

Miniature sealing harpoon heads were found beneath a sleeping platform in one of the Inuit houses.

The style dates to the late 15th century.



Wooden doll recovered on the floor of the entrance tunnel to a sod house.



Miniature soapstone cooking pot with a stylized mountain landscape engraved at its base.

ARTIFACTS FROM NACHVAK AND KONGU, LABRADOR

population of Okak, the largest community on the north coast, that the settlement was abandoned.

As the area continues to be influenced by climate change, the Inuit continue to adapt. A large part of northern Labrador has been named the Torngat Mountains National Park Reserve, an area Whitridge says is on the verge of redevelopment as a cultural, adventure and ecotourism destination.

To learn more about the Moravians in Labrador and their influence on the Inuit, visit <www.mun.ca/rels/morav/index.html>.

The Northern Plains

Nomads of the Grasslands

The culture of ancient peoples on the vast plains of Eurasia and North America is much alike. But in important ways, it's often different.

bout 5,000 years ago in the Russian steppes, covering roughly 7,000 kilometres east to west across the top of Eurasia, nomadic bands moved across the plains and grasslands with their goats, cattle and sheep. They travelled in carts – at first heavy ones drawn by cattle or oxen, later lighter carts drawn by horses. They slept in the carts along the way, much as people do today in their recreational vehicles.

Stopping in areas suitable for grazing, they set up semi-permanent shelters, known as yurts, constructed by forming a wooden lattice frame and covering it with a thick felt fabric woven from sheep's wool. The covering provided warmth and resisted moisture. A flap in the domed top allowed smoke to escape. They stayed and tended their herds until the food resources for humans and animals were depleted, then packed up and moved on.

When Ian Dyck, plains archaeologist with the Canadian Museum of Civilization in Gatineau, Quebec, first travelled in the 1990s to the steppes with Russian-Canadian colleague and museum research associate Elena Ponomarenko, he was amazed at how similar the land-scape was to that of our northern Great Plains, or the prairies. What resemblances, he mused, might be found between the nomadic people who occupied such similar landscapes? Dyck and his colleagues decided to find the answer.

After visiting Russian colleagues and archaeological sites in the Samara region, Dyck and Ponomarenko invit-

ed archaeologist Anna Kochkina and her team from the Samara Museum in Samara, Russia to visit Canada in the fall of 2000 and tour sites on the prairies. The groups pooled their research findings, comparing and contrasting the customs, movements, culture and archaeological traces of the nomadic peoples covering the period from about 5,000 years ago to about 300 years ago. Intending to look only at the archaeology of the two areas that share a latitude and similar environments, they soon expanded the project to incorporate ethnographical and historical research.

Like the Russian steppe people, aboriginal people of our northern Great Plains were nomadic, erecting camps in areas with the greatest availability of resources. Unlike their Russian counterparts who had discovered the wheel, the aboriginal people relied on themselves and their dogs to carry their belongings. Their teepees were similar to the Russian yurts: poles covered with hides, with an opening in the conical top for smoke. Like the yurts, the interiors were divided, with storage space inside the door, and sides to roll back in the heat of summer.



Russian archaeologists inspected southern Manitoba's Pilot Mound site, a prehistoric burial mound that dates to AD 1000, as part of a scientific exchange comparing the cultures of the nomadic peoples of the Russian steppes and the northern Great Plains.

Both groups preserved food through drying, but the Russians also used salt as preservative. Both fashioned weapons and tools from stone and bone. Their ceramics show marked similarity in stages and shapes but there is no definite indication of cultural influence between the two groups.

Evidence for an extended trade network in Canada's northern Great Plains can be seen in the presence of shell artifacts from the Atlantic, copper from the Great Lakes region and exotic materials from as far away as the Caribbean. The Russian steppe people, migrating across an area bisected by the Silk Road, a system of trading routes across central Asia, also had a vast network of rich trade extending thousands of kilometres. Their burial mounds, the source of much of the Russian archaeological finds, were rich with jewellery and other items fashioned from gold, silver and bronze, even preserved leather.

The greatest difference between the two groups, Dyck says, was the food source. With no domesticated herds, nomads of the northern Great Plains hunted for their food, following the bison and other wild animals. With domesticated animals, Russian groups controlled their sources of food, clothing and tools, hunting mainly for recreation. Lack of predictable food sources was a factor that kept northern Great Plains groups smaller than their Russian counterparts.

Although it's possible that exchanges occurred between the two nomadic groups, Dyck says, resemblances in culture most likely arose because similar environments caused them to adapt in similar ways. The joint research, he says, has provided a valuable exchange of discoveries, ideas and information between the two countries. The results of the collaboration between the Samara Museum for Historical and Regional Studies and the Canadian Museum of Civilization will be revealed in an exhibit at the CMC scheduled to open in November 2006.

For more information visit <www.civilization.ca>.

Cypress Hills, Alberta

Secrets of the Great Plains

A gathering place for six millennia, Cypress Hills excavations yield new clues about ancient pathways.

n the soft shadows of an oasis of hills in the northwestern section of the Great Plains, where the wind scorches the grasses during hot summers and bites through the frigid air of long, harsh winters, a nomadic band of aboriginals camps in a protected site near a spring-fed creek that joins the nearby lake. A teepee made of hides shelters an old woman from the afternoon sun. Her lightning-fast fingers hold a delicate bone needle, darting in and out of the elk-skin garment she holds in her lap, securing



Archaeology students taking part in the Great Plains stampede site excavation in 2002.

beads of bone in delicate adornment down the front.

Eight thousand years later, in 2004, that fine bone needle is unearthed at the bottom of a deep pit, intact but for a broken eye. Archaeologist Gerry Oetelaar and his team are ecstatic. For Oetelaar, the needle is evidence that the site was not just used as a temporary hunting camp but was a long-term camp where family activities took place. But this archaeological site, nestled in the Cypress Hills in Alberta's southeastern corner, is revealing much more than Oetelaar expected.

A cluster of hills and grasslands that straddles the Alberta–Saskatchewan border, the Cypress Hills boast the highest elevation between Labrador and the Rocky Mountains. Thousands of years of human occupation around Elkwater Lake have left a rich legacy of archaeological treasures – a legacy that may cause archaeologists to revisit some accepted theories.

A projectile point used for hunting, fashioned from white chert, a naturally occurring flint-like material of silicon dioxide, has been found here in a layer of human occupation that is 6,000 years old. The point strongly resembles the Besant point, a dart tip of specific design normally believed to be in use 1,200 to 2,000 years ago, leading Oetelaar to question the range of dates typically associated with that style of projectile point.

"What's truly remarkable for these nomadic groups that moved across the landscape," says Oetelaar, barely able to contain his excitement, "is that they not only set up camp in the same area but set their fireplaces here in precisely the same location as that of their ancestors thousands of years before them, despite layers of sediment from a local landslide and 10 to 15 centimetres of volcanic ash that would have buried any evidence of previous fires."

As Oetelaar and his team work down through the layers of sediment, they repeatedly find fireplaces surrounded by dense concentrations of household debris laid directly on top of fireplaces from previous occupations. "And," he says, "we still have not found the earliest occupations, which may be as far as 15 metres below the surface."

Oetelaar, from the University of Calgary, began the project in 2000 to investigate the unique ecosystem of trees, grasses and plants in the local uplands. Stands of lodgepole pine bend and sway in the wind here. Originating in the Rocky Mountains, and not native to the prairies, the lodgepole is so named because aboriginal groups used it to construct their teepees, or lodges. Though it has long been known that seeds travel great distances carried by animal, human or environmental movement, Oetelaar theorizes that aboriginal groups took advantage of this and encouraged the growth of certain vegetation, like the lodgepole pine, thereby managing resources for personal use in traditional campgrounds.

Today, if you follow Highways 1, 2 and 3 in Alberta, you will be following the traditional trails of the Blackfoot. Oetelaar believes this well-established system of trails not only followed the migration of the bison but moved along a network of sites, like present-day Medicine Hat (known to the aboriginals as *Saamis*), that specifically provided an



Chipped stone tool used to cut or scrape various materials.



Bone bead was made by cutting off a section of a hollow bone.



Shell bead made by removing the central spire of a large conch shell, cutting the cylinder into short segments and then drilling a hole through the center of the long axis.



Antler awl made by grinding the tip of an antler to a fine point. The awl was used to punch small holes in pieces of leather.



Bone awl created by sharpening a bone splinter into a fine point. It has been heavily polished, presumably from being handled over a long period.



Chipped stone tool used to cut or scrape various materials.



Projectile point, or stone tip, used on hunting weapons. It was designed to be used with a dart that was propelled by a spear thrower.

ARTIFACTS FROM CYPRESS HILLS, ALBERTA

abundance of localized resources – berries, plants and animals. At each campsite the oral histories and special ceremonies linked to that site provided a sort of history lesson for the succeeding generations.

Oetelaar says this area, known to the Blackfoot as the Divided Hills, was considered common ground to other aboriginal groups, among them the Cree, who knew it as the Thunder Breeding Hills, and the Nakota, who called it "A warm place in the north that is an island by itself."

In the new Interpretive Centre, scheduled for completion in late 2006 or early 2007 in Cypress Hills Interprovincial Park, the richness of the finds will be revealed in a slice of Oetelaar's excavation wall, a sort of "book of sediments" providing an educational centerpiece where one can read the site's evidence of human use, its unique prairie vegetation and its geological development through sedimentary deposition and erosion.

For further information visit < www.cypresshills.com>.

the sea, but the salt water seeped in through the soil beneath, leaving behind the salt when the tides subsided. Settlers desperate to grow crops faced a challenge – how to keep the fresh water in and the salt water out?

As a solution, the early Acadians incorporated a technology from their home country of France – a sluice box known as an *aboiteau*. The simple but highly efficient design consists of two squared timbers laid parallel to form the sides of the box, a roof and floor constructed from planks and a gate at one end that swings open to allow excess fresh water to flow out but swings closed against incoming salt water. The aboiteaux were buried beneath the dyke at sea level. With constant drainage and the dilution of salt content by rainwater, the land was able to sustain crops within a few years of installation. (Before the advent of milled wood, aboiteaux were built from hollowed out logs using axes and

adzes.) Use of the aboiteaux allowed Acadians to grow ample crops such as hay, wheat and vegetables.

In 1990, residents walking along the beach of Double Island, West Pubnico, Nova Scotia, noticed several boards protruding from the muddy marsh. Four years later they investigated further and found the remains of an aboiteau dating to the late 18th or early 19th century.

In fall of the following year, staff from the Nova Scotia Museum visited the site and made plans to excavate and preserve the aboiteau. A local excavation crew assisted Ted D'Eon, a local pharmacist with an avid passion for history, and archaeologist Stephen Powell, assistant curator at the Nova

Scotia Museum. They removed the covering layers of marsh mud and gravel, photographed the aboiteau and carried it to a trailer to be towed to a nearby garage.

Between three and four metres long and 35 to 40 centimetres wide, constructed of white pine, the aboiteau was severely waterlogged and missing the swing gate and several planks. After cleaning, it was soaked in wood preservative for several months, then dried.

Though existence of the aboiteau is well known in recorded history, few examples of this early Acadian technology survive. Two other restored aboiteaux dating to the early to mid 18th century are on display at the Grand-Pré National Historic Site at Grand Pré and the North Hills Museum at Granville Ferry, both in Nova Scotia.

To get a glimpse of the West Pubnico aboiteau, visit the Acadian Museum in West Pubnico, Nova Scotia, or visit the website <www.museum.gov.ns.ca>.



Nova Scotia
Museum staff
and community
members
participating in
the West
Pubnico
aboiteau

West Pubnico, Nova Scotia

Farming Saltwater Marshes

Happenstance uncovers a precious reminder of the Acadians' genius for thriving in an unforgiving terrain.

long Nova Scotia's southwestern shores you can walk the saltwater marshes farmed by the Acadians who first settled in the uplands in the mid-1600s. The changing tides of the sea that provided sustenance also saturated the land with salt, rendering it infertile. Dykes were built to hold back

Quebec City

Blending Past and Present

At the Auberge Saint-Antoine, archaeological gleanings are only a touch away.

n the banks of the St. Lawrence, in the Old Port of the city of Quebec, the second-oldest European city in Canada after St. Johns, Nfld., sits the hotel Auberge Saint-Antoine.

The modern hotel with its luxurious rooms, high-speed Internet and spa is an unlikely place to encounter archaeological artifacts. But patrons leisurely sipping a glass of aged Merlot in the hotel lounge can casually contemplate cannonballs fired in 1759, muse over a collection of shoe soles from the 17th century or ponder an array of historic glass bottles. Or they can admire a 150-year-old lantern encased in their night table before slipping under their down duvets and drifting off to sleep.

Tony Price, a fifth-generation Quebecois, acquired the collection of crumbling warehouses and apartment buildings in 1990, transforming them into a luxury hotel. The owners entered into a unique 25-year collaboration with Laval University, the City of Quebec and the Ministry of Culture to incorporate and display the museumquality artifacts found on the site. Aware that he was developing an archaeological site, Price was enthusiastic and supportive, working with the City of Quebec, from which he acquired the site, to adhere to architectural restrictions and promote the site's heritage. In 1991, before building began on the open-air parking area, a team from Laval University, headed by archaeologist Reginald Auger, started an archaeological investigation. Though not the first excavation on the site, it revealed a wealth of historical treasures.

Used as a cannon battery in wartime and a thriving centre of merchant trade in peace time, the site, known as Îlot Hunt, yielded a stunning array of artifacts, providing a continuous record of military, commercial and residential occupation since the 17th century. From excavating the ancient latrines and other areas, Auger says, archaeologists have gained insight into the health of the site's occupants through examination of parasites, learned more about British, French and Irish diets, and acquired information on the sewage system developed in the 19th century.

Intrigued by the excavation in the parking lot, the Price family became avid observers, delighting at the artifacts uncovered daily. They developed the unique idea of incorporating the artifacts and the site's heritage into the hotel's design, enlisting museum-trained professionals to preserve and maintain authenticity, and collaborating with archaeologists



Shown here is a feature of the Îlot Hunt site that played two roles: wharf and battery. The wharf was built by Aubert de la Chenaye, a New France merchant involved in the importation of trade goods with France at the end of the 17th century. He built a wharf to unload his goods. It served as a cannon battery during war time.

involved in the excavation. William Moss, archaeologist with the City of Quebec who worked with the Price family on the development of the 25-year agreement, calls it one of the most interesting experiences he has had as an archaeologist.

Of the thousands of artifacts uncovered, hundreds are now elegantly displayed in glass cases built into walls and room features. Each artifact is accompanied by a drawing of the original piece and a description of its use. A section of the 17th-century cannon battery, at one point levelled and used as a wharf but now carefully restored, is part of the hotel lobby. Food in the dining room, which is housed in an early 19th-century warehouse used by a tableware merchant, is served on replicas of an early 19th-century plate excavated

from the site. On Saturdays guests are given archaeological tours explaining the history of the site and the significance of the artifacts.

Now run by Price's son Evan, the Auberge Saint-Antoine offers a window into the Quebec of centuries past, lending new meaning to time travel.

For further information visit www.saint-antoine.com>.



Whitehorse, Yukon

Frozen in Time

In Yukon, keys to the past are sometimes preserved in patches of ice.

n 2003, Cody Joe, a member of the Champagne and Aishihik First Nations found lying on rocks in the ice fields of southwestern Yukon near Whitehorse two water-logged fragments of hide sprouting a growth of moss. Thinking the pieces were fragments of a leather bag or drawstring pouch, Joe, a field assistant with the Yukon Ice Patch Project who was in the area west of Whitehorse to search for artifacts, brought them to the Yukon government archaeology and conservation laboratory in Whitehorse.

Valery Monahan, a conservator with the Yukon government, painstakingly cleaned the fragments and pieced them together. As the artifact took shape, Monahan realized it was not a bag after all, but an even rarer

archaeological find - a moccasin with an ankle tie. Radiocarbon dating showed the footwear to be approximately 1,400 years old, making it the oldest known moccasin in Canada. Monahan spent approximately 240 hours restoring it over the past two and a half years. She believes the



of Aishihik Lake,

about 150 northwest of items have been

Moccasin pieces moccasin may have been used for lightweight summer discovered west footwear, as it was found in a forested area traditionally used for summer caribou hunting.

Previous Canadian finds of ancient hide clothing have kilometres been found mainly in tundra regions, left by ancestors of today's Inuit people. A hunter belonging to the early Atha-Whitehorse. This paskan people is believed to have dropped or discarded location is where the moccasin. It is only one of numerous artifacts being many prehistoric exposed by the melting ice patches in the Yukon.

The Yukon Ice Patch Project is a joint research effort of unearthed in the Yukon government and six First Nations communities. The project was born following a sighting of caribou dung deposits in the area in 1997 - in a region where caribou had not roamed for at least 70 years. The dating of a core sampling of the dung showed it to be 2,000 years old.

> Greg Hare, site assessment archaeologist for the Yukon government, says the sites they have visited since the project's inception in 1997 have yielded 185 artifacts, including numerous hunting tools, bones and mummified birds and mammals.

> Artifacts beneath ice patches are doubly valuable, Hare says, because a lot can be determined from the context in which they're found. Unlike glaciers that are constantly shifting, the ice patches don't move, so artifacts found there are most likely very close to where they were

originally dropped or discarded. The oldest artifact found, a section of a hunting dart, is 9,000 years old.

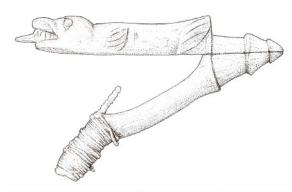
For more information visit <www.gov.yk.ca>.

Victoria, British Columbia

Unearthing an Intersection of Cultures

A trade magnet for coastal First Nations in the mid-19th century, Victoria's waterfront yields an unexpected trove of artifacts from many peoples.

n 1849, the British government granted the new colony of Vancouver Island to the Hudson's Bay Company in return for the company's agreement to bring out colonists. The Songhees people, who spoke a dialect of the North Straits Salish language, occupied the area surrounding Fort Victoria, which HBC chief factor James Douglas began constructing in 1843. Also referred to as Songies or Songish, they had become a vital part of the fort's bustling new economy. In the years since Douglas, later governor of Vancouver Island and of British Columbia, had steamed into their harbour aboard the SS Beaver, the Songhees



A wooden halibut hook carved in the shape of a seal swallowing a halibut, found at the Songhees site near Victoria and believed to be of Tlingit or Haida origin.

had proved themselves to be an industrious people, providing the inhabitants of the fort and surrounding areas with valuable seasonal provisions and labour. The women sold potatoes, clams, fish and handmade baskets, or worked in the employ of colonial households. Men provided game and labour to clear land, build fences and construct houses. In 1852 the Songhees comprised the majority of the construction crew building a new road west to Sooke, earning \$8 a month, replacing workers who had moved on to seek their fortunes in the goldfields.

Soon their culture was showing telltale signs of European influence: the woven dog-hair blankets gave way to European-style blankets; by the 1860s traditional shedroof lodges were being replaced with more European-style houses. Many resided near the fort, but after a suspicious fire in a wooded area in 1844, authorities asked them to establish a village on the other side of the harbour. By the following year about 70 families resided in the village.

The thriving economy in Fort Victoria began attracting large numbers of First Nations groups from the north and south in search of trade. Though the interaction among the tribes was not always agreeable, the broader variety of trade goods supplemented that which the Songhees could provide. Apart from clashes with visiting First Nations groups and the odd local upheaval, the Songhees appeared content. But the growing number of new settlers was bursting the seams of the fort and surrounding areas, increasing the demand for land and pressuring officials to move the Songhees even further away. In 1850, Douglas began the first treaty negotiations. Disparate opinions were heard among the colonists, and newspapers of the day continually monitored the latest development in the "Indian problem."

After 1860, colonial businessmen rented portions of the village, by then called the Songhees Reserve, establishing businesses and employing Songhees. In 1888 the Esquimalt and Nanaimo Railway Company built a rail line through the Songhees Reserve, providing monetary compensation to any Songhees who were forced to move from the right of way. In the ensuing years, the Songhees refused several offers to purchase their reserve land, unhappy with any lands proposed as replacement.

Finally, in 1911, bowing to pressure from government officials and landowners, the Songhees relinquished the Old Songhees Reserve land in return for money and a slightly larger portion of land (163 acres) in Esquimalt Harbour, four kilometres east.

Following more than 90 years of industrial activity, the waterfront land of the old reserve, which had become known as Victoria West, caught the eye of local developer Westbank Projects Corporation. Planning to erect condominiums on three acres, it hired archaeologist Ian Wilson to examine the site. Wilson didn't anticipate finding anything of much interest, but he was proven wrong when his excavations began in spring 2005.

Working alongside several Songhees and Esquimalt First Nations archaeologists, Wilson and his crew found a cistern dating to the early 1840s. Deep and waterlogged, it held numerous well-preserved objects, including more than 100 pairs of locally manufactured boots and shoes and northern Tlingit and Haida basketry. One prized artifact, a wooden halibut hook, about two feet long and carved in the shape of a seal swallowing a halibut, is believed to be of Tlingit or Haida origin. Wilson speculates that these objects were thrown into the cistern during a

clean-up after an 1856 epidemic of smallpox in the village.

Though several pre-historic Songhees sites in the area had been excavated, this appears to be the largest find of artifacts from the historic period between 1845 and 1855. Modern condos will eventually sit on the land the Songhees once called home, but archaeologists have saved this glimpse into how their culture intersected with the Europeans who arrived on their doorstep.

For more information on the history and traditions of the Coast Salish, including the Songhees, visit http://collections.ic.gc.ca/salish.

Et Cetera

Two More Sites: Digging history in the Arctic and a paleontological detour – digging dinosaur bones in B.C.

Dorset sites, four northern locations

Revisiting the Past Which group may have influenced the Dorset? It was the Norse, of course.

id the Dorset people, who occupied the Arctic between 1000 B.C. and A.D. 1000, have more extensive contact with the Norse than originally thought? Pat Sutherland, an archaeologist with the Canadian Museum of Civilization, is seeking the answer through reinvestigation of some archaeological sites and artifacts. Over the past five years, Sutherland has been investigating four Dorset sites: Avayalik in Northern Labrador, Nunguvik on North Baffin Island, Nanook on South Baffin Island and Willow's Island in Frobisher Bay. Sutherland believes that artifacts of spun cordage found at these sites will provide some of the answers to the questions of Dorset–Norse contact.

The Dorset people, Sutherland says, wore traditional clothing made from hides, while the Norse were known to fashion textiles and objects from spun materials. Presence of the cordage artifacts, spun from the hairs of Arctic hare, fox and dog, has led Sutherland to suggest that the Dorset may have had more contact with the Norse Greenlanders than previously thought. Some academic theories have the Dorset people disappearing from the Arctic by the 11th century, but Sutherland believes that the presence of the cordage may suggest that the Dorset people survived longer, well into the period of the arrival of the Norse in Greenland in the late 10th century.

To read more about the project and view the cordage visit <www.civilization.ca>.

Quality Creek, British Columbia

Walking with Dinosaurs

In ancient Canada megafauna ruled.

hen one thinks of Canadian dinosaurs, Drumheller, Alberta, immediately comes to mind. Prior to 2002 only two findings of dinosaur bones had been officially reported in British Columbia.

Paleontologist Rich McCrea has had the pleasure of changing all that.

McCrea, a doctoral candidate at the University of Alberta, was called upon in 2002 to investigate a sighting of dinosaur footprints in the Peace River district of northeastern B.C. He found not only tracks, but a treasure trove of dinosaur bones – the oldest bones ever found in Western Canada. McCrea called in Lisa Buckley, a paleontologist and specialist in dinosaur bone excavation who is working on her master's degree, and together they coaxed more than 20 fragmented bones from the site. The following year they discovered and excavated 50 more.

McCrea and Buckley are investigating almost a dozen sites in the region that are yielding footprints or bones, or both. The bones represent an assortment of dinosaur types – such as theropods, ankylosaurs, ornithopods – and marine animals such as crocodiles and turtles. They've even found fish scales. The bones, which include limb bones, vertebrae, dermal armour, shoulder spines and a few teeth, date to approximately 93 to 95 million years ago, 20 million years older than the bones from the Drumheller area. The footprints have proven to be an astonishing 75 to 140 million years old. And McCrea says there is much, much more out there. McCrea and Buckley returned to the main site, known as Quality Creek, in May.

The finds prompted the establishment in 2003 of the Peace Region Paleontology Research Centre in Tumbler Ridge, B.C., 160 kilometres northeast of Prince George, funded by the Tumbler Ridge Museum Foundation, a volunteer organization. McCrea and Buckley are creating a Dinosaur Discovery Gallery at the centre, which is scheduled to open this spring.

If dinosaur exploring fascinates you, two sites are open to the public near Tumbler Ridge: Flatbed Creek Site and Wolverine River Site, where you can take nighttime guided lantern tours. For details on these finds visit <www.prprc.com>.

