



ARCH NOTES

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PRESIDENT'S COMMUNIQUE

Dr. Bruce Welsh

Greetings once again from the OAS Office. Quite a number of things have occurred in the past two months about which you should all know.

The first is bad news. For personal reasons, Mr. Lawrence Jackson has resigned from the Board of Directors. The Board accepted his resignation with reluctance and much regret. As a professional and consulting archaeologist who has worked extensively not just in Ontario, but Belize and elsewhere, Lawrie had much to offer the Society. The experience, expertise and insights he brought to the Board will be sorely missed. On behalf of the Board of Directors and the OAS membership, I wish Lawrie well and the best of luck in completing his thesis.

Fortunately, we have been able to fill the Director's post vacated by Lawrie. Mr. Andre Bekerman, a candidate in the 1991 election, has agreed to sit as a Director for the remainder of the year. I welcome him aboard and hope he does not find it too daunting. And while on the subject of positions on the Board, you will note elsewhere in this issue that the Nominating Committee for 1992 has been set up. So if you know of anyone you would like to nominate to the Board or would like to see your own name in bright lights, please contact the Committee or the OAS Office as soon as possible.

Now to the good news. I am very pleased to report that our application for funding from the MacLean Foundation for the OA Endowment Fund was successful. We have been sent a cheque for \$6,000.00. This sum pushed us nearly over the magical figure of \$20,000.00 so the Ministry replied with a cheque for \$55,000.00! This means that we have practically achieved our goal of acquiring \$80,000.00 as an endowment for OA. I would like to thank MCC, the MacLean Foundation and all you members and non-members who sent us money to achieve our goal. Most of all, I would like to thank the Fund Raising Committee for their work in achieving this so quickly. I understand they have already set a new goal and are in the process of sending applications to other foundations and institutions for further funding. Many, many thanks. It would seem the future of Ontario Archaeology is now secure.

Finally, you will note elsewhere that you can now pre-register for the 1992 OAS Symposium. Given the interest on the theme - the Contact Period - we hope to attract a large audience, especially since a few of the papers are concerned with areas outside Ontario. There is, however, space for a few more papers so if any of you wish to give a paper related to our theme please send it on.

GLOVER HARRISON AND CHINA HALL: MAJOLICA BUTTERS, FIVE O'CLOCK TEAS AND TÊTE-À-TÊTE SETS

by Ellen Blaubergs

Another version of this paper was presented as "Documentary Context and its Importance: Preliminary Research into a Nineteenth Century Toronto China Merchant" at the 25th Annual Meeting of the Canadian Archaeological Association, London, Ontario - May 9, 1992.

Introduction

In 1990 the Toronto Board of Education's Archaeological Resource Centre began a four-year investigation of the Gore Vale site in Trinity-Bellwoods Park (Hamalainen et al. 1991). Constructed in 1820 by the Honourable Duncan Cameron, Secretary of the Legislature of Upper Canada, *Gore Vale* was one of the first brick residences visible in west Toronto.

Cameron and his sister Janet lived there to the time of his death in 1838. Janet, his heir, continued to live on the property but sold the southern part for the construction of Trinity College in 1850. Subsequent *Gore Vale* owners included Boulton family members, railway mogul Edward Oscar Bickford and Trinity College itself (Purmal and Smardz 1991:17).

The 1990 exploratory excavations focused on determining the exact location of buried foundation walls on the property, the extent of demolition circa 1928 and identifying layers and features relating to activities on the site area after *Gore Vale* was demolished. Determining the amount of disturbance and fill associated with the site was also a prime focus (Hamalainen 1992:76).

China Hall Importer's Mark

It was from a layer associated with the clay capping of a demolition layer below, that the subject of this article was recovered. Two white ironstone ceramic base sherds were mended to comprise a partial black transfer-

printed maker's mark (Fig. 1).

The marks exhibits a decorated jug with the words "CHINA _____ and below "GLOV_____". A similar mark is displayed in the second edition of Elizabeth Collard's definitive **Nineteenth Century Pottery and Porcelain in Canada** (1984:322). This complete version reads: "CHINA HALL/GLOVER HARRISON/KING STREET/TORONTO". It quickly became apparent that this was not a maker's mark; instead, this was a dealer's or importer's mark on an imported piece.

Collard summarizes (1982:21) that *"pottery and porcelain with importer's marks are one of the most useful and reliable ways to document Canadian ceramic trade in the nineteenth century. The importer's mark clearly states that a specific type of ware, in a specific pattern, was being sold in a defined area, at a date that can be determined. It adds to our knowledge of the taste, demand and economic status of importer and customer"*. In the nineteenth century, importer's marks (in most instances) are found on printed earthenware and ironstone china. Only some dealers added their names to their wares - a good advertising ploy, no doubt.

Collard documents several other known China Hall/Glover Harrison marks. One appears printed in brown on the bottom of a very graceful white ironstone sauce boat with a gold rim and gold line around the foot (1982:26). This piece was imported by Harrison ca. 1865 and rests in the former

National Museum of Man collections. The mark in brown, black or blue was in use from about the mid-1860s. An 1880s mark in blue with "POUR / GLOVER HARRISON/TORONTO" appears on porcelain manufactured by Haviland & Co., France. An 1890's mark in red also on Haviland porcelain reads "CHINA HALL/49 KING ST. EAST/TORONTO". A similar one depicting "FOR CHINA HALL/TORONTO" appears on ironstone made by Ashworth Brothers, ca. 1890 in Staffordshire (1982:26).

China Hall Context

Further research into the primary source documents identified by Collard (1984) combined with other sources, begin to shed additional light on the initial discovery of the importer's mark found at the Gore Vale site. They provides a wonderful context for this artifact, namely the latter part of commercial and social nineteenth century Toronto.

To begin establishing this context, a rather verbose quotation seems appropriate:

"North of Wellington Street and parallel to it, extends from the western limits of the city to the point where, taking a north-easterly direction it joins Queen Street at the Kingston Road, King Street, the oldest, the most historic, the stateliest and most beautiful of Toronto's streets. Here are restaurants,

where men and ladies can dine in comfort, and as luxuriously as any in New York or London. Is there any taste you desire to gratify, any decorative art you would pursue? In that case, O reader "put money in thy purse" (for that is an indispensable condition) and take a walk along the south side of King Street". C. Pelham Mulvaney, M.A., M.D, the author of this 1884 description must have enjoyed many such walks and his familiarity with the elegant south King Street store front of China Hall requires no speculation.

William Dendy in *Lost Toronto*

describes the architecture of China Hall:

"...it had two storeys of plate glass... framed in cast iron, supporting a two-storey facade of cut stone with a high balustrated cornice and windows framed with wide mouldings and strapwork designs. The cast-iron framing of the

second floor was designed as a row of panelled arches supported on thin colonnettes above a three-bayed shop front" (1978:77). A ca. 1884 photograph shows both levels of China Hall and its main product, ceramic wares. Large tableware and statuary seem to be the most identifiable pieces (Fig. 2).

China Hall is also described as *"handsome, commodious with dimensions of 40 x 200 feet, four stories in height with a plate glass front and neatly arranged show windows" (Industries of Canada 1886: 111).* Its

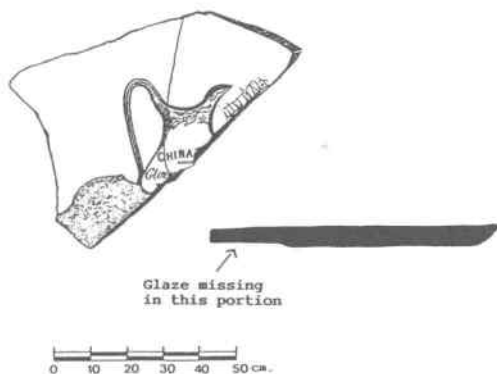


Figure 1. China Hall Importer's Mark on Gore Vale site sherd.

wholesale and retail business commanded a large share of the best patronage in the city and surrounding country. Harrison imported direct, kept in stock a full and complete

assortment of china, glass and earthenware, plated and fancy goods, table cutlery, busts and Parian marble statuary, Bohemian vases etc. Specimens could be seen in great variety in his well-appointed sample room. A specialty was made of importing Royal Worcester, Dresden, Derby, Doulton, Wedgwood, and Copeland goods (*Industries of Canada* 1886:111).

Glover Harrison, a native of the west of Ireland, arrived in Canada ca. 1847. He first appears in the Toronto Street Directories in 1860 where his profession is listed as grocer. Before becoming a china merchant, Harrison was employed as a clerk and salesman (*Toronto City Directories* 1860-65).

Interestingly, China Hall is one of twenty-nine business's depicted in a nineteenth century engraving in the *Canadian Illustrated News*. The engraving entitled "Toronto - The Queen City of the West" appeared in the May 28, 1881 issue. China Hall joins other elegant

storefronts of the day including those of numerous life insurance companies, jewellers, stationers and dry goods sellers (de Volpi 1965: Plate 127).

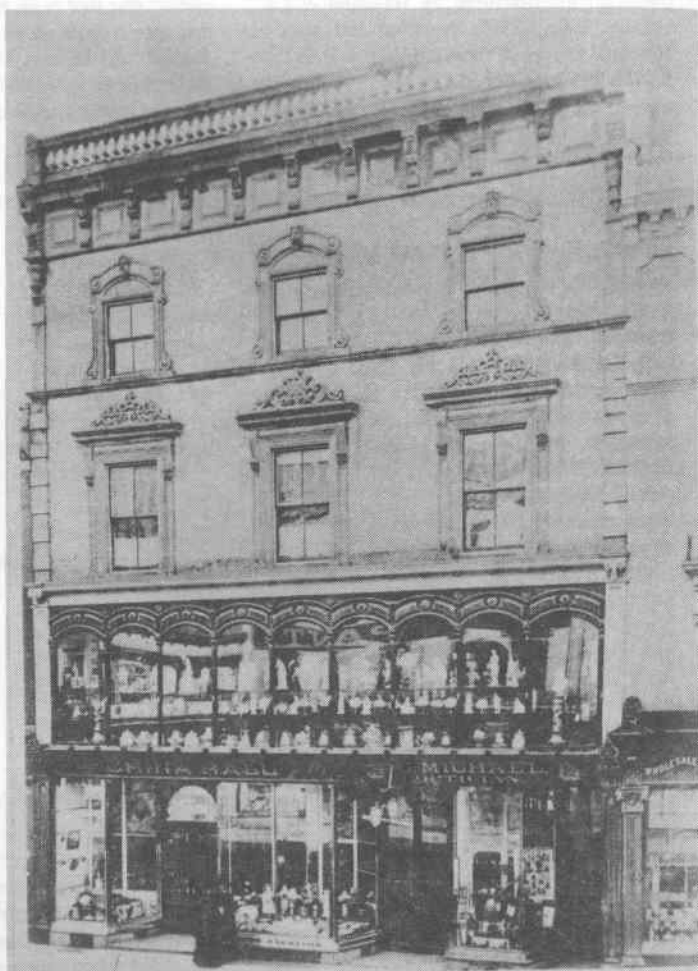


Figure 2. China Hall, ca. 1884; Courtesy of the Metropolitan Toronto Reference Library.

While researching China Hall, one of its neighbours "The Golden Lion" dry goods emporium appeared to be prolifically documented and photographed. Standard

historic Toronto references such as **Toronto No Mean City** (1986) and **Lost Toronto** (1978) as well as archival photographs and documents all include the magnificent facade of this cast-iron and plate glass storefront with its lion rampant in stone mounted on a pedestal. According to William Dendy, this building was more dramatic and structurally more adventurous than China Hall (1978:77).

Industries of Canada - Historical and Commercial Sketches of Toronto, an 1886 publication, felt that among the many businesses on King Street, the house of Glover Harrison was definitely worthy of a special mention in a review of Toronto's commercial and industrial resources (1886:111).

Glover Harrison founded China Hall in 1864. Before he opened for business at 71 King St. East, he was briefly at 49 King St. East, an address he would return to in 1881. Elizabeth Collard notes that importer's marks with the 49 King St. E. address, almost always date to the years after 1880 (1984:414). Towards the end of 1866 until the end of the 1870s, China Hall's address was 71-73 King Street East. In 1881, Harrison moved to 49 King St. E. which remained China Hall's location until 1899. Harrison died in 1888 after which the business was managed by the "Estate of Glover Harrison" (Collard 1978:98). When the estate was settled, Joseph Irving of Junor and Irving (Toronto City Directory 1895) became the new proprietor. He moved China Hall to Yonge Street in 1900 (Collard 1984:78).

Harrison and his shop seem to have been held in quite high regard. Another 'kudo' in **Industries of Canada** mentions that *"during a long and successful career in Toronto [he] has acquired the esteem and regard of the mercantile community and the general public"* (1886: 111).

C. C. Taylor in **The Queens Jubilee and Toronto "Called Back"** (1887:313) pays Harrison an enormous compliment in the following quotation: *"in catering for the citizens of Toronto, [Harrison] has done much to educate the taste of the people in this branch of trade, combining the useful with the ornamental more than in any other*

department; while on the other hand his efforts have been appreciated by all classes, from the highest, who have expended their wealth in furnishing and decorating their houses (showing as much as in anything else the wonderful progress of Toronto), down to the humblest, who have suited themselves in every article necessary for comfort and convenience".

Periodically, Harrison visited his suppliers overseas including Limoges and Sèvres in France, and Dresden in Germany. Taylor notes that *"a visit to Harrison's gallery of art treasures would provide interest and instruction in everything....to furnish the mansion, hotel or cottage...."* (1887:313-314).

Advertisements

Several 19th century advertisements aptly demonstrate the wide variety of products Harrison made available to the public. One of his advertisements in the Mail (Nov. 28, 1879) lists such delightful pieces as "majolica butters and sardines", "five o'clock teas and trays" and "tête-à-tête-sets". Other offerings include "China and Queensware Dessert Sets", "China breakfast and tea sets" as well as "jasper cheese covers and game pies". Advertisements in the Daily Globe (Dec. 13, 1866), the Mail (Sept. 10, 1879), and Toronto City Directories (1867, 1868, and 1886) promote white tea sets, cut glass, Bohemian vases, toilet sets, table cutlery, cake and card baskets as well as leather bags, fancy goods and toys.

Belleek

A new item, "Irish China", appears in Harrison's ads after 1870. Irish China is, actually, Belleek, an ivory-coloured, eggshell-thin porcelain made at Belleek in County Fermanagh. The Canadian market received it with a high degree of enthusiasm. Founded in 1857, the Belleek china factory began to export its fine porcelain to North America circa 1870 (Collard 1984:174). Collard notes that Harrison, an Irishman, was the first to strongly promote it in Toronto and refers to two 1871 ads in the Evening Leader where he cries "COME AND SEE IT" and the "New Irish China" a ware he identified with 'first

class quality' and 'superior taste (1984:98,174). Eight years later he is still promoting it, in several newspapers, as among "the most beautiful....ornamental goods ever offered to the public" (The Mail, Sept. 10, 1879 and Collard 1984:174).

1879 Industrial Exhibition

Glover Harrison displayed his wares in a most spectacular exhibit at the 1879 Industrial Exhibition in Toronto. The September 12, 1879 edition of the Mail reported that Princess Louise, daughter of Queen Victoria "minutely inspected" his exhibit and ordered a set of ironstone jugs of antique form. Imagine the flurry of activity in Harrison's shop after this article was published. The Princess undoubtedly set quite a trend and the Toronto elite probably adorned many subsequent fine tables with these jugs of 'antique form'.

Dating the Importer's Mark

The Glover Harrison/China Hall importer's mark from the Gore Vale site is incomplete and, to date, a duplicate has yet to be discovered in the ceramic or historic archaeological literature. China Hall's King St. East operation dates fall between 1864 and 1900. The sherd's current placement is on a timeline between the 1880s and 1890s, among other diagnostic artifacts recovered from the same demolition layer capping. In fact, between 40 and 50 percent of the diagnostic items recovered from this layer date to the period when the well-to-do Bickford family occupied Gore Vale. Edward Oscar Bickford spent considerable sums on interior renovations of Gore Vale in the 1870s and 1880s as well as beautifying the grounds of his property (Purmal and Smardz 1991:46). The Bickfords and perhaps their predecessors, the Boultons, may both have enjoyed their meals served on the gracious wares of China Hall.

The ladies and gentleman of these households may have also occasionally indulged in an activity so aptly included in C.C. Taylor's **Toronto "Called Back" From 1892 to 1847** as he quotes a writer in the **Canadian Illustrated News**: "Amid the upper classes, there is a performance that goes on daily, that is known among *habitués* as 'doing

King'(1892:127-128).

Conclusion

Inquiries directed at several Toronto archaeologists reveal that importer's marks are not a very common item among their nineteenth century ceramic assemblages (P.Hamalainen, D. Doroszenko and M.C. Garden, pers. comm.). Additional and future finds may add another dimension to nineteenth century ceramic studies, perhaps one that focuses on the context of the china shop where the vessels were originally purchased. Recent personal communications with two descendants of Glover Harrison and a resident of Victoria, B.C., who still owns several China Hall pieces purchased by relatives in the nineteenth century (Miss Cross, V.J. Slater and M. L. Bryers 1992), will assist in this contextual study which began so innocently with the recovery of a broken base sherd in 1990. Perhaps the subtitle of this research should be "An Artifact on a Tangent".

Acknowledgements

My sincere thanks to Natasha Glickman who located many of Elizabeth Collard's and other primary source documents in the Metro Reference Library and City of Toronto Archives. Thanks also to Rod Crocker, Michèle Tremblay, Greg Purmal and Andreas Koch for their various contributions!

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Toronto City Directories
1860-1865, 1867-1868, 1886. ■

Elman W. Campbell Museum

543 Timothy Street
Newmarket, Ontario

Summer events at the Museum:

■ A travelling exhibit from the Royal Ontario Museum, entitled "The Ontario Iroquois: History Through Archaeology", will be at the museum from July 7 to September 3. The exhibit will explain how years of archaeological research have increased our knowledge of the Iroquois lifestyle in Ontario before European contact.

■ "Pipes of the Iroquois", also from the R.O.M., will supplement the other Iroquois exhibit and will be in place August 4 to September 30. The skill and artistry of the pipe makers are shown by twenty-two pipes and pipe fragments in this bilingual display.

Museum open Tuesday to Saturday, 10.00am to noon, 1.00pm to 4.00. Admission and parking free.



PRESS CUTTINGS

High school students eagerly digging up the past

For most kids, rusty nails and broken glass are things they've traditionally been taught to avoid. But this summer a Toronto Board of Education program - the **Archaeological Resource Centre**, established in 1985 with a \$250,000 provincial grant - is encouraging kids to find those things and learn about archaeology and the history of Toronto.

"This is the only centre for teaching archaeology like this in the world," administrator and cofounder Karolyn Smardz said. "We invented it because most people find archaeology interesting and we wanted to find the best way to teach them about it."

The latest excavation site is at Trinity-Bellwoods Park in central Toronto, where a huge mansion stood until 1928. It is the seventh site the Board of Education has chosen.

So far in digs during the past two summers, steps leading to the mansion's basement, as well as undamaged sections of the basement floor and walls, have been uncovered. The site is about 20 m by 30 m and is fenced off, with 24-hour security against vandals. Digging has gone down about two metres.

Organizers call it an "outdoor classroom" and students can earn a Grade 11 or 12 history credit during the six-week field schools, which started last week. The classes are six hours each day, with three hours in the classroom and three hours of digging at the site. Some students like the program so much they return for a second year, like Ravi Jagasia.

"It's a different kind of learning," the fifteen-year-old said during a break from excavating.

"It isn't the same as being in a classroom.

We're actually out here digging and finding things."

Ravi will be going into Grade 11 in September and will have already earned his Grade 12 history credit at the site last summer.

Ravi is one of 50 summer school students digging up what used to be the Gore Vale mansion, named for Sir Francis Gore, lieutenant-governor of Upper Canada before the War of 1812.

The mansion was built in 1820 by Duncan Cameron, the first provincial secretary of Upper Canada. It was the first brick house in the west end of the city. In 1928, the mansion was torn down and covered with dirt to increase the size of Trinity-Bellwoods Park. In its 100 years, the mansion also served as a hospital, a dormitory for Trinity College and a community centre.

The park site is the largest and longest excavation attempted by the **Archaeological Resource Centre**. Excavation will be completed by the end of next summer. All of the estimated 70,000 artifacts that will have been found at the site by the end of next year are being measured, drawn to exact size, numbered and bagged.

When the excavation is completed, the site will be covered with dirt and turned into parkland again.

"It's a great way to put the human interest back into the history of the period" said Carole Stimmell, public relations coordinator of the resource centre. It's also a great way for students to find out whether they'd like a career in archaeology. ■

from The Globe & Mail, July 8, 1992

THE AMERINDIAN DISCOVERY OF EUROPE: ACCOUNTS OF FIRST CONTACT IN ANISHINABEG ORAL TRADITION

*by D. Peter MacLeod**

This paper deals with one account of first contact between Ameridians and French during the seventeenth century, when a small group of people made a voyage of exploration and discovery, then returned home bearing new and exotic goods and strange tales of their encounter with a new and profoundly alien civilization. It examines how this first contact expanded into a permanent relationship between two peoples.

Narratives of first contact in the seventeenth century are of course very common. Yet most, in fact almost all, of our narrative sources from this time are found in European documents. They naturally express the perceptions and prejudices of their writers, and thus portray the contact period as a time when Europeans discovered America. In these narratives, Europeans are the actors, and Ameridians the passive objects of discovery.

In this paper, on the other hand, we will be examining an account of the contact period which is based entirely upon Amerindian sources. This version of the history of first contact is of particular interest because the "explorers" and "discoverers" are Ameridians.

More specifically, they were Anishinabeg. The Anishinabeg, or Ojibwa, belong to the Algonkian family nations and, although this is something of a simplification, during the contact period they lived in the upper Great Lakes region, roughly the area east and west of what is now Sault Ste. Marie.

We know of their impressions of the contact period through their oral traditions. Those Anishinabeg who first encountered Europeans in the seventeenth century passed on their memories of events to their children. These

recollections were subsequently transmitted by tribal elders, from generation to generation, until the mid-nineteenth century. Then, they were preserved in print by a group of Anishinabeg authors. These writers, who had received European-style educations, used the oral tradition as the basis for a series of histories of the Great Lakes region from the perspective of the Anishinabeg (MacLeod, 1992: 70-75). One version of the Anishinabeg traditions of the contact period was obtained by a missionary in the Lake Superior region who interviewed Peter Jones, an Anishinabeg who had become a Methodist minister (Kohl, 1860: 244).

We examine here an account of first contact that tells how one group of Ameridians remembered their nation's first contact with Europeans.

In the oral traditions of the Anishinabeg first contact with Europeans occurred soon after the arrival of the French in the St. Lawrence valley. At this time word reached the Anishinabeg of the existence of "some strange persons living on this continent" (Blackbird, 1887: 92). In some versions these were supernatural "spirits in the form of men" (Warren, 1885: 118), in others they were just "extraordinary people" (Assikinack, 1858: p. 307). The Anishinabeg met in council to decide how to respond to this information and eventually decided to prepare an expedition to travel eastward to seek out the strangers (Kohl, 1860: 245).

This expedition, organized and led by a shaman, departed early in the spring soon after the breakup. The Anishinabeg explorers travelled down the Great Lakes, along the French River, then down the Ottawa. Towards the mouth of the Ottawa River they

discovered the first physical evidence of the existence of the newcomers - a hut standing in a clearing, surrounded by the stumps of large trees that had not been cut with stone axes (Warren, 1885: 119). The trees appeared, in fact, "to have been cut through by the teeth of a colossal beaver" (Kohl, 1860: 246). The shaman and his party deduced that this was a campsite of the strange people and were pleased to have found this tangible indication of their reality.

Further down the river the intrepid explorers were further encouraged when they found another clearing and a cabin that had apparently been occupied by the strangers during the previous winter (Warren, 1885: 119).

Finally, the party reached the St. Lawrence River. There they found a settlement occupied by the strangers who greeted them cordially. These people were indeed very odd and, in fact, rather resembled squirrels. This was because, according to the oral tradition, they kept:

their goods and provisions in hollow places, but instead of digging holes in the ground like squirrels, they took the trouble to put several pieces of wood together, in the shape of a hollow tree sometimes, fastened with hoops, where they kept their provisions (Assikinack, 1858: 307).

From these strangers the Anishinabeg travellers acquired, either as gifts or through trade, a variety of items, including cloth, metal axes and knives, flint and steel, beads, blankets, and firearms (Assikinack, 1858: 8307; Blackbird, 1887: 93; Warren, 1885: 119). Then they set out for home.

Immediately following their return a second council was called. The travellers provided a complete account of their successful voyage and displayed the interesting items that they had obtained. These goods aroused considerable interest among the Anishinabeg. Hunters came in from the forest to obtain shavings or chunks of wood that had been cut with an ax. Bolts of cloth were cut into small pieces so that everyone could have one. Splinters of wood and shreds of cloth were

attached to poles and sent from village to village spreading the word of the arrival of the strangers (Blackbird, 1887: 93; Kohl, 1860: 247; Warren, 1885: 119-120).

Now this account of first contact between the Anishinabeg and the French is most notable for the fact that rather than waiting passively to be "discovered" by European "explorers," it is the Anishinabeg who discovered the French and took the initiative in opening commercial relations. Although they were impressed by some aspects of European technology and intrigued by unusual French customs it was the Anishinabeg who remained firmly in control of the situation and the Europeans who responded graciously to Anishinabeg overtures. According to these oral traditions the Anishinabeg remained in control when the first French traders travelled to the Anishinabeg country.

Some of these traders produced accounts which suggest that the Amerindians were most impressed with these heroes. Pierre Radisson, in particular, appears to have believed himself to be rather charismatic and left his readers with little doubt that the mere presence of a pair of Europeans and their goods was enough to dominate the nations of Lake Superior. In his own words:

We wear Caesars, being nobody to contradict us. We went away free from any burden, whilst those poore miserable [Amerindians] thought themselves happy to carry our Equipage, for the hope that they had that we should give them a brasse ring, or an awle, or a needle ... Wee ... weare lodged in ye cabban of the chiefest captayne ... We like not the company of that blind, therefore left him. He wondered at this, but durst not speake, because we were demi-gods (Radisson, 1885: 200-201).

The Amerindians who compiled the oral traditions were apparently less impressed. Their account of this visit is rather different. According to the oral tradition:

Early the next morning, ...the young men once more noticed the smoke arising from the eastern end of the unfrequented island, and led on by curiosity, they ran thither and found a

small log cabin in which they discovered two white men in the last stages of starvation. The young Ojibways filled with compassion, carefully conveyed them to their village, where, being nourished with great kindness, their lives were preserved (Warren, 1885:122; Nute, 1943: 62n).

So in this phase of the contact period the oral traditions contrast the resourceful, confident and compassionate native community with rather pathetic commercial travellers who need indigenous help to keep from starving to death in the midst of one of the richest fishing grounds in the Great Lakes region. Inspiring neither respect nor fear the two Europeans were wholly dependent upon the tolerance and charity of the peoples through whose homelands they travel. They were welcomed but valued only for the products that they sold. For they could contribute nothing else to the lives of their Anishinabeg rescuers and hosts except perhaps the entertainment afforded by the presence of such unusual individuals.

Yet these goods were valued and trade between the Anishinabeg and the French flourished. As the trade continued the two groups decided to formalize their relationship with an alliance. The terms of the alliance were amicably negotiated at a meeting near the site of Sault Ste. Marie in 1671.

The reports that delegates brought home from this conference reflected widely varying interpretations of the nature of the relationship. Simon Francois Daumont de St. Luson, representing the French crown, produced an account for his superiors that depicted the Anishinabeg as completely subordinate to the French:

...IN THE NAME OF THE MOST HIGH, MOST MIGHTY AND MOST REDOUBTABLE MONARCH LOUIS, THE XIVth OF THE CHRISTIAN NAME, KING OF FRANCE AND NAVARRE, we take possession of the said place of St. Mary of the Falls as well as of Lakes Huron and Superior, the Island of Caientolon [Manitoulin] and of all other Countries, rivers, lakes and tributaries, contiguous and adjacent thereunto,

...declaring to the aforesaid Nations that henceforward as from this moment they were dependent on his Majesty, subject to be controlled by his laws and to follow his customs (O'Callaghan, 1855: 803-804).

Yet St. Luson was evidently a good deal more circumspect when negotiating with the Anishinabeg for a less baroque but more convincing account of the same meeting was preserved by the descendants of the member of the Crane Clan that represented the Anishinabeg:

Steur du Luson ... The envoy of the French king, asked, in the name of his nation, for permission to trade in the country, and for free passage to and from their villages all times thereafter. He asked that the fires of the French and Ojibway nations might be made one, and everlasting (Warren, 1885: 131).

The alliance thus established was remembered by the Anishinabegs characterized by the close adherence of the French to Anishinabeg customs and forms (Warren, 1885: 132, 135). This alliance entailed only the granting of access to Anishinabeg villages to French traders and certainly no surrender of Anishinabeg sovereignty or freedom of action.

Yet if the impact of the Europeans themselves was something less than overwhelming their technology was nonetheless very much appreciated both for its novelty and its utility. Of all European products it was firearms that received the most attention in the oral traditions of the contact period. In these traditions, the Anishinabeg portrayed themselves as quickly mastering a new technology and using it to further their goals.

In one narrative the acquisition of firearms by the party that first set forth in search of Europeans makes their return rather more dramatic than they might have intended. For as the returning adventurers came in sight of their homes they used one of their new muskets to fire a shot into the air. According to the oral tradition:

they arrived at their village on an exceedingly calm day, and the water was in perfect stillness ...The Indians saw the canoe coming towards the shore of the village, when

suddenly a puff of smoke was seen and a terrific clash of sound followed immediately. All the inhabitants were panic stricken, and thought it was something supernatural approaching the shore (Blackbird, 1887:93)

This confusion was resolved when the explorers landed and the Anishinabeg began to consider the strategic implications of this new military technology. One account of this process is rather charming:

Intercourse had been opened between the French and the Ottawas and Chippewas on the straits of Mackinac and being supplied with fire arme [sic] and axes by the French people, it occurred to the Ottawas that these implements would be effective in battle" (Blackbird, 1887: 93).

According to Anishinabeg sources some unsuspecting enemies "thought that they [firearms] were nought but clubs" but were then taken by surprise and suffered a "crushing defeat" (Blackbird, 1887: 93). In fact, the oral traditions relate a series of victories by the Anishinabeg over enemies who were not equipped with firearms. This continues until these enemies themselves gain access to European weapons (Warren, 1885: 120, 124, 126, 148, 223). So European weapons, if not Europeans themselves, are portrayed in the oral traditions as quickly becoming a key element in the military balance in the Great Lakes region. A nation possessed of firearms was in a position to dominate its neighbours. Enemies with equal access to European military technology on the other hand met on equal terms.

Yet apart from supplying military technology the French are not portrayed as exercising any great influence on the course of events in the Great Lakes region during the contact period. At the end of the contact period the Anishinabeg remain as firmly in control of their lives as they had been when they first became aware of the existence of Europeans.

This is, on the face of it, a rather ordinary story of how the Anishinabeg hear of a new and mysterious people, of unknown potential, and then follow up and investigate, establish commercial relations and an alliance and

acquire new technology. It is most important for what it reveals of Anishinabeg attitudes regarding first contact. Some historians have successfully used Anishinabeg oral traditions as a guide to actual events (Eccles, 1984; Eid, 1979; Schmalz, 1984). Here we are concerned less with what happened than with how it was perceived and remembered by Amerindians.

The Anishinabeg remembered the contact period as a time when their lives were enhanced and their power increased through contact with Europeans and access to European technology. The French appear in Anishinabeg histories of the contact period, not so much as intrusive aliens, but as a new people who are first discovered then accepted and incorporated into the world of the Anishinabeg. They are remarkable only for a number of rather peculiar but harmless habits and for their technology. In the beginning this technology had been impressive, even frightening, but it was quickly mastered and exploited by the Anishinabeg. According to Anishinabeg oral traditions Europeans, in the contact period, posed no threat to the Anishinabeg who remained very much in control of their lives and destinies.

First contact had occurred as the result of the actions of the Anishinabeg. Their oral traditions demonstrate very clearly that the Anishinabeg did not remember their ancestors as the passive objects of discovery by Europeans. Instead, they remembered these ancestors as actors who had themselves taken the decision to seek out and contact the Europeans. So for the Anishinabeg the history of the contact period is not the story of the European discovery of America, but of the Amerindian discovery of Europe.

* * *

* D. Peter MacLeod recently completed his Ph.D. programme in history at the University of Ottawa. He is currently writing a history of the Amerindians in the Seven Years' War for the Canadian War Museum's Historical Publications series.

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"The Mythical Kingdom of the Saguenay:"
Archaeology of the Contact Period in Eastern
Ontario," Ontario Archaeological Society,
Ottawa Chapter, 28 March, 1992.

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April 22nd, 1992

39 McKenzie Avenue
Toronto, Ontario
M4W 1K1...members
correspondence...

Ministry of Culture and Communications	Ministère de la Culture et des Communications
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6th Floor 77 Bloor Street West Toronto, Ontario M7A 2R9 (416) 325-6200	6 ^e étage 77, rue Bloor ouest Toronto (Ontario) M7A 2R9 (416) 325-6200
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June 9, 1992.

Mr. A. E. Stapells
39 McKenzie Avenue
Toronto, Ontario
M4W 1K1

Dear Mr. Stapells:

I am replying to your letter to Premier Rae regarding the outcome to our appeal of the London Regional Art and Historical Museums court case.

Her Honour Judge Livingstone found that the case was dismissed because there was insufficient evidence to support the charge of conducting archaeological excavation, survey or fieldwork without a licence. In other words, this particular case was dismissed due to lack of evidence of a violation and not because there is a problem with the current act. While I am disappointed that we did not win either the case or the appeal, these decisions do not in any way jeopardize the Ontario Heritage Act.

As you mentioned, we are reviewing the Act with a view to improving our heritage conservation capabilities. Meanwhile, I will continue to issue licences for archaeological work and will prosecute any violations of the current Act.

Thank you for writing and expressing your concerns for the protection of our archaeological heritage.

Yours sincerely,

Karen Haslam
Minister

c.c. Mr. Bob Rae, Premier

Mr. Ian G. Scott, M.P.P.,
St. George - St. DavidHonourable Bob Rae
Premier of Ontario
Room 281, Legislative Building
Queen's Park
Toronto, Ontario
M7A 1A1

Dear Mr. Premier:

Provincial Court Judge Deborah Livingstone
archaeological excavation by the staff of the L.
disturbing.It seems our legislators in 1974 wrote an imp
Heritage Act is under view but, in the mean
safeguard our Archaeological Heritage?
Please reassure Ontarians NOW that your Govern.

Yours sincerely,

StapellsHonourable Karen Haslam,
Minister of Culture and Communications
Mr. Ian G. Scott, M.P.P.,
St. George-St. DavidLe Premier ministre
de l'Ontario
Premier
Ontario

June 15, 1992

A. E. Stapells
39 McKenzie Avenue
Toronto, Ontario
M4W 1K1

Dear A. E. Stapells:

I have received your letter about it
and the London Regional Art and Hist.I note that you have sent a copy
Karen Haslam. I've asked her to
in further detail. You will hear
We are both concerned about the
heritage, and appreciate your ta
about this issue.

Yours sincerely,

Bob Raecc: The Honourable Karen Ha-
Minister of Culture and Communica-

Niagara: An Interpretation

by John Steckley

It seems that in interpreting place names that have their roots in Native languages there are three main tasks to perform: discovering the identity of the source language; finding a meaning that makes sense; and, possibly most difficult of all, dispelling romantically appealing, but etymologically flimsy

'translations' that appear in popular works. In this short article, I will attempt to achieve all three tasks for the name 'Niagara'.

1.0 Source Language

During the 17th century, 'Niagara' was recorded in the following ways:

The Name 'Niagara' in the 17th Century

<u>Name</u>	<u>Date</u>	<u>Context</u>	<u>Reference</u>
Ongmarahronon (-m- a misprint for -ui-)	1640	a Neutral people living between the Aondironon and the Akhrakuaeronon	JR18:232-3
Onguiaahra	1641	the river	JR21:190-1
Onguiaahra	1641	the village	JR21:209-10
Ongiara	1656	the falls	Sanson's map "Le Canada ou Nouvelle France" (Heidenreich 1971: map 9)
Ongiara	1657	the falls (?)	Bressani's map "Novae Franciae Accurata Delineatio" (Heidenreich 1971: map 10)
Ongiara	1660	the falls	Du Creux's map "Tabula Novae Franciae" (Heidenreich 1971: map 11)
Niagagarega	1680	the people	Bernou's (?) map (White 1978:408)
Niagara	1683	the falls	Hennepin in Guillet 1933:12
Niagara	1688	the falls	Coronelli's map, JR21:316
Niagara	1698	the falls	Hennepin 1974:53-6, <i>passim</i>

Before I analyze these names for their source languages, I have to get something off of my chest. There is a deep, abiding form of ignorance with respect to Native place names that should have no residence on the modern published page. What I am talking about is saying that a place name is "...Indian for..." (Mika and Mika 1983:39), "derived from an Old Indian name" (De Volpi 1966:4), or is "an Indian word" (Bramble 1990:66). This just perpetuates the myth that there is somehow only one 'Indian' language. Imagine someone saying that 'Little Lake' is European for Kontareia, or that 'Trees in Water' is European for Toronto. What makes this especially ridiculous is that there are more language families, greater language diversities existing among languages in Native Canada than in Europe. It does not take a great deal of scholarship to at least find out to what

language family a Native place name belongs.

In trying to determine the source language of the words presented in the chart above, it is necessary to divide them into two groups, each reflecting a different source language. I believe that this division reflects the writing of an originally Neutral word, first in a Northern Bear version, second in a Mohawk version. One reason for this belief is how closely the grouping parallels the grouping of terms for Lake Simcoe in the 17th century. In a recent article about the name 'Toronto' (Steckley 1992:23-25) I outlined how a Huron term was the only one used from 1641 to 1660, to be replaced by a Mohawk word that first appeared in 1670.

Further support for the Northern Bear/Mohawk hypothesis comes from looking at the linguistically significant differences between the names in the two groupings. They

are as follows:

- a) initial *-o-* as opposed to *-ø-* (nothing) before the *-n-*;
 b) mid *-ng(u)i-* as opposed to *-ni-*; and
 c) final *-a(a)ra-* as opposed to *-agara-*.

The initial *-o-* of the first grouping represents an FZP (feminine zoic patient¹) pronominal prefix. This commonly found prefix is probably absent in the second grouping because of a mistake rather than because a dialect or language difference is being represented. Abbé Claude Bernou² (or whoever put together the map of 1680) seems to have been a linguistic 'trend setter' in the recording of Native place names. He was the first to use the form "Taronto" (as opposed to "Tar8nteau") for Lake Simcoe (Steckley 1992:25). There might have been some confusion in his mind as to whether the name of a people should begin with an *-o-*, as appeared in earlier representations of the word, or with *-atti-* ("they") as was the case for the other Neutral group referred to on the map, the "Attiragenrega". Not sure, he might have left the prefix blank.³

The second difference is one that brings with it a division according to language. The feature represented by *-ng(u)i-* is a dialect indicator within the Huron language, standing as a Northern Bear, Southern Bear and Wyandot characteristic in opposition to Rock dialect *-ndi-*. We can see this in the Wyandot superscript addition that Jesuit Father Pierre Potier made in the mid 18th century to the Rock dialect form for the word 'Niagara':

1.1 "8nd⁸iara * niagara" (Potier 1920:154)⁴

Significantly, it is a distinction that appears in the recording of another Neutral village name, which was recorded as "Te otongniaton" (JR21:225; possibly actually 'te otonguiaton') in the Jesuit Relation of 1641, when Northern Bear was the Huron dialect used in Jesuit writing (see Steckley 1990a and 1991a), and "Te oto⁸ndiaton" in the Jesuit Relation of 1650 (JR36:141), when Rock was being used.

When we add to this the fact that the Huron would often use as tribal names 'Huronized' versions of a tribe's own name,⁵ we get the sense that what we have in the first group is a

Northern Bear version of an originally Neutral word.

The second group has a version of this feature, *-ny-*, which corresponds in Mohawk to the *-ndi-* and *-ng(u)i-* in Huron. We can see this in the following cognates of an Iroquoian verb meaning 'to marry':

1.2

Mohawk -- "*-nyak-* to get married" (Michelson 1973:86)

Rock -- "se marier ,andia,i" (FH1697:115)

Northern Bear -- "echienguiaae...en mariage /echiengiai - you will marry/" (Brebeuf 1830:9)

Southern Bear -- "Es-tu marie? aff. Sagyaye /sangya,i - you are married?/" (Sagard 1866:82)

Wyandot -- ",and⁸ia,i...se marier" (Potier 1920:288 #86)

The final distinction, between *-a(a)ra-* and *-agara-* could also be indicative of having Northern Bear as the language of the first group, and Mohawk as that of the second. The *-aa-* of the 1641 Jesuit Relation entries and the *-aga-* of the second group may represent an instance in which Northern Bear had *-ø-*, other Huron dialects had *-y-* (see Steckley 1991b) and Mohawk (as other Iroquois languages) has a *-g-* or *-k-*.

2.0 What does Niagara Mean?

Before I investigate the validity of different proposed meanings of Onguara/Niagara, I want to point out that the ending of both versions of the word, *-ara-*, strongly suggests that the word being represented is a noun. The *-a-* is by far the most common noun suffix in Huron⁶ as with other Iroquoian languages, and *-ara-* appears over seventy times in Potier's list of nouns (Potier 1920:445-455), more often than it does for the longer list of verbs. It is thus more likely that the word is a noun rather than a verb or a noun incorporated into a verb.

There are four different translations that one typically encounters in works presenting the meaning of Niagara. The one that I favour presents the word as a noun meaning:

"...neck", referring to the strip of land between Lakes Erie and Ontario, cut off by this river." (JR21:316; Smith 1987:20;

Stewart:327 and Harder 1985:379).

Significantly, all four of those sources cited identify either the language or language family of the word. Further, there is one instance in my Huron dictionaries of a noun that would provide supporting evidence of the claim that Onguara/Niagara means 'neck'. In the French-Huron dictionary I have termed FH1697 we find the following:

2.1 "la nuque du col. /the nape of the neck/ tan'diaka'ront." (FH1697:238)

The construction of this word includes a dualic prefix -t- and the verb root -ont-, meaning 'to attach' (Potier 1920:418). The noun root is -ndiaka'r-, with the -k- presumably being the equivalent of the -g- in Niagara. Unfortunately I have uncovered no clear evidence that this -g- existed in Mohawk. Although Donald Smith, one of Canada's foremost writers of Native history, states that Niagara comes from "Oh-nya-ka-ra", a Mohawk word for 'neck' (Smith 1987:20), he does not state his source. In my three Mohawk sources, the first two 17th century, the last 20th century, we get a term without the -g-:

2.2 "Onniara, tête coupée...Ganniariagon. R. couper le col." (Bruyas 1970:75). "Col, honiara" (Shea 1970:33). "-nya?r- neck onya:ra" (Michelson 1973:87).

This does not preclude the possibility that the Mohawk were staying true to the Neutral origins of a word with -g- or -k- that did relate to neck, or that in some dialect of Mohawk the longer version existed.

Two sources I have seen refer to Niagara as meaning 'strait' (Bramble 1990:66 and Carnochan 1973:2). That neither source identified the language or language family of the word makes them suspect as providers of good quality information. I suspect that they might be referring to an extrapolation made by some earlier investigator from the 'neck' meaning.

It is also possible that the meaning 'strait' was derived by some writer(s) from another translation that has been proposed:

"point-of-land-cut-in-two,' to designate the place at which the river flows out into the

lake." (Stewart 1970:327)

or as given by Iroquoian scholar J.N.B. Hewitt it signifies "bisected bottom land" (Hewitt in Hodge 1971:347; also in Harder 1985:379). Hewitt is rather imaginative in his etymological reconstructions. I feel he is extending the meaning to include what it was referring to, not what it literally meant.

The construction that would appear to be suggested is that of a noun incorporated into a verb. The noun root, meaning 'point of land' (see Steckley 1984) was presented in Potier as "ond'ia...pointe de terre..." (Potier 1920:455), in 17th century Mohawk as "On'nia, pointe de terre" (Bruyas 1970:120) and in modern Mohawk as "unhya point of land, cape u:nhya" (Michelson 1973:115). The verb is that which was given in Potier as "kaia,i as, aj, axe couper en deux" (Potier 1920:264), in 17th century Mohawk as "Gaiagon...couper...kaiaigon...couper en deux" (Bruyas 1970:57), and in modern Mohawk as "-iya?k- to cut down" (Michelson 1973:122).

There are a number of difficulties with this interpretation. The dualic prefix (represented as -k- and -g- above) is absent. Further, in Huron there can be no -ra- final in such a combination, the only choices being the stative ending -i-, -as-, the punctual ending -aj- and the dislocative plus purposive ending -xe-.

3.0 Silencing the Thunder: the Romantic Interpretation of 'Niagara'

The interpretation most often found is one that conjures up an imagery that 'sounds Indian' to many people. It is perhaps for this reason that it is so often repeated, especially in sources that do not cite either language or language family. The name pertains to the falls and is presented in some form of 'thunder(ing) (of) water(s)' (Burtuiak 1887:313, Cole 1983 vol.20:27, De Volpi 1966:4, Grolier 1977 vol.7:334, Hamilton 1978:191, Marsh 1988:1497 and Mika and Mika 1983:39). This 'translation' presents major difficulties in that it does not seem to relate to any term for thunder or thundering. In Huron (as well as some other Iroquoian languages)⁷ was 'hinnon' (FH1697:210; see Potier 1920:323 for an

etymology). For making a sound like thunder, the verb was the following:

3.1 "anderondi...tonner, bruire, faire un bruit semblable a celui du tonnerre, un bruit de tonnerre...handerond*ia ill tonne" (Potier 1920:286).

The Huron/Wyandot scholar Marius Barbeau presented his translation of Niagara as "lightning strikes"⁸, possibly thinking of the following interpretation of the verb *-ia-*, meaning 'to shoot':

3.2 ".,aia,i...hoia,i v/el/ ehoia, i de hinnon le tonnerre est tombe (quasi dicas) deux & ejaculatus est tonitru" (Potier 1920:204).

This is still a long way from Niagara.

Another possibility for the origin of this interpretation is that it is a translation of an Ojibwa term for Niagara, mistakenly transposed to the Iroquoian Onguïara/Niagara. This, however, fails as well. In Baraga's excellent 19th century dictionary of Ojibwa, we get the following entry:

"Waiânag. Basin of water; pl. -in s. wana Waiânag kakâbikawang. A basin of water where there is a waterfall over steep rocks, that is, Niagara Falls." (Baraga 1878:395).

Summary

We have seen that in the 17th century there were two different ways of representing the word we know now as 'Niagara'. The first, 'Ong(u)ïara', appears to have been a Huron (Northern Bear dialect) reworking of an originally Neutral word. The second, 'Niagara', seems to have been a bad copying (i.e. with pronominal prefix dropped) of a Mohawk reworking of the same word. The most likely candidate for the best translation of the term is 'neck', referring to the piece of land between Lake Erie and Lake Ontario 'cut off' by the Niagara River. The romantic 'Indian sounding' translation of 'thundering water', popular especially with writers who do not give the language or language family the word came from (something that should always render suspect the reliability of the source) does not appear to have any basis in fact.

Dedication

This article is dedicated to Jennifer, who was more in my mind than Huron words when I was writing.

FOOTNOTES

1. This pronominal prefix typically translates as 'she', 'it' or even sometimes as 'one'.
2. It is possible that his was not the first writing of the word in what can be called the 'Mohawk style'. Hennepin visited and described the falls in 1678, not publishing until 1683 (in French) and 1698 (in English). It is difficult to know whether the published form was influenced by what appeared in the 1680 map.
3. The flawed form of his writing is evidenced in the extra *-ga-* he added to the word.
4. The *-g-* is a Wyandot dialect version of *-q-*.
5. We see this on the *Novvelle France* map in the names "Oskovararonon" (Steckley 1990b:21), "Skenchioronon" (ibid), "Chaovaeronon" (op.cit., p23), "Eachiriovachronon" (op.cit., p24), "Aovechissaeo-non" (ibid) and "Nadovess-ro" (op.cit., p25).
6. What the Jesuits were attempting to represent with this *-g-* was an *-a-* plus a glottal stop (and sometimes similar sounds).
7. See Seneca for example (Chafe 1961:33).
8. Barbeau 1957.

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Announcing: Heritage Act Postcard Campaign

by *Christine Caroppo*

During the months OAS Director Lise Ferguson and I have served on the Minister's Advisory Committee for a New Heritage Act, it has been impressed upon us that the NDP government places a lot of weight on the voice of the people: the grass roots approach. We were told by Culture and Communications Minister Haslam and her political staff that it did little good to "preach to the converted" by writing to her in support of new legislation for heritage. She emphasised that she was but one voice in Cabinet and that she would have to "sell" a new Act to them when there are already scores of demands for new legislation on the table. Therefore, any support that we can muster for a new Act would be immensely helpful.

Further, there is a real concern that this Act be introduced to the House and passed before the next election as the new government may not be as "heritage conscious" as this one seems to be. Currently, the timetable allows for the Act to be before Cabinet this fall. It has been close to 20 years since we have had the chance to write a new Heritage Act and one is desperately needed in a province where the number of sites shrinks every day. It may be another decade or more if we cannot make use of this window of opportunity to pass a new Heritage Act.

The best approach is a postcard campaign aimed at the individual Members of Provincial Parliament whether they are NDP or not. Just the fact that constituents would take the time to write (send a card) means a great deal (votes) to MPPs and sensitizes them to issues they may know nothing about.

In this issue of *Arch Notes* you will find the postcard and a list of all the MPPs and their ridings (we have also included an 800 telephone number which you can dial to find which riding you are in if you don't already know). Simply find the name of your MPP, write it on the card, add the 42¢ postage (sorry, but only the feds allow you to write to your member for free), fill in your name and address and sign it. Cards with no address, name or signature are routinely ignored by all levels of government. Remember,

MPPs who are presently in Cabinet are addressed as "The Honourable".

The OAS urges you to send in your card as soon as possible. If you would like to write a letter or have friends and family send notes in support of the proposed new Act, simply use the same address and your own writing paper. Every card, note and letter will go a long way to helping to make the proposed new Act a reality. There are many good points about this new Act for archaeology and archaeological sites in Ontario; it isn't perfect, but the draft Act prepared by the Minister's Advisory Committee deserves your support.

P.S. If you have the zeal and the extra time you may want to write to one or more of the following key players, at the same address.

1. The Hon. Bob Rae, Premier
2. The Hon. David Cooke, House Leader and Minister of Municipal Affairs (his position as House Leader gives him clout in deciding which bills come before the House and in what order. Also, the Min. of Municipal Affairs is notorious for being anti-heritage).
3. The Hon. Karen Haslam, Minister of Culture and Communications
4. Margaret Marland, PC critic for Culture and Communications
5. Jim Henderson, Lib. critic for Culture and Communications
6. The Hon. Bud Wildman, Minister of Natural Resources (this ministry says that the preservation of natural areas is important and has gone a long way to identify, categorize and "prioritize" areas of special natural heritage interest BUT has not passed any significant legislation to adequately protect them. That is why the natural heritage lobby came to the Minister's Advisory Committee to ask for protection for significant natural heritage sites in the new Act).

If you don't know your riding phone:
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"DIGGING WITHOUT A DEGREE";
UNDERSTANDING THE NATURE OF THE SILENT
MEXICAN ARCHAEOLOGIST: *Zygomys trichopus*

by WILLIAM MICHAEL CARTER

Abstract: "Faunalturbation", a form of soil formation caused by extraneous biological forces has received little recognition as a potentially archaeologically destructive process. Such agents as earth worms, ground squirrels, mice and pocket gophers all play an integral role in soil disturbance and redistribution. This essay will focus particularly on *Zygomys trichopus* "Tuza", an indigenous Mexican pocket gopher. By examining the habitat and living structure a greater understanding of soil formation and artifact recovery can be determined.

Key words: *zygomys trichopus* (Tuza), faunalturbation, pocket gopher, "tuceros".

Every archaeologist has encountered it and all have walked away cursing the culprit that produced it. Recently, the notion of rodent burrowing as a major factor in site formation has gained the attention and respect of archaeologists. This essay will attempt to resolve some of the misunderstandings about faunalturbation and its effects on archaeological sites. By specifically studying one of the major players from the rodentia family, Geomyidae, more commonly known as the pocket gopher, a greater comprehension of its ability to assist or destroy possible archaeological sites will be given. The main focus will be on *Zygomys trichopus* (Tuza), Mexican pocket gophers of the Basin of Mexico and the Sierra Madre.

FAUNALTURBATION:

The context in which a pocket gopher survives and ekes out an existence is in the ground. Like many other rodents, the pocket gopher is adapted to life underground and occasionally, in its quest for food, stumbles upon an archaeological site. It is in this context that the soil formation becomes altered and artifacts dislodged. Faunalturbation is the process in which underground living animals, like the pocket gopher, disturb the archaeological context (Schiffer, 1987;209).

Pedoturbation is a soil disturbance process that incorporates all aspects of natural soil alteration, of which faunalturbation is an example (Schiffer, 1987;206).

The importance of properly understanding the factors involved in pedoturbation allows the archaeologist to adequately interpret the 'matrix' of the site (Woods & Johnson, 1978;315). It has become relevant that the term "in situ", used to denote undisturbed artifacts, "is probably more optimistic than realistic" (Wood & Johnson, 1978;317). With regards to faunalturbation the present day archaeologist must not only be a geologist of sorts, but also a zoologist, to suitably determine the proper interpretations. By knowing the environmental conditions in which certain animals operate, a clear and concise picture will develop.

PHYSICAL STRUCTURE:

Tracing their roots back to the miocene age, pocket gophers today have become highly specialized (Parker, 1990;131). As a new world mammal, the pocket gopher has adapted to almost every ecological niche. It can be found in the grasslands and coasts of California, the forested mountains of Colorado or the Sierra Madres and the Rain forests of Central America. Each ecological area will

have one only specialized sub-species of pocket gopher adapted to those conditions (Laycock, 1958;146). Overlapping occurs only on the fringes or buffer zones of two different ecological areas.

With varying degrees most pocket gophers have massive flat skulls which act somewhat like a bulldozer (Parker, 1990;131). Due to its life underground the pocket gopher is deficient in both sight and sound relying only on the vibrissae and tail to monitor vibrations in the soil (Grinnell,1923;139). Although small and seldom relied upon, the pocket gopher's eyes and ears have special flaps to prevent soil particles from penetrating them (Parker, 1990;131). Its neck and body are short and cylindrical, and its shoulders and forelimbs are strong and muscular (Parker, 1990;131).

The massive cranium houses two sets of tall cylindrical incisors which act like scrapers in conjunction with the long curved claws of the forefeet (Parker, 1990;131). Wear on the claws is so extensive that the three central claws of the forefeet grow twice as fast as the others (Parker, 1990;134). Information on the wear and rejuvenation of the molars is limited; however, it has been suggested that growth is a continuing factor in certain rodent populations. Pocket gophers have two fur-lined cheek pouches that do not empty into the mouth cavity, but open to the outside, laterally from the mouth (Parker, 1990;134). These pouches are used to transport food only.

The Tuza's maximum weight is 450 gm with its average body and tail length measuring 20-25 cm and 9-12 cm respectively (Parker, 1990;136). Like other pocket gophers, the Tuza's fur colouration will resemble the soil it inhabits. This is part of the process of genetic plasticity which all pocket gophers appear to possess (Miller, 1964;259). The pocket gopher will adapt to soil depth and texture, this resulting in physical changes within the body structure (Miller, 1964;259). One distinguishing factor between similar pocket gophers is the number of grooves on the upper incisors; the Tuza possesses two grooves per incisor (Parker, 1990;136).

Pocket gophers are extremely territorial,

except during the reproduction period which lasts no longer than a few days or weeks (Parker, 1990;134). The standard mating periods occur in early Spring, late Summer and Fall (Parker, 1990;134) and corresponds with the period prior to optimum mound building. Males are polygamous, have up to four females with which they cohabit, and will produce a litter size determined by environmental influences (Parker, 1990;134). In addition, newborn pocket gophers will not leave the parental burrow until approximately 60 days after birth (Parker, 1990;135). The reproduction age for a Tuza is less than three months and, if in an agriculturally cultivated area with artificial irrigation, the Tuza may reproduce nearly all year long (Parker, 1990;135).

ENVIRONMENTAL INFLUENCES:

The Tuza is one of the few species of pocket gopher yet to be fully researched. Data gathered to date suggests that the Tuza is a highly specialized member of the Mesoamerican gopher population. Its habitat includes small isolated areas west of the Sierra Madre (see fig. 1) but is centrally located in the Basin of Mexico (Honacki, 1982;382).

The Tuza is specialized due to the limited space it occupies. The average living elevation ranges between 2438-2591m asl, roughly the height of Mexico City (Honacki, 1982;382), but overall extends from 1810 to 3600m above sea level and is the width of the Basin of Mexico (Parker, 1990;136). Traditionally, the Tuza is a marginal forest dweller; however studies not only of Tuzas but of other pocket gophers suggest that their preferred habitat is that of irrigated, cultivated land (Beuchner, 1942;348); (Stahl, 1982;826); (Bocek, 1986;589). This creates problems in archaeological interpretation; for historically the Basin of Mexico was, agriculturally, extensively exploited, allowing for many centuries of Tuza activity and disturbance. Most soils in the Basin of Mexico today consist of sandy loams and are conducive to high production based agriculture (Sanders, 1979;87).



All pocket gophers prefer fine sandy loam and moderate moisture content as a suitable living environment (Erlandson, 1984;786);(Miller, 1948;41); (Beuchner, 1942;348). This type of environment usually corresponds to agriculturally altered areas where a high moisture content is required for domesticated plant growth (Beuchner, 1942;348). In a study conducted within Colorado, mountain pocket gophers like the *Tuza* preferred disturbed soil overgrown with weedy vegetation (Miller, 1964;260). Furthermore, it was recorded that gopher populations peaked in areas where optimum soil conditions resulted in a maximum alfalfa crop harvest (Miller, 1964;260). Thus in favourable grassland environments there can be as many as 125 pocket gophers per hectare (Bocek, 1986;589).

Unlike most mammals the pocket gopher does not need an ample water source to survive. It therefore has the ability to rely totally on the moisture content within tuberous roots and other vegetation (Parker, 1990;135). The favoured soil moisture content is between 9% and 18% (Hansen, 1968;397). Above or

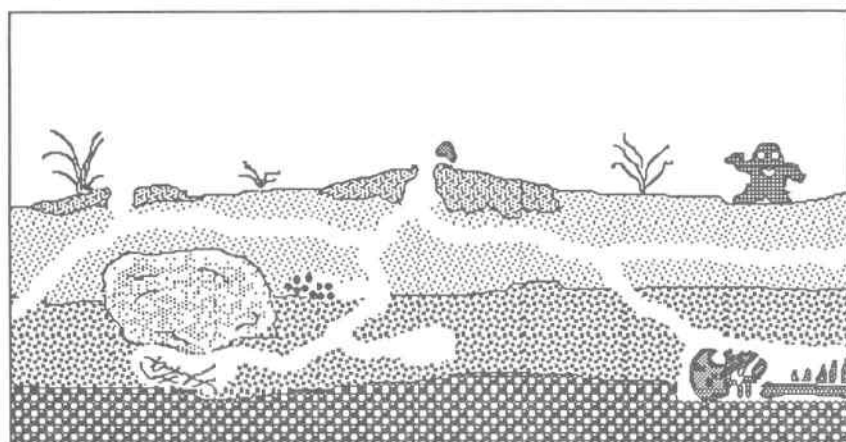
below this range the soil loses its tactile nature making it difficult for the pocket gopher to properly excavate (Miller, 1948;41)(Hansen, 1968;397). Mound formation occurs only in this median range; below 9% formation is almost non-existent (Miller, 1948;41).




With an outside temperature variance of between 1 and 30°C, pocket gophers can adequately maintain their body temperature at a constant rate of 36.9°C (Parker, 1990;136). Combined with soil moisture, if the summer months are dryer and hotter than normal, a pocket gopher will induce a state of "summer hibernation" which is distinguished by the number of days or weeks, but not months, of sleep (Parker, 1990;135). This "hibernation" will continue only until optimum conditions are brought back into a state of equilibrium (Parker, 1990;135). Conversely, the winter months do not effect the pocket gopher's active life (Hansen, 1968;391).

MOUND and TUNNEL PRODUCTION:

A study on habitual processes of the pocket gopher revealed that 99% of their entire life

(Diagram I) A Representation of a typical Tuza Environment:



- KEY:
-  Horizon A: sandy loam, 1-50cm deep
 -  Horizon B: mixing of rock and sandy loam, 50-200cm deep
 -  Tepetate

span is spent underground (Grinnell, 1923;139). It showed further that the pocket gopher is productive 24 hours of the day (Grinnell, 1923;140) and that their internal process never ends as no direct evidence has shown that the pocket gopher hibernates (Grinnell, 1923;142);(Parker, 1990;135).

The majority of mound production occurs in the twilight hours of predawn and is subject to seasonality with excavation peaks in late spring and autumn when soil conditions are at an optimum level (Bocek, 1986;590);(Miller, 1948;41);(Grinnell, 1923;140). Their mounds consist of nutrient rich subsoils which fan out in a conical alluvial pattern. Pre-mound preparation involves the removal of all vegetation within an eight inch radius of the tunnel opening before the depositing of any

soil on the surface (Laycock, 1958;350). Recently constructed mounds are easily detectable due to their dark moist texture (Grinnell, 1923;140). Mounds built in spring will show increased surface plant growth on them throughout the summer months as a result of the presence of favourable soils (Laycock, 1958;349).

Beneath the surface the pocket gopher's tunnel system is a maze of galleries and foraging tunnels. Most subsurface-dwelling mammals maintain a burrow system of 20 to 200 square metres and 3 to 36 linear kms in size (Bocek, 1986;590). Each burrow system is designed for that particular occupant; thus the diameter of the tunnel itself is relative to the builder's own dimensions (Hansen, 1968;395).

There are two types of tunnel complexes (Diagram I); the horizontal side tunnels and

the vertical nesting chamber tunnels (Parker, 1990;134). The horizontal tunnels usually occur in the A horizon, between 1 and 50cm down from the surface. The tunnels act as an underground harvesting system which allows the pocket gopher to exploit the roots of crops growing on the surface (Parker, 1990;134);(Erlandson, 1984;788). A horizontal tunnel will normally run up to 150m in length with a backdirt mound every 65cm (Bocek, 1986;591). Storage chambers are located along the horizontal tunnels and separately house fecal pellets and food. During the summer and winter months, when mound production is lowest, filled fecal and spoiled food chambers will be sealed with soil from a newer chamber (Hansen, 1968;391). The main purpose of the horizontal tunnel is one of exploration and it is connected to the main vertical tunnel leading to the nesting chamber (Parker, 1990:134).

Vertical tunnels are normally larger and are regularly utilized for the entire year. Their depth depends on soil material beneath horizon B which, in the Basin of Mexico, is a hard volcanic material called *tepetate*, impenetrable to pocket gophers (Sanders, 1979;82,247). Total soil depth before *tepetate* is usually 200cm, which is the deepest recording of pocket gopher activity to date (Sanders, 1979;82,247)(Erlandson, 1984;785). To prevent predation from surface enemies the pocket gopher attempts to build its nesting chamber underneath a large object like a boulder or log (Grinnell, 1923;145). The chamber itself is cushioned with dried grasses regularly replenished with new material from the surface (Bocek, 1986;590).

The TUZA as EXCAVATOR:

If it hasn't yet been made apparent, the pocket gophers sole reason for living is to dig. Most archaeologists realize that faunalurbation can and does disturb the stratigraphic record but they are ignorant of the extent. To place this in perspective, it would take 160 carloads of soil, at 50 tons each, to equal the amount of soil displaced by pocket gophers within Yosemite Park, per year (Grinnell, 1923:144).

Mountain gophers on the west slope of the Sierras of California have been estimated to bring to the surface 7 tons of subsoil per square mile per year (Daubenmire, 1959;37). Where dense populations occur the surface soil can be turned over 15-20% in a single season. This would result in a total mixing with horizon A within five to six years (Thorp, 1949;190). In realistic terms a pocket gopher can expel up to 2.3 kilograms of soil per day (Bocek, 1986;591). Using Thorp's model, if the Tuza's population density was the same or greater in the final stages of Teotihuacan, the total surface soil displacement within agricultural zones of the Basin of Mexico by 1991 would be approximately 839 kg per year for a total of 915,894.50 kg over a span of 1,091 years.

The pocket gopher excavates dirt by using its massive forefeet and large cranium to push soil forward (Grinnell, 1923;144). Although the pocket gopher spends more time in the horizontal tunnels, transportation of materials occurs more frequently and at greater distances in an upward vertical direction (Bocek, 1986;591). Soil displacement in the vertical tunnels is unidirectional thus materials are stratigraphically segregated (Bocek, 1986;591). Horizontal soil displacement is multidirectional creating a homogeneous mixture (Bocek, 1986;591). The pocket gopher has the uncanny ability to travel backwards and forwards at the same rate of speed. This is rather an excellent adaptive characteristic; for when the pocket gopher digs the excess soil is pushed underneath its body and is deposited directly behind it (Parker, 1990;134). As stated previously, most soil from the horizontal tunnels is used as a plug to seal filled storage chambers; thus, the pocket gopher preserves energy and time by simply pushing the excess dirt backwards into the chamber (Bocek, 1986;591). The pocket gopher's large incisors also act as weathering agents upon the soil matrix; in conjunction with its forefeet they slice at the soil in a vertical direction (Parker, 1990;134). On occasion impenetrable objects within the soil matrix will be circumvented by digging underneath them (Grinnell, 1923;145). Over

time, as the weight of the object becomes too great, the tunnel structure will collapse; thus causing stratigraphic displacement downwards (Bocek, 1986;591). Due to the repeated process the blocking of the tunnel will again result thereby creating an extensive stratigraphic anomaly (Schiffer, 1987;207).

Due to a scarcity of food, energy has to be allotted; thus the pocket gopher's metabolism allows it to store up to 21% of its body mass in reserved body fats at any one time (Parker, 1990;135). This allows the pocket gopher to be in a constant state of activity. Above surface plant material accounts for 25% of the pocket gopher's total daily diet (Parker, 1990;135). The Tuza accomplishes this gathering task only at night, as predation is intense during the sunlight hours (Parker, 1990;135).

Research on burrowing activities of the pocket gopher reveals that its inadvertent behaviour segregates soil contents by size and mass (Bocek, 1986;589). This sorting causes an artificial concentration of large materials 40cm below the surface, with smaller materials appearing above horizon B (Bocek, 1986;589,601). In some extreme cases it is impossible to differentiate between 'in situ' and rodent *krotovina* deposits (Erlandson, 1984;785). Finer dry soil particles will be lost during transportation, mingling with the larger rocks. The pocket gopher's continuous movement will result in a smoothing effect along the tunnel floor (Hansen, 1968;397). This cobbling feature strikingly resembles that of culturally constructed forms (Schiffer, 1987;208).

Movement of larger materials occurs as a one way process - out (Bocek, 1986;590). The tunnel diameter severely limits the size of objects to be transported to the surface. The average tunnel diameter never exceeds 6cm (Hansen, 1968;395);(Bocek, 1986;591). This corresponds with the maximum breadth of any pocket gopher (Parker, 1990;135). Most researchers' report that rocks deposited on the surface are no larger than 5cm in length or diameter (Hansen, 1968;395);(Bocek, 1986;591). Occasionally, some mountain pocket gophers like the Tuza, will be observed

depositing rocks slightly larger than 5cm on the surface (Hansen, 1968;395), but generally any object larger than 5cm is avoided and dug around (Bocek, 1986;591). In highly disturbed areas there will be a massive, disproportionate amount of smaller sized materials on or near the mound entrance (Bocek, 1986;591). Thus pocket gopher activity will seriously affect the reliability of surface-collection data (Bocek, 1986;600).

Nesting materials and food are supposedly the only objects carried below ground by pocket gophers (Bocek, 1986;590);(Hansen, 1968;391), as soil and other fine material are the only products carried above ground (Bocek, 1986;590). This theory is being challenged as new information becomes available. In an excavation of a plains pocket gopher's burrow system in Texas, the food storage area located near the nesting chamber revealed a vast array of surface food products and two 12 gauge shotgun shell metal casing ends (English, 1932;127). The casings had a measured circumference of 5cm and a width of 2.5cm (English, 1932;127). In 1987, an archaeologist working within the Teotihuacan valley reported that a Tuza mound had developed overnight within an excavated square. Perched upon the freshly dug mound was a human talus (Spence, 1991; personal communication); the measurements both in width and diameter were beyond 5cm, but the bone was extremely porous, thus reducing its original mass. Overall, cultural material less than 6cm in size will be displaced within a depth of about 40cm below the surface. Any material larger than 6cm will be avoided or displaced downwards to a depth of approximately 200cm (Erlandson, 1984;788);(Schiffer, 1987;207).

CONCLUSION:

With reference to archaeology, the disturbance created by the Tuza and other pocket gophers is extensive. Within the Basin of Mexico the conditions for increased Tuza activity have been apparent for centuries and oddly enough have been propagated by human activity. Interpretation lies hidden within a maze of

extraneous factors of which the archaeologist must be aware.

The inclusion of gopher faunal remains usually occur within the first 50cm of subsoil. The pocket gopher is not selective when intruding within an archaeological site. Their remains at times are associated with middens. This poses a problem in interpreting whether the remains are intrusive or part of the archaeological record. In a study of small mammal food procurement by historic Plains Indians, the pocket gopher was determined to be 89.9% edible (Stahl, 1982;824). To solve this problem the faunal remains of the pocket gopher must be tested independently of the feature, or if traces are apparent of tunnel intrusion, excavation of the tunnel system is strongly recommended. A simple surveying method for Tuza environments would be to examine mound contents during the peak production period. If cultural material is apparent, and faunalurbation the process, an excavation of the nesting chamber and food storage galleries would be a recommended procedure.

In the Basin of Mexico further information can be attained by enlisting the services of a *Tucero*. A *Tucero* is a 'gopher hunter' whose job is to reduce the presence of Tuzas within agricultural areas (Nowak et al, 1983;551). This position is considered a highly respected aspect of village life and is passed down from father to son. This in itself represents a lineage of information easily attainable on the aspects of Tuza life.

In conclusion, the purpose of this essay is to give insight into the various aspects of Tuza life and how this life can affect the archaeological record. By giving the Tuza the respect due to a highly efficient excavator a genuine understanding may emerge.

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Christopher Andreae

Elected to Board of Directors of the Ontario Historical Society

The OHS announces that Christopher Andreae of London, Ontario was elected to its Board of Directors at its annual meeting in May.

Andreae is well known in the field of industrial archaeology and preservation and was instrumental in founding the Ontario Society for Industrial Archaeology. At present Andreae operates his own business, Historica Research Ltd., in London.

"Piecing Together Our Past"

CALL FOR PAPERS

Manitoba Archaeological Society
and Manitoba Universities
Anthropology Student Conference

Date: October 2 - 4, 1992

Location: University of Winnipeg

Relevant subject areas:

■ Archaeology ■ Physical Anthropology ■ Cultural Anthropology ■ Native Studies ■ Ethnohistory

Papers will be directed at:

■ Recent fieldwork ■ Student Research ■ MA and PhD research projects ■ Avocational archaeological pursuits

Please mail abstracts to:

Manitoba Archaeological Society
P.O. Box 1171
Winnipeg, Manitoba R3C 2Y4
(204) 942-7243

Deadline: September 1, 1992

PEOPLE TO PEOPLE

A Conference on Intertribal and
Interethnic Relationships in
the Northeast During the
Early Contact Period

Sponsored by the
Research Division
Rochester Museum & Science Center
Rochester, New York

NOVEMBER 14-15, 1992

This conference is in recognition of the quincentenary of Columbus' voyage to the New World and its significance as a crucial turning point in the history of both native inhabitants and Europeans.

The conference is aimed at expanding current understanding of human interactions in northeastern North America during the period of earliest contact between Old and New World peoples (c. A.D. 1500-1700). It will encompass the complex and varied interrelationships among Native American tribal groups during this period as well as the relations between diverse groups of Native Americans and Europeans. Papers prepared from this intercultural perspective are invited on topics such as population movements and amalgamations; the formation of political and/or economic alliances through treaty, trade, or intermarriage; warfare, captive taking, and adoption; the effects of epidemic diseases; and the spread of ideologies, languages, and cultural practices.

Potential contributors are asked to submit a 150-word abstract to the conference committee by April 1, 1992. Please send to:

People to People Conference
c/o Charles F. Hayes III
Rochester Museum & Science Center
657 East Avenue Box 1480
Rochester, New York 14603-1480

Papers will be selected by the conference committee by June 1, 1992 on the basis of their relevance to the conference theme, their scholarly nature, and their foundation in archaeological, osteological, and/or ethnohistoric data.

Conference preregistration will be required. Preregistration forms and further program details will be available after June 1, 1992. ■

AN OLDER AGE FOR THE JAPANESE EARLY PALAEOLITHIC

by Lorenz W. Bröchert

During the summer field season of 1991, excavations at the Ohira site, located in eastern Japan, saw the recovery of flaked tools that may now push the Japanese Early Palaeolithic back by 10,000-15,000 years. (Keally 1992; Yanagida 1992).

The artifacts recovered, besides an assortment of flaked tools and scrapers, were large flaked tools showing evidence of bifacial flaking and retouching. Similar bifacial tools have been recovered from other sites in surrounding regions of the Ohira site and were dated as early as $49,000 \pm 5,000$ B.P. (Yanagida 1992).

While further testing is still taking place it is becoming probable that the date of 45,000 B.P. will remain for the Ohira site.

Acknowledgements

I would like to give special thanks to Dr. Charles T. Keally (Sophia University, Japan) for his help while I was in Japan and providing data on the Ohira site.

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FROM THE O.A.S. OFFICE

Charles Garrad

1992 ANNUAL SYMPOSIUM "IMPACT AND INFLUENCE; EARLY NATIVE AND EUROPEAN CONTACT IN THE AMERICAS"

Tucked into this issue of ARCH NOTES you will find a Symposium Pre-registration Form. Pre-registration is at a lower rate than paying at the door. A whole host of top-notch invited speakers are coming this year, so don't miss this event. Hotel early-registration cards are not provided this year, but if you intend to stay at the Westbury Hotel, by all means let them know you are attending the OAS Symposium.

NOTICE OF ANNUAL BUSINESS MEETING

The 1992 Annual Business Meeting of The Ontario Archaeological Society will be held at the Metro Central YMCA Auditorium, Grosvenor Street, Toronto, Ontario, on Saturday afternoon, October 24, 1992. All Society members in good standing may attend. Copies of the financial statements, with an Agenda and activity reports, will be circulated at the Meeting. To ensure that there is time for adequate consideration, motions should be submitted in writing in advance to the Society's office during the previous work week. This notice is intended to comply with the requirements of Article V(3) of the Society's Constitution.

NOTICE OF APPOINTMENT OF NOMINATING COMMITTEE

A Nominating Committee of three members has been appointed to prepare a slate of seven or more candidates for office as Directors of The Ontario Archaeological Society for 1993. The Committee members are: Bob Bugar (Chair), Bernice Field and Bob Mayer. The

Nominating Committee now solicits nominations of consenting candidates from members. Written nominations may be forwarded to the Nominating Committee in confidence care of the OAS Office, the envelope being clearly marked "Attention - Nominating Committee". The Chairman of the Committee can be reached at home (519)853-4483. The Nominating Committee will present its slate and report to the Board of Directors and general membership at the Annual Business Meeting, at which time nominations may be made from the floor before closure. An election, if necessary, will be held by mailed ballot accompanying the November-December issue of ARCH NOTES. This notice is intended to comply with the requirements of Article VI of the Society's Constitution.

NOTICE OF PROPOSED MOTION TO AMEND THE CONSTITUTION

The following proposed amendments to the Constitution have been enacted by a majority vote of the Board of Directors. Following discussion at the Annual Business Meeting the proposed amendments will be submitted for ratification by a two-thirds vote of the responding membership within 60 days of the Annual Business Meeting in accordance with Article XI of the Constitution.

1. To correct incorrect usage throughout the Constitution the term "Executive Committee" has been replaced by "Board of Directors", "Executive Officers" by "Directors", "Officer(s)" by "Director(s)" and "members of the Executive Committee" by "Directors". The following articles are affected by the above:

III.3,7; IV.1; V.1,2,3; VI.title,1,2,3,4,6;
VII.1; VIII.title,1,2,5; IX.title,1; X.1; XI.1;

XII.1; XV.1,9,10,11; XVI.2; XVII.2,7; XVIII.1,2; XIX.1; XX.1; XXII.1.

2. References in the Constitution to the Past President have assumed that the current President's term of office is one year only. Article V.2, 2nd paragraph has been changed from:

"The Past-President shall serve as a non-voting member of the Executive Committee for one year from the date of the end of the term of office." to:

"The immediate Past President shall serve as a non-voting member of the Board of Directors." and Article VI.4 has been changed from:

"The President, on the expiration of his term of office, and not being a candidate for re-election, or for other Executive Office, shall continue as a non-voting member of the Executive Committee for one further year, with the title Past President." to:

"The President, on the expiration of his term of office, and not being a candidate for re-election as a Director, shall continue as a non-voting member of the Board of Directors, with the title Past President, until the current President becomes Past President."

3. Adjustment is made in the Constitution to the duties of the Secretary to enable clerical help to be employed as necessary. Article VIII.2 has been changed from:

"The Secretary shall issue notices of Executive Committee meetings, shall record all proceedings, shall prepare and read the minutes, and having signed them shall present them after confirmation to the President for signature." to:

"The Secretary shall issue notices of Board of Directors meetings, shall have recorded all proceedings, shall prepare and read the minutes, and having signed them shall present them after confirmation to the President for signature."

4. Adjustments have been made to the following fiscal articles - Article IV.3 has been changed from:

"All cheques in payment of authorised accounts and bills shall be prepared by the Treasurer and signed by any two of the three signing officers. The signing officers shall be the President, the Treasurer and, in the absence of the President, one designated Director or Officer." to:

"All cheques in payment of authorised accounts and bills shall be signed by any two of the three signing officers. The signing officers shall be the President, the Treasurer and one designated Director or officer."

Article VIII.1, first and last sentences have been changed from:

"The President shall preside at meetings of the Society and at meetings of the Executive Committee; shall sign cheques in payment of authorised accounts and bills, after such cheques have been prepared and signed by the Treasurer; shall sign the minutes immediately upon their confirmation. ... One of the members of the Executive Committee shall be appointed by the President to perform the duties of the President in the event of the latter's absence or upon the President's request." to:

"The President shall preside at meetings of the Society and at meetings of the Board of Directors; shall sign cheques, when necessary, in payment of authorised accounts and bills; shall sign the minutes immediately upon their confirmation. ... One of the members of the Board of Directors shall be appointed by the President to perform the duties of the President, except for cheque-signing duties, in the event of the latter's absence or upon the President's request."

An additional paragraph has been added as follows:

"Article IV.6 - Major expenditures, i.e. staff pay, office rent and capital equipment should be recorded in the Boards' Minutes when approved."

NOTICE TO TWENTY-FIVE YEAR MEMBERS

Two members identified as having held

continuous membership in the Society since joining in 1967 will be presented with a Twenty-Five Year lapel pin and accompanying certificate at the Symposium Banquet on October 24, 1992. These are Jerome Cybulski and Paul Lennox.

The special recognition of twenty-five year members was introduced by the Society in 1987. To date nineteen members have been recognized. Any other member who believes him/herself eligible please contact the OAS office.

1991 HERITAGE CONSERVATION AWARD

Mad River Development Inc. has been selected to receive the OAS Heritage Conservation Award for 1991. The nomination letter states:

"In 1988 the Mad River Development Inc. commenced development of a parcel of land in Nottawasaga Township for the Mad River Golf Club. An enquiry for possible archaeological remains on the property .. determined that the Peacock BcHa-5 Site was potentially threatened. The precise boundaries of the site were not then known.

An archaeological assessment was undertaken by the nominee to determine the site boundaries .. The development was then redesigned to avoid the site. Construction of the Mad River Golf Club was completed in 1991 with no impact on the Peacock BcHb-5 Site."

The Award will be made at the Society's 1992 Annual Banquet at the Westbury Hotel, Toronto, October 24, 1992. The Society extends thanks and regrets to the other nominees and their sponsors.

HERITAGE ACT POSTCARD CAMPAIGN

Enclosed in the recent mailing of ONTARIO ARCHAEOLOGY was a preprinted postcard and explanatory pamphlet offered to you as a means of expressing your desire to see a new Ontario Heritage Act. You were asked to ascertain who the MPP for your provincial riding is and add his/her name to the card before mailing it. The preprinted card is

repeated with this mailing of ARCH NOTES, with instructions elsewhere in the text. Please note that the telephone numbers to call, if you don't know your riding, are: in area code 416 call (416)321-3000, in other area codes call (800)668-2727.

NO INCREASE IN FEE FOR '93 !

At the July Board meeting the fee schedule for 1993 was discussed. It was decided the Society must hold the line. Accordingly there will be no change in Society membership fees in 1993.

OAS COMMENTS ON CEMETERIES ACT

A letter has been sent by OAS President Dr. Bruce Welsh to Consumer and Commercial Relations Minister Marilyn Churley commenting on a number of potential problems with the new Ontario Cemeteries Act and particularly the Regulations concerning Unmarked Burials.

ONTARIO ARCHAEOLOGY ENDOWMENT FUND APPEAL

More names for The Honour Roll ! The OA Endowment Fund continues to grow. New contributions have been received from Associated Heritage Publishing, Dorothy Hunt, Eva MacDonald and David A. Robertson, Dr. Phillip MacFarlane, the McLean Foundation, the Ministry of Culture and Communications, Jean-Luc Pilon, the Quaternary Sciences Institute, and Amy Stewart.

In return for three cheques postdated a month or two apart for \$10 each, you will receive a donation receipt for income tax purposes, help to ensure the permanency of ONTARIO ARCHAEOLOGY, and the government will quadruple your donation. Cheques made to The Ontario Archaeological Society and marked OA ENDOWMENT FUND should be sent to the office.

PASSPORT-TO-THE-PAST PROGRAM UPDATE

To the date of writing the office has mailed six Volunteer Opportunity Bulletins for 1992. If you are not receiving Volunteer Opportunity

Bulletins and believe you should be because you were once registered in the program, please advise the office.

The fee to join the program, receive a Passport document and Volunteer Opportunity Bulletins for the first year remains \$10. For subsequent years the annual service fee toward the cost of mailing the Bulletins is \$5.

New Agencies are solicited for the Passport program and existing Agencies are asked to please report opportunities for Volunteers.

1992 OAS SUMMER BUS TRIP REPORT

A nearly-full bus-load enjoyed a glorious day on July 4. We travelled to Niagara-on-the-Lake to see the re-enactment of the arrival of Lt.-Governor Simcoe and a whole host of associated events. On the way we stopped at Burlington Beach to pick up the Hamilton contingent and to inspect the site of the King's Head Inn, the first Inn in the area, built in Simcoe's time, and recently the subject of archaeological exploration. At St. Catharines we picked up Jim and Suzanne Pengelly, representing the Niagara Chapter OAS in its fifth anniversary year. Thanks to the video-equipped bus and Stew Leslie's tape of the OAS trip last November, we journeyed along the QEW via Egypt and Jordan. It was fun that so many people in the video were on the bus. When we got to Niagara-on-the-Lake, who should we meet in the crowd of thousands but Ottawa Chapter Past President Helen Armstrong and Dr. Armstrong, proud that their daughter was among the costumed re-enactors greeting Simcoe.

We were able to go on one of the "Tall Ships", watch many events, do a little shopping, attend the ceremonies, watch the troops parade and battle. MCC Minister Karen Haslam was in period costume and made a great speech. We left in the middle of a mock battle for dinner in St. Catharines. This was great but a little slow and so we got home bit late, tired, happy, and clutching Stew Leslie's handout about the King's Head Inn, the many-page OAS handout covering the major event, and souvenirs galore. No doubt Kodak and other photo houses noted a business boom the Monday after.

UPDATE ON ONTARIO ARCHAEOLOGY

ONTARIO ARCHAEOLOGY 54 was mailed out early in July, only three months after OA53! What an accomplishment. Congratulations to all concerned, and especially to Editor Dr. Peter Reid.

Manuscripts are solicited for future issues. These may be submitted on diskette or hard copy, and may be sent to the office or (if three hard copies) directly to Dr. Peter Reid, Dept. Sociology and Anthropology, University of Windsor, Windsor, Ontario N9B 3P4. The requirement of three hard copies is waived for text submitted on either size diskette in any version of Word Perfect.

1 BATMAN = 6 OKAS

Fear not, the great defender of the American Way has not become involved in Canadian/Mohawk relations. According to Horace Doursther's "Dictionnaire universel des Poids et Mesures ancienne et modernes .." batman and okas are the names of ancient arabic weights still in use in parts of Turkey and Persia in 1840. "Le batman ordinaire" weighed 7.6 kilograms, and was equivalent to 6 okas, 10 mennas or 24 rottos. The dictionnaire is an incredible compilation of ancient weights and measures, which varied tremendously over time and space. For example the French word "pied" is usually equated directly with the English word "foot". The dictionnaire has no less than 718 entries for "pied", showing that it ranged from 7.276 English inches in ancient Delphi to 25.565 in Cervia. The countries listed where a foot actually equalled twelve English inches were those where "Le pied anglais" was then in use, the British countries and some of the overseas colonies, the United States, and major trading ports. Some countries used "Le pied anglais" as an optional measurement, co-existing with other measuring systems. Russia, for example, had five different measurements for the foot, ranging from twelve (anglais) to 14.135 English inches (L'ancien pied russe).

Many thanks to Conrad Heidenreich for suggesting this book, to Evelynne Currie of the North York Public Library for securing it on inter-library loan, and the University of Saskatchewan for releasing it. ■

PLANNED GIVING AND THE ONTARIO ARCHAEOLOGICAL SOCIETY - YOUR LAST WILL AND TESTAMENT

Last issue we discussed the benefits of Life Insurance as a way to leave a bequest to worthwhile charitable organizations like The Ontario Archaeological Society. A second method of ensuring the OAS will still exist for future generations is through a gift to the Society when you no longer need to rely on the funds for living expenses, a bequest in your will.

We all enjoy archaeology in one form or another - as a professional, an avocational or even as an armchair archaeologist. And we know what the OAS does for archaeology and what it does for us personally - but the OAS cannot do this without cost.

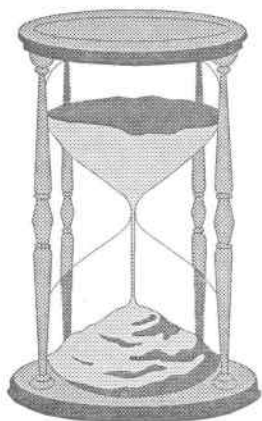
When you are revising your Last Will and Testament, remember the pleasures and achievements you have enjoyed and do your part to ensure succeeding generations also will have something to remember. Ask your lawyer to include a bequest to:

**THE ONTARIO
ARCHAEOLOGICAL SOCIETY
INC.**

The amount of your bequest will vary but all donations are an important part of preserving the Society. Whether a simple legacy, an endowment or a charitable trust, your contribution is important. In addition your bequest is:

1. Tax deductible in the year of death to the extent that it does not exceed 1/5 of total income and any unused deductions can be carried back to the previous year.
2. Able to provide you with the wonderful feeling that "I made a difference", you really will feel good about yourself.

If you would like to help by leaving a bequest to The Ontario Archaeological Society through your last will and testament please consult your trust officer, lawyer or other advisor or the OAS for further details.



*The OAS Endowment Fund
guarantees your immortality!
Invest now in Archaeology's
future - (416)730-0797*

**YOU CAN MAKE A
DIFFERENCE**

CUT HERE

I am interested in obtaining more information about establishing a Personal Planned Giving Program.

Name: _____

Address: _____

Province: _____ Postal Code: _____

Phone: () _____ Best time to call: _____

I understand that this request for information does not place me under any obligation to establish a plan.

MAIL TO THE ONTARIO ARCHAEOLOGICAL SOCIETY INC, 126 WILLOWDALE AVE., WILLOWDALE, ON M2N 4Y2

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 Fees: Individual \$15 Meetings: Usually at 8.00pm on the 2nd Thursday
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 1825 East Arthur Street, Thunder Bay.

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O.A.S. CHAPTERS

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