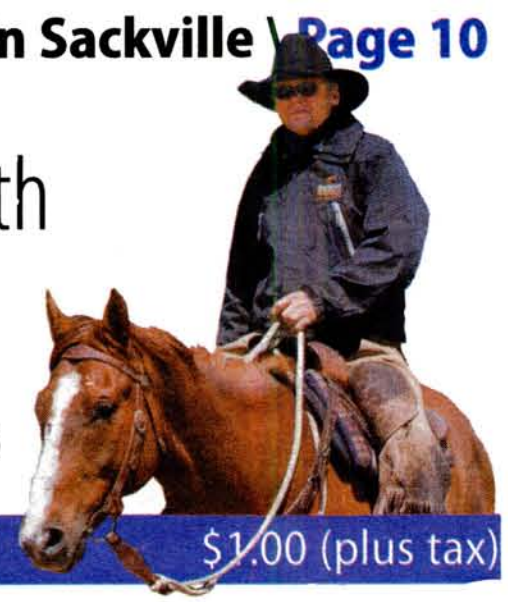


Tribune **Sackville**

The Voice Of Tantramar Since 1902 **Post**

Cowboy With
A Worthy
Cause Page 16



www.sackvilletribunepost.com

\$1.00 (plus tax)



Drilling For Answers

Researchers Date Wooden Sluice
Used By Acadian Farmers Page 11

Top Stories

Still no cost on co-hosting
track, field event . . . Page 2

Legion member earns pres-
tigious award Page 3

Sackville Tribune-Post

COMMUNITY

WEDNESDAY, MAY 30, 2007 / PAGE 11

Mount A researchers help date timber used by Acadian farmers

Wooden sluice used as road culvert over 300 years old

A chance discovery one year ago has yielded what may be one of the oldest pieces of architectural timber yet found in Atlantic Canada.

The object is a wooden sluice that was installed as a road culvert in a marsh creek over 300 years ago by Acadian farmers.

The object came to light on May 19, 2006, during the excavation of a drainage ditch near the centre of the dyked marsh.

Robert Palmeter, a Maritime farmer with an interest in history, suspected the object might be important so he contacted staff at nearby Grand-Pré National Historic Site.

The result was a salvage archaeology project, which soon brought the rest of the object to light, carried out under the auspices of The Nova Scotia Museum, Parks Canada and the Société Promotion Grand-Pré.

The landowner Donald Kennie provided archaeologists full access to the site. The dig was directed by Prof. Jonathan Fowler of Saint Mary's University and was undertaken with the assistance of students from the Grand-Pré Archaeological Field School Project.

"The preservation was amazing down there," Fowler says. "Not only was the sluice itself intact, but so was the surrounding architecture of marsh sods and brush work. Some of the plant matter was still green."

But even greater surprises were in store. André Robichaud, from Mount Allison University's Dendrochronology Lab, has studied samples taken from the sluice and from two associated spruce logs for the past several months. Robichaud compared core samples from the sluice and an associated log with ref-

erence made up of tree ring samples with known dates.

Preliminary results suggest the tree from which the sluice was built was cut down in the mid-1690s, only about a decade after the first Acadians arrived in the area.

"It was easy to core, although it was waterlogged and the rings were tight," says Robichaud, who identified the tree as white pine. "We counted 274 rings for a tree that was only a little more than a foot wide! White pine more often has larger rings so it suggests a specific context where it was growing, like in a rather dense, maybe old growth forest, or it was growing on very humid or poor soil."

Acadian farmers constructed sluices, often from hollowed out tree trunks, to control the movement of water through the dyked marshes. A small 'valve' made from a flat piece of wood, like a shingle, was installed in the sluice. Because it only opened one way, this valve allowed fresh water to drain out but prevented salt water from flooding the marsh at high tide. When built as part of a dyke wall crossing a creek, such a device is known as an aboiteau.

The sluice discovered on Donald Kennie's land was probably not exactly an aboiteau, as it does not appear to have been part of a dyke wall. Instead, the sluice operated like a culvert.

Above it, archaeologists discovered the remains of a wooden road bed crossing the creek. The first Acadian settlers arrived at Grand-Pré in the early 1680s, and therefore this discovery offers researchers an opportunity to measure the development of the settlement's

farmland after its first decade.

"If this date holds up to further testing, then we've just opened up a whole new approach to understanding the evolution of the dykelands," says Fowler, who has been researching pre-Deportation Acadian settlements in Nova Scotia for the past 10 years. "There should be plenty more of these objects still buried out there, and we can use this approach to find out exactly how and when farming families put this landscape together. Very little of this was recorded historically and that's

Not only was the sluice itself intact, but so was the surrounding architecture of marsh sods and brush work. Some of the plant matter was still green.

— Prof. Jonathan Fowler

why these results are so important."

But more work remains to be done. Reliable reference chronologies do not yet exist for white pine, and so far the sluice has been dated by a red spruce installed next to it as a brace. This sample had only 55 rings, says Robichaud, and "dating only one sample with so few rings is always problematic."

"The best fit seems to be in the 1690s, but further testing with geographically nearer reference chronologies will be necessary to confirm this age."

The sluice is currently undergoing conservation at a Parks Canada facility, which will ensure its long-term preservation. Once this process is completed,



Mount Allison dendrochronologist André Robichaud takes a core sample from the spruce log found next to the sluice.

it will become part of the permanent display at Grand-Pré National Historic Site, within view of the place where its makers installed it over 300 years earlier.

Robert Palmeter, who first reported the find, and Donald Kennie, who provided access to the site were named joint recipients of the Nova Scotia Archaeology Society's annual Friend of Archaeology Award.