

ROYAL ONTARIO MUSEUM OF ZOOLOGY

THE 1011TH MEETING OF THE BRODIE CLUB

The 1,011th meeting of The Brodie Club was held at 7:30 p.m. on April 17 in the Ramsay Wright Laboratories of the University of Toronto.

Chairman: Bruce Falls Secretary: Oliver Bertin

There were 23 members and 12 guests.

- Hermina Ghenu, Ljubica Lukić and Calvin Chan, students and guests of Jock McAndrews
- Judith Buxton, wife of the speaker and curator of the Grey Highlands' South-Grey Museum
- Sharon Hick, guest of McAndrews
- Barbara and W.L. Klawe, guests of Ann and Bruce Falls. Dr. Klawe is senior scientist with the International Tuna Commission in La Jolla, Calif.
- Ricky Dunn and Jeremy Hussell, guests of David Hussell
- Rosalind Bradford, guest of Aarne Juhola
- Brenda Gibson, guest of John Sparling
- Eleonora Bertin, guest of Bertin and wife of former member Leonard

Helen Juhola moved adoption of the previous minutes, seconded by John Sparling.

NEW BUSINESS:

- The next meeting will be held at 7:30 pm on May 8 **one week earlier than usual** to accommodate birds migrating through Pt. Pelee. The meeting will be in the usual place, Room 432 of the Ramsay Wright Zoological Laboratories at UofT.
- The speaker will be Bob Johnson, a former student of the UofT and York zoology departments and currently Curator of Reptiles and Amphibians at the Toronto Zoo. He will speak on the conservation of reptiles and amphibians.
- There was considerable discussion about the June field trip. Members voted to accept the invitation of Robert Ritchie Jnr., son of corresponding member Dr. R.C. Ritchie, who now lives in Thorold, Ont. Ritchie Jnr. works for the Niagara Parks Commission and is well-placed to give members a tour of the Niagara Gorge, the butterfly conservatory, the botanical gardens, exotic birds and the domestic species that frequent the area. The members tentatively voted to hold the trip on the weekend of June 2 and 3, leaving the specific day open for discussion at the May meeting.

• Norm Martin attended the meeting for the first time in many months. His doctors have given him a guarantee good – hopefully – for the next 20 years.

SPEAKER:

The guest speaker was Peter Storck, who retired in 1996 as senior curator emeritus in the Department of World Cultures at the Royal Ontario Museum. He was also an adjunct professor at Trent University in Peterborough, Ont. Born in Wisconsin, he took a BS and PhD at the University of Wisconsin before coming to Toronto in 1969. He is author of *Journey to the Ice Age: Discovering an Ancient World* 2004, UBC Press/ROM, 336 pp, a book that won four awards for excellence. It sells for \$30/\$40 (soft/hard) from the author or softback \$29.95 U.S. from Amazon.com.

JOURNEY TO THE ICE AGE:

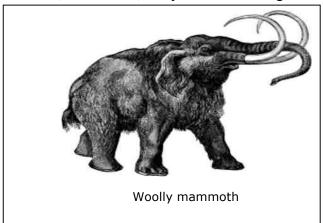
The Search for Early Humans in Ontario, Past, Present and Future

Storck was hired by the Royal Ontario Museum in 1969 to do research in Ontario on the first people to live here after the retreat of the ice sheets. At the time, there were two archaeologists in his department — Walter Kenyon, a larger-than-life character-and-a-half who worked on the Indian archaeology of the last 1,000 years, leaving Storck to handle everything before.

The museum had a huge collection of more than one million artifacts from the past 6,000 years of pre-history, but the palaeo-Indian period was represented by only one site in Ontario and only 12 artifacts.

That site, near Sheguindah on Manitoulin Island, was excavated in the 1950s and was believed at the time to date to 30,000 years BP. Further investigation showed that it was probably only one-third that old.

The palaeo-Indian people – sometimes referred to as the Clovis culture – went back 11,000 and 12,000 years when the glaciers were receding. Stone points from this



period were found in New Mexico in 1933 near the bones of mastodon and bison, indicating that they hunted big game with spears. The New Mexico points bore a remarkable resemblance to artifacts found in Ontario, suggesting they were made by the same group of people.

The life of a palaeo-Indian archaeologist can be long and frustrating. Half his work, Storck said, goes nowhere. He studies topographical maps trying to piece

together the geography of the late glacial era, and then walks corn fields trying to find traces of the ancient culture. Corn fields are a good place to search because farmers turn the soil with their ploughs and bring any artifacts to the surface, and the fields are free of cover in the early spring, making it relatively easy to find worked stone or potsherds.

During the late Ice Age, Southern Ontario ranged from tundra to parkland to boreal forest, from scrub trees to black spruce. The province was dominated by Lake Algonquin, a huge lake that formed between 12,500 and 12,000 years BP that originally covered the Holland Marsh, Manitoulin Island and Georgian Bay up to North Bay. The lake eventually broke through to the St. Lawrence River and drained, reaching North Bay in about 10,400 BP.

Storck was able to trace the outline of the ancient lake, looking for hills, points, islands and promontories that the ancient Indians would likely have used. The first site he found was on a slight hill, a glacial drumlin, just north of Toronto near Alliston, on what later became the Robert Banting homestead and museum. Storck surmised that the hill would probably have been a sandbar on the edge of Lake Algonquin, and therefore a good campsite for early fishermen. The hunch turned out to be true. Storck came across two 11,000-year-old artifacts.

Storck went back to the topo maps looking for other possible sites. He found what would have been an island in the palaeo-Indian era. He also looked for lakeside beaches, and spots where caribou or people would likely have funneled through, between high points of land, saddlebacks or narrow isthmuses between bodies of water. One such spot was Rattlesnake Point-Mount Nemo, a break in the Niagara Escarpment near Milton, Ont., where Highway 401 now goes through.

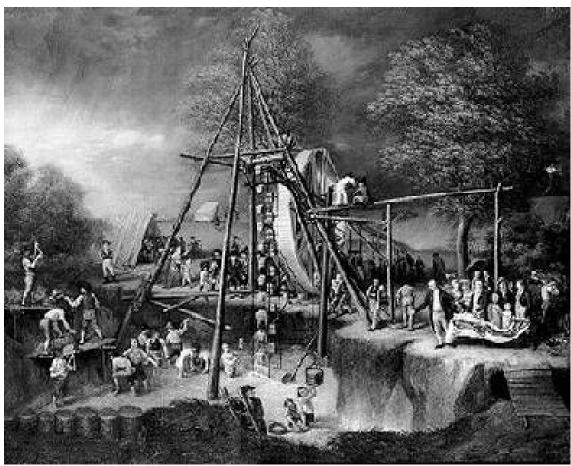
Storck would hire six or eight students for the summer and walk the corn fields around the edge of Lake Algonquin. He found a very good site on the Fisher farm, an old beach west of Stayner at the south end of the ancient lake. This site turned up several campsites and a hammer stone, scraper, needles and spear heads.

The problem with that site was the dating. McAndrews did a core and found high levels of spruce pollen, indicating this was a beach from the palaeo-era. But to narrow the timing down, Storck needed charcoal, bone or other organic material. That led to another problem – ploughed corn fields are very good for turning up stone implements, but very poor for the more delicate ancient bones.

To date his finds, Storck had to find an undisturbed, never-ploughed piece of land associated with a ploughed field that contained implements. He eventually found the perfect spot, on the other side of Lake Simcoe near the village of Udora. There was a farmhouse on the site, several out-buildings and a patch of land where the farmer stored his equipment. Storck dug across the farmyard and found the organic material he was looking for underneath an old chicken coop.

That chicken coop turned up the largest collection of palaeo-bones ever found in the North American mid-continent. There were 300 bone fragments, with the largest the size of a pumpkin seed. Storck found the first example of a caribou in southern Ontario, the paw of a hare and the foot of an Arctic fox.

There wasn't enough organic material to age the bones, so Storck turned to circumstantial evidence. The hare and caribou were no help because they are highly adaptable and found everywhere. But the Arctic fox lives in a very narrow niche, indicating that the tundra would have been less than 100 miles away. That didn't give a positive date, but it certainly narrowed the timing.



Exhuming the Mastodon by Charles Willson Peale on the farm of John Masten, Newburgh N.Y., 1801

Storck has found interesting material at many other sites in Ontario. At one spot, he found tools made of a strange flint that he could not identify. He checked with the geologists but nobody knew where it came from. More detective work turned up the answer. That piece of flint came from one of a handful of spots on the Bruce Peninsula near Wiarton. It was apparently quarried and traded by ancient Indians all over the province.

The Rattlesnake Point-Mount Nemo break in the Niagara Escarpment was another site that looked like a perfect place to search. Storck surmised that ancient caribou would funnel through the gap, and into the traps of the waiting Indians. He spent many years looking without any luck, but persistence eventually paid off and he found an early occupation.

Storck has now retired, but he hopes others will take over the search for the palaeo-Indian.

QUESTIONS:

- Bertin was very friendly with John Prideaux, an archaeology grad student who worked with Kenyon and Storck in the 1970s. Prideaux came to visit Bertin when he was a cub reporter for the Windsor Star in Chatham, Ont. Prideaux bet he could find Indian remains within the hour and he did several points in the flower bed of a city park at the junction of two rivers. Bertin wrote the story up for the Star to the amazement of the local inhabitants who had no idea that Indian remains could be found so easily in the centre of a small city.
- Storck said he has spent his life looking at the ground, looking for interesting bits of stone. When he went to Italy, he promised to look up at the buildings, and promptly got lost. He reminisced about a visit to Sussex in southeast England, where there is flint everywhere, in walls and churches and stone houses.
- Palaeo-Indians were found from Alaska to Mexico and from California to the Atlantic from about 12,000 to 10,400 BP. They used similar tools, indicating that they came from a single culture, possibly the Clovis race. These people and these tools have not been found in Siberia.
- Inuit were a separate group with a separate culture that apparently came to North America from Siberia much later, about 4,000 years BP.
- Archaeologists typically find large spear points, leading them to believe that North American Palaeo-Indians were of one culture that used hand-held spears to hunt bison, mammoths and other big game. Later evidence showed that the Indians adapted themselves to the local environment, with a different lifestyle and similar but different tools. These spear points are typically six to eight inches long, a good size for a hand-held thrusting spear. But archaeologists in Southern Ontario have found smaller spear points, three to four inches long, that would have been used for throwing spears.
- Sheguindah on the east side of Manitoulin Island was the most famous site in Canada when it was excavated in the 1950s. At the time, it was thought to be about 30,000 years old. The site was used by the ancient Indians as a tool quarry because it was an island of quartzite in a sea of limestone. The evidence was confusing because the tools were more sophisticated than palaeo-Indian tools found elsewhere, and they were located in a glacial till making them hard to date. Further excavations in 1991 showed that the till was indeed about 30,000 years old, but the campsite apparently came later, perhaps 9,500 years BP.
- One author claims similarities between the palaeo-peoples of France and North America. But Storck finds little evidence to back that theory up.
- Palaeo-Indians no doubt hunted mammoths and other big game, including bison, caribou and camel. They may have killed herds of 10 to 12 animals at a time, possibly by driving them into a trap or over a cliff.
- There are about two dozen sites in North America where mammoths and humans are connected. In southern Ontario, humans actively hunted mastodons, as shown by a group of skeletons that were apparently killed together, perhaps in a fall. Camel, bison and humans were found together in one site, but there is no evidence that humans ever hunted ground sloths or horses.

"They were an amazing, adaptable people," Storck said.

The speaker was thanked by Jim Bendell.

NOTES & OBSERVATIONS:

- Falls mentioned the launch on the following Thursday, April 19, of Silence of the Songbirds: How We Are Losing the World's Songbirds and What We Can Do to Save Them (hardcover) by York University biologist Bridget Stutchbury. (Amazon.com \$24.95 U.S., reduced to \$16.47 U.S.). The book deals with the decline of migratory songbirds in recent years, probably caused by the destruction of habitats and the overuse of pesticides, particularly in the wintering zones of Central and South America.
- Jock McAndrews introduced his three students, who dug together on the Hiscock Site near Buffalo, N.Y. where they made a major discovery, a mastodon bone together with a 12,000-year-old artifact, a palaeo-Indian fluted-point fragment that has been modified as a hand tool, specifically as a graver. They also found the remains of a peccary and a giant beaver.
- McAndrews said he and his students have begun a long-term study of the landscape history around Jokers' Hill, the site of the University of Toronto Koffler Scientific Reserve, which the Brodie Club visited in 2004. He plans to core the peat in the nearby Holland Marsh, which overlays the clay of the glacial Lake Algonquin, which was deposited some 8,000 years earlier. He also plans to core the peat beneath the adjacent, still-forested Pottageville Swamp. While exploring the east side of the swamp, he found what turned out to be the right-of-way for the electric railway that ran between Aurora and Schomberg. According to Brown's (1994) *Ghost Railways of Ontario*, it was active from 1909 to 1927. Brown claimed the right-of-way had disappeared, but Jock and his students found they could trace the line on Google Earth.
- Norm Martin said he remembered riding those particular rails many times. He also remembered a station at King Sideroad at Yonge Street near Aurora that was named Schomberg Junction.
- McAndrews reminded members of a book by Brian Sykes *The Seven Daughters of Eve* which traced the female descent of Europeans through mitochondrial DNA. (Amazon.com \$11.53/17.13 U.S.) He now recommends the logical sequel: *Adam's Curse: A Future Without Men,* which is about the human Y chromosome and why it makes boys, well, boys. (Amazon.com list \$25.95 U.S. / discount for \$5.99 U.S. Amazon.com sells both books as a package for \$17.52 U.S.)
- Jean Iron reminded members that the deadline for buying the *Atlas of the Breeeding Birds of Ontario*, 2001-2005 at a pre-publication discount has now passed. About 1,800 books have been sold, ready to be delivered when the book comes out in September this year at an estimated full price of \$96. The book will have 700 full-colour pages of maps, photos, charts and text on all the breeding birds in the province. It promises to be the most authoritative resource on bird biology and conservation in Ontario. For more information, check www.birdsontario.org.
- Ellen Larsen referred to the potter wasps she mentioned at the January, 2007, meeting. These wasps were preying on bark lice (Psocoptera), instead of the more usual caterpillars or apids. She has done some more checking and found this is the first example of such a practice in Canada.

- Jim Bendell has seen an abnormally high number of deer this spring. He saw eight in an hour or so on his property, far more than usual, and a huge herd near Carleton Place. "This is quite exceptional," he said.
- Bendell noted that the recent snowfall has covered up everything edible in his neck of the woods, and birds are now eating sumach berries.
- Falls reminded members about The Carden Festival, to be held on June 15-17. One highlight will be Ellen Larsen's talk on photography. See the previous minutes for details.

NEXT MEETING:

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Places Remembered

By Yorke Edwards Our Western Correspondent

I know a long and narrow lake with green and milky water from nearby glaciers. Mountains sweep high between each shore as I glide along in a canoe, paddling between each side. Along the narrow miles, the mountains pass the canoe on a mirror of still green water. Each mountain is different; each one has a different rocky height towering above the forests that are far below, some with downward scars of slopes made by avalanches. High up, I see a bear wandering across the path of an old scar at the edge of a long drop below.

I know a flat table-topped mountain reaching well above timberline. The air is cool and gray jays glide among the dwarfed alpine fir trees, while whistles of golden-crowned sparrows fill the air with sounds that can only be heard in such gardens in the sky. I often recall this mountain, flat on top, with small, cool, summer winds all around me. I felt to be a very small size.

When thinking of high mountain meadows, I remember a coyote, furred, neat ears alert, eyes alive, and a colour of rich buffs and browns. It watched still as I passed by it on my horse walking along the high miles of the sky's flatland. And all about, there were miles of crowded flowers, whites and yellows, orange, pink, blue, and huge patches of the Indian paint brush glowing red. Those miles were long ago, but still give pleasure through half a century of

remembering.

I know a forest of spruce trees by a pool of quiet water too small to be a lake. Its shores are soft and bounce beneath my feet as I pass by. That pool is an otter nursery, filled with life that is beautifully lithe and full of play. That place still gives me remembered thoughts. It is a pleasure knowing that the pool is hidden in the quiet part of a park.

I know a forest, dark and cool, where towering trees are holding high above with a canopy of leaves keeping out the sun. The ground has flowing ferns, and above those are wide trunks of tall trees that are cushioned thickly with the green of moss. It is a place to know that life of many kinds are on our Earth. Around and upward, there are tons of living fir trees, all limbs having beneath them bits of many mosses. A large dark woodpecker of raven size flashes through the trees, while no less important, a little snail inches its slow way across the trail. Parks preserve wild heritage not just for people, but for all the lives that are living in them.

I know a mountain high in winds, its top with summer snow scattered with insects swept up in a swift and climbing wind. Looking south into the USA, the mountains have many white tops. Snow too, stays there through summer. Silence is away for endless miles. I wonder about mountains. People are not cold even with snow under their feet in summer. Earth is a small dot with a lot of icy cold. Y