeology 2003

Nominations are now open for the NSAS *Friend of Archaeology* Award. We encourage members to think of an individual who has contributed to the field of Archaeology in Nova Scotia, and submit a brief summary of the reasons that you think they deserve recognition as the Nova Scotia Archaeology Society's *Friend of Archaeology*.

The award, consisting of an attractive plaque, is presented at the Annual General Meeting in May, and nominations must be received by the end of March.

The award is open to any "non-professional archaeologist" – that being a person who does not make their living doing archaeology.

Meeting Schedule 2003

February 25, 2003

Archaeological Mysteries of Nova Scotia

With David Christianson, Nova Scotia Museum

March 25, 2003

Archaeology Field Schools

With field school students

April 22, 2003

Two Questions About Charlesfort

With Rebecca Duggan, Parks Canada

May 27, 2003

Fabulous Finds

Come and see fascinating artifacts from across the region

Coming in Fall 2003:

The Rev. Norman McLeod Homestead

With April Mitchell-MacIntyre



ARTICLE SUBMISSIONS

We're looking for submissions for our next newsletter, and would appreciate articles or briefs written by professionals, amateurs, high school students, university students, or anyone else with an interest in the field of archaeology.

If possible, please send your article in an electronic format (a computer file) with as little formatting (i.e., bold text, headers, page numbers) as possible.

Remember to attach your name and phone number or e-mail address to your document, and please date it as well. If there are graphics accompanying the article, include the images as separate graphics files (bmp, PCX, gif, jpg, if, etc.) or make sure to send a good, clear originals. If the graphics require specific description, please provide that as well.

Depending on content, advertisements or 'Classifieds' are welcome, but will be subjected to the editor's requirements for the current publication at that time.

Thanks!

Craig Chandler, Editor
cchandler@seacorcanada.com



Office (902) 420-0040

For your Reading Enjoyment!

Guess what? The Nova Scotia Archaeology Society receives newsletters from other archaeology societies, as well as other publications on archaeological topics.

NSAS members are encouraged to peruse the selection of current and back issues, and even borrow them to take home if you like.

A selection of these publications are on hand at each meeting. For more information, contact Bruce Stewart, or any other member of the board of directors for more information.

Downtown Archaeology

The Halifax Wastewater Treatment Plant Property Report on Field Work

By W. Bruce Stewart
President and Senior Consultant
Cultural Resource Management Group Ltd.
Fall River, Nova Scotia

Recognizing the present state of water and sediment quality within Halifax Harbour and the growing threat posed by the practice of pumping untreated sewage into the harbour, the Halifax Regional Municipality (HRM) initiated action to provide advanced primary level treatment for municipal sewage discharged into the harbour. As part of their initiative, HRM proposes to construct three advanced primary level treatment plants at specific locations surrounding the Harbour. The first of these facilities is to be constructed on a municipally owned property located at Barrington and Cornwallis streets on the Halifax waterfront.

The historical significance and archaeological sensitivity of the Halifax site was identified in 1999 during an archaeological screening study undertaken by Cultural Resource Management (CRM) Group which reviewed historic land use within the proposed development property and identified areas of archaeological potential. The historical review provided a wealth of documentary evidence indicating the property had been intensively occupied since the founding of British Halifax in 1749. Furthermore, it was recognized that the site could also have been occupied by the Mi'kmaq in Pre-Contact times. Despite the cycle of demolition and redevelopment which



extended into the latter half of the twentieth century, archaeological potential was identified within the property, requiring further investigation. To address the recommendations contained in the screening report, HRM retained CRM Group in July, 2002 to undertake an archaeological impact assessment. The assessment, designed to test areas of archaeological potential identified in the 1999 screening report, yielded a wealth of structural remains and artifacts which reflected late eighteenth to late twentieth century life within the property.

In late October, HRM commissioned CRM Group to undertake a comprehensive program of archaeological investigation, identifying, documenting and interpreting significant archaeological resources within the proposed wastewater treatment plant site. During November and early December, CRM Group's twenty member archaeological team conducted an intensive mitigative excavation which included mechanical stripping of overburden from the site, followed by the manual excavation of various masonry structures, outbuildings and other features. Of particular interest among the features found to-date is a series of privies which range in date from the early 19th to early 20th centuries. Initial evaluation of the field results suggests that the remains of eighteenth and early nineteenth century settlement within the excavated portion of the property were largely destroyed as a result of intensified redevelopment of the block undertaken in the mid to latter decades of the nineteenth century.



Mitigation of the Halifax Wastewater Treatment Plant site is being conducted within the theoretical framework of **urban archaeology** - *that is archaeology of the city not simply archaeology in the city*. As such, CRM Group's team of archaeologists (supervised by W. Bruce Stewart, Mike Sanders, Katie Cottreau-Robins & Laird Niven) and historians (Paul & Dawn Erickson) is examining the historical development of Halifax as reflected in the structures, features and archival documents relating to the proposed development property.

The field component of the project was completed in the first week of December. Analysis and interpretation of the archaeological data, including artifacts, field records and drawings, is currently underway. The final report will be submitted to HRM and the Nova Scotia Museum by the end of March, 2003.

Shubenacadie Canal – 19th Century Link Between Bay of Fundy and Halifax Harbour

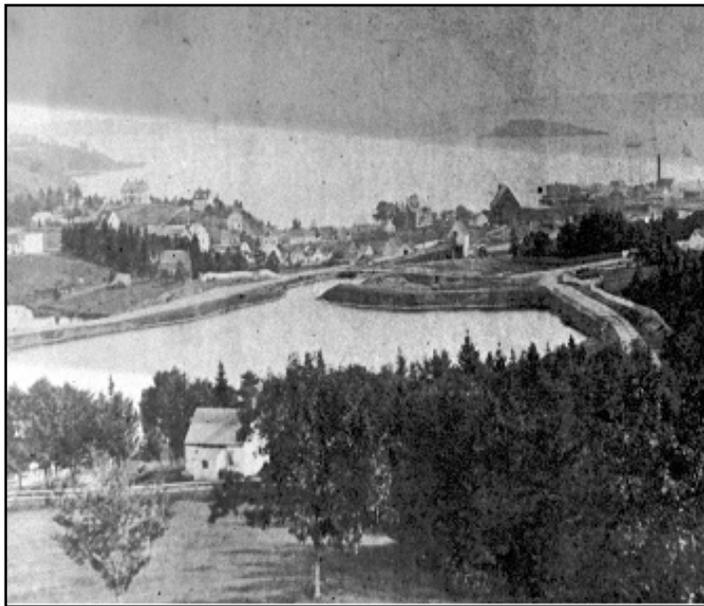


Plate 3. Enlargement of Historic Photograph Focussing on the Inclined Plane and Powerhouse for the Shubenacadie Canal's Dartmouth Marine Railway. Dartmouth from the Brae c 1860. Photo Courtesy of the Dartmouth Heritage Museum Image No. A2641

In the spring of 2002, the Halifax Regional Municipality (HRM) accepted a proposal to redevelop the Starr Manufacturing property in downtown Dartmouth. Concerned that physical evidence of the early nineteenth century Shubenacadie Canal, as well as other early industrial and commercial facilities would be impacted, the developer retained Cultural Resource Management (CRM) Group Limited to conduct an archaeological assessment of the property to identify significant heritage features and design an overall cultural resource strategy for the responsible management of on-site resources.

Until their destruction by fire in 1998, the Starr Manufacturing buildings were considered to represent a post-1850s period of industrial ascendancy in Nova Scotia. The industrial complex developed on the banks of the Shubenacadie Canal and actually utilized the marine railway component of the second canal system to transport raw materials and finished products. Architectural recording of the Starr structures prior to the fire revealed that intact structural elements of the early Shubenacadie Canal (1826-1831) had actually been incorporated into the substructure of the early powerhouse.

Archival investigations provided further evidence of the development of the two canal systems, as well as the origins and expansion of the Starr Manufacturing complex. In addition, documentary evidence was uncovered which pointed to other early nineteenth century industrial facilities, including a distillery and foundry, located adjacent to the development property.

Archaeological investigations conducted by Bruce Stewart, Mike Sanders and Danny Dyke revealed a variety of features relating to the two canals, as well as the later development of Starr Manufacturing. Despite the intensive industrial reuse of the site, the canal features were found at shallow depth and relatively intact. Due to the historical significance of the property, HRM and the Shubenacadie Canal Commission are working with the developer to redesign the proposed residential development so as to safeguard the remains of the canal and the Starr facilities. Plans are also being developed to incorporate the area into Dartmouth's expanding network of walking trails while integrating the historical canal and industrial features into the broader interpretation of the Shubenacadie Canal and its associated industrial heritage.

GEOPHYSICS AND THE SEARCH FOR HAVRE SAINT-PIERRE

*Rob Ferguson
Parks Canada*

For three summers, archaeological crews of Parks Canada have been searching for traces of French farms along the shore of St. Peters Bay in PEI. The surveys are part of resource inventories for the newly acquired lands at Greenwich which have become part of PEI National Park of Canada. Greenwich has a long and rich history which begins 10,000 years ago with late Palaeo-Indian people. Later Archaic and Woodland cultures are also found here. Havre Saint-Pierre, together with Port La Joye in Charlottetown Harbour, was the earliest French settlement on the island, established in 1720. British settlers took over the area in the late 18th-20th centuries.



Scott Buchanan with the EM38 conductivity meter at Greenwich, PEI National Park, June, 2001.

Havre Saint-Pierre began as part of a private fishing venture by the Compte de Saint-Pierre in 1720. Although the venture was a financial failure, the French government continued to support the community as a source of farm produce for the garrison at the Fortress of Louisbourg on Cape Breton Island. Twice it fell victim to the misfortunes of war between France and Britain, until, in 1758, its residents were forcibly removed from their homes and sent to France. Later settlers continued to farm the land for over two hundred years, erasing all traces of the French homes and farms. While most of the town of Havre Saint-Pierre was centred on the south side of the bay, at least nine farms were established on the north shore within the boundaries of the park. Today the site is viewed as a significant cultural resource by Parks Canada, and by the many Acadians resident on PEI.

The EM38 Ground Conductivity Meter is being used at Greenwich to search for traces of the 18th-century farms. The meter reads both electrical conductivity and magnetic susceptibility in the soil, and detects changes below the surface which may be caused by soil composition, varying moisture content, compaction, metal anomalies and stone features. One of these farms was delineated by the survey in 2001. Initial contour plots clearly indicated a large, rectilinear anomaly.

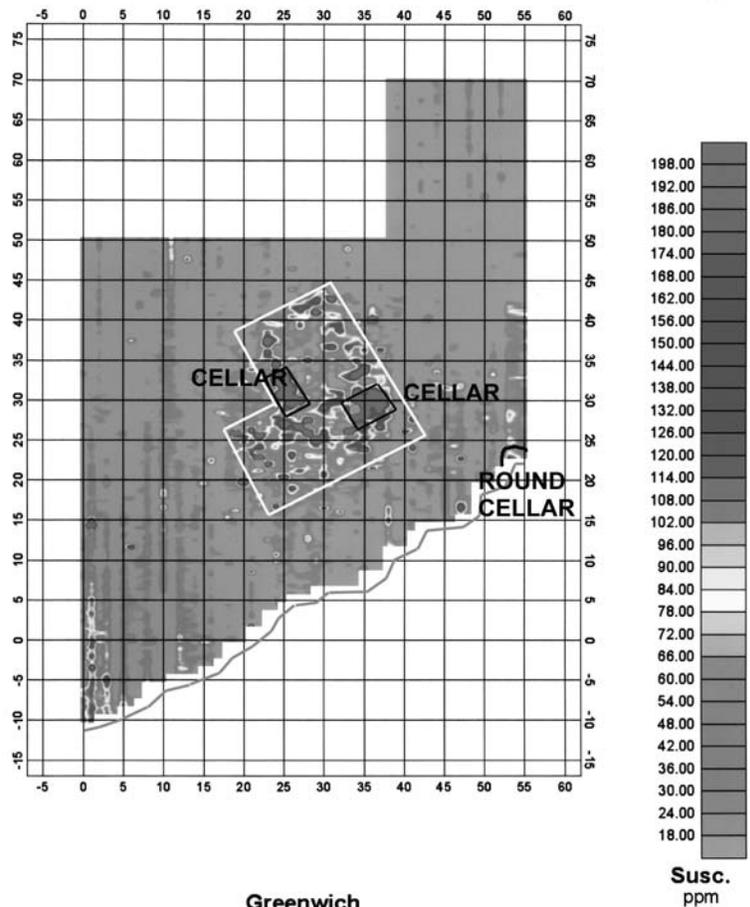
Further processing of the data revealed the outline of a farm yard, including two dwellings. So far only one test has been made within the anomaly area. It confirmed the presence of a cellar of 18th-century French origin. All surface traces of the structure have been destroyed by later ploughing, but the cellar is intact. With only a small test trench, the excavators were unable to reach the bottom of the cellar which had been filled with rocks by later settlers.

About 20 m from the farm buildings, on what is now the eroding bank of the bay, is the circular stone cellar of an outbuilding, 3 m in diameter and 1 m deep. As with the dwelling cellar, this one had been filled by later farmers. Since the sea is threatening to destroy the feature, archaeologists began salvage excavation last summer. At this point the building remains a mystery - a windmill; an ice house? No architectural evidence of this type is known as yet from French farms of the period. Next summer, we will excavate the interior for clues to its function.

Last summer, an area roughly 675 x 50 m was covered by the EM38 survey. No clear evidence of farm sites was detected. The survey will continue in June, 2003.

The people who lived on the nine farms in the park area were members of the Oudy clan. Today that name is not found among the Acadians of Atlantic Canada. It is believed that all members of the family died when their transport ship sank on the voyage to France in 1758. Archaeology is helping to bring to life again a family who's voice was silenced by a tragic event.

Right: Round, stone-lined cellar in erosion face of St. Peters Bay, June, 2002.



Above: Contour plot of magnetic susceptibility readings over a French farm complex, with features noted.





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