Natasha Lyons began her archaeology career by spending some of the best summers of her life at Scowlitz. She has a PhD from the University of Calgary in community-based practice, and owns a small heritage consulting firm with her partner, lan Cameron, whom she also met at Scowlitz: http://www.ursusheritage.ca.

Andy Phillips is Chief of the Scowlitz First Nation and Executive Director for the Stó:lō Tribal Council.

Dave Schaepe is Director / Senior Archaeologist of the Stó:lō Research & Resource Management Centre. He has worked with the Stó:lō for 14 years and been involved in numerous community-university collaborations, including acting as a Steering Committee-member in the development of the Reciprocal Research Network. For more information: http://www.srmcentre. com.

Betty Charlie and Clifford Hall are Scowlitz community members with a longstanding interest in the history and heritage of the Stó:Iō. They have been a part of all the excavations at Scowlitz since 1992, helping to guide and instruct the many students and researchers who have worked at the site.

Kate Hennessy is an Assistant Professor specializing in Media at Simon Fraser University's School of Interactive Arts and Technology. She researches how digital technologies can be used by communities to access their heritage in museum collections. Her website is: http://hennessy.iat.sfu.ca.

John Welch is an Associate Professor, cross-appointed to the Departments of Archaeology and Resource and Environmental Management at Simon Fraser University. He has worked with the White Mountain Apache Tribe of Arizona for the past two decades, and is involved in many community-based heritage projects in B.C.

Scowlitz Site Resources

Bernick, Kathryn

- 1998 Stylistic Characteristics of Basketry from Coast Salish Area Wet Sites. In Hidden Dimensions. The Cultural Significance of Wetland Archaeology, edited by K. Bernick, pp.139-156. Vancouver: UBC Press.
- Blake, Michael
- 2004 Fraser Valley Trade and Prestige as Seen from Scowlitz. In *Complex Hunter-Gatherers; Evolution and Organization of Prehistoric Communities of the Plateau of Northwestern North America*, edited by W.C. Prentiss and I. Kuijt, pp. 103-112. University of Utah Press, Salt Lake City.

Blake, M., G. Coupland, and B. Thom

- 1993 Dating the Scowlitz Site. The Midden 25(1):7-9.
- Lepofsky, D., D. Schaepe, A. Graesch, M. Lenert, J. Arnold, K. Carlson, M. Blake, P. Ormerod, J. Clague, and P. Moore
- 2009 Exploring Stó:lō-Coast Salish interaction and Identity in Ancient Houses and Settlements in the Fraser Valley, British Columbia. *American Antiquity* 74(4):595-626.
- Lepofsky, D., M. Blake, D. Brown, S. Morrison, N. Oakes, and N. Lyons
- 2000 The Archaeology of the Scowlitz Site, Southwestern British Columbia. Journal of Field Archaeology 27(4): 391-416.

Lepofsky, Dana and Natasha Lyons

- 2003 Modeling Ancient Plant Use on the Northwest Coast: towards an understanding of mobility and sedentism. *Journal of Archaeological Science* 30:1357-1371.
- Lyons, Natasha
- 1997 The 1997 SFU Field Season at Scowlitz. The Midden 29(3):2-3.
- Lyons, Natasha and Tony Vanags
- 1999 Scowlitz News: Report on the 1998 Excavations. *The Midden* 30(3): 6-7. Morrison, Sandra and Heather Myles
- 1992 "The Sacred Mounds of Scowlitz." Midden 24:4: 2-4.
- Rowley, S., D. Schaepe, L. Sparrow, A. Sanborn, U. Radermacher, R. Wallace, N. Jakobsen, H. Turner, S. Sadofsky, T. Goffman.
- 2010 Building an On-Line Research Community: The Reciprocal Research Network. http://www.archimuse.com/mw2010/papers/rowley/rowley. html#ixzz18IJJCDsX

THE ENIGMA of the Ruby Creek Stone Figure

Grant Keddie

The Ruby Creek Bowl is a carved stone, seated human figurine bowl with unique facial features. It has been assumed to be part of the early stone bowl complex of Southwestern B.C., as defined by Duff (1956). My observations and experiments indicate that this figure was carved with metal files and a chisel-like tool. However, the latter information does not necessarily establish that the bowl dates to the postcontact period.

This artifact, DiRj-Y:3 (old cat. No. 2996), was in the Royal B.C. Museum (acc. No. 1917-25) as part of the collection of "Rev. Charles C. Croucher. From the Yale District." The original typed catalogue has its location as "Yale," but under remarks it says: "Al Smith says Ruby Creek." It is not known who Al Smith was or under what authority he claimed the bowl was from Ruby Creek. Other artifacts in this collection are from Hope; North



Figure 1. Ruby Creek Bowl, front view.



Figure 2. Ruby Creek Bowl. Back View.

Bend; Yale; American Bar and "Fraser River." Ruby Creek flows into the Fraser River to the East of Harrison Lake near Hope.

The Provincial Museum Report for 1917 states that the collection was donated by "Mrs. Gertrude A. Croucher, Yale" in memory of her husband, "the late Rev. Charles Croucher." The collection of "158 specimens, was collected by Rev. Mr. Croucher many years ago." Charles Croucher died June 6, 1917 in Mission City, at the age of 74. One might guess that the bowl was collected before about 1880.

The Ruby Creek bowl has been presented in several publications. Harlan I. Smith shows a drawing of it (1923:56 & Pl.18, Figure 2), which was created from one of his photographs taken on July 31, 1915 when visiting the Crouchers. Smith was later given the Museum information, which is likely why he referred to the bowl as "From Ruby Creek on Fraser River."

Alice Ravenhill (1938:29 & Pl.4) has a photograph of the figure which gives the wrong location—"Carved sandstone dish from Lytton, B.C." In commenting on seated figure bowls in general, Ravenhill says: "These are stated according to tradition to have been used in the preparation of charms to attract salmon to nets and fishhooks during the early part of a 'run'." It is not known where Ravenhill was getting the latter information. Smith (1923:36) refers to some of the anthropomorphic bowls from the Lillooet area as being used "for ceremonial fumigation of the first spring salmon of the season," but Ravenhill does not reference Harlan Smith in any of her publications.

An image of the artifact was also published by Inverarity (1950:Pl.42) with the name of the collector miss-spelled as "Groucher."

Wilson Duff (1956:27; Figure 1) uses Ravenhill's image, which he refers to as being from Ruby Creek. He notes:

This figure gives the impression of being the work of a poor carver, which may account for some of the atypical features. Tool marks show plainly on many parts: marks of battering, hacking with a rough blade, and abrasion with a file-like tool (probably sandstone, as the parallel abrasions are uneven).

The Evidence of Iron File Use

The Ruby Creek bowl, made of a steatite or clorite-like material, has many sharp cuts that appear to have been done with an iron chisel-like object. But of most interest to me are the many parallel grooves, often numbering over 20 in a row, that could only have been made by an iron or steel file(s).

After consulting historical sources on files, such as Nicholson (1878), and observing in detail the size, location, and orientation of the cuts, I experimented on samples of steatite using various types of iron files to see if I could match the patterns on the bowl.

The positioning of the file marks indicate that the carving was done by the movement of file(s) horizontally across their width and not in line with the vertical axis of the file. The parallel marks inside the area of the arms, for example, would necessitate horizontal scrapping as there is no room to use a file in a forward motion in the confines of the area. In some cases, the dipping of the parallel marks in and out of small depressed surface areas and the slight curving of parallel lines at the end of strokes would necessitate the use of a round file-also used horizontally. The patterning of the grooves ruled out the use . of a rasp files and larger flat files.

There are two types of cut patterns that both show a series of parallel raised lines between cuts: (1) the raised lines are of varying widths but the width of each individual raised line does not vary along its length. This kind of a cut can be made with a flat single cut file when the rows are hand cut and not spaced as evenly as a machine cut file; (2) the raised lines as individual lines have irregular edges or varying width. These cuts can be made with either a flat double cut file with worn teeth corners or a round file with second cuts that are irregular or lines that are not parallel.

On this bowl, the width of the raised lines between cuts ranges from about .16mm to .27mm, with an average around .21mm. The width of the cuts themselves is generally less than the areas in between. A typical 10mm section contains about 19 raised lines.

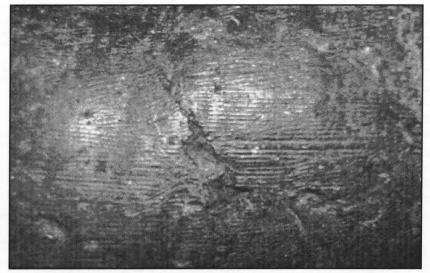


Figure 3. Numerous file marks on back.

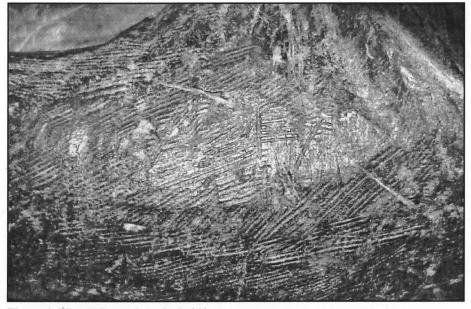


Figure 4. File cut lines of varying widths.

In my experiments, the closest size and number of raised lines that was similar to the Ruby Creek Bowl were created on steatite with an eight-inch Black Diamond "AXE" model made in Canada (Figure 6). A typical 10mm section of cuts contained 18 raised lines averaging around .20mm thick. An eight-inch round file by Sanvik of Sweden (13/64-inch dia.) produced raised line widths around .23mm wide and had 21 raised areas per 10mm section of lines (Figure 7).

Discussion

In recent permit reports, it is not uncommon to see general statements that mistakenly imply that these seated human figure bowls are all attributed to the Marpole period.

Duff illustrates the Ruby Creek Bowl in his *Stone Images B.C.* publication (1975:72&175), where he notes that at least three seated human figure bowls have been found at the Marpole site which dates "between 2500 and 1500 years ago," but he does not attribute all of these types of bowls—including this one—to that time period. Borden (1983:147-155), was also very careful to only include stone bowls with some underground context from the Marpole site as being from the Marpole period—which he then defined as being from 350 BC to 200 AD.

In a close examination of this figure, it is clear to me that this bowl was made with a chisel-like object and at least two different types of older hand cut iron files. The uniformity of the patination on the artifact clearly also indicates that the file marks were made during the original making of the bowl and not afterward. The file rows are closest to the number of cuts found on eight-inch flat files with a medium degree of coarseness. Evidence suggests that a flat double cut file was used or a heavily worn single cut file, as well as a round file.

In some early European files where the teeth were cut with a chisel before the hardening was carried out, the cuts were perpendicular to the longitudinal axis of the file (Coghlan 1956:13-132)—as opposed to the later oblique angled ones. This type would also produce some of the irregular line patterns seen on this bowl. Asian files were not used in my experiments, but would be a valuable addition to this research.

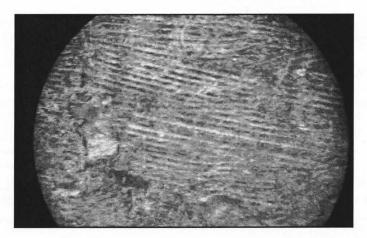


Figure 5. Small lines magnified 20X.

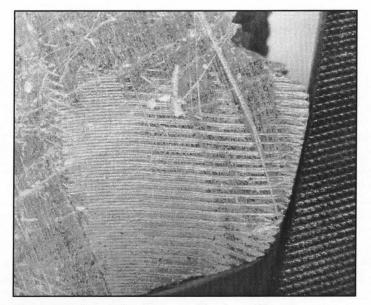


Figure 6. Variation of cut lines resulting from different pressure in using a double cut file on steatite.

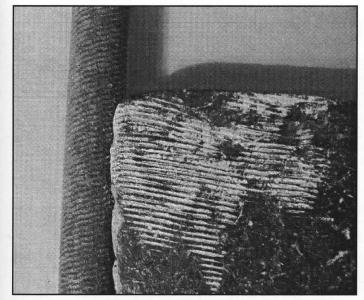


Figure 7. Cuts from round file on Steatite.

Conclusions

This bowl looks like an ancient one. Because it is carved with metal tools, we can not necessarily assume that it dates to the historic period. I think we are left with three competing hypotheses regarding its origins: (1) The bowl was made after the 1790s when iron tools were well distributed on the Coast (Keddie 2004) and before the mid 19th century when machine cut files were generally more available (Nicolson 1878); (2) The bowl dates to a pre-contact period and the First Nation who made it had access to iron files from shipwrecks or from long distance trade around the Pacific Rim; (3) The artifact was traded from far away or came from a shipwreck. The latter hypothesis could be answered by establishing the origin of the raw material from which it is made. Similar raw material does occur in the general area of the find but appropriate testing needs to be done. For the time being, this bowl will remain a bit of an enigma.

Grant Keddie is Curator of Archaeology at the Royal British Columbia Museum in Victoria, B.C.

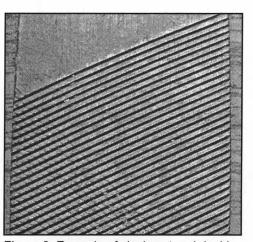


Figure 8. Example of single cut and double cut on a file.

References

Borden, Charles

1983 Prehistoric Art of the Lower Fraser Region. In Indian Art Traditions of the Northwest Coast, edited by Roy Carlson, pp.131-165. Archaeology Press, Simon Fraser University, Burnaby, B.C.

Coghlan, H. H.

1956 Notes on Prehistoric and Early Iron in the Old World. Occasional Papers on Technology. 8. Edited by T.K. Penniman and B.M. Blackwood.

Duff, Wilson

1956 Prehistoric Stone Sculpture of the Fraser River and Gulf of Georgia. Anthropology in British Columbia, No. 5, 1956, British Columbia Provincial Museum, Department of Education, Victoria, B.C.:15-151.

Duff, Wilson

1975 Stone Images B.C. Thirty Centuries of Northwest Coast Indian Sculpture. An exhibition originating at the Art Gallery of Greater Victoria. Hancock House Publishers.



Figure 9. Head of Ruby Creek Figure (all photos by author).

Inverarity, Robert Bruce

1950 Art of the Northwest Coast Indians. University of California Press, Berkeley and Los Angeles and University of California Press, Limited, London, England.

Keddie, Grant

2004 The Early Introduction of Iron Among the First Nations of British Columbia. http://www.royalbcmuseum.bc.ca/Content_Files/Files/ AnEarlyIntroductiontoIron.pdf

Nicholson, W. T.

1878 A Treatise on Files and Rasps. Descriptive and Illustrated for the use of Master Mechanics, Dealers, &Co. Nicholson File Company, Providence, Rhode Island.

Provincial Museum

1918 Province of British Columbia. Report of the Provincial Museum of Natural History for the Year 1917, King's Printer, Victoria:5-7.

Ravenhill, Alice

1938 The Native Tribes of British Columbia. Victoria, B.C., King's Printer.

Smith, Harlan I.

1923 An Album of Prehistoric Canadian Art. Canada, Department of Mines, Bulletin No. 37, Anthropological Series, No. 8, Ottawa.