

UNEARTHING ARCHIVES: AN EXAMINATION OF DOCUMENTS GENERATED IN THE
COURSE OF ARCHAEOLOGICAL FIELDWORK IN CANADA

by

ELIZABETH CAITRIN MCMANUS

B.A., Memorial University of Newfoundland 2004

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF

MASTER IN ARCHIVAL STUDIES

in

THE FACULTY OF GRADUATE STUDIES

(Library, Archival, and Information Studies)

THE UNIVERSITY OF BRITISH COLUMBIA

(Vancouver)

April 2012

© Elizabeth Caitrin McManus 2012

Abstract

Archaeology is a science that destroys the very evidence it wishes to study. Archaeologists must therefore clearly document all stages of their work. In Canada, legislation dictates that all artefacts recovered from archaeological activity must be deposited in an archaeological repository. In most cases only copies of a final report are required to be submitted to the provincial government department responsible for archaeology.

This thesis sought to discover what happens to the documents generated from archaeological activity and whether they are of value to archaeologists. Data was collected through semi-structured interviews and surveys, and a review of current literature on archaeological practice. It was found that archaeologists place a high value on the documents they generate during an archaeological project and wish that they be kept in perpetuity; however, a lack of recordkeeping standards and of a relationship based on trust between archaeologists and archaeological repositories has led to poor record keeping practices amongst archaeologists in both academic and consulting environments and few transfers to repositories. The few documents that are transferred to repositories are rarely processed according to archival methodology for preservation and they are not easily accessible to researchers or the public. Thus, this thesis is concluded by a series of recommendations aimed to ensure that the documentary by-products of archaeological activity be maintained and preserved as reliable and authentic evidence of the projects to which they relate.

Preface

Approval obtained from the University of British Columbia Behavioural Research Ethics Board.

UBC BREB #: H10 – 00210

Table of Contents

<i>Abstract</i>	<i>ii</i>
<i>Preface</i>	<i>iii</i>
<i>Table of Contents</i>	<i>iv</i>
<i>List of Tables</i>	<i>vi</i>
<i>List of Figures</i>	<i>vii</i>
<i>Acknowledgements</i>	<i>viii</i>
Introduction	1
Chapter 1: Literature Review	4
What is an Archives?.....	4
What is an Archaeological Archives?	8
Authenticity and Reliability.....	15
Legislation	17
Provenance vs Provenience	21
Chapter 2: Methodology	25
Ethical Considerations.....	25
Research Design.....	26
Limitations	26
Sample Size and Selection Criteria.....	27
The Process of Analysis	31
Interviews and Surveys: Academic and Consulting Archaeologists	32
Interviews and Surveys: Repositories	36
Chapter 3: Findings	39
Types of Archaeologists	39
Structure of an Archaeological Project	42
Document Types	45
Archaeologists and the Law	52
Archaeology and Repositories	53
Access and Use of Documents.....	57
Chapter 4: Recommendations and Conclusion	60
Standards and Policy Recommendations.....	60
Scheduling Recommendations.....	64
Archival Repository Recommendations.....	65
<i>Bibliography</i>	68
<i>Appendix 1: Interview Questions</i>	71
<i>Appendix 2: Responses to Survey from Archaeologists</i>	73

Appendix 3: Responses to Survey from Repository Staff Responsible for any Documentation Submitted by Archaeologists. 93

Appendix 4: Example of a Form 103

List of Tables

Table 1.1. Legislation in Canada.....	20
Table 2.1. Provinces Reporting One Central Repository for Archaeological Materials.	30
Table 2.2. Provinces Reporting more than One Repository for Archaeological Materials.	31
Table 3.1: Phases of an Archaeological Project	44
Table 4.1. Recommendations for the Transfer of Document Types to Repositories.	63
Table 4.1. Recommendations for the Transfer of Document Types to Repositories.	64

List of Figures

Figure 1.1. Excerpt from <i>General Standards for the Preparation of Archaeological Archives Deposited with the Museum of London</i>	11
Figure 3.1. Document Types Most Generated During Archaeological Projects	47

Acknowledgements

My warmest thanks to my supervisor Dr. Luciana Duranti and committee member Dr. Susan Rowley.

Also, I owe a great thanks to my family for the unconditional love and support.

Introduction

Academic and consulting archaeology has been carried out in Canada since the late 1940s. The Canadian Archaeological Association was founded in 1968 to provide a place for archaeologists nationwide to open dialogues regarding their work, and to raise awareness among the public at large of the importance of archaeology and the role of archaeologists in the preservation of history. Several smaller province-based archaeological associations function in much the same way; however, their goals focus on the specific issues of their region.

My experience as an archaeologist introduced me to the large amounts of records being created in the course of archaeological work. After several years of archaeological practice, I changed focus, and decided to move from work in the field on archaeological sites to work in the repository environment. It was at this time that I began to ask questions about the documentation process and noticed that over time the repository where I was practicing was receiving fewer and fewer documents at the completion of each permit. Both this observation and my interest in record keeping lead me to conducting the research that resulted in this thesis. I wanted to know whether archaeologists were no longer generating as many documents as they used to do in the past or they simply were not transferring them to repositories together with the artefacts, and why. I also was interested to know whether this behaviour was congruent throughout Canada.

The research presented in this thesis focuses on the archaeological profession and its record keeping practices. Interviews and surveys were used to understand the process of archaeology and the documents generated from its activities, on the assumption that only by speaking with the archaeologists who are currently practicing can we begin to comprehend the relationship between the production of documents and their absence in archival or archaeological repositories. My research selected archaeologists across the nation in order to understand whether there is homogeneity among professional practices or each individual conducts

archaeological activities in a unique way. The research questions posed in this study were: 1. What is the documentary output of archaeological field work? 2. What occurs to such documents after a project is completed? 3. How can archival theory and practice help archivists and archaeologists better maintain and preserve the documentary by-products of archaeological activity?

Chapter One of this thesis introduces the reader to the relevant archaeological and archival literature. To uncover this literature was a challenge because very few writings exist about documents and record keeping in the context of Canadian archaeological activity. Abroad, especially in the United Kingdom, this topic is discussed much more, and it is hoped that some methods presented in such literature will be considered and adopted in Canada.

Chapter Two explains the methodological approach taken to gather data for this thesis. Eagerness to participate in this project was not as high as originally expected. The reluctance to participate could be interpreted in three ways. Firstly, archaeologists have little interest in preserving their documents after the completion of a project. Secondly, there is a general acceptance that access to the documents of previous archaeological projects are not to be expected, and therefore requires little devotion of time and money. Thirdly, many archaeologists responded that they were declining to participate due to their current work load.

Chapter Three explores the findings from the interviews and questionnaires. It analyzes the data collected to discover the structure of an archaeological project, the document types generated from archaeological activity, the impact of legislation on archaeology, and the role repositories play as custodians of archaeological materials, both artefactual and archival; and it examines how the documents which are produced in the course of archaeological activity are currently being accessed and used.

Chapter Four reaches some conclusions from the findings and details some recommendations based on them. These recommendations point to the need for new policy and standards, and indicate how archivists can better deal with documents produced in the course of archaeological activities if they transfer them to archival repositories.

This thesis is meant to make archivists aware of the value of the documents resulting from the practice of archaeology and to serve as a foundation for further study in each Canadian region. Also archivists already working with these documents will be interested in the findings of this study, because there has been no previous effort to collect data on this topic in Canada and the analysis provided here can support and guide the archival work on the documentary by-products of archaeological activities.

Chapter 1: Literature Review

This thesis examines the archives of archaeological activities, that is, the documents generated by archaeologists during fieldwork. In order to do so it begins with an investigation of the literature related to the concept of archives and on that basis moves to establish what is an archaeological archives; then it examines literature on current archaeological recordkeeping practices, and on relevant legislation aiming to assess its impact on documents created during fieldwork .

What is an Archives?

Terminology is important in the context of this thesis because archival science and archaeology use similar terms but with different meanings. In order to discuss the characteristics of archaeological archives, it is first important to understand the concept of archives and the literature that has impacted its development. For the purpose of clarity, this thesis will use the term ‘archives’ to refer to, “the whole of the documents made and received by a juridical or physical person or organization in the conduct of affairs, and preserved.”¹ The “agency responsible for the preservation and communication of records selected for permanent preservation”² as well as the “place where records selected for permanent preservation are kept”³ will be referred to, respectively, as institutions and repositories.

The work of S. Muller, J.A. Feith, and R. Fruin, *Manual for the Arrangement and Description of Archives* was first published in 1898, and then translated into English in 1939. The authors, known as the Dutch trio, wrote their manual in the hope of standardizing the practice of archival science. As written in the book’s preface, the authors felt that

¹ School of Library, Archival and Information Studies (SLAIS) Glossary.
http://www.slais.ubc.ca/resources/students/Archival_Terminology.pdf (accessed April 3, 2012)

² Ibid.

³ Ibid.

standardization was needed in order to help the archivist perform consistently and the user to conduct convenient searches. Muller, Feith, and Fruin stated that a body of records is “a living organism which grows, takes shape, and undergoes changes in accordance with fixed rules.”⁴ They make clear that the role of archivists is not to change or manipulate the organism for their own purposes and that “the rules which govern the composition, the arrangement and the formation of an archival collection, therefore, cannot be fixed by the archivist in advance.”⁵ This statement has been challenged recently in archival science as some archivists have begun to form and acquire archives to fill gaps in cultural knowledge and history. The lack of archaeological literature on archives and archival practice suggests that there is a gap in the archival heritage, but upon reflection, one can see that archaeological archives exist, hidden from view, maintained and protected by those who generate them. Muller, Feith, and Fruin, while creating rules for the treatment of archives, recognized the importance of the context in which the archives were formed. They noted,

in the rules which follow there is careful avoidance of giving any scheme for archival arrangement and groupings. Every archival collection, be it understood first of all, must be treated in its own way, and this manual has no other purpose than to suggest the means of becoming acquainted with the structure of a collection and deriving from what is learned about it the principles for its arrangement.⁶

These ideas of the Dutch trio, including the role of the archivist as a keeper, were adopted by the English tradition and reflected in the writings of Sir Hilary Jenkinson, who in 1922, wrote *A Manual of Archive Administration: Including the Problems of War Archives and Archive Making*. Jenkinson felt that the Dutch manual, despite its recognized success, was too rigid in its rules regarding arrangement and description practices. However, he agreed that “the few great principles which have governed and must govern the making, and should therefore govern also

⁴ S. Muller, J. A. Feith and R. Fruin, *Manual for the Arrangement and Description of Archives*, (New York: The H. W. Wilson Company, 1968), 19.

⁵ Ibid.

⁶ ibid

the classification, handling and use, of Archives cannot but be the same everywhere.”⁷

Jenkinson noted that the Dutch authors dealt heavily with arrangement and description, but wrote little regarding the process of document creation as well as the custody and transfer of documents to archival repositories.⁸

Jenkinson believed that the custody of archival documents, the “safeguarding of their essential qualities,” must be proven and assured. He believed that it was the archivists’ duty to perform this task as they are trained objective professionals who can uphold the physical and moral defence of archives without interfering in the processes of creation or selection. Richard Stapleton, when comparing Sir Hilary Jenkinson to American archival writer, Theodore R. Schellenberg, notes that Jenkinson believed that “only materials preserved for the creator’s own information and in his own custody could be considered archival”⁹ He adds that Jenkinson thought each administrative office should contain a central registry that “would control every stage of the distribution and transit of every official document”¹⁰ so that the archivist at the end of the day would “merely be a passive recipient”¹¹ of archives.

Archaeological literature does not take Jenkinson’s concepts mentioned above into consideration neither is it familiar with archival literature of any kind. The examination of archaeological literature revealed that archaeological guidelines and standards are not concerned with the essential qualities of archival documents. One might wonder if archaeologists are naturally able to maintain the context of the documents while making this context and the documents available for research in their current practice or if archival theory need be consciously applied.

⁷ Hilary Jenkinson, *A Manual of Archive Administration: Including the Problems of War Archives and Archive Making*, (Oxford: Clarendon Press, 1922), 18-19.

⁸ *Ibid.*, xi.

⁹ Richard Stapleton, “Jenkinson and Schellenberg: A Comparison,” *Archivaria* 17 (1983): 77.

¹⁰ *Ibid.*, 81.

¹¹ *Ibid.*

In 1956, Schellenberg published *Modern Archives: Principles and Techniques*. He had a different perspective on archives because the time in which he lived was deeply impacted by the effects of World War II, in the course of which government administrations produced large quantities of archival documents.¹² In contrast to Jenkinson, Schellenberg believed that the archivist's role was not only to preserve the records but to make those having permanent value to persons other than their creators, available for research use.¹³ He noted that past archivists had defined the term 'archives' to suit the context in which they performed their archival duty. Thus, the 'modern archivist' needed to redefine the term 'archives' in order to better deal with the "major problem"¹⁴ of selection, which had become an issue due to the large quantities of records to be transferred to archival repositories in the post-war period. Schellenberg considered archives to be only the records that had survived a selection process based on their research value. He discounts Jenkinson's idea that a proven chain of custody is an essential quality of archives by writing

Modern records are large in volume, complex in origins, and frequently haphazard in their development. The way they are produced makes futile any attempt to control individual documents, or, in [Jenkinson's] words, to trace "unblemished lines" of "unbroken custody."¹⁵

He emphasised that this occurs in every case using any type of record-keeping system.

The concept of archives has been defined and redefined as the profession has developed. Schellenberg, Jenkinson, and the Dutch trio all contributed to the definition, mentioned above, that is used to define the term 'archives' today.

¹² Ibid., 78. From now on the terms archival document and record will be used interchangeably.

¹³ T. R. Schellenberg, *Modern Archives: Principles and Techniques* (Chicago: Chicago University Press: 1956), 117.

¹⁴ Ibid., 15.

¹⁵ Ibid., 14.

What is an Archaeological Archives?

Archaeological archival institutions are unrecognized in Canada, and thus, there are only two documents written about them: a dissertation¹⁶, and a Parks Canada manual¹⁷. The dissertation was written for the enlightenment of archival repository staff regarding the unique nature of archaeology and the materials produced by the work of archaeologists. The Parks Canada manual was written for archaeologists in order to attain uniformity in the materials submitted post-excavation. Parks Canada is ruled by federal government legislation, which concerns archaeology only tangentially and less explicitly than the provincial acts. In 2005, Parks Canada published a document titled *Archaeological Recording Manual: Excavations and Surveys*. This document advises archaeologists on all the types of documents that are required and the best practice for generating such documents. The types of documents covered in this manual are field notes and forms, images, drawings, maps, and other media. For each type of document explicit instructions are given regarding the type of medium required, a list of best practices which includes the kind of information or data that should be recorded in the document and how to appropriately assign a numbering system to the document. In addition, this manual includes a section titled “Basic Principles for Organizing Field Records” that outlines the importance of time management, and suggests creating flow charts for the various procedures that may occur, and to “clearly mark where things are to go during processing and where they are to be stored when completed as it is important that all the records should be readily accessible to all individuals responsible for recording.”¹⁸ Barbara Winter, a Canadian archaeologist, is concerned in her dissertation with archaeological collections that are deposited in repositories in Canada. Chapter three of her dissertation, titled “Archaeological Curation,” discusses

¹⁶ Barbara J. Winter, studying at Simon Fraser University, wrote in 1996 an unpublished dissertation, entitled “Out of Sight, Out of Mind: The Reposition of Archaeological Collections in Canada” on the deposition of archaeological collections in Canada.

¹⁷ Parks Canada, *Archaeological Recording Manual: Excavations and Surveys* (Parks Canada, 2005), 32.

¹⁸ *Ibid.*, 32.

specifically how archaeological collections should be managed in the repository. She writes that curation embodies “three main principles: documentation and care and access.”¹⁹ She notes that the “primary purpose of archaeological curation is the preservation of the archive in order to permit further research.”²⁰ The term ‘archive’ is used to include artefacts, samples, field notes, maps, and other documentation “which preserve the context and interrelationships of objects” known as the ‘site archive.’²¹ Winter emphasises the importance of documents associated to the archaeological objects because they give the artefacts context and meaning. She sees value in keeping the artefacts together with the documents as a whole because the separation of parts can lead to misinterpretation and difficulties for future researchers. The lack of material published in Canada on the archives produced by archaeological activities requires that this study look to the United Kingdom and the United States for examples of practical models and standards that may be adopted. That is not to say that archaeological archival material does not exist in Canadian repositories such as museums, library special collections, government and consulting company offices, or in the hands of individuals, but that Canadian archaeologists and museum staff have not been exposed to literature that could facilitate preservation and use of documents related to the archaeological collection.

The Museum of London (MOL) was one of the first institutions in the United Kingdom to act upon the need to house and preserve the archival component of archaeological collections. On their website they define an archaeological archives as “the sum total of evidence recovered from an excavation.”²² In addition, to qualify as an archaeological archives, the materials deposited,

¹⁹ Barbara J. Winter, “Out of Sight, Out of Mind: The Reposition of Archaeological Collections in Canada” (PhD diss, Simon Fraser University, 1996), 76.

²⁰ *Ibid.*, 77.

²¹ *Ibid.*

²² Museum of London Archaeology. <http://www.museumoflondon.org.uk/Collections-Research/LAARC/Archaeological-archive/> (Accessed April 3, 2012)

must always contain some form of site records: descriptions, drawings and/or photographs of the structures, deposits or features that were found. Depending on the size and nature of the project, it may also contain: artefacts, animal or human remains, botanical samples, correspondence or other documentation that throws light on the conduct of the project, reports and/or analyses of the site or aspects of it, carried out a 'post-excavation' stage²³

The website authors do not define how they interpret the term 'evidence' in any of the accompanying glossaries.

In 1998, MOL produced a document titled *General Standards for the Preparation of Archaeological Archives Deposited with the Museum of London*. This document was written for archaeologists required to deposit materials at the Museum of London. It was developed from research conducted in 1992 by David Lakin and then continued by Nina Crummy between 1993 and 1996. It provides a simple method of depositing documents ensuring that archaeologists compile and maintain the correct documents from the beginning of the planning process to post excavation analysis. It specifies what information is to be included in each document and on what medium the document should be generated (see figure 1.1). MOL explains that an archaeological project consists of four phases of activity: project planning, fieldwork, post-excavation, and analysis, report preparation, and dissemination.²⁴ The first two phases produce primary material and the last two phases produce secondary material. MOL maintains the originals from all four phases of activity.²⁵

²³ Museum of London Archaeology. <http://www.museumoflondon.org.uk/Collections-Research/LAARC/Archaeological-archive/> (Accessed April 3, 2012)

²⁴ Museum of London, *General Standards for the Preparation of Archaeological Archives Deposited with the Museum of London* (London, Museum of London: 1998), 3.

²⁵ Ibid.

Site drawings must contain the following information:

- The Site Code
- A brief description or title for the drawing
- Grid co-ordinates
- Scale (generally 1:20 for plans and 1:10 for sections)
- Unique drawing number
- An identification of the contexts on the drawing
- Datum levels for sections and elevations
- A plan matrix showing the serigraphic relationships to other planned material, where appropriate

2.1.7.2 Materials

Drawings should be made on sheets of pre-printed gridded draughting film. Two sizes should be used: 290mm x 320mm (allowing a 5m square to be planned at 1:20), and A1, although if multiple context planning has been employed A1-A4 draughting film will be acceptable ... Sheets must never be taped or stapled together, or joined using any type of adhesive; masking tape in particular must never be allowed to remain on a drawing for any length of time. Site drawing may be made using a hard pencil (6H) or Indian or Rotring drawing ink (UKIC 1990, 3.1.6), but never both together.

Also the Archaeological Archives Forum (AAF) published a booklet available for download on the internet, titled *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation*, by Duncan H. Brown. This booklet was written for archaeologists so that they produce documents that are “ordered and usable [and] are curated in a sustainable way and are accessible for all to use.”²⁶ Brown writes that archaeologists must accept responsibility for creating and maintaining their records in an organized way, often following a strict set of recording procedures, before depositing them in a repository.²⁷ Suitable repositories for excavation records are those that are capable of providing long-term care and access.²⁸

Brown suggests that consulting firm agencies are not suitable repositories for archaeological

²⁶ Duncan Brown, *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation* (London: Institute of Field Archaeologists: 2007), forward.

²⁷ *Ibid.*, 3.

²⁸ *ibid.*, 1.

archives.²⁹ This manual defines an archaeological archives, similarly to MOL, as “all parts of the archaeological record, including the finds and digital records as well as the written, drawn and photographic documentation.”³⁰ It identifies paper, drawings, photographs, reports and publications, and digital material as types of documents produced by archaeologists. For each type, the manual provides bullet points regarding a summary of standards, data-gathering, analysis, report-writing, preparation for archives transfer, and curation. The last section regarding curation seems to be written for those to whom the materials are transferred at the end of the project.

The University Museum at the University of Pennsylvania published a book titled *Preserving Field Records: Archival Techniques for Archaeologists and Anthropologists*. The book’s preface indicates that it was written due to a realization that older field notes and documents “were deteriorating, more difficult to use, and that proper storage of documents being generated by current projects also presented a problem.”³¹ The first chapter addresses the types of records generated while the subsequent chapters “provide technical explanations of the quality of papers, film, tape, and other recording media.”³² This book is reminiscent of a Jenkinsonian approach in that it suggests to the field researchers that they are responsible for the maintenance and preservation of what they generate, which should be organized and presented on a stable archival safe medium so that it will be easily accepted into the repository.

In addition to the literature written for the archaeologists the following two documents regarding the treatment of materials once the transfer to a long-term storage facility has occurred are widely referenced. In 2000, the English Heritage Centre for Archaeology (EHCA) released several documents dealing with records generated by archaeologists. Previously, guidelines and

²⁹ Duncan Brown, *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation* (London: Institute of Field Archaeologists: 2007), 1.

³⁰ *Ibid.*, 3.

³¹ Mary Anne Kentworthy, et. al. *Preserving Field Records: Archival Techniques for Archaeologists and Anthropologists* (The University Museum, Pennsylvania, 1985), viii.

³² *Ibid.*, 5.

standards covered only issues such as transfer, physical care, and storage of archives.³³ Adrian Brown and Kathy Perrin, noting the absence of literature directed to those who care for archaeological archives, wrote *A Model for the Description of Archaeological Archives* using the British conceptual archival model: *Manual for Archival Description, 2nd ed.* (MAD2).³⁴ This manual details the hierarchical structure for the description of archives used in MAD2. Level two is the first level which describes archaeological documents. This level is referred to as the ‘group.’ A ‘group’

describes records which are related by provenance. Traditionally, it refers to the records of a particular organization or individual. However, in archaeology it is the *project* which provenances a particular archive, and which future researchers will wish to use to retrieve information at the highest level.³⁵

A sub-group allows for the records of a project to be divided into site archives and research archives. The manual notes that some types of documents such as correspondence can be in both the site and research archives. Although the manual does not define the site and research archives, it provides a list of the types of documents that belong to each.³⁶

In 2002, Perrin wrote a document titled *Archaeological Archives: Documentation, Access, and Deposition A Way Forward*. It is a report on a survey and workshop involving individuals from museums and archaeological institutions and associations in the United Kingdom. The report presents “information on archaeological archive initiatives and priorities from lead bodies, specialist groups, and other key representatives in the discipline, and also drew

³³ Adrian Brown and Kathy Perrin, *A Model for the Description of Archaeological Archives* (Portsmouth: Centre for Archaeology, 2000), 1.

³⁴ MAD2 was released in 1990 with the hope of it becoming the standard model for archival description in the English speaking world. Brown and Perrin claim that it can be mapped to other standards such as the General International Standard of Archival Description (ISAD(G)) despite a difference in terminology because the principles are similar. This, in theory, should also indicate that the basic principles of MAD2 will be similar to that of the Canadian Rules for Archival Description (RAD), since this has theoretic similarities to ISAD(G).

³⁵ Adrian Brown and Kathy Perrin, *A Model for the Description of Archaeological Archives* (Portsmouth: Centre for Archaeology, 2000), 2.

³⁶ *Ibid.*, 6-7.

recommendations from two workshops.”³⁷ Perrin differentiates between an ‘archaeological archives’ and a ‘traditional archives’ by writing that “within archaeology, the term archive is used to describe all parts of the archaeological record, including the finds and digital records as well as the written, drawn and photographic documentation.”³⁸ The survey and workshop covered three areas: deposition³⁹, access, and documentation. Perrin notes that the survey revealed concern for the amount of materials being deposited. She writes that, although history has promoted a “collect all, keep all” policy, some fear that this will lead to the wrong materials being disposed of when repositories reach the maximum capacity.⁴⁰ Access is discussed as an issue in regards to older archives. The report indicates that the older documents, although valued for their “potential to support new re-interpretation and reassessment,” are in fact problematic because of “disorder, missing records, poor cataloguing, and difficulties of access.”⁴¹ Documentation is discussed in terms of standards, or lack thereof. The report notes the awareness of those surveyed that the documentation standard of MAD2 existed but was considered to be for specialists and not something archaeologists would use in the field.⁴² The report does not seem to separate the work of archaeologists from the work of archivists and is in search of a standard that will apply both to the archaeologists who generate documents in the field and to the repository staff who ‘curate’ the documents once they are transferred.

These manuals, reports, and guides suggest that in the United Kingdom an archaeological archives consists of both the artefacts and the documents produced during an archaeological investigation, which should remain physically together. However, the reasons for this unitarian

³⁷ Kathy Perrin, *Archaeological Archives: Documentation, Access and Deposition A Way Forward*, (London: English Heritage, 2002), 2.

³⁸ *Ibid.*, 3.

³⁹ According to Oxford Dictionary Online, a deposition is “the action of depositing something” When applied to archaeology, it refers to depositing materials in the archives or repository. Accessed April 3, 2012. http://oxforddictionaries.com/view/entry/m_en_gb0217600#m_en_gb0217600

⁴⁰ Kathy Perrin, *Archaeological Archives: Documentation, Access and Deposition A Way Forward*, (London: English Heritage, 2002), 10-11.

⁴¹ *Ibid.*, 19.

⁴² *Ibid.*, 23.

vision remain unclear. Is it due to a lack of consultation with archivists on how one might physically store artefacts and documents in different locations yet keep the context intellectually linked? Or, is it due to funding reasons, the refusal to employ specialized staff to properly arrange and describe the documentation component of a project when it is deposited?

In addition to understanding how archaeological archives are presented in the literature it is also important to understand concepts such as authenticity, reliability, and provenience as these are at the core of archival science and may help to better maintain and preserve the records of archaeologists.

Authenticity and Reliability

Archival science has deliberately chosen a vocabulary found in common everyday language.⁴³ The archival terms, as noted by Trevor Livelton, are not consistent with their common English definition, but have specialized meanings in order to achieve a desired effect.⁴⁴ This implies that these terms need to be explained, especially when they are used in interaction with other disciplines and professions. Two terms in particular, in archival science, are often in conflict with their common uses: authenticity and reliability.

It is recognized that archival institutions are the trusted guardians of the materials they acquire. Jenkinson noted that it is a great pride for forgers to “get copies of their forgeries enrolled in some public series, because they knew that the authenticity of the enrolment would never be called in question.”⁴⁵ Archivists use diplomatics methodology to determine whether a document is authentic and/or reliable. According to Luciana Duranti a diplomatically authentic document is one that can be proven to be what it claims to be by demonstrating that it was generated in a given record-keeping system, contains the formal elements required for its type,

⁴³ T. R. Schellenberg, *Modern Archives: Principles and Techniques* (Chicago, Chicago University Press: 1956), 11.

⁴⁴ Trevor Livelton, *Archival Theory, Records, and the Public* (London: Scarecrow Press Inc, 1996), 17.

⁴⁵ Hilary Jenkinson, *A Manual of Archive Administration: Including the Problems of War Archives and Archive Making*, (Oxford: Clarendon Press, 1922), 10.

and that its message is unaltered.⁴⁶ Unlike archivists, archaeologists are concerned with how their research (artefactual finds, documentation, and interpretations) is regarded by the public, colleagues, and other researchers. The concept of authenticity is not dealt with head-on as it is in archival studies. Students of archaeology learn the correct ways to excavate, survey, analyze, and interpret their findings so that they can produce reports and studies that will be judged by their peers and colleagues in the discipline. This judgement, according to Tory Lovata in *Inauthentic Archaeologies: Public Uses and Abuses of the Past*, is the basis for assessing authenticity in archaeology.⁴⁷ When examined from an archival stance, this interpretation of authenticity corresponds to the concept of reliability relating to the truthfulness and completeness of a record which is similar to historical authenticity. This means that the documents “attest to events that actually took place or to information that is true.”⁴⁸ Lovata notes, that it is through “professional methods and standards of archaeology”⁴⁹ that artefacts and archaeological sites manage to “avoid the taint of inauthenticity.”⁵⁰ Thus, archaeology uses the term ‘authentic’ to provide assurance that the content of the document is complete, and that the data in it are correct. However, in archival science the former refers to reliability, and the latter refers to accuracy. Ian Hodder disagrees with the use of the rigorous recording process suggested by Lovata. He believes that, as a consequence of this formalization of the recording process, “excavation often seems to proceed as if the ground was being looked at through the recording system. Rather than the recording system serving the interests of knowledge acquisition, the relationship is reversed and we dig in order to record.”⁵¹ This very notion of “digging in order to record” could be regarded as ‘creating evidence’ and this would jeopardize the reliability of the document

⁴⁶ Luciana Duranti, *Diplomatics: new uses for an old science*, (London: Scarecrow Press Inc, 1998), 45.

⁴⁷ Troy Lovata, *Inauthentic Archaeologies: Public Uses and Abuses of the Past*, (California: Left Coast Press, 2007) 19-29.

⁴⁸ Luciana Duranti, *Diplomatics: new uses for an old science*, (London: Scarecrow Press Inc, 1998), 46.

⁴⁹ Troy Lovata, *Inauthentic Archaeologies: Public Uses and Abuses of the Past*, (California: Left Coast Press, 2007), 17.

⁵⁰ *Ibid.*,

⁵¹ Ian Hodder, *The Archaeological Process* (Oxford: Blackwell Publishers Inc., 1999), 31.

produced. A document can be considered reliable in archival science when it can be treated as the fact that it states.⁵² Thus, suggesting that archaeologists “dig in order to record” is an oxymoron, as noted by Duranti, since a document that is “generated for the sole purpose of serving as evidence of something – unless this is required by law, that is, by an entity external to the creator itself, as in the case of probative records – is not admissible as evidence.”⁵³ To proceed further with this discussion the legislation that regulates archaeological activities must be examined.

Legislation

Legislation plays an important role in determining the types of documents that archaeologists generate during the course of their work. In Canada, both federal and provincial legislation have been created in order to protect archaeological sites and objects. Marc Denhez on behalf of Parks Canada, writes that federal and provincial legislation in regards to archaeology is designed to:

- control the designation of all important archaeological resources,
- compile a comprehensive register/inventory of archaeological resources,
- control a permit system to authorize archaeologists to conduct explorations,
- create and enforce the requirements for declarations by finders,
- create a screening system for projects that could have an impact on archaeological resources,
- delineate public sector ownership of archaeological resources,
- put into place controls on removal, particularly outside the province or to another country,
- facilitate public access and programming.⁵⁴

When archaeology is conducted on federal lands two acts must be considered: the Canadian Environmental Assessment Act and the Cultural Property Export and Import Act.

⁵² Luciana Duranti, “Reliability and Authenticity: The Concepts and Their Implications,” *Archivaria* 39 (Spring 1995): 6.

⁵³ Luciana Duranti, “The Archival Bond,” *Archives and Museum Informatics*, vol 11 (September 1997): 215.

⁵⁴ Marc Denhez, “Unearthing the Law: archaeological legislation on lands in Canada,” Parks Canada, <http://www.pc.gc.ca/eng/docs/r/pfa-fap/sec1/intro3.aspx> (accessed April 3, 2012).

Federal lands consist of “lands under federal jurisdiction such as national parks, lands belonging to federal departments, and lands where a federally regulated development project is proposed.”⁵⁵

Provincial and territorial lands do not fall under federal jurisdiction. Provincial and territorial legislation primarily consists of matters pertaining to “property”.⁵⁶ Each province and territory has enacted its own legislation and regulations governing archaeological sites, objects, and activities (see table 1.1). Regulations are enacted by Order in Council “for the purpose of carrying out the purpose of legislation.”⁵⁷ Not all provinces have regulations accompanying their legislation. The acts and related regulations outline the types of documentation and the timeline for the submission of the documents. In many ways each of the provincial acts holds some similarities such as mention of a penalty for infringement of the act. All acts require that the archaeologist, or individuals performing archaeological activities, obtain a permit; however, not all acts require that the documents be deposited at a specified repository. This point can be discussed in terms of creating evidence as mentioned before: *a document that is “generated for the sole purpose of serving as evidence of something – unless this is required by law, that is, by an entity external to the creator itself, as in the case of probative records – is not admissible as evidence.”*⁵⁸ Thus, if the act does not specifically say in some manner that it is required to create documents while performing fieldwork then one must agree with Hodder that archaeologists must be careful that they are not digging in order to record, but that instead the documents generated are a by-product of the usual and ordinary course of business of the archaeologist.

⁵⁵ Denhez, “Unearthing the Law: archaeological legislation on lands in Canada,” Parks Canada <http://www.pc.gc.ca/eng/docs/r/pfa-fap/res-abs.aspx> (accessed April 3, 2012).

⁵⁶ Ibid.

⁵⁷ Jurist Canada “Canadian Legal Dictionaries” <http://jurist.law.utoronto.ca/dictionary.htm> (accessed April 3, 2012).

⁵⁸ Luciana Duranti, “The Archival Bond,” *Archives and Museum Informatics*, vol. 11 (September 1997): 215.

Due to the ineffective legislation on these matters in Canada, there has been very little effort on the part of archaeologists and government officials to instigate a need for the survival and care of archaeological archives.

Table 1.1. Legislation in Canada

Province	Act	Regulations	Department responsible for provincial archaeology branch
Newfoundland and Labrador	Historic Resources Act	Consolidated Newfoundland and Labrador Regulation 963/96	Department of Tourism, Culture, and Recreation
P.E.I.	Archaeology Act	Archaeology Act Regulations Chapter A-15.1	Department of Health and Wellness
Nova Scotia	Special Places Protection Act	None	Department of Tourism, Culture, and Heritage
New Brunswick	Heritage Sites Protection Act	None	Department of Wellness, Culture, and Sport
Quebec	Cultural Property Act	None	Ministry of Culture, Communications and Status of Women
Ontario	Ontario Heritage Act	None	Ministry of Tourism and Culture
Manitoba	The Heritage Resources Act	Heritage Resources Forms Regulation 99/86	Department of Culture, Tourism, and Heritage
Saskatchewan	Heritage Property Act	None	Ministry of Tourism, Parks, Culture, and Sport
Alberta	Historical Resources Act	None	Culture and Community Spirit
British Columbia	Heritage Conservation Act	None	Ministry of Tourism, Culture, and the Arts
Northwest Territories	Northwest Territories Act	Northwest Territories Archaeological Sites Regulations SOR/2001-219	Department of Environment and Natural Resources
Yukon	Historical Resources Act	None	Department of Tourism and Culture
Nunavut	Nunavut Act	Archaeological and Paleontological sites Regulations SOR/2001-220	Department of Culture, Language, Elders, and Youth

Provenance vs Provenience

Central to both the disciplines of archival science and archaeology is the importance of context. Provenance, the concept used in archival science, identifies “the organization or person creating a fonds.”⁵⁹ Provenience, the concept used in archaeology, is “the place of origin of an archaeological object, cluster of archaeological objects, of a feature, of a sample of soil, mortar, charcoal, or other material.”⁶⁰ In archaeology, this concept is put into practice by determining the ‘origin’ of an object through a three-dimensional reference system. It is important for this study to be aware of how each discipline expresses its understanding of these terms so not to confuse the two very similar vocabularies.

To reiterate, in archaeology, provenience is defined as “the source, place of origin, or location of something. Debris collected in site survey or excavation, sites and raw material sources are usually assigned a provenience within a three-dimensional reference system.”⁶¹ The nature of the work performed by archaeologists requires them to generate documents that detail their actions. They are not concerned with how they make these documents, only with the information or data that are recorded. The place of origin is found through calculating the vertical and horizontal points which are tied to a reference datum.⁶² This simple concept is taught in undergraduate classes and becomes an integral part of the students’ basic archaeological knowledge. The definition of provenience is not debated in scholarly journals because it does not have implications that go beyond the need to scientifically record as exactly as possible the original location of that which is discovered. Thus, the provenience of artefacts is to archaeologists a data set about the physical surroundings of the material that has been collected.

⁵⁹ School of Library, Archival and Information Studies (SLAIS) Glossary.

http://www.slais.ubc.ca/resources/students/Archival_Terminology.pdf (Accessed April 3, 2012).

⁶⁰ Parks Canada, *Archaeological Recording Manual: Excavations and Surveys* (Parks Canada, 2005), 32.

⁶¹ Paul Bahn, ed., *The Penguin Archaeology Guide* (London: The Penguin Group, 2001) 369.

⁶² Ibid.

In archival science, theory becomes practice through the use of methodology. Provenance is a theoretical concept that refers to the origin or source of the archival material, which is protected through the use of two principles: the principle of respect des fonds and the principle of respect for the original order, which are sometimes joined together in the “principle of provenance.” The former principle dictates that records from one creator must be kept together and separate from the records from other creators. The latter principle states that the records of one creator must be maintained in the same order in which they were last used by the creator or its legitimate successor. The literature regarding the concept of provenance and its principles must be understood in order to attempt an analysis of and recommendations on how to manage archaeological documents in a repository. The two principles mentioned were first formulated in 1841 and became increasingly difficult to apply as archival materials became more and more complex.

Peter Horseman, writing in the early twenty-first century, theoretically deconstructs the concept of provenance through a close examination of the concept of fonds. A fonds is “the whole of the documents that every organization or physical or juridical person accumulates by reason of its function or activity.”⁶³ Horseman considers the “principle of provenance” a “pipe dream” in which the archivist strives to reconstruct the ‘whole’ of the records, and in so doing places actual provenance in jeopardy. He notes that this could be remedied by concentrating on descriptions of the internal and external structures of the fonds that capture the custodial history of a group of records. He writes about the usefulness of,

archival narratives about those multiple relationships of creation and use so that researchers may truly understand records from the past. If that is called the principle of

⁶³ School of Library, Archival and Information Studies (SLAIS) Glossary.
http://www.slais.ubc.ca/resources/students/Archival_Terminology.pdf (Accessed April 3, 2012)

(virtual) provenance, I shall not object, for it is the best continuation of the archival tradition of respecting the context of records.⁶⁴

Laura Millar concurs with these ideas and uses the Hudson's Bay Company fonds to illustrate her position. She notes that the purpose of respect des fonds was to keep records together as an organic whole. By respecting the fonds, archivists are respecting the creator. Millar questions if in today's record keeping world if this is truly possible. She says,

While the initial concept [respect des fonds] had value in rejecting the ad hoc approaches to arrangement and description of the past, over time the intellectual reality of provenance and the physical reality of the records have become intertwined, and often the essential distinction between the creator and the created has been lost.⁶⁵

Millar disagrees with those who place the fonds and provenance in an equal one-to-one relationship. She argues that the practical implementation of the concept of provenance has led to the misuse of both terms: provenance and fonds.⁶⁶ Millar gives examples of how other disciplines including archaeology use the term provenance. Referring to archaeological use of provenance, which is derived from provenance,⁶⁷ she argues that archaeologists, when identifying the provenance of an artefact, would never "declare unilaterally that one fragment of pottery is a chamber pot."⁶⁸ Thus, Millar writes that "rather than pretend we have the fonds, archivists should explain what we have in hand, explain its temporal and spatial history, and let users create the linkages and so establish their own definition of the "whole."⁶⁹

Thus, although archaeology and archival science use similar terms to identify origin, provenance is applied to documents in relation to their creator while provenance is applied to archaeological artefacts in relation to their place in time and space. The archaeological literature

⁶⁴ Peter Horseman, "The Last Dance of the Phoenix or the De-Discovery of the Archival Fonds," *Archivaria* 54 (Fall 2002): 23.

⁶⁵ Laura Millar, "The Death of the Fonds and the Resurrection of Provenance: Archival Context in Space and Time," *Archivaria* 53 (Spring 2002): 4.

⁶⁶ *Ibid.*

⁶⁷ *Ibid.*, 8.

⁶⁸ *Ibid.*, 11.

⁶⁹ *Ibid.*

ignores the concept of provenance related to documents generated during fieldwork, possibly due to the fact that it does not practice archival methods for preservation or arrangement and description within its repositories.

In conclusion, the review of archaeology and archival science literature shows that the two disciplines do not take each other into consideration.

Chapter 2: Methodology

To understand the current record keeping practices of archaeologists in Canada interviews and surveys were carried out. This chapter describes the methodology used in this study including: ethical considerations, research design, limitations, selection of participants, and analytical procedures.

Ethical Considerations

Approval was given for this study by the University of British Columbia, Office of Research Services Behavioural Research Ethics Board after reviewing all documents, including contact letters, consent forms, survey questions, and interview questions. After approval, each prospective interviewee was approached via e-mail with a formal letter and a consent form. These two documents provided an overview of the research study, contact information, the manner in which results would be used, and a summary of the interviewees' rights in relation to the project. Each participant in this study was guaranteed full confidentiality in the consent form and emails, to ensure that potential participants would not be concerned about the way their image, profession or method of handling the sensitive nature of recording archaeology could be presented. In order to refer to participants in this study a three digit alpha-numeric code has been used. The first digit indicates whether the participant was interviewed (I) or completed a questionnaire (S). The second digit indicates whether the participant was an academic archaeologist (A), consulting archaeologist (C), or representing a repository (R). The third digit represents a unique number assigned to the participant.⁷⁰ An example of this code is IC1. This example would indicate that the participant was a consulting archaeologist who participated by being interviewed.

⁷⁰ AI (Academic – Interview), AS (Academic – Survey), CI (Consultant – Interview), CS (Consultant – Survey), RI (Repository – Interview), RS (Repository – Survey).

Research Design

As mentioned in the Introduction, this study posed three research questions: 1. What documents are generated during archaeological fieldwork? 2. What happens to the documents generated during archaeological fieldwork once the project is completed? and 3. How can archival theory and practice help archaeologists better maintain and preserve the documents generated during archaeological fieldwork? The first two research questions sought to understand the characteristics of the documents generated by archaeologists as a by-product of fieldwork, which of these documents are saved, and where they are stored after the archaeologist no longer needs to access them on a regular basis. In order to collect data to answer these questions, a qualitative research approach was chosen. As explained by Alan Bryman in *Social Research Methods*, qualitative research allows for an inductive approach where the theory will be generated out of the research.⁷¹ He also points out that a qualitative study emphasises the “understanding of the social world through an examination of the interpretation of that world by its participants.”⁷² Thus, it was considered the best methodology for understanding not only what documents are being generated but also how archaeologists interpret their use and value.

Limitations

The scope of this study is limited to archaeologists working in Canada, and includes archaeologists in both the consulting and the academic environments because these two groups encompass the majority of archaeologists in Canada. The third largest group of archaeologists in Canada is represented by Parks Canada archaeologists, who were not included in this study because they are organized in a unique way as they only conduct archaeology on federal lands and follow a strict set of rules and regulations different from the practices of consulting and academic archaeologists. The record keeping behaviour and practices of Parks Canada

⁷¹ Alan Bryman. *Social Research Methods 3rd ed.* (Oxford: Oxford University Press, 2008), 366.

⁷² Ibid.

archaeologists merits a separate independent study. Canada was chosen as a geographic area in order to assess the types of documents generated across the country, and to ascertain whether archaeologists nationwide have similar conduct, or similarities can be found only in the context of regions or provinces. Regional divisions used by Statistics Canada⁷³ were followed, with the exception of Quebec and Ontario, which were combined into a central region⁷⁴ instead of considering each province separately. After data was collected, it was determined that archaeologists in each area had unique behaviours and practices that could not, in all cases, be assimilated to those of other areas. The geographic area for this study was not extended beyond Canada for two reasons. The first is that Canada in itself is a very expansive geographic area, which may have a variety of archaeological practices. Secondly, archival practice regarding documents generated by Canadian archaeologists is, at best, in very early development and in most cases still ad hoc, and should be studied independently in order to understand it prior to collecting data on the current practices of other places.

Sample Size and Selection Criteria

This study identified three objects of investigation: academic archaeologists, consulting archaeologists, and repositories. As mentioned earlier, academic and consulting archaeologists were chosen because they make up the majority of practicing archaeologists in Canada. Repositories for archaeological artefacts may or may not employ either or both types of archaeologists. They are, however, important to this study because of the role they play as legislated caretakers of materials produced by archaeologists.

For the purposes of this thesis, academic archaeologists are defined as individuals who have obtained, or are in the process of obtaining, a doctoral degree in the discipline and are

⁷³ Statistics Canada, "Standard Geographical Classifications (SGC) 2006," <http://www.statcan.gc.ca/subjects-sujets/standard-norme/sgc-cgt/2006/2006-menu-eng.htm> (accessed April 3, 2012).

⁷⁴ Geographic divisions are as follows: West (B.C.), Prairie (AB, MN, SK), Central (ON, QU), East (PEI, NB, NS, NL), and North (NWT, NU, YT).

employed by a university. They are responsible for teaching and research. Typically, Canadian post-graduate education is delivered from September to April. Most professors use the summer months (June-August) to conduct their research. Archaeological research may consist of a variety of activities such as fieldwork, field-schools, library research, and/or lab work. This study selected interviewees who, in addition to being employed by a university, have, at some point in the course of their career, performed fieldwork in the form of excavation or survey. According to The Association of Canadian Universities and Colleges, Canada is home to approximately eighty universities, of which ten offer a degree program in archaeology while an additional thirty-five offer individual courses in archaeology.⁷⁵ Individual courses in archaeology can be found in departments such as anthropology, classics, and religious studies. The majority (56%) of universities that offer programs and/or courses in archaeology are located in central Canada. This study sent questionnaires to fifty-three individuals at twenty-six⁷⁶ universities that offer archaeology courses and/or programs. Interviews were conducted with five individuals in the western region and questionnaires were returned by twelve academic archaeologists throughout Canada.

Consulting archaeologists are defined, for the purposes of this thesis, as archaeologists who have obtained at least a Bachelor of Arts with a concentration in archaeology, and are employed by a private organization to make environmental and/or archaeological impact assessments in order to carry out development projects. This study selected interviewees among senior archaeologist(s) at consulting firms, because they have more experience and are assigned more responsibilities than junior archaeologists. Determining how many practicing consulting archaeologists work in Canada is difficult without having access to a formal registry. This study

⁷⁵ The Association of Universities and Colleges of Canada, <http://www.aucc.ca/canadian-universities/> (accessed April 3, 2012).

⁷⁶ Twenty-six institutions include all the English speaking institutions. Some archaeologists teach at more than one institution, in which case they were only contacted once.

identified consulting archaeology companies through the use of the three provincial professional associations in Canada (British Columbia, Saskatchewan, and Ontario) and through internet search engines. Forty-one consulting companies were identified and sent a questionnaire. Nine of the consulting companies contacted participated in this study. Six participated in the survey, while three were interviewed.

Repositories are institutions that hold archaeological collections. As Barbara Winter indicates, repositories in Canada vary both in the kind of housing they provide for archaeological collections and in the treatment of documents associated with the collections.⁷⁷ The definition of repository varies with provincial legislation. All Maritime Provinces⁷⁸, Saskatchewan, Alberta, the Northwest Territories, and the Yukon, operate under one centralized repository to care for and preserve archaeological materials (see table 2.1). The remaining provinces⁷⁹ do not have one central repository designated by the provincial government. Instead, they operate with many repositories that Winter calls “a distributed network.”⁸⁰ She writes that this model distributes the cost of curation but in turn leads to other problems such as a fragmentation of financial resources, unspecialized staff, and difficulty for researchers, as materials from one archaeological site may be housed in several repositories across the province.⁸¹ In this distributed network, repositories must provide an environment that will preserve, maintain, and provide access to the archaeological materials. Such organizations may include but are not limited to: stand-alone institutions, museums, government departments, first nations, and university departments, which may or may not be staffed with persons trained in archaeology.

⁷⁷ Barbara J. Winter, “Out of Sight, Out of Mind: The Reposition of Archaeological Collections in Canada” (PhD diss, Simon Fraser University, 1996), 7-8.

⁷⁸ Newfoundland and Labrador, Nova Scotia, New Brunswick, and Prince Edward Island.

⁷⁹ Quebec, Ontario, Manitoba, British Columbia, and Nunavut.

⁸⁰ Winter, “Out of Sight, Out of Mind,” 205.

⁸¹ *Ibid.*

Table 2.1. Provinces Reporting One Central Repository for Archaeological Materials.

Province	Repository	Type of Repository
Newfoundland and Labrador	The Rooms	Museum
Nova Scotia	Nova Scotia Museum	Museum
New Brunswick	Archaeological Services	Run under the provincial government department of Wellness, Culture, and Sport.
Prince Edward Island	P.E.I Museum and Heritage Foundation	Museum
Saskatchewan	The Royal Saskatchewan Museum	Museum
Alberta	The Royal Alberta Museum	Museum
Yukon	Yukon Archaeology Office	Run within the Department of Tourism and Culture
Northwest Territories	Northwest Prince of Wales Heritage Center	Heritage Center, artefacts maintained within the museum section.

The total number of repositories in Canada was difficult to determine due to provinces with a distributed network of repositories. In these cases, each provincial government department associated with archaeology was contacted requesting information regarding the number of repositories their province contained (see table 2.2). This resulted in the identification of at least 200 repositories for archaeological materials residing in Canada to date. Contact information for nineteen repositories was found available online and these were contacted. Eleven repositories participated in this study: three by interview, and seven through the survey.

Table 2.2. Provinces Reporting more than One Repository for Archaeological Materials.

Province	Government Department	Reported number of repositories in province
Quebec	Ministry of Culture, Communications and Status of Women	~30
Ontario	Ministry of Tourism and Culture	Reported at least one hundred
Manitoba	Department of Culture, Tourism, and Heritage	5 primary repositories. Undeterminable amount of small collections at repositories connected to the Manitoba Archaeological Society
British Columbia	Ministry of Tourism, Culture, and the Arts	~63 reported in the last three years
Nunavut	Department of Culture, Elders, Language and Youth.	Did not respond

The Process of Analysis

This qualitative research study produced data that was analysed by separating in three groups the responses provided by the three main objects of study: consulting archaeologists, academic archaeologists, and repositories. The responses in each group were analysed and compared with those in the other groups to identify patterns. The analysis then sought to determine whether there are nationwide similarities or differences in record-keeping behaviour. If similarities existed, the responses were further analysed to see what documents were being generated and why. Once the types of documents produced were determined, the results were used to evaluate post-fieldwork activities and the influence of repository regulations on the documents generated during archaeological fieldwork. On the basis of the findings, recommendations were made regarding how archaeologists and repositories can better keep and

preserve documents in order to maintain long-term access to them through the use of archival theory and practice.

Interviews and Surveys: Academic and Consulting Archaeologists

Interviews are the “most widely employed method in qualitative research.”⁸² They are a useful data collecting technique when the researcher’s interests are relatively clear and well-defined, and the researcher has time constraints and is interested in understanding a broad range of settings or people.⁸³ This study met these conditions because it sought to capture the archaeological practice of the two major types of archaeologists, who may be guided by similar ethics and principles but must follow legal guidelines outlined within the unique legislation of each province.

As mentioned earlier, the research questions, had the purpose of determining the specific nature and form of the documents generated by archaeologists during fieldwork and how those documents are handled once fieldwork is completed. The interview questions designed to find answers to the research questions were semi-structured so that the interview could flow easily depending on the participant’s responses (for the interview questions see Appendix 1). At the outset of this study it was established that interviews were only going to be conducted in British Columbia in order for them to be conducted face to face, as budget restrictions did not allow for movement outside of the province. Interviewing in person provides the opportunity to observe the interviewees’ environment and allows them to use visual aids to help illustrate their responses. In addition, it makes it possible to obtain a guided tour of the facilities and meet other archaeologists. In person interviews limited to one province, however, may not give an accurate portrayal of that which occurs in other provinces. To obtain data nationwide a survey was

⁸² Alan Bryman. *Social Research Methods 3rd ed.* (Oxford: Oxford University Press, 2008), 436.

⁸³ Robert Bogdan and Steven J. Taylor, *Introduction to Qualitative Research Methods 3rd ed.* (New York: John Wiley & Sons, Inc., 1998), 90-91.

designed. The questions contained in the survey were similar to the interview questions because the survey was intended to obtain the same data as the interviews. The survey questions, however, tend to engage the participants less than the interviews. Thus, in some cases, follow up questions were sent to survey participants when responses were vague or unclear. The questions involving legislation were completely left out of the survey due to the responses received during the test interview, which demonstrated that this type of question could be interpreted in many different ways in a survey and therefore could create problems in the analysis of the responses. Also, in order to better understand records and recordkeeping, the survey and the interviews sought to understand the processes of how archaeology is conducted. The interview posed the question “can you describe the process of fieldwork?” This question led to lengthy narratives. It was felt that this type of question in a survey would be time consuming and possibly deter participation. Instead, the survey asked participants to list the activities they perform both during and after fieldwork. Surveys do not allow for a conversation between the researcher and the participant, nor offer a platform on which questions can be further explained or elaborated on as in an interview setting.

The next section of this chapter discusses the questions asked in both the interview and the survey so that both types of archaeologists could explain their purpose and their reaction to the three main research questions guiding this study. The questions asked to repository staff somewhat differed in order to find out the role the repository played in an archaeological project. These questions are outlined later.

The first group of questions aimed to ascertain the background, education, and training of the participants in order to provide context to the responses. These questions also determine whether all archaeologists acquire the same education and training nationwide or there is

variation. In addition, background questions allow for the establishment of a relationship in the interview setting. The questions asked were:

1. How long have you been working as an archaeologist?
2. What is your background and training?
3. Where have you worked as an archaeologist?

The answers to the first question, when analysed, were converted to an average number of years of experience each individual obtained as an archaeologist. The second question was meant to establish the minimum and mean levels of education held by archaeologists working in both academic and consulting environments. The third question aimed to gather data regarding the province(s) where the archaeologist works, as some archaeologists may work on projects in places different from that where their consulting firm or university is based.

The second group of questions was created in order to identify the daily activities performed by an archaeologist. By discovering what actions, routines and procedures each carries out, one can begin to identify the functions the archaeologist performs. The questions are:

4. What responsibilities does your job entail?
5. How are your activities divided throughout the year?
6. What activities do you perform during fieldwork? [survey only]
7. What activities do you perform post fieldwork? [survey only]
8. How, if at all, does legislation affect the work that you do? [interview only]
9. Can you describe the process of performing fieldwork? [interview only]
10. How long does fieldwork last?

Question eight, as previously mentioned, was only asked in the interview and sought to understand how archaeologists view the legislation and whether it played a role in determining their practice. Questions nine and ten were designed to obtain a definition of fieldwork through descriptions of its processes. Also, data was expected to be gathered detailing the steps that occur during archaeological fieldwork. The answers would indicate whether these processes are

unique to each archaeologist or if in fact they are formalized by a standard or system and carried out uniformly by regionally or on a national scale.

The third group of questions delved into the specific types of documents archaeologists generate while working in the field. They were designed as open questions so that the interviewees would answer using their own terminology and views, instead of choosing from an existing list. Open questions and supplied lists both have pros and cons. This study designed the questions openly in order to allow the respondents to describe the most prevalent and valued documents rather than have their memory coached by an existing list, which may cause them to choose document types that in fact they may have only generated once. The questions in this group also prepared the participants to think about their record-keeping practices, which were to be discussed in the following group of questions.

11. What documents (including non-textual, paper based, and digital) are generated when you perform fieldwork?
12. Of these documents which ones are of most value to the work that you do?
13. Of these documents which ones have legal implications?
14. Of these documents which ones are kept post fieldwork? Where are they kept?

The fourth group of questions was created in order to collect data regarding how the documents identified in the course of the previous group of questions are used, maintained, accessed, and preserved post field work. These questions relate directly to the second research question of this thesis.

15. Do you ever perform fieldwork on a site that has been previously examined?
16. If so, do you use the documents created by the previous archaeologists? What types? Where are they located?
17. Which activities do you perform post-fieldwork?
18. How often do you refer back to the documents you generated during your fieldwork? For what purposes?
19. How often do other people (archaeologists, or the public) refer to these documents?

The fifth group of questions was devoted to digital technology in order to assess the extent and type of its use in the context of archaeological activities. The intention was to identify documents that are generated in digital form; however, the questions did not focus on digital preservation.⁸⁴

- 20. Do you use digital technology during fieldwork? If yes, how is it used? If no, why?
- 21. Where is the digital data stored?

The last group of interview questions wished to explore how archaeologists refer to the ‘archaeological record’ and their opinions on the current practices of record keeping in archaeology. These interview questions were asked in order to find answers to the third research question of this thesis.

- 22. In the context of archaeology what is a ‘record’? What is the ‘archaeological record’?
- 23. In your opinion do you feel that the current practice in archaeology regarding how documentation is dealt with is satisfactory? If no, what could be done?
- 24. Do you have any questions or comments about this interview or the topic itself?

The data provided by these responses were expected to reveal whether archaeologists have considered the life-cycle of the documents they produce, and whether they feel a need to improve upon the current practice.

Interviews and Surveys: Repositories

Repositories, as mentioned above, are institutions that accept and care for archaeological collections. These institutions employ staff that may or may not be educated or trained in archaeological practices. It became apparent after several interviews with academic archaeologists that repositories must not be ignored, for two reasons. The first reason is that archaeological permit applications in provinces with many repositories require that the archaeologist working as principal investigator designate a repository for the collected materials

⁸⁴ For more on the digital preservation of archaeological records see InterPARES 2 Project, “General Study 09 Final Report: Digital Recordkeeping Practices of GIS Archaeologists Worldwide: Results of a Web-based Survey”, February 2007.

before any work begins. This means that, in the distributed network model, communication should occur between archaeologist and repository because arrangements must be made about where materials will be housed between the archaeologist, First Nations (or other community groups when present), and repository. The second reason is that it is important to determine whether repositories dictate the types of documents that archaeologists should be generating or merely accept what is produced. The interview and survey questions were designed to cross-check and validate the responses given by academic and consulting archaeologists.

The first section of questions posed to the repositories was similar to that used with archaeologists. These questions related to the interviewees' background and training, as well as to the activities they perform.

1. What is your official title?
2. What is your background and training?
3. What responsibilities does your job entail?
4. How are your activities divided throughout the year?
5. What types of materials do you generate in your position?

As with the archaeologists, these questions allowed the participants to speak about their individual background and training, which contributed to their obtaining their current position. Responses were used in determining whether there is a standard set of skills required of employees in a repository.

The second section of questions sought to determine whether the institution thought of itself as a repository and how it maintained its collection. The questions were designed in order to answer the first and second research questions regarding documents generated by archaeologists and the life of the document after fieldwork is completed.

6. Is the [insert name of institution] a repository for archaeological material? And if so, for what types of materials?
If it is not a repository please answer 'no' and skip to question 14.
7. How is the collection housed, and organized?

8. Do you accept all documentation submitted with archaeological materials to your institution?
9. Where is the documentation associated to the archaeological materials housed? and how is it organized?
10. Do you **require** any types of documents be submitted with the archaeological materials to your institution? if so, please list.
11. How long must the documentation be kept? For what reasons?
12. How is the documentation accessed? By who? For what purposes?
13. How, if at all, is [insert name of institution] associated to the [insert provincial archaeology government] branch?
14. Do you have any questions or comments about this survey/interview or the topic itself?

Question ten was concerned with determining whether repositories required documentation or simply accepted that which was provided. Question twelve sought information regarding how these documents are used after fieldwork is completed. In addition, data collected from this question was used in determining the similarities and differences between the methodologies of an archaeological repository and an archival institution.

Conclusion

The methodology outlined above aimed to collect data supporting an understanding of the records and current record-keeping practices of archaeologists. The results of interviews and surveys are presented in the next chapter.

Chapter 3: Findings

The purpose of the research conducted through interviews and surveys was to determine what documents consulting and academic archaeologists generate during fieldwork, how these documents are kept once a project is completed, and whether they are transferred to archival repositories as archives. This chapter will present the findings of the research organised in six sections. The first section will discuss the similarities and differences between consulting and academic archaeologists and how, if at all, they impact the types of documents generated during fieldwork. The second will present an overview of the structure of archaeological fieldwork projects to provide an understanding of the processes and procedures that occur. The third will analyse the document types generated during fieldwork as collected from study participants in relation to those mentioned in the literature. The fourth will briefly look at archaeology and legislation in order to better understand the role of the repository in the fifth section. Lastly, the sixth section looks at the practices regarding access, use and the transfer of archaeological materials and documents in archaeological repositories. For a complete list of questionnaire responses from archaeologists see Appendix 2.

Types of Archaeologists

Data collected through interviews and surveys revealed that academic and consulting archaeologists conduct archaeological activities for different reasons; however, the phases of their projects and the document types which are generated by their work are very similar.

Both academic and consulting archaeologists collect their data through two main methods: excavation and survey. Excavation is “the systematic recovery of archaeological data through the exposure of buried sites and artifacts.”⁸⁵ In the past, excavation was the most commonly practiced technique for collecting data by archaeologists. Overtime, archaeologists

⁸⁵ Paul Bahn, ed., *The Penguin Archaeology Guide* (London: The Penguin Group, 2001), 150.

have become aware of the negative impacts on the land, artefacts, and people which full scale excavation produces. Thus, archaeologists seek to employ techniques that are less destructive, such as surveys. A survey is “the examination of the surface of the earth for archaeological sites, and their recording and preliminary analysis.”⁸⁶ Participant IA4 stated that more recently archaeologists are aware that it is “increasingly important to try and balance off the kind of information we can retrieve from doing excavation against the need to disturb and ultimately destroy portions of the archaeological site.”⁸⁷ Peter Peregrine writes that archaeologists conducting survey, in addition to field-walking, often employ techniques such as ground penetrating radar and aerial photography, and use geographic information systems specialists for help in finding and evaluating archaeological sites.⁸⁸ The responses from this study largely concur with Peregrine with the addition of techniques such as coring, and material cultural analysis. One of the participants (Participant IA3) talks about working with aerial photographs prior to sending out crews on the ground, and states that the emphasis on understanding the environment on the physiographical and botanical levels is greater when conducting survey work versus traditional excavation.⁸⁹

The first section of background questions revealed that academic archaeologists spend the majority of their learning and careers in the university setting. Most participants took an interest in archaeology in undergraduate school while a few began as early as grade school by volunteering on excavations located near their place of residence. Academic archaeologists obtain a bachelor, master and doctorate degree prior to finding employment at a university, where they can continue their research and begin teaching the next generation of archaeologists. Participants in this study averaged twenty-five years of experience in their field. The academic

⁸⁶ Paul Bahn, ed., *The Penguin Archaeology Guide* (London: The Penguin Group, 2001), 429.

⁸⁷ Participant IA4, interview with author, March 25, 2010, 19:23 – 20:32 on transcript.

⁸⁸ Peter N. Peregrine, *Archaeological Research: A Brief Introduction* (New Jersey: Prentice Hall, 2001) 48-58.

⁸⁹ Participant IA3, interview with author, March 23, 2010, 19:21-22:22 on transcript.

archaeologists, although often most interested in research, stated that they must find a balance amongst their yearly activities as they are expected to teach for two thirds of the year, leaving one third for research projects. Academic archaeologists who occupy administrative positions must divide their time further to accommodate administrative responsibilities. The academic archaeologists' goal when performing research is to further the body of knowledge regarding the 'archaeological record.'⁹⁰ Research archaeology begins with a theoretical problem. From this problem a research design is developed based on information the archaeologist wishes to obtain and the location where s/he plans to obtain such information. A project is carried out by using survey and excavation methods to collect data. Academic archaeologists are funded by research grants and thus they often rely on students and volunteers to collect data and carry out portions of the work.

The consulting archaeologist's role is to provide consultation to government departments and agencies, oil, gas, and forestry industries, land developers, and individuals who require services such as heritage resources and archaeological impact assessments, archaeological mitigation, overview assessments, culturally modified tree inventories and studies, site monitoring, archaeological collections and artefact analysis, and research.⁹¹ They are funded by those who require their services and they conduct their work all year round. Consulting archaeologists participating in this study averaged twenty-one years of experience. Their post-graduate education was mixed: some had a PhD but most had a Master's degree in arts or science. Senior consulting archaeologists are responsible for writing proposals and related budgets, authoring reports, and carrying out both fieldwork and office activities. Three provinces in Canada have professional associations for consulting archaeologists: Ontario,

⁹⁰ 'Archaeological record' is a term used by archaeologists to define everything known about the site including everything recovered and still in situ.

⁹¹ Gathered from archaeological consulting company websites. Refer to www.arcas.net, www.golder.com, www.millennia-research.com, www.stantec.com. All accessed April 3, 2012.

Saskatchewan, and British Columbia. These professional associations establish standard ethical practice for all members to follow. They also provide a central place for members to list their firms so that they can be easily found. It is not required to be a member of this association in order to practice consulting archaeology.

Structure of an Archaeological Project

The data collected by this study concur with the literature regarding the process of conducting archaeology. This literature focuses on teaching future archaeologists and is used in academic settings. Examples⁹² are Philip Barkers' book *Techniques of Archaeological Excavation*, and Brian M. Fagan's book *Archaeology: A Brief Introduction*. They illustrate five stages in an archaeological project. The first stage is project planning. This is often broken down further into project design, which encompasses background research, and implementation, which includes fund raising, recruiting the crew, and getting permissions. The second stage revolves around collecting the data. While Barker uses the term fieldwork, Fagan prefers not to limit this work to 'the field' as it can also occur in labs and libraries. He simply calls this stage 'data collection'. The third stage is analysis of the materials, which can take place both in the field laboratory or in a permanent laboratory. The fourth stage is interpreting the data through analysis which includes report writing. The final stage is publication of the final report.

The results of this research confirmed that academic archaeologists perceive fieldwork as consisting of all five stages described above and that documents are generated and filed at all stages. Participants were asked directly to describe the process of fieldwork. All participants responded by describing in their own words phases that could be matched to those above. They did not single out 'data collection' as the only aspect of fieldwork but talked instead about the

⁹² Further examples are: *Archaeology, Discovering Our Past* by A. W. Ashmore and R. Sharer Mayfield, *People of the Earth: An Introduction to World Prehistory* by Brian Fagan, and *Archaeology* by Thomas, David Hurst, Robert L. Kelly and Peter Dawson.

concept as a whole. For example, participant IA2, an archaeologist conducting research excavations, talked about building from a “theoretical problem,” submitting proposals for funding, assembling the crew, collecting data, conducting the analysis, and publishing the final report⁹³. Similarly, participant IA3, an archaeologist conducting mostly survey projects, talked about defining the hypothesis, conducting background research, collecting data, cataloguing materials, and publishing the findings. For the types of documents generated and/or received during the process mentioned above see table 3.1. None of the participants described fieldwork as an isolated aspect of the work that occurs in just one location: the field. The documents generated in one phase of the project relate to those generated during other phases, thus, ‘fieldwork’ must be conceptualized as consisting of many procedures belonging in all stages of the archaeological process.

⁹³ Participant IA2, interview with author, March 26, 2010. 3:49-6:04 on transcript.

Table 3.1: Phases of an Archaeological Project

Phase	Activities Performed	Documents Generated
Planning	<ul style="list-style-type: none"> • Background research • Fund raising • Recruiting crew • Obtaining permits/permissions 	<ul style="list-style-type: none"> • Notes • Correspondence • Permit applications • Permits • Grant applications
Data Collection	<ul style="list-style-type: none"> • Survey • Excavation 	<ul style="list-style-type: none"> • Photographs/logs • Field notebooks • Maps • Forms • Artefact catalogue
Analysis	<ul style="list-style-type: none"> • Analysis of the data collected 	<ul style="list-style-type: none"> • Spreadsheets • Databases • Artefact catalogue
Interpretation	<ul style="list-style-type: none"> • Interpreting the results of the analysis 	<ul style="list-style-type: none"> • Draft of the final report
Publication	<ul style="list-style-type: none"> • Submitting the final report to government and First Nations • Submitting articles to journals 	<ul style="list-style-type: none"> • Correspondence • Final report

Although the work of academic and consulting archaeologists is structured into the same five similar stages, as indicated earlier, their purpose and outcomes can be much different. The stages identified in the literature show similar trends in that consulting archaeologists also focus on how to articulate a theoretical problem, build a research model, execute a plan, and publish the findings. Consulting archaeologists conduct archaeology to determine the impact of development at a site and how to do the least amount of damage. Ontario is at the forefront in creating standard procedures for consulting archaeologists. In 2010, the Ontario Ministry of Tourism and Culture implemented a standard⁹⁴ for consulting archaeologists to follow when conducting an archaeological project. This standard contains four stages: 1. Background study and property inspection. 2. Property assessment. 3. Site specific assessment. 4. Strategies to

⁹⁴ Ministry of Tourism and Culture, Standards and Guidelines for Consultant Archaeologists. http://www.mtc.gov.on.ca/en/publications/SG_2010.pdf

mitigate development impacts. The standard says “that not all stages will be necessary for all projects;” however, most respondents from that region indicated that the process of doing archaeological fieldwork includes all four stages, thus each stage must be considered even if it is not carried out. Each of these stages incorporates report writing, and stages two through four include data collection, data analysis, and data interpretation. Consulting archaeologists in British Columbia do not have the same structured standard for completing archaeological projects as Ontario; however, they do follow a handbook, “British Columbia Archaeological Resource Management Handbook.”⁹⁵ This handbook suggests conducting a project in much the same way as the Ontario standard. It lists the types of documents expected for each type of project and during which stages they must be submitted. None of the respondents from British Columbia mentioned this handbook.

The research data show that, despite different purposes for doing archaeological work, both consulting and academic archaeologists conceive of fieldwork as including all aspects of a project and file documents relating to the same project together for future references.

Document Types

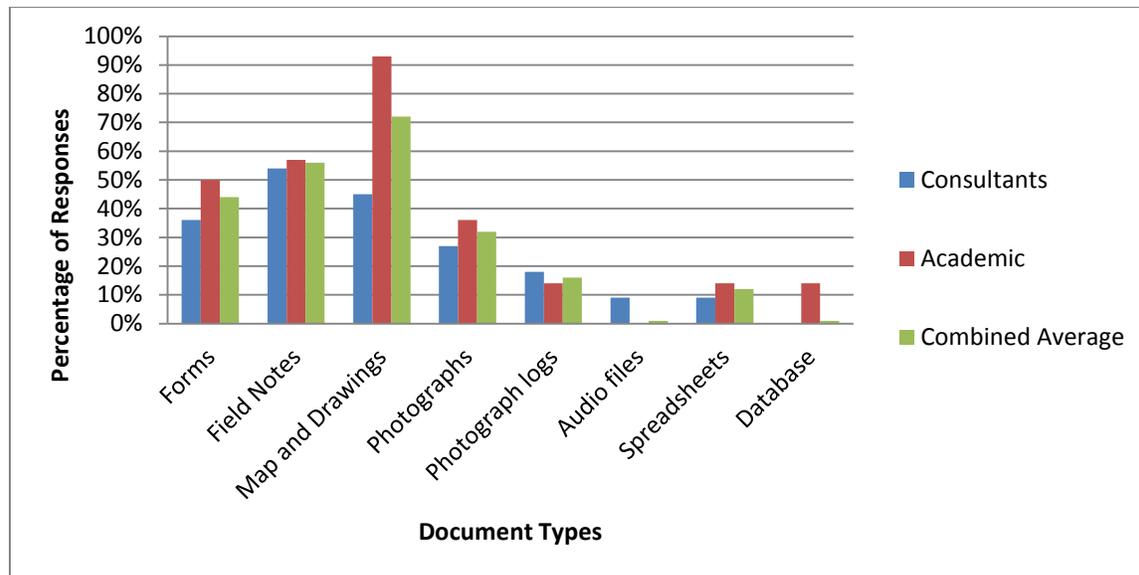
This section illustrates the types of documents that are generated by archaeologists during fieldwork. Research results indicated that not all the document types produced by archaeological activity are necessarily generated for every project; however, those which are generated are kept, because archaeologists understand the unique and destructive nature of their work. Participants in the interviews were hesitant to choose which documents were of most value as they felt that they all contained data and information relevant to their work. Survey responses were extremely varied. Three responses indicated that all documents were of value. The majority of survey responses listed several document types as being of most value. Despite the fact that participants

⁹⁵ British Columbia Archaeological Resource Management Handbook
http://www.tti.gov.bc.ca/archaeology/docs/resource_management_handbook/index.htm

chose different document types as most valuable, the reasons for their choices were very similar in that they identified as most valuable the documents that were deemed to contain the most data and able to offer the clearest interpretation of the data and processes of the fieldwork that took place. For example, participant IA2 noted the frequent use of documents “even after the results were published, to refine some interpretations, or to check on details.” This statement indicates that perhaps not every aspect of the archaeological activity ends up in the final report. Several participants noted the irreproducible nature of archaeology, while participant SC2 said that assigning value is a “judgement call”, noting that what may be deemed most valuable today may not be such in the future.

The answers to the interviews and surveys showed that archaeologists identify the types of documents they create by broad groupings: forms, field notes, drawings/maps, photographs, catalogues, and photograph logs. Neither group was mentioned by everybody. Figure 3.1 illustrates the document types found by this study. Interestingly, correspondence and permits/permit applications were mentioned when participants talked about the process of fieldwork but were not mentioned when they were asked to list the types of documents generated when performing fieldwork, and audio files were mentioned by participants when listing document types but generating recordings of any type did not surface when participants spoke of the process of performing archaeology.

Figure 3.1. Document Types Most Generated During Archaeological Projects



Maps and drawings, when included into one group were mentioned the most frequently by sixteen out of seventeen academic archaeologists. These two types of documents were grouped together in figure 3.1 because the terminology and definitions used by archaeologists drastically vary and these two document types are often referred to interchangeably. Types of maps and drawings mentioned were: profile/stratigraphy, sketches of the artefacts and landscape, hand-drawn topographic maps and plans, and published geographical and topographic maps. Profile/stratigraphy drawings are done on graph paper in pencil. These can be part of the field notebook or made and filed separately. They are generated in order to depict the layers and levels shown on the wall of a trench or excavation unit. Sketches of the artefacts are less common today with the increasing use of digital photography, however they still occur. An archaeologist with artistic skills can quickly sketch artefacts in order to capture their features to serve as reminders for later. Landscapes of the site are also sketched to serve as reminders of both natural and man-made features that exist on the landscape. Hand-drawn maps are generated less often today as one has easier access to published maps; however, one might be required to hand-draw a map if a particular scale is required. Published maps are frequently found among

the documents generated during a project and are often annotated with border lines showing First Nation borders, excavation unit and trenches, as well as the location of carbon samples and artefacts.

Five out of nine consulting archaeologists reported generating field notes as their primary document. This was also the second document type most frequently mentioned by academic archaeologists. Field notes record the observations made during work performed at the archaeological site. This document is usually a bound book of blank or lined pages in which the archaeologist writes in pen or pencil. Its internal structure often takes the form of a journal with daily entries detailing the research questions, weather conditions, crew moral, observations, visitors to the site, opinions and hunches. The literature is inconclusive regarding the keeping of field notes. Despite the fact that field notes were the most frequent document type mentioned by participants, they were only mentioned by seven of the twenty-six participants when asked which of the documents they generated were of most value. Those that considered them very valuable commented that they “are particularly informative because they record our running interpretations and give a good record of what we were seeing at the time.”⁹⁶ Another wrote that the field notes “provide a chronological record of the site and how it was approached, what was found, how it was treated, what additional steps were recommended.”⁹⁷ Field notes, due to their diary format, have a personal feel. This often creates a sense of ownership over the content of the notebook which can cause reluctance to transfer this document in archaeological repositories. However, it is because of the personal nature of field notes that relevant context and information about the work can be gleaned. For example, participant IA1 recounts using field notes to determine that previous excavators

⁹⁶ Participant SA11, survey completed October 7, 2010

⁹⁷ Participant SC5, survey completed January 7, 2011

may not have had a good handle on the stratigraphy and so you realize when you take over that you are going to have to do a little fine work, like scraping back the sections to see you know what exactly was going on in terms of occupation changes through time because they [the previous excavator] may have missed it. So it is very important to read all those earlier notes.⁹⁸

Field notes sometimes also contain other document types within them such as maps, photographs, and the photograph log.

Forms are not standardized but are produced by the principal investigator and used by crew members to record data about artefacts collected, details regarding the layers and levels in their unit, data regarding the site, features and burials, photographic logs, and any other aspect of the project that requires specific data to be collected. IA2 explains that forms “are pretty much designed by individual archaeologists, for an individual project. So I don’t know of any real standardized forms, but what I’ve seen as being suggested standardized forms I don’t think are very good.”⁹⁹ For an example of a forms see Appendix 4. Forms are pre-printed on letter or legal size paper or index cards. Pre-printed forms have become widely used in archaeology because of the variance of experience level of the crew. Participants noted that a pre-printed form allows the crew member to fill in the blanks instead of trying to determine what is important to record and this ensures that the proper data is recorded. In contrast, Roderick Sprague, an American archaeologist, writes that forms are too restrictive. He says that a form forces “your data into confined spaces where it will not fit.”¹⁰⁰ He argues that a “checklist of all the things that should be recorded”¹⁰¹ is preferred so that one can be sure nothing is forgotten but one is free to record data in whatever way is most appropriate without being restricted to a certain amount of space on a form. Although none of the participants suggested the use of a

⁹⁸ Participant IA1, interview with author, April 8, 2010.

⁹⁹ IA2, interview with author, March 26, 2010.

¹⁰⁰ Roderick Sprague, "The Preservation of Written and Printed Archaeological Records," *Northwest Anthropological Research Notes* 16, no. 2 (Fall 1982): 207.

¹⁰¹ *Ibid.*

checklist, they did comment on the pitfalls of the form by noting that a form used during one project is not necessarily appropriate for use in another. This became evident when examining the documents held by the Laboratory of Archaeology (LOA) at the University of British Columbia. On many forms the field names have been crossed out and replaced with others. A checklist as mentioned by Sprague might suit every situation, but would require more training for crew members. However, despite an awareness of the limitations of the form, it still appears to be widely used by archaeologists. This is found especially when projects rely heavily on community members, volunteers, and students to accomplish the work. This situation requires a simple way of capturing data that can be quickly checked by a supervisor. Fields consistently found on forms are: site name and number, date, name of the person recording the data, and name of the archaeological project. All other fields depend on the purpose of the form.

Photographs have undergone the most changes in format over time. With each evolution of photography from nitrate to cellulose acetate to digital, and from black and white to colour, archaeologists have adapted to the most current practice. Photographs are taken of every aspect of the project and serve as evidence of what was done and where, as well as being an aid to memory. In the past there was often a camera designated for the project so that photographs taken with that camera were considered as belonging to the project, no matter who the photographer was. Digital cameras have changed this practice. More often archaeologists seem to be using their personal cameras for work.

The document linked to photographs is the photograph log. Photographs without their log lack the necessary context that makes them relevant as evidence and useful for further research. Only one of the consulting archaeologists and three of the academic archaeologists reported generating a photograph log. This could be due to the fact that some archaeologists keep the details of their photographs in their field notes and not as a separate document.

Photograph logs examined at LOA showed that in most cases each roll of film was given a number. Each frame of the film was recorded with the date and description of the frame.

Artefact catalogues are generated when each artefact is assigned a unique number. This can occur in the field when a field lab is available; otherwise catalogues would be generated in the post field season away from the archaeological site. In the past, artefact catalogues would often dedicate one page to each artefact. More recently they have been generated on pre-printed forms or on digital spreadsheets. The artefact catalogue is very similar to a registration log in that it lists the artefacts numerically and provides a brief description together with the object's provenience. This serves as a quick reference when looking for information regarding a particular artefact.

The site report is not published in a book or journal, but is meant to be the document which details the work performed during the archaeological project that is submitted to the government department in charge of archaeological activities (See table 1.1). Many archaeologists feel that the site report includes all relevant information and data. However, as commented by participant SC2, the report "is a small component of the archaeological work, as the report does not contain the whole of the archaeological record." It allows for greater clarity than the archaeologist's original forms and notes. Instead of legislating the requirement of submitting a site report most provincial government departments make submission of the site report a condition of obtaining a permit in the first place. In theory, this keep the archaeologists from beginning another project before completing the previous one.

Digital documents are slowly becoming more prevalent in archaeology. Most participants in this study began working in archaeology before digital technology became prevalent and seem hesitant to adopt it, with the exception of photograph. The environment in which archaeology takes place is often inhospitable for electronic devices that require indoor

conditions with a consistent source of electricity. If computers are used, it is most often in the field labs and camps, where the day's data can be transferred into spreadsheets. The original forms on which these data were recorded are also kept. The most common digital document generated during fieldwork is the digital photograph. Most participants prefer digital photography because the ability to see immediately the captured image gives them the certainty that they have obtained the image they want. Survey participant SC2 says,

photographs have been instrumental in relocating archaeological features on a site. For instance, a client was trying to find the dimensions and placement of a drive shed. An old photograph focussing on a couple standing in front of an associated building showed the drive shed. Standing on the spot where the photographer was situated, and holding up the photograph, we could re-locate the areas of interest for excavation, and the one by one metre unit was placed squarely on the support post location. Photographs would be very high on my list since this is a visual representation of the work and landscape at the time of the archaeological work.

Participant SC4 concurs with the above statement and adds that digital photographs often “reveal additional details on the [computer] screen that are not as easily seen in the field.”

Other digital documents are produced by specialists. Specialists may be brought in to create geographical information system (GIS) maps, or to operate ground penetrating radar (GPR).

These specialists may have an archaeological background; however, they generally contribute to the project by performing tasks associated to their speciality. In the consulting environment a company may have GPR and/or GIS technicians on staff. Other types of digital documents that are likely to be generated but were not mentioned by participants are electronic mail and word processing documents.

Archaeologists and the Law

Archaeology performed by consulting and academic archaeologists on non-federal lands is governed by provincial legislation, as mentioned in chapter three. David Pokotylo and Andrew Mason write that all the provincial statutes are similar with respect to “the kind of

archaeological resources protected, provisions for special protection, control over permits and licenses to conduct archaeology, ownership and stewardship, approaches to the management of impacts to the [archaeological] record, and civil remedies for contravention.”¹⁰² Participants in this study showed an awareness of the legislation that governed their work; however, they expressed varying degrees of concern for the amount of thought, time, and effort it took to comply with the legislation. Obtaining permits was mentioned most consistently among the legislative responsibilities by the study participants. Every province and territory requires that all archaeologists obtain a permit prior to commencing work. Some provinces have as an additional requirement that permits be obtained from First Nations groups. Participant IA3 was the only individual who spoke about being an expert at a court trial dealing with First Nations land claims. In this case, the documents generated during the project were not brought into court; they were, however, reviewed by the lawyers in order to verify participant IA3’s testimony.¹⁰³

Archaeology and Repositories

The repository is an important institution in Canadian archaeology because it is responsible by law for the care and preservation of the artefacts after the archaeological work has been completed. The concept of the repository varies amongst provinces, as discussed in the previous chapter.

Since Winter’s study on repositories in 1996, repository staff have obtained more museum training, but their education is still extremely varied. The individuals employed by repositories to care for the artefacts and documents collections vary in background and training

¹⁰² David Pokotylo and Andrew Mason “Archaeological Heritage Resource Protection in Canada: A Legislative Bias” in *Cultural Heritage Management A Global Perspective*, ed. P. Messenger and G. Smith (Gainesville: University of Florida Press, 2010), 57.

¹⁰³ Participant IA3, interview with author, March 23, 2010. 13:41 and 35:01 on transcript.

and are classified by a wide variety of job titles. The ten repositories participating in this study employ the following staff to oversee and care for the documents transferred to their institutions related to archaeology: six employ curators, two employ collections managers, one employs an archaeologist, and one employs a library technician. The curators and collections managers all have a background in archaeology or anthropology while some also hold degrees in museum studies. When describing what their position entailed, none of the participants singled out caring for the documents as a separate responsibility from caring for the artefact collections. Tasks most commonly described by the individuals in these positions were: acquisition; deaccession, repatriation, and cataloguing of artefact collections; loans; facilitating collections access and support for researchers; database development and maintenance; storage maintenance; grant writing; and volunteer management.

Provincial legislation, as mentioned previously, is responsible for archaeology performed on non-crown lands. In every province, this legislation requires that any removal of archaeological material from the surface of the ground or from under it must be done under a permit, and the material must be consigned to the proper repository. Archaeological artefact collections held in repositories in Canada vary in terms of storage systems and collections organization. Research findings indicated that storage systems for artefact collections differ at each repository. Storage systems range from artefacts being kept in their original boxes and shelved in un-controlled conditions in terms of temperature and humidity to artefacts being laid out on trays in environmentally controlled compacting storage units. The organization of the artefacts was similar in all participating repositories. The identifiers assigned to artefacts begin with an alpha-numeric number called a 'Borden number'¹⁰⁴. This number indicates to which

¹⁰⁴ Borden site number is an alpha-numeric code indicating a location. The code is made up of two uppercase letters indicating the larger grid square, separated by two lower case letters indicating the location within that square. The

archaeological site the artefacts belong. Collections are housed keeping all artefacts from one site together. In some cases a region is used as the first organizational category and, within each region, the Borden number is used to group the artefacts together. Artefacts from one project are not necessarily kept together. The artefact catalogue may be the only document that links the artefact to its provenience, date of recovery, project name, and principal investigator.

The documents deposited with archaeological collections undergo the same non-standardized treatment as the artefacts. The provincial legislation for the Northwest Territories, Nunavut, Yukon, Alberta and Ontario instructs permit holders to submit documents generated during their project to the appropriate government departments in order to fulfill the terms of the permit. British Columbia, Saskatchewan, Nova Scotia, Quebec, and Newfoundland and Labrador indicate in their respective acts that a report must be submitted to the respective provincial government department. In these cases the permit may list additional documents that must be submitted or included as part of the report. Manitoba, New Brunswick, and Prince Edward Island have legislation that indicates that the government department has the ability to impose any terms and conditions on the permit as seen appropriate; however, it does not provide any specific details or requirements. For example, in the case of Prince Edward Island, the Archaeology Act, RSPEI 1988, c A-17.1 states only that a permit must be acquired in order to perform archaeology; however, the permit requires the deposit of all Maritime Archaeological Inventory Forms, copies of project notes, catalogues, records, and photographs, and a final report deposited to the director of Aboriginal Affairs and Archaeology. Similarly Alberta, which legislates in the Historical Resources Act that a permit is required: the permit states when site data forms and the report are due. It also refers to the Archaeological and Paleontological Research Permit Regulation, Alta Reg 254/2002, which indicates that “copies, of archival

code ends with a dash followed by a number indicating a unique number of the site at the coordinates. Example: DgRs-1.

quality, of all notes, plans, drawings, documents, photographs and other records collected or prepared in conjunction with the investigation authorized by the permit”¹⁰⁵ must be submitted no later than one year from the expiration of the permit. Often, in cases where the legislation is insufficient, the repositories will try to fill the gaps with their own requirements.

Due to non-specific legislative requirements, repositories try to impose regulations themselves for archaeologists who wish to deposit a collection. Research findings indicate that eight of eleven participating repositories require that all documents generated during a project be submitted. Although the repositories require that all documentation be submitted together with the artefacts, they cannot turn away a collection lacking the document component, due to provincial legislation. Nine of the eleven participating repositories stated that they accept any document type submitted in any form. All agreed that the documents must be cared for at a minimum for as long as the repository holds the archaeological materials they relate to. Seventeen of the twenty-six participating archaeologists indicated that they keep the documents in their office after a project is completed. The other nine indicated that they transfer the documents to an archives, museum, or provincial archaeology branch.

There is a wide variety of methods currently being used to deal with the documents acquired together with the artefacts. The minimum level of curation for the documentation generated during an archaeological project is housing it in the same location as the artefacts (often in the same box), which are placed on shelves in a storage room. Eight of the eleven participating repositories however, have a separate room in which they keep the documents. Of these, two have storage spaces with environmental controls and six do not. The environmental controls mentioned by the participants include cold storage for deteriorating film, as well as humidity and temperature controls in the designated space. In all cases, the repositories that are

¹⁰⁵ Archaeological and Paleontological Research Permit Regulation, Alta Reg 254/2002. Section 11.1c

able to provide better care and maintenance for the artefact collection are also providing better care for the associated documentation.

Access and Use of Documents

The primary reason for the continuing existence of the documents generated during archaeological work is to preserve evidence of the work performed by archaeologists. As eloquently stated by Peter Peregrine, “archaeology is like doing research in a library where you burn each page after you read it – all you have left is your notes.”¹⁰⁶ Numerous introductory texts emphasize the importance of careful recording practice. However, these texts fail to instruct on the importance of document organization and the transfer of documents to repositories along with their related artefact collections. Nor, as previously mentioned, does a guideline or standard exist in Canada on how a repository might best maintain and provide access to the documents associated with the collections being deposited.

Repository staff, when asked how is the documentation of archaeological activity accessed, by whom, and for what purposes, responded that the documents are accessed by staff, faculty members, and professional archaeologists. Most participants indicated that for most researchers, be they faculty or archaeologists, pdfs of the documents are usually made upon request and sent by e-mail. Staff use the documents as a source for background research when planning exhibitions, and for repatriation research; faculty use them to inform their research and teaching; archaeologists request access in order to understand work previously done on a site on which they are currently working. Several participants indicated that the general public does not receive free access to these materials due to concerns surrounding the looting of sites. Research findings indicate that ease of access is directly related to the amount of time and money the repository spends on the curation and care of the documents. For example, participant IR2

¹⁰⁶ Peter N. Peregrine, *Archaeological Research: A Brief Introduction* (New Jersey: Prentice Hall, 2001), 87.

employs only one individual who cares both for the artefact collections and the documentation. Staff background and training is in archaeology. Due to space, time, and money concerns, priority is placed on curation of the artefact collection and on outreach. The documents are housed in the same boxes as the artefacts, in a storage room without environmental controls. Although participant IR1 also employs one individual with a background in archaeology who cares for both the artefact collections and its related documents, in this case, even though time and money remain a concern, space has been allotted to house the documents in their own room, on shelves, organized in the way that was deemed most suitable for research. The repository staff refers to this space as 'the archive'. The space for the documents has been moved from room to room in the past without environmental controls. In 2009 the documents were moved to a permanent location with environmental controls. The documents, as previously mentioned, were organized according to research needs, not in accordance to archival principles and methods.

Participating repositories indicate that professors and staff require access for the purpose of completing loans, and for acquiring information needed for exhibit development and repatriation. They are often permitted to access the documents anytime without formally requesting access. Archaeologists, however, must always request access to the documents. Most often their purpose is interpreting results and report writing. They may be required to sift through stacks of boxes to find the material which they seek, and they may fail to do so if no documents were submitted with the artefact collection. If they find what they are looking for, they are often left alone consulting the material, in an honour system trusting that they will not steal, vandalize, or alter the documents, purposefully or by mistake. In some cases, documents are loaned to them for the duration of their research.

In conclusion, the findings of this research indicate that an archaeological project is a structured process in which documents are generated during each phase. Many of the document types represent work that is irreproducible because the original evidence (artefacts, stratigraphy, features) is removed and/or destroyed and replaced by its documentation. Legislation in Canada does very little to enforce the preservation and maintenance of these documents and therefore archaeologists and repositories do the best they can with little knowledge of archival practice and with few resources. The next chapter will offer some recommendations in order to begin to acknowledge and treat the documents generated during archaeological projects as archives.

Chapter 4: Recommendations and Conclusion

The purpose of this study was to ascertain what documents are generated by archaeologists in the course of their activities and how they are kept. Its usefulness resides in the fact that it constructs an overall picture of the current record creation and recordkeeping practices of archaeologists in Canada, and highlights the need for paying more attention to the preservation of the documents that are so highly valued by the archaeological profession itself and society as a whole. The participation of archaeologists and repositories nationwide in this study through completion of questionnaires and interviews supported my study of provincial legislation and professional procedures by clarifying them and filling the gaps.

Standards and Policy Recommendations

The standard by which Canadian archaeologists operate varies according to the province in which they work. Some provinces have standards for consulting archaeologists but not for academics, while some provinces do not have standards but merely guidelines. Archaeological repositories are also lacking standards regarding their practice for accepting and maintaining archival transfers. It is this thesis' recommendation that a national standard be created and followed so that archivists are enabled to properly understand the documents generated by archaeologists and maintain, preserve, and provide access to them. A national standard would allow for a cohesive practice by both archaeologists and archivists in terms of document creation and archaeological record keeping throughout Canada. The standard would lay the ground work that archaeological repositories can build upon if further repository specific guidelines are needed.

This proposed national standard would preserve the documentary footprint created by archaeologists that the legislation so poorly protects. This standard should be created by archivists working in archaeological repositories in partnership with the Canadian

Archaeological Association (CAA). It should be modelled on those from English Heritage (EH), “*A Model for the Description of Archaeological Archives,*” and the Museum of London (MOL), “*General Standards for the Preparation of Archaeological Archives Deposited with the Museum of London*”. The Canadian standard ought to consist of three sections. The first and second sections should be modelled on the MOL standard. The first section would provide an overview of the project phases and possible documents created in each phase. The second section would give specific details regarding each document type and how it should be prepared for transfer. The third section should be modelled on the EH standard, prescribing archival description practices. Like these two standards, the national standard for Canadian archaeological record-keeping and transfer should identify the same phases of activity as shown in the research findings.

A national standard should follow the same Jenkinsonian¹⁰⁷ approach as the MOL standard and not specify what to create, but rather what should be preserved in an archival repository if created. It would ensure that archaeologists are not creating documents because they are instructed to do so, but because they have the need and the obligation to do so: only this way will archaeological documentation be organic in its nature and a true representation of the activities that produced it. From the research findings, this thesis concluded that both archaeologists and repository staff have a clear understanding that the documents generated in the course of archaeological activities represent their actions and are evidence of their finds and observations. It was repeatedly stated by participants and written in the literature that archaeological activity is physically irreproducible and can only be replicated intellectually

¹⁰⁷ Sir Hilary Jenkinson, *A Manual of Archive Administration* (London: Clarendon Press, 1922), 12-13. Jenkinson states that documents must not be drawn up for the purpose of ‘research ends’. Despite the fact that the records may be used for many other research purposes after being transferred to the archival repository they must not be created and preserved based on their perceived future value. This ‘essential quality’ of impartiality implies that archaeological repositories are not in the position to dictate which documents should be created by the archaeologist during his or her activities.

through the documents that constitute the by-product and residue of such activity. The most common scenario found indicated that archaeologists hang onto their records and keep them in their offices or in the company office, at most transferring a copy of the final report and artefact catalogue to the relevant archaeological repository and government department. If the archaeologist has made important contributions or is renowned, his or her papers may be transferred to the university archival repository after his or her death. The national Canadian standard should indicate which documents must be transferred if they are generated naturally as a by-product of the archaeological activity. Table 4.1 indicates the phases of an archaeological project and the possible documents generated in each phase. The 'transfer note' indicates that the document is expected to be transferred only if generated by activities occurring during the project.

Table 4.1. Recommendations for the Transfer of Document Types to Repositories.

Phase 1: Planning	
Document Types	Transfer Note
Project design	Must be transferred
Permission letters received	Must be transferred
Provincial Permit	Must be transferred
Other correspondence related to the project	Must be transferred
Phase 2: Data Collection	
Document Types	Transfer Note
Field notebooks and diaries	Must be transferred
Maps and drawings	Must be transferred
Photographs (negatives, slides, prints, digital)	Transfer the negative or the print which ever is considered to be the original form. Digital files can be transferred without a log only if metadata is embedded in each digital file.
Photograph logs	Must be transferred
Artefact catalogue	Must be transferred
Spreadsheets and databases	Must be transferred
Forms	Must be transferred
Phase 3: Analysis	
Document Types	Transfer Note
Spreadsheet(s)	Must be transferred only if database does not exist.
Database(s)	Must be transferred
Notes	Must be transferred
Maps	Must be transferred

Table 4.2. Recommendations for the Transfer of Document Types to Repositories.

Phase 4: Interpretation	
Document Types	Transfer Note
Draft(s) of the final report	Transfer only if final report is not submitted to government department
Correspondence	Must be transferred
Phase 5: Publication	
Document Types	Transfer Note
Correspondence	Must be transferred

A project should not be considered completed until the archaeologist or the consulting firm responsible for it has submitted the final report to the government and published all relevant aspects of the project as he or she intended. This could take several years, and therefore a timeline for the transfer of a project's records should be discussed with the repository at the beginning of the project and again at the end of the data collection phase.

Archival description practices in archaeological repositories should be compliant with the Canadian Rules for Archival Description. As mentioned above, an archaeological project consists of many phases. When the records are transferred to the archives the name of the project becomes the name of the fonds. In the rare case where no name has been given to the project the permit number can be used (ex. Permit 2011-05 project fonds).

Scheduling Recommendations

Each individual repository should work with archaeologists to determine the scheduling for each project. All records transferred to the archaeological repository from an archaeological

project should be retained in perpetuity;¹⁰⁸ however, the time-line for transfer will be unique to each project. Thus, a blanket scheduling policy based on record type is not acceptable for archaeological records. The transfer of the project's archival fonds after the project is completed should be the responsibility of the principal investigator and is important to maintain the chain of custody of the records as well as the link between the archaeological collection and the documents resulting from the activity that has brought it to light. Documents that cannot show a proven chain of custody cannot be presumed authentic both in the legal and the archival sense. Thus, keeping records of a finished project in the office until the archaeologist retires or dies is detrimental because the records may never be transferred to the archaeological repository as the project's fonds.

Archival Repository Recommendations

University archives are the most likely place for records of archaeologists to be transferred when not transferred to an archaeological repository at the end of each project. Archivists receiving a transfer of this kind should look for series relating to archaeological projects. It is important to identify these series so that the records can once again be linked intellectually to the artefact collection to which they relate. Series such as these might be recognized by a permit number, archaeological site name and/or Borden site number. Borden site numbers are standard and used across Canada for work done on non-federal lands. Consultation with archaeologists could help identify these series. Appraisal often seems to directly contradict the guiding principle of *respect des fonds*; however, it is often a practical need as many archival transfers can be quite voluminous. When appraisal of an archaeologist's fonds occurs, archivists must remember that, if an archaeologist did not transfer a project's documents to the archaeological repository where the artefacts are, this could indicate that s/he considered

¹⁰⁸ Retained in perpetuity as long as the repository cares for the artefacts to which the archives relate. If the collection is moved or repatriated the archives may also require to be moved.

the project incomplete; therefore, documents belonging to the project may still be interfiled within other parts of the fonds. The documents belonging to a project in this scenario are even more valuable than complete series of projects documents, because an uncompleted project may also mean that any sort of final report would not have been submitted to the government department. In all cases, if the archivist cannot accept all the records of an archaeologist, it is recommended removing the archaeological projects' series only if the archaeological repository holding the related artefact collection is able to accept them. If the archivist wishes to acquire the entire fonds of an archaeologist, the archaeological repository responsible for the related artefact collection should be contacted with a complete list of the series and files related to such collection so that it will be able to point researchers to the correct archival repository.

Bridging the Gap

The inconsistency that exists between the perception archaeologists have of the high value of their documents and the absence of complete project documentation in archaeological repositories may be occurring for several reasons. One reason might be that legislation is not prescriptive with regard to the transfer of documents. A second reason might be a lack of trust on the part of archaeologists in the capacity of a repository to maintain and take proper care of the documents in perpetuity. Thirdly, archaeologists may feel that the documents will no longer be accessible to them once transferred to a repository. Lastly, archaeologists may have a sense of ownership and personal attachment to the documents, especially the field notebook, and may be unwilling to separate themselves from the written evidence of their work. These four observations are validated by this thesis research findings, as archaeological repositories showed that they are not equipped to properly deal with the preservation of records nor are they able to provide secure access to them. Archivist should seize this opportunity to fill an important role

by helping archaeological repositories become trusted custodians of the records related to their artefact collections.

In conclusion, this study revealed that archaeologists create a variety of key documents, each linked to a phase of the archaeological process and evidence of it, and perceive these documents to have permanent value. They deposit artefacts at a prescribed repository as they are required to do by legislation. The related documents are not usually transferred to a repository but are instead carefully cared for by the archaeologist who created them. At the end of the archaeologist's career the documents are left to share the destiny of the archaeologist's fonds. This thesis intended to make archivists aware of the importance of the records produced by archaeologists in carrying out their projects, and to lay the groundwork for a concerted effort to develop and implement a national Canadian standard that builds trust and cooperation between archaeologists and archivists and archaeological and archival repositories.

Bibliography

- Aitchison, Kenneth. "Standards and Guidance in Archaeological Archiving: The Work of the Archaeological Archives Forum and the Institute For Archaeologists." *The Grey Journal* 5, no.2 (2009): 67-71.
- Bahn, Paul, ed. *The Penguin Archaeology Guide*. London: The Penguin Group, 2001.
- Bahn, Paul, and Colin Renfrew. *Archaeology: Theories, Methods, and Practice*, 3rd ed. New York: Thames and Hudson, 2000.
- Barker, Philip. *Techniques of Archaeological Excavation*. 3rd ed. London: B.T. Batsford Ltd., 1993.
- Bogdan, Robert, and Steven J. Taylor, *Introduction to Qualitative Research Methods* 3rd ed. New York: John Wiley & Sons, Inc., 1998.
- Brown, Duncan. *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation*. London: Institute of Field Archaeologists: 2007.
- Brown, Adrian, and Kathy Perrin, *A Model for the Description of Archaeological Archives*. Portsmouth: Centre for Archaeology, 2000.
- Bryman, Alan. *Social Research Methods* 3rd ed. Oxford: Oxford University Press, 2008.
- Cook, Michael. "The British Move Towards Standards of Archival Description: The MAD Standard." *American Archivist* 53 (Winter 1990): 130-138.
- Denhez, Marc "Unearthing the Law: archaeological legislation on lands in Canada", Parks Canada, <http://www.pc.gc.ca/eng/docs/r/pfa-fap/sec1/intro3.aspx>.
- Dibble, Harold L., and Shannon P. McPherron. "On the Computerization of Archaeological Projects." *Journal of Field Archaeology* 15, no. 4 (Winter 1988): 431-440.
- Duchemin, Michel. "Theoretical Principles and Practical Problems of Respect des fonds in Archival Science." *Archivaria* 16 (Summer 1983): 64-82.
- Duranti, Luciana. "Reliability and Authenticity: The Concepts and Their Implications." *Archivaria* 39 (Spring 1995): 5-10.
- Duranti, Luciana. "The Archival Bond." *Archives and Museum Informatics* vol. 11 (September 1997): 213-218.
- Duranti, Luciana. *Diplomatics: new uses for an old science*. London: Scarecrow Press Inc, 1998.
- Eastwood, Terry. "Putting the Parts of the Whole Together: Systematic Arrangement of Archives." *Archivaria* 50 (2000): 93-116.

Fagan, Brian M. *Archaeology: A Brief Introduction* 8th ed. New Jersey: Prentice Hall, 2003.

Grant, Jim, Sam Gorin, and Neil Fleming. *The Archaeology Coursebook: An Introduction to Themes, Sites, Methods, and Skills*. 3rd ed. Oxford: Routledge, 2008.

Kentworthy, Mary Ann, et. al. *Preserving Field Records: Archival Techniques for Archaeologists and Anthropologists*. Pennsylvania: The University Museum, 1985.

Kevin Greene. *Archaeology: An Introduction*. 4th ed. Philadelphia: University of Pennsylvania Press, 2002.

Goyder, John. *The Silent Minority*. Oxford: Polity Press, 1987.

Hodder, Ian. *The Archaeological Process*. Oxford: Blackwell Publishers Inc., 1999.

Peter Horseman, "The Last Dance of the Phoenix or the De-Discovery of the Archival Fonds." *Archivaria* 54 (Fall 2002): 2-23.

Jenkinson, Hilary. *A Manual of Archive Administration: Including the Problems of War Archives and Archive Making*. Oxford: Clarendon Press, 1922.

Livelton, Trevor. *Archival Theory, Records, and the Public*, London: Scarecrow Press Inc, 1996.

Lovata, Troy. *Inauthentic Archaeologies: Public Uses and Abuses of the Past*. California: Left Coast Press, INC. ,1972.

Millar, Laura. "The Spirit of Total Archives: Seeking a Sustainable Archival System." *Archivaria* 47, (Spring 1999): 46-65.

Laura Millar, "The Death of the Fonds and the Resurrection of Provenance: Archival Context in Space and Time." *Archivaria* 53 (Spring 2002): 2-15.

Ministry of Forests, Lands, and Natural Resource Operations. "British Columbia Archaeological Resource Management Handbook"

http://www.tti.gov.bc.ca/archaeology/docs/resource_management_handbook/index.htm

Ministry of Tourism and Culture. "Standards and Guidelines for Consultant Archaeologists." http://www.mtc.gov.on.ca/en/publications/SG_2010.pdf

Muller, S. Feith, J. A. and R. Fruin *Manual for the Arrangement and Description of Archives*. New York: The H. W. Wilson Company, 1968.

Museum of London, *General Standards for the Preparation of Archaeological Archives Deposited with the Museum of London*. London: Museum of London: 1998.

Parezo, Nancy. "Preserving Anthropology's Heritage: CoPAR, Anthropological Records, and the Archival Community." *The American Archivist* 62. (Fall 1999): 271-306.

Parks Canada, *Archaeological Recording Manual: Excavations and Surveys*. Parks Canada, 2005.

Peregrine, Peter N. *Archaeological Research: A Brief Introduction*. New Jersey: Prentice Hall, 2001.

Perrin, Kathy. *Archaeological Archives: Documentation, Access and Deposition A Way Forward*. London: English Heritage, 2002.

Plog, Fred, Weide, Margaret, and Marilyn Stewart. "Research Design in the SUNY-Binghamton Contract Program." In *Conservation Archaeology: A Guide for Cultural Resource Management Studies*, edited by Michael B. Schiffer and George J. Gumerman, 107-133. New York: Academic Press, 1977.

Pokotylo, David, and Andrew Mason. "Archaeological Heritage Resource Protection in Canada: A Legislative Bias." in *Cultural Heritage Management A Global Perspective*, edited by P. Messenger and G. Smith, 48-69. Gainesville: University of Florida Press, 2010.

Schellenberg, T.R. *Modern Archives: Principles and Techniques*. Chicago: University of Chicago Press, 1956.

Sprague, Roderick. "The Preservation of Written and Printed Archaeological Records." *Northwest Anthropological Research Notes* 16, no. 2 [Fall 1982]: 206-211.

Stapleton, Richard "Jenkinson and Schellenberg: A Comparison" *Archivaria* 17, (1983): 75-85.

Winter, Barbara J. "Out of Sight, Out of Mind: The Reposition of Archaeological Collections in Canada." PhD diss., Simon Fraser University, 1996.

Appendix 1: Interview Questions

Questions asked to consulting and academic archaeologists:

1. How long have you worked as an archaeologist?
2. What is your background and training?
3. Where have you worked as an archaeologist?
5. What responsibilities does your job entail?
6. How are your activities divided throughout the year?
7. How, if at all does legislation affect the work that you do?
8. Can you describe the process of performing fieldwork?
9. How long does fieldwork last?
10. What documents (including non-textual, paper based, and digital) are generated when you perform fieldwork?
11. Of these documents which ones are of most value to the work that you do?
12. Of these documents which ones have legal implications?
13. Of these documents which ones are kept post fieldwork? Where are they kept?
14. Do you ever perform fieldwork on a site that has been previously examined?
15. If so, do you use the documents created by the previous archaeologists? What types? Where are they located?
16. Which activities do you perform post-fieldwork?
17. How often do you refer back to the documents you generated during your fieldwork? For what purposes?
18. How often do other people (archaeologists, or the public) refer to these documents?
19. Do you use digital technology during fieldwork? If yes, how is it used? If no, why?
20. Where is the digital data stored?
22. In the context of archaeology what is a 'record'? What is the 'archaeological record'?
23. In your opinion do you feel that the current practice in archaeology regarding how documentation is dealt with is satisfactory? If no, what could be done?
24. Do you have any questions or comments about this interview or the topic itself?

Questions asked to repository staff:

1. What is your official title?
2. What is your background and training?
3. What responsibilities does your job entail?
4. How are your activities divided throughout the year?
5. What types of materials do you generate in your position? (ex. correspondence, grant applications, permits, etc.)
6. Is the **[Insert name of institution]** a repository for archaeological material? And if so, for what types of materials?

If the **[Insert name of institution]** is not a repository please answer 'no' and skip to question 14.

7. How is the collection housed, and organized?
8. Do you accept all documentation submitted with archaeological materials to your institution?
9. Where is the documentation associated to the archaeological materials housed?

10. Do you require any types of documents be submitted with the archaeological materials to your institution? if so, please list.
11. How long must the documentation be kept? For what reasons?
12. How is the documentation accessed? By who? For what purposes?
13. How, if at all, is the **[Insert name of institution]** associated to the **[Insert name of government department responsible for archaeology]**?
14. Do you have any questions or comments about this survey of the topic itself?

Appendix 2: Responses to Survey from Archaeologists

Participant Code	Response
<i>Question: How long have you worked as an archaeologist?</i>	
SA1	I have been at the museum since January 28, 1985.
SA2	36 years
SA3	17 years
SA4	23 years
SA5	23 years
SA6	I worked as an archaeologist briefly in 1977 and only started arch. field school in 2008 in collaboration with Parks Canada. I teach archaeology, forensic and physical anthropology. This is our third Field School in 2010. I have had a life long interest and passion for archaeology.
SA7	8 years
SA8	I have done archaeological fieldwork since 1977, but have been academically employed in a tenure-track or tenured position since 1988
SA9	ca 37 years
SA10	26 years
SA11	Almost 20 years
SA12	38 years.
SC1	10 years
SC2	This is my 24th year
SC3	15 years
SC4	23 years
SC5	34 years
SC6	40 years

Participant Code	Response
<i>Question: What activities do you perform during fieldwork?</i>	
SA1	Everything from chief cook and bottle washer to excavator to excavation director to logistics organizer to photographer to surveyor
SA2	Project director for last 30 years
SA3	Excavation, analysis
SA4	supervising, digging, screening, cleaning and conservation of artefacts, analysis
SA5	Survey and excavation:
SA6	I am the manager and also grade the students as this is a graded course. I also excavate etc. on a daily bases during the field school, as well as provide some expertise on bones found.
SA7	Director
SA8	I direct excavations and surveys, but also usually excavate a square or take part in fieldwalking. My excavations include mapping, laying out a grid, excavating, screening, recording stratigraphy and context of finds, sometimes flotation of sediment samples, collection of sediment samples for export to Canada, collection of samples for radiocarbon dating, washing and labelling artifacts, preliminary analysis of artifacts, writing a preliminary report, photography, drawing selected artifacts
SA9	now mostly crew supervision, but routinely do mapping, site testing, photo and planview documentation, etc.
SA10	Direct excavation and survey crews. Take photographs.
SA11	Plenty of material cultural analysis, archival research (usually also in advance of field work), data entry, some photography, and report writing.
SA12	I sometimes dig; otherwise I supervise the area supervisors, manage the databases, do photography, and advise the camp manager.
SC1	<ul style="list-style-type: none"> • Preliminary Field Reconnaissance (PFR): non-permitted field survey consisting of: pedestrian and/or helicopter survey; recording surface or visible features, such as CMTs, trails, cache pits, historic structures, etc.; recording areas with subsurface potential that would require additional work under a heritage inspection permit. • Archaeological Impact Assessments (AIA): permitted field survey

Participant Code	Response
	<p>consisting of: pedestrian survey; shovel testing (~35x35 cm test pitting) at 1-5 m spacing at areas with archaeological potential; shovel testing to determine site boundaries, density and variability; non-mitigative evaluative testing when shovel testing isn't sufficient to determine density or variability; recording all surface and subsurface sites; coring CMTs for dating purposes.</p> <ul style="list-style-type: none"> Excavation: happens very rarely as we don't often find significant sites and/or clients tend to move their development boundaries to avoid any archaeological sites we record during PFR or AIA <p>Archaeological Monitoring: supervision of sites being disturbed by construction under a Site Alteration Permit and collection of additional artifacts that were missed during pre-construction assessments.</p>
SC2	<p>The fieldwork consists of Stages 1 to 4: Stage 1 -- background research, for potential and to determine if Stage 2 is required Stage 2 -- fieldwork of shovel testing and/or visual assessment (walking fields) Stage 3 -- determining the cultural affiliation, extent and significance of sites found during stage 2 Stage 4 -- mitigation by excavation of site, or avoidance.</p>
SC3	Reporting, analysis, artifact cleaning/cataloguing, air photo/geophysical interpretation
SC4	Stage 1 to 4 assessments
SC5	Stage 1, 2, 3, and 4 both on land and underwater archival, field assessment, testing site, full excavation/mitigation
SC6	Senior Archaeologist
<i>Question: What activities do you perform post fieldwork?</i>	
SA1	Everything from cataloguer, artefact washer, photo cataloguer, report writer...
SA2	Analysis and writing - Director of lab procedures
SA3	Analysis, writing

Participant Code	Response
SA4	supervision of diggers, screening, lab analysis
SA5	Analysis and interpretation
SA6	I don't do too much as the Parks Canada archaeologist has control of the artifacts. I do help with report preparations.
SA7	Cleaning, Cataloguing
SA8	stratigraphic analysis, lithic and pottery analysis, analysis of animal bones, petrographic examination of pottery and sediment thin sections, radiocarbon dating, spatial analysis of finds, photography, digital illustration (maps, stratigraphic sections, artifact drawings), report writing, publication of articles, refitting of selected pottery and lithic cores, classification of pottery and lithics, quality control analysis, analysis of sediment samples, kiln-firing of last items after analysis (to comply with CFIA regulations)
SA9	supervision of lab processing, analysis and report production
SA10	Direct lab staff. Analyze the recovered archaeological information and write reports on it.
SA11	Plenty of material cultural analysis, archival research (usually also in advance of field work), data entry, some photography, and report writing.
SA12	I process finds and write reports
SC1	Data entry, mapping, site forms, artifact cataloguing, core counting, interim reporting, final reporting, report distribution, First Nations communication, client communication, Arch Branch communication
SC2	What we do post-fieldwork includes the production of graphics, analysis of artifacts, sending out floral and faunal material for analysis (these generate separate reports that are incorporated into the final report), and the production of a final report.
SC3	Reporting, analysis, artifact cleaning/cataloguing, air photo/geophysical interpretation
SC4	Artifact analysis, settlement pattern analysis and report preparation
SC5	lab, additional archival research, report, storage of materials, reports,

Participant Code	Response
	photos, etc.
SC6	Report writing
<i>Question: What documents do you create during fieldwork?</i>	
SA1	All except the field notes of individual excavators: my own field notes, excavation overview notes, financial records, etc.
SA2	Field Notes; Field Catalogue Forms; Photo Records; Level Summaries; Unit Summaries; C14 Sample Records; Soil Profiles;
SA3	Excel spreadsheet, figures
SA4	notebooks, sketches, databases
SA5	Records include maps and drawings, standardized forms recording excavation or survey unit characteristics, lists of scientific samples (14C, isotope, soil chemistry, etc.), photographs, and management information like who is working site each day, visitors, etc.
SA6	Detailed field notes plus student evaluations for grades.
SA7	Plan
SA8	stratigraphic analysis, lithic and pottery analysis, analysis of animal bones, petrographic examination of pottery and sediment thin sections, radiocarbon dating, spatial analysis of finds, photography, digital illustration (maps, stratigraphic sections, artifact drawings), report writing, publication of articles, refitting of selected pottery and lithic cores, classification of pottery and lithics, quality control analysis, analysis of sediment samples, kiln-firing of last items after analysis (to comply with CFIA regulations)
SA9	hand written field notes, planviews, profiles, photographs, maps
SA10	A journal with daily entries regarding activities and finds. Each crew member completes a level record form as well as unit planviews and wall profiles.
SA11	A digital photo record, written field notes and drawings. Some digital survey data as well.
SA12	The team uses the following forms: bucket list ceramic, bucket list non-ceramic, object registration, daily square report, weekly square summary, locus report sheet.
SC1	<ul style="list-style-type: none"> • Shovel test location form: describes where shovel testing took place, assessed archaeological potential, photo numbers and description, GPS point, landform description, landform size, number of tests, test spacing and orientation, soil stratigraphy, results, sketch map, etc • Survey area form: describes landforms observed, hydrology observed, vegetation observed, assessed archaeological potential, how many shovel test locations, how many sites,

Participant Code	Response
	<p>other observations</p> <ul style="list-style-type: none"> • CMT Recording Form: CMT site number, individual CMT number, GPS point, photo, quantitative measurements (height, diameter, etc), qualitative measurements (scar shape, dead/alive, etc) • General notes describing where we walked, sites recorded, observations, sketch maps, etc • Field maps showing where we walked, where tests were conducted, where sites were found, etc
SC2	<p>– during actual fieldwork we create fieldnotes held in lab books, clearprint graphics of profiles, plan views, and square summary forms.</p> <p>– we create a final report that will have a number of hard copies depending on the clients' needs, and now usually a computer format file (pdf). The Ministry of Tourism and Culture requires three copies.</p>
SC3	Field notes, maps, profiles, photo logs etc.
SC4	Field notes, feature documentation forms, artifact collection records, field maps
SC5	daily field records, field notes, maps, profiles, planviews, site maps, photographs, photo logs, etc.
SC6	Field Notes, digital photos, digital audio
<i>Question: How long does fieldwork last?</i>	
SA1	Anywhere from a few days to several weeks.
SA2	12-16 weeks
SA3	2 months
SA4	6-8 weeks
SA5	23 yrs
SA6	One month, this year from May 31st to June 25th.
SA7	2 days – 2 months
SA8	My main project has gone on for more than 20 years, but excavation at any one site usually lasts from 1 to 4 field seasons
SA9	off and on from May to Oct
SA10	One or two months
SA11	Every year it varies. Some projects may take only a few days while other last for 3-6 weeks.

Participant Code	Response
SA12	Usually six weeks.
SC1	<ul style="list-style-type: none"> • Field work in northern BC outside of oil and gas developments must be completed under snow and frost free conditions, which is about June to mid-November. • Individual projects can last one day to several months, depending on the size and relative archaeological potential of the project.
SC2	As long as it takes. This question is too general. Sometimes fieldwork is as short as a couple of hours (monitoring), to months for a large Stage 4 excavation.
SC3	I assume that you are referring to the field season which is generally from April/May until December.
SC4	1 day to 4 months
SC5	depends on each site, can be 1 day to entire season and more
SC6	8 months
<i>Question: Do you ever return to a site you have previously dug? If Yes, Why?</i>	
SA1	The nature of much of my work involves a significant component of site survey and testing followed by selected excavation. As such, I may return more than once to a few of the sites I find.
SA2	Usually - to increase the site sample; to address questions arising from preliminary an analysis of previous work
SA3	To continue the work!
SA4	ongoing research
SA5	Yes, often (as one season isn't enough). Return after a period of absence? Yes, sometimes (to pursue renewed interest).
SA6	YES. In 2008 we were at the Acadian site at Greenwich National park. In 2009 and this year we were at Port-La-Joye, PEI. We returned to PLJ because it is a fairly rich site that was last excavated in 1988. We were reopening that earlier excavation to expand the exposure of the buildings found. In 2009 we also opened a new excavation for the French fort and did find some walls end military artifacts so we are returning there again this year.
SA7	Yes, occasionally, to illustrate issues to students
SA8	Yes, because our crews are small and we cannot excavate very much in a single field season, even though most of the sites we excavate aren't that large
SA9	yes, sometimes... usually to do follow up work, but sometime I get a chance to revisit to monitor site condition

Participant Code	Response
SA10	Yes. In order to obtain more information.
SA11	Yes. The pace of our work is so slow, and the resources so limited, that it is not at all uncommon to work on a particular site for multiple years. The site with which I have the longest engagement, for instance, has seen us every summer for ten years (and we're still at it).
SA12	To continue work, or to check on some missing data.
SC1	<ul style="list-style-type: none"> • We can return to a site we've already shovel tested if the client is unable to avoid the site and additional work is required before the site is destroyed. • Typically in the consulting world, if the site has been excavated, it would only be because it is going to be destroyed by construction. The client would only pay for excavation if there was no way to avoid it, as excavation is very costly. • An excavated site may be monitored during construction to collect any artifacts that were missed during excavation.
SC2	Yes. A large site such as a big house that has its whole property designated as either a site or historic landscape would require an archaeologist to conduct work when any work that disturbs the ground will occur. I've also returned to a site when construction schedules are structured such as part of a site will be impacted one season, and another part the next year.
SC3	I do return to previous sites to check on looting, landscape stabilization
SC4	Yes. Moving from one Stage of fieldwork to another
SC5	yes, continued work, adding another stage
SC6	Yes because another development project may be impacting site, or to update site info regarding site status, erosion, impacts.
<i>Question: Do you ever return to site survey or excavation worked on by another archaeologist?</i>	
SA1	In the NWT and in northern Ontario I was working in areas where there were no previously known sites. However, in a few instances in the Ottawa Valley I have attempted to relocate and study sites found by others decades ago.
SA2	No
SA3	Yes
SA4	yes, frequently
SA5	Yes
SA6	YES both Greenwich and PLJ were started by others although [name omitted] (Parks Canada) was involved with both.

Participant Code	Response
SA7	Yes, occasionally, to illustrate issues to students
SA8	So far I have not done that
SA9	yes
SA10	Yes. In order to obtain more information.
SA11	Less commonly, though antiquarians and treasure hunters have been active on many of the sites we study.
SA12	Occasionally.
SC1	We often try to re-locate sites that were recorded in the past, not necessarily excavated. This is especially difficult if the site is described as a few flakes observed in a tree throw in 1972 and the location was determined using 1:50,000 NTS map.
SC2	Yes. This happens fairly often. An archaeologist will, for example, conduct Stage 2 on a property and then Stage 3 on a site they found, and the client would then ask for quotations from other archaeologists. Another archaeologist could be awarded the Stage 4 excavation. As well, recently, due to a overcharging by a consultant (not sure what the profession of the person), the Ontario government tightening its regulations about sole sourcing. For one Ontario government agency, archaeology consultants could be awarded a contract for say Stage 1 and 2, and if a site were to be discovered, put in a budget for Stage 3 and continue the work. After the tightening up of sole sourcing, this practice was stopped, and all extra work had to go through another set of bidding.
SC3	Yes, often for same reasons above.
SC4	Yes
SC5	yes
SC6	Frequently
<i>Question: If Yes, do you use documents created by the previous archaeologist? why or why not?</i>	
SA1	Of course, if there is any earlier documentation relating to a site or even to sites located nearby I would naturally consult this information. The challenge in today's consulting environment is that it becomes very difficult to simply know about the fact that projects may have taken place in an area of interest.
SA2	N/A – answered ‘no’ to previous question

Participant Code	Response
SA3	Yes, I build on their work
SA4	yes. It would be nearly immoral to destroy by excavating a site without having thoroughly studied previous work on the site
SA5	Yes, of course.
SA6	YES very much so. Both the sites were left for many years and so we used the early reports as guidelines to follow.
SA7	NO
SA8	N/A – answered ‘no’ to previous question
SA9	yes, sometimes. to FIND the site in question and to try to envision for myself what was seen before.
SA10	Yes
SA11	To the extent that we can find them, yes, but generally these records are few and of limited quality.
SA12	Occasionally original documents are available; more often i use published reports.
SC1	<ul style="list-style-type: none"> • We use the site form from RAAD which would have been created by the previous archaeologist. If it was recorded quite some time ago, the original site form has been re-entered several times as the site form changed format over time and it seems that some of the original information can get lost in translation. • Sometimes we can get the original reports, especially now that PARL (Provincial Archaeological Reports Library) is online. But again, if the reports are older (say before 1980), the information is often sparse, vague or very general, which doesn’t help us relocate a site that can be 1 m x 1 m in size.
SC2	<p>yes, we do use documents created by the previous archaeologist. We use the document to re-locate the site, or determine the extent of previous stage 2 assessment. Sometimes we are unaware of previous documents, such as an instance where a site that had been tested, was tested by my company again. This was due to the way the Ministry of Tourism and Culture (MTC) has their information organized, and the fact that the plan of subdivision boundaries were changed and so too did the development company. The ministry does not have previous archaeological assessment properties filed as data on a GIS layer so you cannot determine if a plot of land has been surveyed or not. You can only retrieve the data if a site has been registered (thereby knowing that some part of the property has been surveyed), or if you know the title of the project or previous archaeologist.</p> <p>In the example cited above, there was a prior plan of subdivision where part of it was sold off to a separate developer. FAC come on the scene to</p>

Participant Code	Response
	survey the other plan of subdivision which included part of the previous development. We surveyed, found a historic site and tested it. It had not been registered by the previous archaeologist since they wrote it off at the Stage 2 level. Our work did not give a conclusive date or level of significance to the site, so we went to the testing level, and then we too determined that it was not significant, but we registered it. It was only after the Stage 3 work that the new developer found the previous archaeological assessment, and handed it to me. I had run a search with MTC for registered sites, but not for other documents, since the area was not a brown field area (farm fields only), and unless I knew information from the archaeological grapevine (talking to colleagues) or knew of the existence of the survey, it would have been a moot point to ask the Ministry.
SC3	I will often review those documents for location id, scope of work, double-check accuracy of report.
SC4	Yes, if they are available
SC5	only the report - most times the other archaeologists does not permit use of their other documents
SC6	Yes, the documents (Archaeological Impact Assessment and Mitigation) are crucial to understanding what or what was not done, the site inventory forms are not.
<i>Question: Where are these documents [of other archaeologists] located?</i>	
SA1	Of course it depends on the area where I am working. Older records from the Ottawa Valley may be found in the Archives of the CMC. Other areas have their own preferred repositories but early work must be tracked down and often might only be in the files of individuals.
SA2	n/a
SA3	Variable
SA4	archives and libraries
SA5	In Ontario they are in the public domain as Stage 1 to 4 license reports.
SA6	Parks Canada, Atlantic Division, Halifax
SA7	n/a
SA8	n/a
SA9	either documents that have been published, or materials that are archives in the collections depository

Participant Code	Response
SA10	Royal Saskatchewan Museum or in our Department at the University of Saskatchewan
SA11	Archives, usually.
SA12	anywhere.
SC1	<ul style="list-style-type: none"> • Site forms are available through RAAD online • AIA reports are available through PARL online as long as the report author has signed an agreement allowing the government to distribute them • All other reports are stored at the Archaeology Branch in Victoria and can be accessed by going to Victoria and searching through them • Sometimes information can be found in masters theses or academic articles
SC2	the documents of previous archaeologists are housed at MTC, and with the individual archaeologist or company.
SC3	At the provincial regulators office.
SC4	Usually provided by the proponent, but sometimes the previous consultant will provide if asked
SC5	usually at the other archaeologists offices
SC6	[left blank]
<i>Question: Where are the documents you create during fieldwork housed, both during and post fieldwork?</i>	
SA1	Everything I have created while here at the CMC is deposited in the Archives of the CMC.
SA2	in plastic data files in the field; in the BU filing cabinets in the BU Archaeology labs
SA3	In my office
SA4	during fieldwork in the laboratory or excavation house. Post fieldwork in libraries or archives associated with the project. For my Ontario work I retain possession of my field documents.
SA5	In my lab and at the Ministry of Culture. In other cases on the Archaeology Data Service (AHDS), UK website.

Participant Code	Response
SA6	Same as above [Parks Canada, Atlantic Division, Halifax], although I have copies for UPEI.
SA7	Main Office
SA8	My main documentation (on paper) is kept in binders shelved in my lab, usually with either paper backups photocopied in Jordan or scanned ones kept digitally. We also have a project database and other digital documents stored on several computers in my lab and backed up on CD-ROM or DVD
SA9	during field work, documents are either filed in field lab upon completion, or carried on my person after field work, documents are usually archived in my lab
SA10	During fieldwork they are housed in our field headquarters house. While working on the excavation results in the lab and office they remain in those locations. Post fieldwork they are stored/archived at the Royal Saskatchewan Museum.
SA11	They are housed here at the university, and then they go to the permitting authority, which depending on jurisdiction may be Parks Canada or the Heritage Division of the provincial Department of Tourism, Culture and Heritage.
SA12	At the excavation camp during excavation; in my office after excavation.
SC1	<ul style="list-style-type: none"> • Active field notes are stored [in office] in a filing cabinet. • Completed projects are stored [in office] in cardboard boxes • Digital documents are stored on a central server and regularly backed up • Required reporting and site forms are submitted digitally to the Archaeology Branch. Paper copies of final reports are also submitted to the Archaeology Branch
SC2	<p>The documents created from an excavation are housed in the company's facilities until the final report is created, and then three copies are sent to MTC (two for their archives in Toronto, and one for the heritage reviewer at whichever office they are located).</p> <p>All photographs 35mm hard copy and digital are stored [in office] facilities. The digital ones are stored on one central computer, and there is a back-up on an external hard drive.</p> <p>For me, the archaeological record consists of field notes, drawings, artifacts, photographs (digital or electronic), and anything associated with the archaeological work.</p> <p>Hard copies of the final report are also sent to the client, and the number of</p>

Participant Code	Response
	copies is dependant upon the requirements of the client. Some clients ask for an electronic copy of the report, so they may store it electronically, cutting down on the paper versions, or ease for copying. Some clients are required to post all documentation produced for a project on-line. These projects are the green energy (wind/solar). The electronic version of the final report is stored in two locations – the original computer where it was created and a back-up hard drive.
SC3	During excavation, they will generally be with me at hotel/home, after both at home and at the regulators.
SC4	They are either stored at our office if completed, or I keep them with me if in progress.
SC5	during - on computer, in travelling field office, and post at my office.
SC6	[left blank]
<i>Question: Of the documents you create during fieldwork, which do you deem most valuable? why?</i>	
SA1	The field notes and photos are extremely important as without them, the objects become much less informative. The reverse may not be as true since field notes and photos can contain enough information about the objects to be able to integrate them in very meaningful ways.
SA2	Field catalogues because they record provenience records for all recovered materials.
SA3	Spreadsheet. Most the data are stored in it.
SA4	notebooks. The most detailed and clearest record of the actual process of excavation. For analysis, data sheets with detailed observations.
SA5	Excavation records. Excavation is not reproducible, so the records of that process are not replaceable.
SA6	The field notes of course, but the faunal collection documents are equally important.
SA7	Plan
SA8	The daily "bag" forms (even the paper ones) because, even when you have the data from them entered in the database, it often pays to look at the original form to check for errors, and it's sometimes just as easy or fast to find the information you need in the binders as in the database. In any case, the original forms are somehow more "authoritative". However, I do use the database quite a bit too
SA9	they are all valuable for different purposes.
SA10	The observations on the nature of soil stratigraphy and the characteristics of features (hearths, pits, etc.). These are important for interpreting the sequence of past occupations and the activities that took place during the occupations. Photographs are also very important.

Participant Code	Response
SA11	Hard to say. I think field notes are particularly informative because they record our running interpretations and give a good record of what we were seeing at the time. The plan and profile drawings are also important, and I've found that digital photos often reveal additional details on the screen that are not as easily seen in the field. This has been helpful to us on more than one occasion.
SA12	Locus sheets. These allow me to recreate the process and results of daily excavation, even several years later.
SC1	<ul style="list-style-type: none"> All of them are valuable and required to explain where archaeological potential was observed and tested, but also to explain why an area was assigned low archaeological potential was observed. Negative data is just as important as positive data.
SC2	<p>This is a judgement call. What I may deem most valuable, may not be in the future. Photographs have been instrumental in relocating archaeological features on a site. For instance, a client was trying to find the dimensions and placement of a drive shed. An old photograph focussing on a couple standing in front of an associated building showed the drive shed. Standing on the spot where the photographer was situated, and holding up the photograph, we could re-locate the areas of interest for excavation, and the one by one metre unit was placed squarely on the support post location. Photographs would be very high on my list since this is a visual representation of the work and landscape at the time of the archaeological work. Mapping and drafting (plans and profiles) are also important as this is the interpretation of the archaeological work.</p> <p>The final report is a small component of the archaeological work, as the report does not contain the whole of the archaeological record.</p>
SC3	The most valuable would be field notes and final report for the raw data (field notes) and for the summary/interpretation (final report)
SC4	Documentation about features and stratigraphy that have been excavated, as these data cannot be reconstructed
SC5	field notes, maps, daily log - provides a chronological record of the site and how it was approached, what was found, how it was treated, what additional steps were recommended.
SC6	[left blank]
<i>Question: Do you use digital technology during an fieldwork? And If Yes, please list the types of digital technology used. And If no, Why do you not use digital technology?</i>	
SA1	Photography of course, but I'm an old horse and I like technology that is independent of batteries.
SA2	not outside the field lab except for digital photography : familiarity with previous systems use over the last 30 years
SA3	YES: Spreadsheets, pictures of artifacts
SA4	Yes : total station survey, GPS, computer databases, digital remote sensing (ground penetrating radar, magnetometer, etc.)

Participant Code	Response
SA5	Yes : Digital Photography, digital mapping, databases
SA6	Not currently, except for the digital camera. The EM 38 electromagnetic reading we have been using are not digital but we are having PLJ redone and they will be.
SA7	Not if I can help it : Theodolite/total station
SA8	<p>Not a lot, but some : We have experimented with entering data into a database in the field, but fieldworkers were resistant or found it too time-consuming. We do make some use of a total station with data logger for topographic work. And our photographic record is now completely digital.</p> <p>If No, why do you not use digital technology? To answer this, I will say that we still use paper forms in the field because they are</p> <ol style="list-style-type: none"> 1) more permanent, 2) less prone to error or failure, 3) easy to use in a fairly consistent way (because we use forms), and 4) it's reasonably easy to transform the data from paper to database back in the lab
SA9	<p>Yes : digital photography, digital data from GPS, Total Station.</p> <p>If No, why do you not use digital technology? there are legitimate concerns about data protection given harsh field conditions (hard drive failures, water, dust)</p>
SA10	Yes : Many digital photographs are taken and planview and profile photos are printed out and then taken back into the field for interpretation. Video imagery is occasionally recorded.
SA11	Yes : Cameras, survey equipment (GPS, total station), soil colour readers.
SA12	Yes : Digital photography, lap top computers with various programs: Adobe Illustrator, AutoCad, Word, Excel, Graphic Converter.
SC1	<ul style="list-style-type: none"> • Some : Hand held GPS and digital cameras <p>If No, why do you not use digital technology?</p> <ul style="list-style-type: none"> • Any other digital devices would likely get bunged up with dirt and branches or fail in the rain; a pencil rarely breaks down or needs batteries
SC2	Yes, we use digital technology. : We use digital photography. We use a graphics tablet sometimes for drafting, and we use computer programs for graphics and word processing, databases, and archiving.
SC3	During excavation, probably just digital photography and loosely for GPS location. Also, if suitable, I will refer to geophysical results that were

Participant Code	Response
	derived digitally but normally from printed data.
SC4	Yes : Camera, GPS, theodolite, Blackberry.
SC5	Yes : digital photography, GPS, tablet
SC6	Yes : Cameras, audio recorder.
<i>Question: In the context of archaeology how would you define a record?</i>	
SA1	In a nutshell, a record would be a tangible (lest pretend digital data are tangible or is copyable better?) bit of information relating to the content or context of an archaeological site. Should include notes, photos, drawings, reports, results of analyses, artifacts, soil samples, etc.
SA2	hat depends upon the nature of the record - as a generalization, any piece of information that is helpful to understanding the site and any activities that may have occurred there as well as information on the physical and biological context of the site.
SA3	Any set of data that has a chronological component attached to it.
SA4	anything that preserves information about site, context, artifact, feature or process of recovery
SA5	A record is any piece of information collected and stored, at any scale. (From the size of an artifact, to the map of a settlement).
SA6	information set down in writing (digital or hard copy) for permanence and reassessment, providing facts as known about the past history both of the site and the culture. This includes evidence of events and material artifacts. All evidence collected including field notes, drawings, photographs etc. are included.
SA7	Context of the Assemblage
SA8	I'm not sure what sense of "record" you mean. For the database, I'd define it the traditional way (e.g., one bag form on paper would translate into one record in the database). Because it's a relational database, records in different files would be quite different in nature, but each would essentially be an electronic form.
SA9	any representation (visual, audio, graphic, textual) of the archaeological context that records the site observations
SA10	planview drawings and photographs, profile drawings and photographs, level record forms, daily journal observations
SA11	<p>Broad question. In terms of material culture, arguably anything made or modified by humans at any time is part of the archaeological record, and here I would include everything from standing architecture to geochemistry.</p> <p>In terms of what we generate, perhaps all our writing and data, ranging in function from descriptive to interpretive, might be thought of as a 'record' of our work. I would certainly include digital products under this heading.</p>

Participant Code	Response
SA12	A record records information.
SC1	<ul style="list-style-type: none"> • A site form, a report or any other document submitted to the Archaeology Branch, which I see as the main repository for archaeological information in BC
SC2	See first paragraph of question 12 [The documents created from an excavation are housed in the company's facilities until the final report is created, and then three copies are sent to MTC (two for their archives in Toronto, and one for the heritage reviewer at whichever office they are located). All photographs 35mm hard copy and digital are stored at FAC's facilities. The digital ones are stored on one central computer, and there is a back-up on an external hard drive. For me, the archaeological record consists of field notes, drawings, artifacts, photographs (digital or electronic), and anything associated with the archaeological work.]
SC3	Anything that contains relevant data.
SC4	Any physical and digital data related to past cultures.
SC5	many different types of record record of finds, daily record of who was on site, site conditions, record of photographs taken, record of features/postmoulds, record of artifacts recovered, etc.
SC6	Any written (field notes, excavation notes, logs, etc) visual (maps, diagrams, photos, etc.) audio record, both hard and electronic.
Question: In your opinion do you feel that the current practice in archaeology regarding documentation and its care is satisfactory? If no, what could be done?	
SA1	In the specific context of the current practice of archaeology in the province of Ontario, I would argue that there is a grave crisis and that this actually began decades ago. Ontario has no provincially designated repositories for the artifact collections or the associated records. Licence holders are charged with the responsibility for this. As a result, it is a challenge to track the location of the collections when you manage to find out that one should exist. Most of the archaeology currently done in Ontario is consulting work and once the field reports are written the consultant moves on to another project and after the report is filled, rarely is the site returned to or the data used for any purpose. Access to the site files is restricted. No database of the locations of collections and their subsequent movements is maintained and as a result, I would venture to suggest that significant portions of Ontario's archaeological heritage is being lost UNDER licence. There is a project to create a repository in southern Ontario at the University of Western Ontario and McMaster. In principle it sounds like one way of addressing the problem, but I see significant challenges. Firstly, the Western/McMaster facility is not designed to serve the entire province. Archaeologists are not obligated to

Participant Code	Response
	deposit their collections there. In fact, a fee is charged to do so. Universities in Ontario anyway are notorious for reviewing their policies and ridding themselves of collections when the interests of their faculty change with personnel replacement and retirements. As such, universities cannot provide long-term solutions to these problems since they do not have legislated mandates to care for these collections. The solution is for the provincial government to become consequent to the Heritage legislation and especially the spirit of the Heritage Act and construct and maintain facilities to receive the archaeological collections from across the province. This would likely involve a number of regional centers including, when possible, facilities run by First Nations.
SA2	More detailed field notes, greater care in recovery and recording of data
SA3	No, mesh sizes are too big in Canada
SA4	more consistency across sites, and better access to field notes of other projects would be useful
SA5	In Ontario, generally yes (S&G published by the Ministry dictate best practice); in other jurisdictions it varies enormously.
SA6	YES
SA7	No, publishing/display process needs to be quickened
SA8	Probably not. By now there's probably a huge digital resource that could be lost as the technology keeps progressing without much backward compatibility, or even for lack of proper backup. Older stuff on tape or floppy disk is probably already hopelessly corrupted. I find too that some of my older files on my hard drives won't open anymore. Thank god for having paper versions of the important stuff.
SA9	no. I want to explore more methods of digital data capture. I am also concerned about preservation/archiving of records, particularly digital data
SA10	It is reasonable.
SA11	No. We could do more to standardize best practices and communicate raw data as well as finished interpretations. The digital age permits a much more open and collaborative approach to data sharing and analysis than we have hitherto pursued. A more open and systematic approach to archaeological data and interpretation would also go along way toward bridging the gap between academic research and CRM archaeology, which is a major problem at present.
SA12	The trend toward use of small computers in the trench to record data is the way to go. There is much talk of a central repository for archaeological data, but I see many problems with that concept.

Participant Code	Response
SC1	it is difficult to get access to non-permitted reports, such as PFRs, AOAs, inventories, etc. These sometimes have good background info and might prevent duplication of work. It would be great if the branch could include these reports on PARL.
SC2	No. There is movement, finally in Ontario to have the archaeological record archived in a central repository. So far, I have heard of two locations – one in Hamilton at the new Innovation centre, and one in London, Ontario. Cost has not been determined. The archaeological record for archaeologists is not regulated, and the state of each archaeologist's archaeological record is determined by that archaeologist. Accessibility to that record consists generally of the final report if that archaeologist has signed authority over the Ministry to forward the report. Those are for reports prior to 2005, and for ones after this date, once the report has been accepted into the Ministry's report registry, they are a matter of public record and are accessible. For the other part(s) of the archaeological record, if you want to review them, you have to arrange to have access them from the individual archaeologist.
SC3	There are far too many types and too few rules regulating documentation in Canada. To improve, emulate the Brits who have national digital archives and codes of best practice for most aspects of the archaeological process to ensure longevity of use and permanence.
SC4	No. The entire assessment report library housed at the Ministry should be published, and the reports made easily accessible to any Professionally licensed archaeologist.
SC5	suspect it is not. I believe the new 2010 S and G will assist in rectifying this.
SC6	The problem in AB is not the written docs as they are filed as part of meeting AB Permit Requirements and at least for the last 20 yrs have been well looked after thru first microfiche backup and now digital. The problem/disconnect is with the primary docs from the field at least in my experience as filed are often incomplete and difficult to work with, this may reflect the fact that in AB the artifacts and the related records from the permit go to the Royal Alberta Museum and are dealt with there, while the written reports go the Archaeological Survey and filing of those are considered to have met the permit requirements. So some never file the artifacts or the primary docs for years if ever. Not enough curatorial staff at the RAM is the problem and use of totally antiquated paper based information systems.

Appendix 3: Responses to Survey from Repository Staff Responsible for any Documentation Submitted by Archaeologists.

Participant Code	Response
<i>Question: What is your official title?</i>	
SR1	Librarian/Archivist
SR2	ASSISTANT CURATOR (WAS COLLECTIONS MANAGER PRIOR TO XMAS)
SR3	Yukon Archaeologist
SR4	Head Curator, Aboriginal History Unit
SR5	Curator of Collections
SR6	Curator of Collections
SR7	Curator of Archaeology
<i>Question: What is your background and training?</i>	
SR1	2 year diploma - Library Technician, courses conducted by AABC, continuing education, on-job training - 20 years experience
SR2	BA; CONSERVATION PROGRAM; MA ARCHAEOLOGY; MUSEUM WORK & ARCHAEOLOGY WORK 20+ YEARS
SR3	Ph.D. Anthropology (Archaeology) University of Toronto 1989. Employed with Yukon Government since 1989.
SR4	BA, MA, PhD - archaeology, University of Calgary
SR5	BA Anthropology, Masters Museum Studies
SR6	Museum studies courses at UBC's Museum of Anthropology as part of Bachelor of Arts degree; Diploma in Costume Studies from Dalhousie; Post Graduate Diploma in Museum Management and Curatorship from Sir Sanford Fleming College.
SR7	Masters in Anthropology University of Manitoba (thesis on archaeology), six years at Historic Resources Branch (Manitoba Government) as Aboriginal Liaison Officer.
<i>Question: What responsibilities does your job entail?</i>	
SR1	managing all aspects of library and archives services, supervising assistants and volunteers.

Participant Code	Response
SR2	CURRENTLY TO ASSIST CURATOR IN DAY-TO-DAY ACTIVITIES; STILL FILLING IN AS COLLECTIONS MANAGER UNTIL NEW ONE HIRED WHICH INVOLVES KEEPING TRACK OF ALL SUBMITTED COLLECTIONS TO THE PROVINCE IN OUR FACILITY INCLUDING CATALOGUE RECORDS; ALSO PROVIDING ACCESS TO RESEARCHERS ETC.
SR3	Archaeological resource management - Yukon Government.
SR4	I am in charge of the Ethnology collections (focus is all First Nation materials from Saskatchewan) and the Archaeology collections.
SR5	Management of museum collections (history, fine art, natural history, archaeology), acquisition of collections, manage program and staff, may undertake projects.
SR6	Collection Management: acquisitions, cataloguing, loans, collection access, support for researchers; deaccessioning, repatriation, database development and maintenance, storage improvements, grant writing, volunteer management.
SR7	Supervising contract staff and volunteers, project management, research, publication, exhibit development, outreach to Aboriginal communities, collections management, budgeting, report writing, archaeological fieldwork, grant application, partnership with other institutions on research projects and providing access to collections for students and professionals, attending and presenting at conferences (local, national and international), responding to requests from the public (identification of artifacts), acquire new collections from CRM activity and the general public.
<i>Question: How are your activities divided throughout the year?</i>	
SR1	No division - just carry on with what needs doing as it is required.
SR2	EXHIBIT DRIVEN LARGELY SO SUPPORTING THAT WORK WITH ARTIFACTS IS A PRIORITY - OFTEN A WINTER/SPRING ACTIVITY - SPRING ALSO MEANS PROVIDING LOANS TO COMMUNITY MUSEUMS AROUND THE PROVINCE (FALL PICK UP) - COLLECTIONS MANAGEMENT ON-GOING; SUBMISSIONS OF COLLECTIONS OCCUR THROUGHOUT THE YEAR
SR3	Summer - resource management (environmental review, Yukon government project planning, fieldwork (research and assessment) etc.. Winter - resource management, report writing, collections management, other.

Participant Code	Response
SR4	At present, I am the only curator as the archaeology curator retired and has not been replaced. I am trying to do everything related to both jobs at the moment. It would take a long time to answer this question. We are supposed to care for the collections, do original research and have a fieldwork component as well. Only so much can be done by one person. I am focussing on the care of the collections right now.
SR5	Management of museum collections (history, fine art, natural history, archaeology), acquisition of collections, manage program and staff, may undertake projects.
SR6	Most activities are fairly evenly spread. Loans-in activity follows the opening and closing of exhibits. Some tasks are project driven such as the current research and development of a new web accessible database or the redesign of our storage area and installation of new compacting shelving.
SR7	Part of the summer is spent conducting fieldwork (2-4 weeks a year), attend conferences in the spring and fall (often), summary reports in the fall and winter months on fieldwork, application for funding during winter months. Most term employees are hired from September - May. The majority of public inquires occur between August and October. Many activities are ongoing throughout the year.
<i>Question: What types of materials do you generate in your position? (ex. correspondence, grant applications, permits, etc.)</i>	
SR1	Correspondence, grant applications, newsletter articles, finding aids for library and archival material
SR2	EMAIL CORRESPONDANCE LARGELY; VARIOUS ANNUAL REPORTS
SR3	reports, policy, reviews, assessments, background information, exhibit text, publications.
SR4	Lots of email correspondence, some grant applications, catalogue records from excavating. Not sure what this question is getting at. Are you looking at a library context?
SR5	Database records, lots of correspondence, catalogue reports, some grant applications and exhibit proposals, interpretation of objects 7 their history.
SR6	Mostly forms: Temporary deposit, donor, loan, deaccession, repatriation, etc and associated correspondence (email and hard copy); catalogue records; grant applications; permits (re: cultural property); reports
SR7	Research papers and raw data, correspondence with researchers and the general public, grant applications, digital images (artifacts and field activities), loan forms, new acquisition forms, donor forms, exhibit concept forms and research forms.
<i>Question: Is [Name of Institution] a repository for archaeological material? And if so, for what types of materials?</i>	
SR1	Yes - all types of heritage objects related to Stó:lō history and culture including, but not limited to basketry, wet-site materials, lithics, stone sculptures.

Participant Code	Response
SR2	ONCE ARCHAEOLOGISTS SUBMIT THEIR COLLECTIONS TO THE PROVINCE UNDER PERMIT, THE PROVINCIAL ARCHAEOLOGY OFFICE SUBMITS THE COLLECTIONS AND ASSOCIATED DATABASES/CATALOGUE SHEETS TO US
SR3	Yes. Collections, permit reports and associated files.
SR4	We are the provincial repository for all archaeological materials recovered from excavation and surface collecting within the province of Saskatchewan from the entire pre-contact time frame to the homestead era. We get everything from bone to lithics to metal and wood, to ceramics and glass, etc.
SR5	Yes. For collections made under permits per NWT Archaeological Sites Regulations. These are human archaeology, not palaeontology. We are also a repository for Nunavut archaeological collections made under their permit system.
SR6	Yes. Historical and pre contact materials, worked stone, bone, etc. human and faunal remains, soil samples, wet site materials including basketry and rope
SR7	[Yes, we do] have an extensive collection of archaeological materials (2.5 million). About 98% of the collection is owned by the Province of Manitoba and the museum is the custodian of the collections. All archaeological collections recovered after May 1967 belong to the province (ownership in the crown) but many institutions and citizens are stewards of the collection. The material in the collection spans 12,500 years with very extensive collections from the Fur Trade period (both Hudson Bay and Northwest Company posts in the collection). The collection ranges from stone to ceramic to bone for precontact materials and includes historic items in the post contact period (glass, metal and wood).
<i>Question: How is the collection housed, and organized?</i>	
SR1	Housed on shelves in climate controlled repository. Organized by borden grid number.

Participant Code	Response
SR2	<p>A) ON SITE AT THE ROOMS IN CABINETS (GEOLOGY CABINETS WITH METAL TRAYS);</p> <p>B) ON SITE IN BANKER'S BOXES ON SHELVES ABOVE THE CABINETS</p> <p>C) OFF-SITE WAREHOUSE IN BANKER'S BOXES AND 2' CUBE BOXES FOR LARGER COLLECTIONS OF FLAKES OR FAUNAL MATERIAL;</p> <p>- MAJORITY ALSO HOUSED INSIDE THE BOXES USING STANDARDIZED PLASTIC ARTIFACT CASES OF VARIOUS SIZES</p> <p>- ORGANIZED BY BORDEN NUMBER; METALS AND FAUNAL SEPERATED OUT INTO THEIR OWN AREAS FOR ADDED CONSERVATION/ENVIRONMENT TREATMENTS</p>
SR3	Lane cabinets, steel shelving. Organized by site (Borden) number.
SR4	Artifact boxes contain everything that has been catalogued and bagged by the consultant companies. The boxes are on shelves, 14 ft racking of 10 tiers, 20 boxes per tier -- 4500 boxes -- last box in gets the next number within each Borden block. All in a large warehouse, not well heated in winter but definitely out of the wind and snow.
SR5	Organized by Territory, by permit number and then by accession number. Artifacts are housed in the PWNHC's Collections Storeroom; faunals and samples are housed at a government warehouse.
SR6	The majority of the collection is housed on wooden pull out trays with an ethafoam barrier between the wood and the objects. The larger pieces are on a separate metal shelving unit lined with ethafoam. The artifacts are organized by catalogue number which corresponds to the dig site.
SR7	The collection is housed in a climate controlled area that is shared with the museum's Ethnology collection. The archaeological materials are organized based on area it was recovered. [The province] is divided into 15 areas (based primarily on drainage basins). All collections are stored in relation to these regions (defined by the archaeology department at The [institution]). Within each area collections are organized based on borden number in alphabetical order. In this manner once the natural region is known any artifact in the collection can be located very quickly.
<i>Question: Do you accept all documentation submitted with archaeological materials to your institution?</i>	
SR1	Yes
SR2	ALL DOCUMENTATION AS IT RELATES TO THE ARTIFACTS - DATABASES, CONSERVATION RECORDS
SR3	Yes.

Participant Code	Response
SR4	Yes
SR5	No
SR6	I have only been at the [Institution] for just over a year and have not had to deal with any new incoming archaeological material. I have not as of yet come across procedures, forms, etc. specific to the archaeology collection. If [the Institution] was approached to be a repository for a new dig, I would base my procedures on those of the RBCM and the Archaeology lab at UBC.
SR7	It has not been mandatory in the past for all associated documentation to be turned over to the museum with all artifacts (some of the older collections have this). I have insisted that this become common practice. Associated material includes photographs, field notes, drawings, level summaries and unit summaries (plus any other contextual information).
<i>Question: Where is the documentation associated to the archaeological materials housed?</i>	
SR1	In filing cabinets in repository - moving to archives when time permits. Archaeological impact assessments and other documents are already housed in the archives.
SR2	ON SITE; FILING CABINETS; BANKERS BOXES; COMPUTERS
SR3	Same building as collections. Copies of permit reports housed at Canadian Museum of Civilization - Archives.
SR4	At a building we call "the Annex". It's an old heritage building (1924) that has been converted to office space. We keep all the catalogue records and original notes here in boxes and file cabinets. The museum building itself with the galleries is not large enough to house the Life Sciences, Paleontology, Exhibits, Conservation, workshop and Aboriginal History -- cocoons for collections and paper records that go with all the collections.
SR5	Collections Program keeps hard copies of artifacts catalogues in accession files, and an electronic copies of artifact catalogues on the government network. Cultural Places Program keeps reports, slides, maps and field notes, videos etc.
SR6	Hard copy catalogue records, dig photos, etc. are housed in storage next to the archaeology collection and work space. Back up copies of some records and donor/source information are in the "Registry" which is another room within the Museum building. There is also some other duplicate background material in the Museum's small library. Skeletal electronic catalogue records are stored in the museum's database.

Participant Code	Response
SR7	The archaeology department has an area for photographs in the climate controlled room (old style 35mm film print and slide) and digital images are located on servers (main and back up often on CD ROM). The paperwork relating to a collection is filed in an archival room next to the archaeology department office. Some of the images the museum does not have copyright but is for research purposes and if any image was to be used in a publication then permission must be given by the photographer, consulting firm or government.
<i>Question: Do you require any types of documents be submitted with the archaeological materials to your institution? if so, please list.</i>	
SR1	Yes - minimum requirement is donation form - other documentation depends on source of archaeological materials.
SR2	ALL DOCUMENTATION AS IT RELATES TO THE ARTIFACTS - DATABASES, CONSERVATION RECORDS
SR3	Collections recovered under permit must be catalogued. Catalogues required in digital format.
SR4	The catalogue sheets (hard copy and digital), a copy of the site report, the original notes associated with the excavation of the site including all planview maps and profiles.
SR5	A final catalogue (electronic <u>and</u> hard copy) must be submitted with the artifact collection. Cultural Places Program requires certain documents to fulfill archaeological permit requirements. See "Guideline for Archaeology Permit Holders" on our web site for lists.

Participant Code	Response
SR6	<p>I haven't yet come across any policy or procedure specific to the [institution] archaeology collection. From past research at another museum, and in consultation with the RBCM and Laboratory of Archaeology at UBC, my list of required documentation would be something like:</p> <ol style="list-style-type: none"> 1. Site Borden number 2. Heritage Conservation Act Permit number 3. Collection date 4. Collector 5. Collection method (excavation, shovel test, surface collection, monitoring, etc.) 6. Object type and description (material, type, estimated age and/or culture period [if known], description, etc.) 7. Artifact provenience information 8. Artifact length, width, and thickness for all diagnostic artifacts or tools 9. First Nations Cultural area (i.e. Coast Salish) and First Nations traditional territory (i.e. Tsartlip First Nation) 10. Natural/Environmental area (i.e. Fraser Valley, West Coast Vancouver Island, etc.) 11. Any relevant pages from the report or a general summary of artifacts or other information used to describe materials, cultural affiliation, age, etc. 12. Site form (which will include much of the above information) and location map. 13. Original Field Notes and photos (or photocopies of originals).
SR7	<p>See above answer.</p> <p>“The archaeology department has an area for photographs in the climate controlled room (old style 35mm film print and slide) and digital images are located on servers (main and back up often on CD ROM). The paperwork relating to a collection is filed in an archival room next to the archaeology department office. Some of the images the museum does not have copyright but is for research purposes and if any image was to be used in a publication then permission must be given by the photographer, consulting firm or government.”</p>
<p><i>Question: How long must the documentation be kept? For what reasons?</i></p>	
SR1	In perpetuity. Provenance, ownership, etc.
SR2	INDEFINITLY; ONLY RECORD OF THE CATALOGUES

Participant Code	Response
SR3	Indefinite. Record of collection
SR4	The documentation from site excavations is to be kept in perpetuity as the property of the people of the province. Forever.
SR5	Re: artifact catalogues, for as long as the collection is maintained.
SR6	I assume we would always keep this information for the purpose of understanding the archaeological collection and to prove that the collection was dug and acquired in a legal manner. Though much could be transferred to digital records, it is sometimes more comprehensive to see the complete package rather than pieces of information in association with one particular artifact. One would want to be able to transfer these hard copy records along with the collection if it was to be transferred to another institution, returned to the originating culture, etc.
SR7	Since the documentation contextualizes the collection it must be kept for ever or as long as the collection remains at The [institution]
<i>Question: How is the documentation accessed? By who? For what purposes?</i>	
SR1	Accessed by request by students, archaeologists, community members to inform academic work or share information with community members.
SR2	BY REQUEST; MOSTLY BY ARCHAEOLOGISTS FOR RESEARCH PURPOSES
SR3	Accessed as needed by staff; occasionally accessed by researchers. If requested, copies made or PDF sent as appropriate.
SR4	The records are public but generally are accessed by consultants in their work and research. Since there is the worry that sites will be pot hunted, information is more on a need-to-know accessibility. We have a research library that the public can use but there is no signout of books. Reports are not really for public consumption. The public rarely asks for information but when people do, they get as much information as possible with the advisement that archaeological sites are protected by the law. There is a fine line between allowing people free access to information and wondering what they intend to do with it. University researchers are the other main group that seek access to the records for research purposes. We 'bend over backwards' to help researchers.
SR5	In the Collections Program, requests for access to documentation is coming from other archaeologists/researchers. We will send researchers a collection's catalogue, if requested. Cultural Places Program holds other information (e.g. site reports) and has their own criteria for releasing it. Their requests for access come from a wide variety of sources, such as mineral development companies, or land settlement agencies, to communities or other archaeologists.

Participant Code	Response
SR6	All the information can be accessed in hard copy, while skeletal records are available via the museum's database. The documentation is accessed by staff for the purposes of loans-out, in-house exhibits, matters of repatriation, and general collection management; volunteers may access the documentation during inventories and data entry; researchers may access the documentation in their respective areas of study
SR7	Primarily as reference for all collections, useful in interpretations for research and report writing, exhibit development. These are infrequently referenced.
<i>Question: How, if at all, is the [name of repository] associated to the [name of province] government archaeology branch?</i>	
SR1	The branch recognizes the [institution] as an official repository for heritage objects. We also maintain a collection of archaeological impact assessments, overviews, etc. Our archaeology department issues permits under the authority of the [name of First Nation] Heritage Policy and copies of the resultant reports are deposited in the archives.
SR2	THE PAO HOUSES ALL REPORTS, DOCUMENTS, RECORDS ETC. AS IT PERTAINS TO SITES THEMSELVES; THEY SUBMIT ALL THE COLLECTIONS AND ARTIFACT RECORDS TO US
SR3	[left blank]
SR4	This museum is a branch of the Ministry of Tourism, Parks, Culture and Sport (TPCS). We are government employees. We are in communication with the Heritage Conservation Branch (also in TPCS) who work with the regulatory processes of archaeology -- permitting, oil, gas, & construction review, HRIAs, HRIMs. They make the oil & gas companies do the archaeology, we keep the materials that result from the excavation of sites from that process.
SR5	[Name of program] issues the permits, keeps the site reports, keeps the GIS system of Borden Numbers and sites, reviews land use applications etc.
SR6	I have not spoken with the Archaeology Branch since holding this position at the [name of institution]. I would like to think that the Archaeology Branch has a record of the [name of institution] BC archaeological holdings, however I know from past experience that the Arch Branch records are not always complete.
SR7	The [name of institution] is a non-profit organization and therefore not a branch of the government. We have good working relationships with the province.

Appendix 4: Example of a Form

**NEWFOUNDLAND AND LABRADOR
ARCHAEOLOGICAL SITE RECORD FORM**

According to Newfoundland Regulation 1429/17 Archaeological Heritage Permit (Regulation under The Historic Resources Act (2017-01-01), (2017) an archaeological permit holder **Must** after acquisition of a permit, complete Newfoundland and Labrador Archaeological Site Record Form for all newly discovered sites and for all newly discovered sites.

USE YOUR MOUSE TO MOVE BETWEEN FIELDS

Incomplete and/or incorrectly completed forms will be returned to the permit holder
Provincial Archaeology Office

Permit Number _____ Permit Holder _____

Site Name _____

Borden Number _____ Ethnographic Number _____

Previous Recording Errors _____

Site Location _____

Site Access _____

Jurisdiction - Check One Provincial Federal Nunatsiavut

Nearest Large Community _____

Major Drainage _____ Minor Drainage _____

Map Reference NTS _____ UTM/Military Grid _____

Latitude _____ Longitude _____

Easting _____ Northing _____

GPS? Yes GPS Margin Elevation Datum NAD1927 NAD1983 WGS 84
 No of Error

Air Photo Reference _____ Other Map References _____

DESCRIPTION

Site Description _____

Culture(s) _____

Phase/Complex _____

Site Type _____

Features _____

Site Period Dates _____

Site Lab Dates _____

Site Size m x m m² Site Condition _____

Disturbance Factors _____

Site Vegetation _____

Site Informant Name and Address **RESEARCH**

Principal Researcher(s) _____

Research Date(s) _____

Research Activity(s) _____

Collection _____

Collection Repository _____

Photo Records _____

Published References _____

Unpublished References _____

Remarks _____

Site Record Form Completed By _____ Date _____

MAP OF SITE

N.B. Incomplete and/or incorrectly completed forms will be returned to the Permit Holder
Provincial Archaeology Office