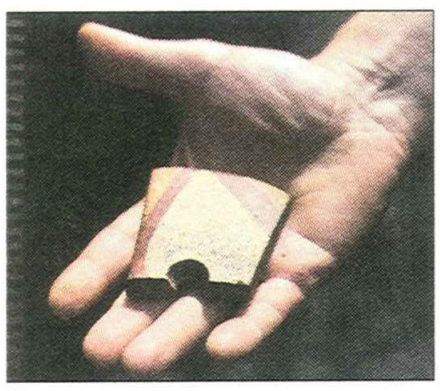


A sculpted rock (above) and a piece of aboriginal pottery from Cap Rouge.

PHOTOS **FRANCIS VACHON** THE GAZETTE

Field assistant Philippe Slater (left) and technician Joanie Gauthier watch Karine Vachon-Soulard taking measurements to document the exact location of a piece of pottery she found at the Cartier-Roberval archeological dig at Cap Rouge.

A DIG AT QUEBEC'S STORY

Story by MARK CARDWELL Special to The Gazette

QUEBEC CITY – AS BURIED TREASURES GO, carbonized crumbs of centuries-old food likely wouldn't make it on to many people's Top 10 list.

But to hear archeology doctoral student Julie-Anne Bouchard-Perron tell it, the modest materials she has helped to unearth on this forested hilltop in Cap Rouge, a wealthy suburb at the western limit of Quebec's provincial capital, are a motherlode of Canadian artifacts.

"The olive pits and the date came from over there," she said as she walked through a protected site in a forested municipal park in Cap Rouge. "Most of the seeds – grapes, bread wheat, hulled barley, peas, lentils and mustard – were over here."

Combed from the charred remains of the first French colony in North America, these tiny objects are big pieces of a giant puzzle that, once assembled, will likely change the way we think about early Canadian history.

Using old-fashioned archeological field methods to find the artifacts and and analyzing them with modern scientific techniques that seem right out of an episode of CSI, an international team of scientists is helping to shed new light on everything from the diet of the first European settlers in Canada to their interactions with the aboriginals they met.

"We can learn a lot now from even the smallest bits of material," said Allison Bain, an environmental archeologist at Université Laval who is considered Canada's leading expert on insect remains. She is also the supervisor of Bouchard-Perron's archeobotany thesis, the first one to be written in Canada in the branch of archeology that deals with the study of organic material.

"They (organic materials) can provide us with a much more complete story about the environment (and) conditions in which people lived."

And oh what a tale this is now telling.

Established by Jacques Cartier as a permanent settlement on his third voyage to Canada in 1541, the site, named Charlesbourg-Royal, was inhabited by up to 400 colonists for two years before being abandoned and burned by Sieur de Roberval, a French noble who had replaced Cartier as the settlement's leader. Many of the colonists were killed by Indians and many died of disease.

The mission's failure put an end to French colonial dreams in Canada (named by Cartier) for more than 60 years, setting the stage for Samuel Champlain's historic founding of New France on July 3, 1608 – an event that will be celebrated with great pomp in Old Quebec, 10 kilometres east of here, on Thursday.

Historians have long speculated about what might have been had Cartier succeeded – and wondered why he didn't.

Answers suddenly seemed possible when, after many failed attempts to locate the two Cap Rouge compounds that made up the lost Cartier-Roberval colony, the upper settlement was found by accident in 2005 during work to build a cliff's edge lookout on the edge of the promontory, 100 metres above the St. Lawrence.

Three experimental digs are taking place this summer in an effort to locate the smaller compound in the area near the mouth of the Cap Rouge River.

The larger Cartier-Roberval site is now considered the most important find in Canada since the Viking village at Anse aux Meadows was unearthed in Newfoundland in 1960.

The site is also now the focus of the biggest archeological project in Canada – and maybe North America.

"I don't know of a bigger one anywhere on the continent," said Gilles Samson, a seasoned archeologist with Quebec's Culture Department who co-directs the Cartier-Roberval project. "It's huge – and so it should be. In terms of early European settlements, this site ranks with Jamestown, the first English colony in the New World."

Funded to the tune of $7.7 million – much of it directly from the office of Quebec Premier Jean Charest, an unprecedented move that Samson said underscores the significance of the discovery on provincially-owned land – the project continues to focus on the painstakingly slow excavation of layers of soil from several test holes in a 1,500-metre area. The site is protected by a high wire fence and motion detectors that are wired to a nearby trailer that serves as the project's field office

The dig will end later this summer, when efforts switch to synthesizing the archeological discoveries of the past three years and written historical records, some of them recently discovered.

It's hoped that exercise will provide both a blueprint and a game plan for future excavations of the upper settlement – and possibly provide clues to finding the lower fort.

"We've already found a lot of evidence and material," said Samson, who believes the original settlement was 10 times bigger than the present excavation site. "And I'm sure we're going to find a lot more."

The notable things found to date, Samson added, are the burnt remains of half a dozen buildings and several pieces of ceramic, glass and metal – including several keys, rings and a cannon ball – from the 16th century. Most of those items are being cleaned and catalogued in various labs in the area. They will eventually be put on display at the Quebec Seminary's Musée de l'Amérique française.

FRANCIS VACHON THE GAZETTE

Archeology PhD student Julie-Anne Bouchard-Perron in her laboratory at Université Laval: In the foreground are vials of seeds found at the Cap Rouge dig.

Because those materials predate New France (and Quebec's considerable historical and archeological knowledge of that period) by almost a century, they have been identified with the help of more than 20 specialists in a variety of fields from around the world.

Likewise, because the site was burned, the project has relied on the machines and expertise of many high-tech specialists. Those tests include carbon-14 testing in Florida and radioactive tests using the slow-poke nuclear reactor at McMaster University to determine the age of everything from sediment deposits and botanical remains to glass beads.

Ironically, Roberval's decision to burn the fort helped to preserve rather than to destroy much of the evidence that has been found there.

For example, Bouchard-Perron, found more than 2,000 seeds (plus the olive pits and the date) after washing 7,000 litres of excavated soil in a float tank on the site last summer.

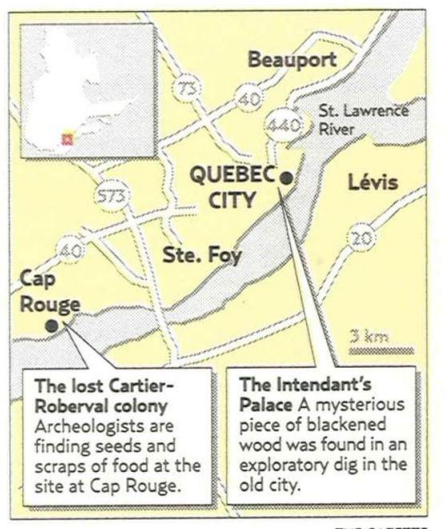
"Burned stuff floats," she said. "Then you dry it and analyze it."

Her analysis this past winter revealed that 95 per cent of the seeds were domesticated species from Europe.

In addition to providing valuable information about the types of foods the French brought with them (and introduced) to the New World, the location of the seeds also offer clues about the vocation of the buildings in which they were found. "A lot of seeds in a building might indicate it was kitchen or store room," she said. "An absence of seeds might suggest it was a dormitory."

The almost complete absence of native species of plants on the site also suggests to Bouchard-Perron that the French were loathe to experiment with local foods. That idea runs counter to conventional wisdom about the openness of early Europeans in the New World.

"The few seeds of native corn and sunflower we found on the site seem to indicate that the colonists weren't interested in integrating new elements into their diet," said Bouchard-Perron. "Maybe they were afraid of being poisoned. Or maybe they just preferred their own food."



THE GAZETTE

INTENDANT'S PALACE

Blackened wood beckons archeologist

To hear Allison Bain tell it, the beauty of archeology is that you never know what you're going to find until you find it – and even then you don't always know what it is you've found.

That's why the Université Laval archeology professor is so excited about the mysterious blackened wood that several of her graduate students found last month while carrying out exploratory digs at one of Quebec City's oldest and richest historical sites.

"It's an exceptional find in that it's perfectly preserved," said Bain, a specialist in environmental archeology. "Now we just have to figure out what the heck it is – or was."

Part of an annual field training exercise that ended with a public exposition of the students' findings, the three digs were carried out within the known confines of the Second Intendant's Palace in Old Quebec.

Built mostly on the ruins of the First Intendant's Palace, which was destroyed by fire in 1713, it was home to successive intendants (French officials second-in-command to the governor during the New France era) and served as both a residence and a stronghold for the colony's top officers, soldiers, stores and munitions.

The students also found several objects that Bain calls "the usual number of domestic objects found on a site like this" (pieces of dishes, chamber pots, tea pots and glass bottles), some Spanish coins (which circulated widely in the money-starved French colony), cannon balls, paving stones with cannon ball holes in them and a clay pipe.

However, it was the wood that Beaudry discovered while digging even deeper in the hole that has most caught the attention of Quebec City's archeological community.

Under Bain's guidance, the students cleared away dirt that covered several pieces of wood lying down and neatly arranged in fence-like sections.

They also found a wooden drain with a cover over it, a find Beaudry described as "smelly."

Bain thinks the latter may have issued from a stable that was known to exist in the First Intendant's Palace, a find that may date from as early as the 1680s.

However, she thinks the arranged wood might even be older – perhaps from as far back as the 1660s, when the first intendant of New France, Jean Talon, built a brewery and a shipyard on this site, which Bain calls "Canada's first industrial park."

"The stratigraphic evidence (how the archeological layers are arranged) suggests it's that old," she added. "Now we are going to try and figure out what the wood was used for. Was it a floor? Was it an entrance to the palisade that surrounded the Intendant's Palace?"

With the dig now finished (the holes were filled back in this past week), Bain said she and her students will have lots of time to consider the possibilities before they return and continue the excavation in 2009.

"I'm dying to know where the wood and the walls lead," she said. "Every year we add a little snapshot of this big area, which is so rich with material."

MARK CARDWELL

Clumsy amateurs destroy sites – and some of the artifacts turn up on eBay

Quebec's rugged North Shore is one of Canada's richest areas for unearthing artifacts from prehistoric and early European settlements.

But many of them are being destroyed by amateur archeologists and fortune hunters in search of old artifacts – and some of those are turning up on eBay.

"It's a real problem," said Christine Dufour, interim director of the Musée régional de la Côte Nord in Sept Îles, which houses an important collection of historic and prehistoric objects.

Most of the museum's pieces, she added, come from government-approved archeological digs at several sites in the region over the past few decades. However, many were donated by individuals who found the artifacts lying on the ground, mostly in coastal areas where they had been uncovered by wind or water, or by divers who come to the region to investigate the many wrecks of wooden sailing ships in the icy St. Lawrence River.

"We get people coming in here all the time with stuff they've found, asking us to identify it for them," said Dufour. The items found most frequently include 1,000-year-old aboriginal arrowheads and bone tools and colonial-era ceramic pieces.

She added, however, that people are increasingly reluctant to donate pieces or even say where they found them. "They think they've found a treasure or something (and) they want to keep it for themselves," said Dufour. "But most of these things have only an historical value."

That hasn't stopped some people, she added, from trying to sell ancient artifacts to private collectors, or even on eBay, as museum officials learned recently.

In addition to the ethical and, in some cases, legal questions raised by such practices, Dufour said, fortune-seeking amateurs are destroying the historical value of the sites they find – as was the case at a potentially rich 17th-century Basque whaling station that was found in the region a few years ago. "The archeologists couldn't do anything with it," she said. "The place had been dug up with shovels and stripped of anything of historical value."

The provincial and federal governments are not making the necessary effort to inform the public about the collective value of archeological sites and artifacts, Dufour said, or to come up with funding for the sites that are discovered. "We simply don't have the money or people to investigate the many possible sites we hear about," she said.

MARK CARDWELL