

## Introduction to HbRf-39 digital and physical archives

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### Introduction

This online archive provides information about the excavations and subsequent analyses undertaken at the site of Tse’K’wa (HbRf-39, also known as Charlie Lake Cave), focusing on the excavations of 1974, 1983, 1990 and 1991. This introductory document can be read as a guide to the work that has been done, and also as a guide to the site archive as it is constituted in 2022. This introduction, as well as other explanatory documents found throughout the archive, do not “interpret” Tse’K’wa. Some interpretations have already been presented in publications and in student theses, and it is very likely that future researchers will add to our knowledge of the site.

Tse’K’wa has been known to people in the area around Charlie Lake for about 12,000 years. It seems likely that for all that time the cave and associated geological features were what drew people to the location. The Peace River region in northeastern BC has very few caves, because the underlying bedrock is sandstone (and sandstone caves are rare) and because so much of the land is covered by unconsolidated deposits (notably diamictons, gravels, clays and silts) laid down under melting glaciers and massive glacial lakes that covered the region after the glaciers melted. As a result, the cave was an unusual feature of the landscape, which in itself is enough to attract people to visit. Caves are also important places for spiritual understanding, often seen as a link between the world we inhabit and the underworld. Another significant geological feature at the site is the large boulder (the “parapet”) that detached from the escarpment in which the cave was formed, and moved a few metres downslope, where it would have stood for millennia as a massive standing rock on the side of the hill until it was slowly obscured by sediments. It is also worth noting that much of the sandstone has been naturally “sculpted” into forms resembling human faces or animals, and this would likely have added to the attraction of the place for people.

Although local people have known about the site for many millenia, it was first brought to the attention of archaeologists in the 1970’s. Archaeologists are also attracted to caves, for several reasons. In many caves sediments accumulate gradually over time, so different time periods can be readily identified in the different layers that build up over thousands of years. Caves are often good places for preservation of remains left by people or by animals who use the cave for shelter. Some of these remains (such as charcoal from fires or animal bones and teeth) can be sampled for radiocarbon dating, thus allowing archaeologists to say when the location was used.

It didn't take archaeologists long to realize that the cave itself was not a good place to excavate. The bedrock floor of the cave is only a few centimetres below the layer of dry dust, loose rock and packrat droppings that cover the floor. However, in front of the cave was a different story, because of a very unusual geological phenomenon. A few metres in front of the cave stands a huge boulder (the "parapet"). This boulder was once part of the cliff in which the cave is located. Somewhere between 13,000 and 12,500 years ago the large boulder broke away from the cliff and moved downslope. This created a gully between the back of the boulder and the cliff face. This gully (more than 5m deep) has been filling up with sediments since then. By carefully excavating those sediments in the reverse order to which they were laid down, archaeologists can recover materials from earlier and earlier time periods.

Tse'K'wa is an important site, for many reasons.

- First, it demonstrates a history of human use from the end of the last ice age to recent times. There are virtually no other places in Canada that display such a history, and none where the different time periods can be so readily separated. In the earliest layers of the site we are probably seeing traces of the very first people to move on to the land after the ice sheets melted and the meltwater lakes drained away. And we see how different the land was from today – extensive grasslands with few trees, populated by animals that can't be found in the region today.
- Second, we can trace the massive reorganization of environments after the end of the last glacial period, notably the development of the boreal forest, and then the stability of that forest environment for thousands of years.
- Third, we can track traditional hunting, fishing and trapping practices thousands of years into the past.
- Fourth, because the site is both stratified and dated through radiocarbon analysis, it is a key site for understanding the history of 500 generations of people in the Peace River region.
- Fifth, there is evidence that the location may have been a sacred or spiritually important place, especially during the earliest times.
- Sixth, the site contains one of the richest collections of animal fossils known from the post-glacial period in western Canada. For many species this is the only site where they have been found as fossils, or where we have the oldest fossil record for a particular species.

There is a lot more research that could be done on the materials that have already been excavated from the site. However, future researchers need to understand how the site was excavated, and how to access the records that were made during both excavation and post-excavation analysis. The intent of this archive is to explain what research has been done, how it was done, and how to access the available information about the site from the excavations carried out in the 1970's, 1980's and 1990's.

## Digital archive

The digital archive contains three kinds of information. First are the primary records from the excavations. These include written records made when the site was being excavated, such as standardized forms that were filled out by excavators, notebooks written during the excavation, photographs and colour slides taken during excavations, and drawings made of strata or features. Second are descriptive data sets, mainly descriptions of artifacts and animal bones made by graduate students who worked on materials from HbRf-39 for their M.A. theses and other researchers. These usually include a spreadsheet, together with a key that explains the descriptors used and the relevant codes that are entered in the spreadsheets. Other descriptive data sets include radiocarbon dates, and descriptions of sediments, stratigraphy, and stratigraphic zones. Third are interpretive documents that use the data from excavations and post-excavation analyses to draw conclusions about the history of human and environments in the Peace River region. These include reports made to government agencies, student theses, unpublished documents, and copies of some (but not all) publications that are reproduced with the permission of the publishers.

All of these documents are organized in a logical order, and a detailed spreadsheet of digitized items accompanies this Introduction. The primary categories of documents are as follows. For each category there is an introductory document that provides context for the user of the archive.

HbRf39000 series: introduction and document index (metadata table)

HbRf39100 series: reports and publications

HbRf39200 series: primary excavation records

HbRf39300 series: plans and sections

HbRf39400 series: colour slides taken during and after excavation

HbRf39500 series: black and white photographs taken during and after excavation

HbRf39600 series: artifacts

HbRf39700 series: animal remains

HbRf39800 series: sediments

HbRf39900 series: radiocarbon dates

Each of these series is organized as folders and sub-folders, and for each series there is a guide to the documents.

## The Physical Archive

A large physical archive is currently (December 2022) stored in the Department of Archaeology, Simon Fraser University. All of the materials relating to the site are stored in one place, with the exception of the single human bone recovered from the site, which is in a high-security repository for human remains. All of the physical material should be returned to the Peace River region for permanent storage. Currently the intention is that the material will be curated by the Tse'K'wa Heritage Society. The archive includes: (a) all of the records of excavations from 1974, 1983, 1990 and 1991 field seasons (field notes, excavation forms, plans and sections, photographs and colour slides); (b) all objects excavated from the site, primarily stone artifacts and animal bones; (c) dozens of sediment samples; (d) records created during analysis, such as hard copies of data sheets, reports, theses etc., including some documents that have not been digitized.

With regard to artifacts, all stone and bone/antler artifacts have been given individual catalogue numbers and each is in a separate bag with an accompanying label. For the much larger collection of animal bones, all specimens that could be identified have been given a unique catalogue number that is either written on the bone, or accompanies the bone as a label. Unidentifiable bones have not been given catalogue numbers. All artifacts and animal bones have been stored according to excavation unit, layer and level.

An inventory of the physical archive is included as a separate document in this folder of the digital archive.