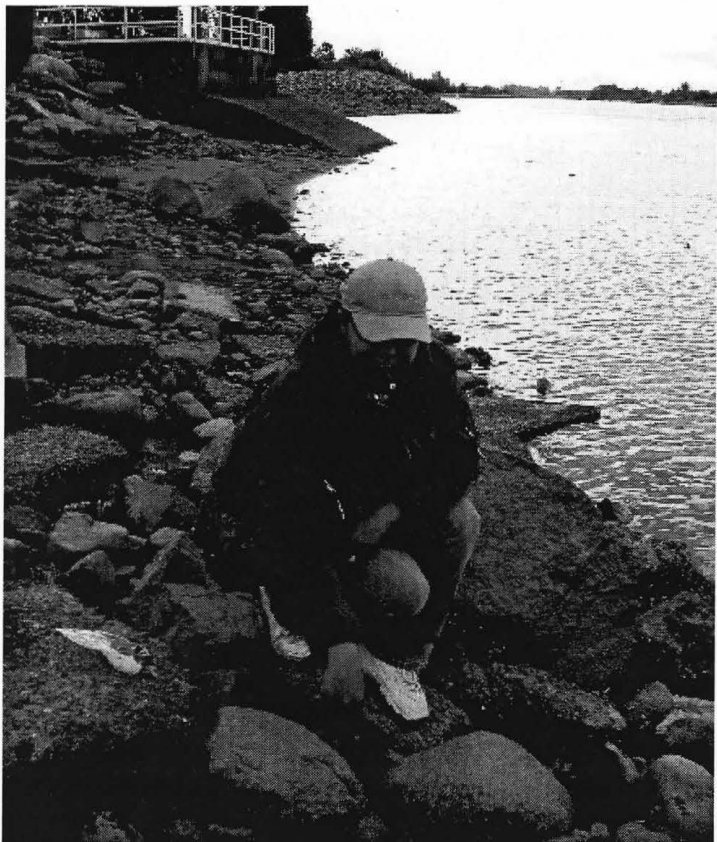


The Musqueam-UBC Archaeological Field School 2008

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This Spring saw the second year of the collaborative field school partnership between the Musqueam Indian Band and the University of British Columbia. This project is directed by a Steering Group composed of Leona Sparrow of Musqueam, Sue Rowley and Andrew Martindale of UBC, with ongoing input from the Musqueam Community Advisory Committee. This organizational structure has enabled the interests and priorities of Musqueam members to shape the structure of the field school and how its research is approached.

As with the previous year, the field school was divided into four modules—pedestrian survey and sketch mapping, midden screening and artifact analysis, digital mapping and geographical information systems (GIS) analyses, and sub-surface mapping and analysis via ground-penetrating radar (GPR). Each module enabled students to focus on learning specific skill sets best suited to the particular research question being addressed. The results of their labour are impressive.

A major priority this year was to provide opportunities for members of the Musqueam community, nearby elementary and high school students, and local residents to visit and learn about the field school. To these ends, the field school ran Tuesday to Saturday so

Top: Field school student Gloria Larocque learns that piecing together the culture history of this area requires a detailed understanding of how the landscape and particularly watersheds have shifted and changed over time. (Photo by author)

that Musqueam residents normally at work or school during the week could visit on Saturdays and lend some much-appreciated help with screening (and enjoy a fantastic barbeque!). The students attended a community elders luncheon, and had several guest speakers who generously shared their experiences and knowledge. The final week saw the culmination of the field school's efforts in a community presentation evening, where the students were able to share their findings from the previous six weeks with Musqueam residents and UBC faculty. All in all, it was a great year, with some very interesting results.

Pedestrian Survey and Sketch Mapping

The newly acquired Musqueam Triangle Lands (formerly part of Pacific Spirit Park) were the field setting for students to learn how to conduct extensive and intensive pedestrian survey to first locate then map archaeological sites. The survey teams focused on an area identified as a Chinese kitchen midden, formed by residents of the market gardens that Chinese immigrants farmed during the early 1900s. Along with Chinese brown ware and medicine vials, this site also yielded impressive amounts of hotel commissary ware and more recent leftovers from logging in the area, materials found both on the ground surface and in shovel tests. Interestingly, these materials from the 1950s to the 2000s were found within about a 10 metre 'throwing range' from the (past and/or present) road—just goes to show, some things never change.

This module also focused on palaeoenvironmental landscape reconstruction, specifically with respect to shifting watercourses in Musqueam Indian Reserve #2, specifically with respect to changes in the Musqueam Creek and Fraser River channels. The construction of a nearby breakwater in the mid-1900s has significantly increased the rate of shoreline progradation, resulting in expansive marshlands adjacent to the reserve. Students also conducted pedestrian surveys and shovel testing of a field across from the wet site of DhRt-4 next to Musqueam Creek, with the aim of identifying whether the site extended across the creek. Ultimately, no intact deposits were encountered, and we confirmed that the upper levels of the field were comprised of redeposited shell midden used as construction fill. However, we were able to locate potential palaeoshoreline deposits that may represent the creek/river estuary prior to the landscape development of the last 100 years, which may aid in identifying earlier sites on this ancient landscape.

Midden Screening and Artifact Analysis

Screening of redeposited midden from the Stselax type-site (DhRt-2) was identified as a priority by the community, as this material—out of its archaeological context—is more prone to erosion and decomposes at a faster rate. This year we managed to screen an astonishing 5695 litres of material! Analysis of the artifacts we recovered, confirms that the 20+

mounds were in all likelihood removed from the same source, but have retained heterogeneity observed in the intact site itself. These mounds were also re-mapped from 2007 using a total station to gauge the volume of material (approximately 147,000 litres). Based on this new information a strategy for further processing of the midden will be devised. As such, this component will be ongoing, with renewed efforts to hasten the processing of what remains valuable but vulnerable materials, and a shift in focus to analysis of the myriad faunal remains recovered from the site.

Digital Mapping and GIS

Building on the fabulous maps compiled by last year's students, the crew this year managed to locate even earlier aerial photographs from the 1920s to compare landscape change, specifically focusing mapping the course of Musqueam Creek and the upper cemetery, which also served as the focus for the GPR module. Students tried their hand at using global positioning systems (GPSs) and the total station to create maps, which were then combined with contemporary and previous GIS data on archaeological and cultural surfaces. These spatial data represent an easily stored and referenced source to consider the future inclusion of descriptive archaeological information, palaeoenvironmental reconstruction, and ultimately predictive modelling, which together will aid in land development planning.

Subsurface Remote Sensing: Ground Penetrating Radar (GPR)

After a successful pilot GPR project in 2007, a grant application by the field school steering group, several faculty mem-



Steve Daniel of UBC tests out the new GPR equipment in all forms of weather. Acknowledgement to UBC and the TLEF Grant that allowed acquisition of the new GPR setup and the advancement of non-invasive archaeology in BC. (Photo by Steve Daniel)



Field survey, sketch mapping, and shovel testing in the Triangle Lands was an important component of the field school instruction, as field school students Katie Wright, Justine Nichol and Mimi Chang experience with TA Rich Hutchings. (Photo by author)

bers at UBC, and Steve Daniels, allowed us to purchase more up-to-date remote sensing equipment, a great black and yellow machine now known fondly by its field school operators as 'the lawnmower.' This technology was employed at the request of Musqueam to map subsurface features of the upper cemetery, with the specific aim of relocating graves for which the markers had been moved or lost. This was a delicate project and was approached with sensitivity and consideration for community members, who frequently visited the cemetery to pay respects to their loved ones. The project was successful in relocating 31 probable and another 21 possible burials for which markers were absent, encouraging results that will ultimately assist in ensuring the resting places of these individuals can be cared for.

2008, done: what's in store for 2009?

This field season was a great success, and it was especially satisfying to be building on the hard work of last year's crew, who really set the bar for excellence and enthusiasm. Looking to the next field school in 2009, processing the Stselax mound materials remain a priority due to their vulnerability. As the 'backbone' of archaeology and particularly cultural resource management today, field survey and sub-surface testing will again comprise one of the modules for the coming season. Additionally, continuing to build a GIS reference database for past and present land forms, water-land interfaces, and cultural sites will form a critical component in our approach to field research. The use of GPR in sub-surface mapping has proven to be effective, efficient—and a great deal of fun!—so we'll be looking for how best to employ the 'lawnmower' to accomplish the community's aims next year.

Our thanks to all who participated, and we look forward to continuing the tradition in the Spring!!