Surveying the Industry: A Professional Profile of Cultural Resource Management in Canada

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A thesis submitted in partial fulfillment of the requirements for the Master of Arts degree in Anthropology

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Abstract

Cultural Resource Management (CRM) has transformed the practice of archaeology; however, little is known regarding general make-up and demographics for this dominant form of archaeological practice. Even less is understood concerning the views and sentiments of its practitioners. In Canada, no jurisdiction maintains practitioner profiles; subsequently, their training or understanding of the roles they play in mediating heritage resource compliance requirements for clients, Descendant communities, or heritage stakeholders like the wider archaeological community, is relatively unknown. Despite recent discourse focused on the operational side of CRM (e.g., nature, output, and consequences) insight on the values, ideals, and level expertise of practitioners is scarce. Hoping to further CRM comprehension, this thesis initiated two nation-wide surveys in 2021. The results outlined in this thesis provide new and improved observations of CRM practice, establishing a baseline future and longitudinal studies may draw from in the coming years, further developing a professional profile of CRM.

Keywords:

Cultural Resource Management, Archaeology, Heritage, Conservation, Academia, Survey, Demographics, Canada
Summary for Lay Audience

Cultural Resource Management (CRM) is the professional industry concerned with heritage management, which includes cultural and archaeological resources (such as national historic sites, cultural landscapes, and archaeological sites), built heritage (such as historically important buildings and monuments), and museum and conservation studies. CRM is the result of the rise in heritage protection and legislation over the second half of the 20th century; in the 21st century, CRM has continued to expand, and is now the largest source of employment for archaeologists in North America (Dent 2016:46). However, despite CRM becoming a large component of the heritage sector, currently, very little is well understood about the practice or those working within it; for example, no government or organization involved with CRM track or document the demographic breakdown of the industry. Recent studies over the years have produced a hefty volume of literature on the nature and output of CRM, such as the consequences that this industry has on heritage management. However, there has been little research done to gain insight into the profession as it works day-to-day, and to explore how the values, decision making and backgrounds of those individuals working within CRM may affect the practice.

CRM can be argued as the most prominent form of archaeological practice, and therefore mostly defines archaeology’s relevance in Canadian society today. This importance necessitates the need for a clear understanding of the practice – such as the make-up of employment, credentials, diversity of personnel, and staffing roles – as the profession affects all stakeholders, such as the general public, the wider archaeological community, and especially Descendant communities, whose heritage is being directly managed by CRM. In an effort to broaden the understanding of the industry and its practitioners, my research circulated two online surveys: one to CRM firms, and the other as an open request to all CRM archaeologists. The survey results are presented in this thesis and provide new and improved insights of CRM by developing a professional profile that will act as a baseline from which future researchers can draw upon and add to in the years ahead.
Acknowledgments

Firstly, I want to give my biggest thanks to my family and friends, who have been so supportive of my journey and have rooted for me through it all. Grad school is never an easy feat, and during a global pandemic it has only been that much more difficult and that much more necessary to have a stable support system. I am very lucky to have had so many wonderful people helping in any way that they could: my partner, who has been my personal cheerleader and always made sure to remind me that I was going to succeed; my mother, who has not stopped telling everyone she meets how proud she is of her “little archaeologist”; and to my biggest fan, my grandfather, who has never let me think I couldn’t do anything I put my mind to, and who has reminded me every day how happy he is to watch me grow. And of course, to my close friends who have listened to me ramble about my work and who have been patient with me while I struggled to balance work, life, and school, but have stuck by me through it all anyway.

This thesis would not have been possible without my supervisor, Dr. Neal Ferris. Aside from the normal responsibilities and guidance a supervisor gives, Neal has truly helped me bring this research to life. This project is as much his as it is mine, and in fact was presented to me as an alternative due to the complications of remote studies. Neal trusted me enough to invite me aboard a project that he was already pursuing, and I truly cannot express my thanks enough for this opportunity. I also want to thank Dr. Joshua Dent for his help and guidance towards the end of my thesis, and for helping me get to the finish line. Additional thanks to Dr. Christopher Dore for his insight and expertise on the CRM industry, and to my examination committee, Dr. Peter Timmins, Dr. Lisa Hodgetts, and Dr. Holly Martelle.

Finally, a big thank you to everyone who participated in this project, as it simply would not exist without any of them. I am so grateful to every single person who took the time to sit down and respond to my surveys, providing their own insights and experiences, collectively contributing to the development of the CRM Professional Profile. I also want to express thanks to those who helped disperse my project, either through distributing my poster, word-of-mouth, or by inviting me to present my research (Thanks SAPA!). Your belief in my research is a huge part of its success and I am so glad for the support. Thank you!

I am beyond grateful to everyone in my life who has made these past two years easier to journey through, to anyone that has offered helpful critique or academic guidance, and to those who have made this research possible. Words alone cannot express how lucky I feel but just know that I do.
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Chapter 1

1 Introduction

As a profession, Cultural Resource Management (CRM) was conceived on the conservation and protection of historic and archaeological resources; however, the practice has evolved beyond its inception, due in part to the quick and unprecedented rise of CRM over the last 40 years. Acting as both an industry and a set of practices, the profession has grown exponentially, carving itself a rather large space within the wider gamut that is heritage management (Pokotylo and Mason 2010). Over time, the need for CRM refined a specialized practice, leading to developments within the discipline of archaeology. This new form of practice, often referred to as consulting or applied archaeology, has gradually become the largest employer of individuals who graduate with degrees in or related to archaeology, employing between 80-90% of all archaeologists in North America (Dent 2016:46). However, despite the continuous growth of the industry, very little is well understood of this profession and those who practice it. Neither the private sector nor their government regulators track or document the demographic makeup of the industry; consequently, other than critiques and anecdotal representations, the bigger picture of CRM is not well understood on a larger scale, or to those outside the field. In response to this lack of comprehension, my master’s research aims to explore the nature and composition of the archaeological cultural resource management industry and its practitioners across select jurisdictions in Canada, with the hope of collecting much needed data on this prominent profession, and of those who participate within it.

Any insight we do have of CRM and of those who practice it, is quite limited. Based on the different provincial and territorial regulations, we can garner a basic understand of the expectations for education, though that has varied over time and by region. We can also presume demographic breakdowns based on the profile of the average Canadian today and presume that the pay fluctuates depending on region of practice and level of expertise and education, as do many other industries. However, much of this is simply speculation, and so it is important that factual and precise examinations into the industry occur,
allowing us to work towards building a profession profile of CRM. Through analyzing who these practitioners are – such as their age and gender identity, what their educational and experiential backgrounds are and if either of those factors affect their practice, and at the crux of it, what motivates them to do this work? By addressing these questions, and more, we can both build a professional profile of the industry today, and further our understanding of what its existence might look like in the future. While those individuals who identify as CRM practitioners are familiar with how the industry works day-to-day – as they themselves are part and parcel to work that is done – the lack of a more comprehensive understanding of CRM to the wider audience, such as the tax-paying communities who often fund CRM, limits the strategic decision making of the various actors involved in CRM, effectively creating a divide between what occurs within the industry, and how that is then translated outward, beyond the scope and practice of CRM (Dent 2012).

This limitation has created a gap between how archaeology – and subsequently, CRM – is taught and portrayed within the academy and its professional practice. This cognitive dissonance has resulted in CRM becoming a phenomenon of how archaeology has evolved, inside and then outside of the academy, resulting in a drift from its original promise of “honouring the past while serving the needs of present and future generations” (Cushman and Howe 2012:56; Welch et al. 2018:3). Through a combination of growing demands of the practice, exposure to economic influences, and the dependence on varying regulatory bodies, there has been a shift in how the industry of CRM was originally structured, prioritizing the efficient delivery of completed projects before the effective conservation of heritage resources (Zorzin 2017:427). This has resulted in CRM being critiqued for perceived failings of conservation, denying heritage protection, and triaging material solely based on archaeological significance — despite how material heritage may be valued differently by other interests and communities (Welch and Ferris 2014:96; Zorzin 2017:427). These shifts have also led to the industry being critiqued for poor working conditions (e.g., low wages and safety concerns) and a lack of publications and dissemination of information (Cushman and Howe 2011; Hutchins et al. 2018; Welch et al. 2018; Zorzin 2011; 2015a).
Given both the fundamental transformation of practice, and the various consequences this industry effects on the archaeological heritage of Canada, understanding the profile of CRM – the makeup and operational nature of employment, credentials and experiential expertise, diversity of personnel, staffing roles and responsibilities – is vital to understanding and strategically shaping the CRM industry. Therefore, this urgency to explore the industry and amass thorough understanding, is largely what has driven my research. While similar surveys and research-based studies have been conducted in Canada, as well as other parts of the world (for Canada see Birch 2006; Desrosiers 2017, 2019; Jalbert 2019; La Salle and Hutchings 2012; Hodgetts et al. 2020; Overholtzer and Jalbert 2021; Zorzin 2011, 2017; for international see Aitchison 2000; Aitchison and Edwards 2003, 2008; Aitchison and Rocks McQueen 2014; Mate and Ulm 2021; Ulm et al. 2013; Zeder 1997) an analysis of CRM in Canada has yet to investigate many important aspects of the industry. Not only will this study, for the first time, provide insight into the nature and structure of the practitioners who make up this industry across Canada, it will also provide a baseline for future longitudinal research on the changing profile of the profession.

Through the use of two questionnaires — one that was circulated to independent CRM firms with the intention of creating a “slice in time” profile of those offices, and the other that was made public, directed to all who self-identified as a CRM archaeologist and wished to provide their personal experiences, demographics and sentiments of the practice — my analysis and exploration of the industry has contributed to the goal of generating a professional profile on this distinct cultural group, and the industry they serve. As the largest employer of individuals who specialize in an archaeology-related field in Canada, gaining insight on the business practices and component of CRM, as well as how this industry operates, is not only necessary, but also beneficial for current and future practitioners. Given the expected, narrow demographic profile of practitioners, we can begin to understand both the limitations of their decision making, and the opportunities that might exists for transforming archaeological norms to reflect a wider, more representative diversity (i.e., something that looks more like Canada today). However, we are not able to look at and work on more specific problem areas until we have an actual profile of the industry, and while my dataset is in no way exhaustive, and
only represents a portion of the profession, compiling this data provides new insight into the beliefs, values, and experiences of those working in CRM that was otherwise unknown or only anecdotally noted.

As a discipline, archaeology is largely broken up into provincial and territorial pockets, meaning that there is no federal regulation to aid in consistency of heritage management, necessitating a national perspective that will help garner a more cohesive understanding of the industry on a larger scale. My research is an important first step in compiling the necessary data needed to build a more robust exploration of what cultural resource management is in the 21st century, thus providing a baseline by which future studies can draw comparisons and insights on the changing profile of this profession and help guide decision-making affecting archaeology in Canada.

1.1 Thesis Structure

Chapter 2 provides a historical and contemporary analysis of how CRM has developed over time, in the Canadian context. Through exploring the historical background that contributed to the rise of commercial archaeology and the private sector, I explore how unprecedented growth led to issues of practice and regulation, resulting in industry critiques and concern. This contributed to a professional divide, eventually creating two fairly distinct streams of practice: applied and academic archaeology. Collectively, the exponential growth of the industry, along with this separation of practice, has encouraged further critiques and a disproportionate understanding of the practice, such as the narrative that archaeology is valuable as a scholastic discipline, but offering little discussion or insight on the merits of applied practice, of which I explore throughout the chapter.

Chapter 3 engages with a review of other research that has been done on the industry, in Canada and worldwide, so as to develop a baseline of how CRM operates generally, as well as to contrast the industry regionally. Previous research provides the opportunity to engage awareness and to help further the understanding of current practices, including the make-up and operational nature of employment, credentials, and experiential expertise, and staffing roles and responsibilities. Together, these are all important factors of the
practice that can bring even further insight when explored via regional expectations and variation of practice.

Chapter 4 provides an in-depth discussion of my research methods for this project. I will explain how I decided to structure my project, what influenced some of my decisions and how the resources I have accessed regarding other studies have helped to build my research design. I will explain my decision-making process for what I did and did not want and anticipate with this study and explain how I chose the methods of data collection and analysis.

The breakdown and discussion of my data follows in the next two chapters. Chapter 5 presents the quantitative data that my research has collected and discusses in detail the demographic profile that my two surveys collectively contributed to. The chapter goes over each survey separately, reporting on the individual information gathered. It then compares the results of both, and how collectively, the two surveys work together to provide further insight into the profile of the industry as a whole, and of the individual practitioners.

Chapter 6 explores the remaining sentiment data, as primarily recorded from the practitioner survey. This chapter examines some trends that emerged from my research and provides a more in-depth analysis on how the data contributed to a practitioner sentiment profile. In addition to looking at trendlines within my own data, I also correlated my results with other sources that indicated similar trends.

Finally, Chapter 7 completes my thesis by providing my concluding thoughts and offering future directions and suggestions on how to continue this research, longitudinally. Although my research offers some valuable insight and is itself an important steppingstone to gaining a better understanding of the CRM industry in Canada, it is also important to note that my data is only a limited reflection of this practice. Further research and data collection need to occur over a number of years before a more well-rounded profile can emerge. This thesis is just a part of that greater picture and will help to provide the basic building blocks needed to explore the consequences of the values, decision making, and practices of the CRM industry.
Chapter 2

2 What is Cultural Resource Management?

It has been suggested that Cultural Resource Management (CRM) does not have one single definition; in reality, practitioners often describe it as they see fit to their situation (King 2011:40). For example, Cushman and Howe (2012:56) describe CRM as a “vehicle for historic preservation,” while Parks Canada (1994:101) describes it as “an integrated and holistic approach to the management of cultural resources.” For the purposes of this discussion, I will refer to CRM within its Canadian context, described as an industry and/or set of practices centered on the preservation, conservation and protection of archaeological resources relating to past historical, cultural and/or scientific value and meaning (Birch 2006:7). It is important to note the larger spectrum of CRM can also include other forms of cultural management tied to built and natural heritage resources and museum studies (Welch and Ferris 2014; Birch 2006). In this study, however, I will be focusing solely on the individuals who practice archaeology, and I will be referring only to archaeological resources, defined as any non-renewable, tangible evidence for past human activity and/or occupation. As a discipline, archaeology fits within the broader context of the cultural heritage sector and maintains its own set of distinct traits as a profession. I will be examining archaeology within the boundaries of this professional, applied practice, often referred to as commercial, contract and/or consulting archaeology, and discuss this form of archaeological practice as it relates to and operates within the industry of CRM.

2.1 The Rise of Cultural Resource Management: Government Legislation & Emergence of the Private Sector

Before the emergence of CRM in Canada, archaeology was more conventionally restricted to a limited selection of professions, consisting of either teaching at a university or curating at a museum (Turnbull 1977:119). Canada has a long history of
archaeological practice, which helped to initiate the development of the CRM industry. At the federal level, the Canadian government established early in the twentieth century a Historic Sites and Monuments Board, which was meant to advise and inform the government on important sites and themes of national historic significance (Burley 1995: 79). Similar boards focused on the commemoration and protection of places of heritage significance at the provincial level within provinces like British Columbia and Ontario through the middle of the twentieth century (Dent 2012:21).

Despite a growing pursuit for national and provincial intents to acknowledge an interest in the heritage places of this country, prior to the last couple of decades in the 20th century little legislation was enacted and few policies adopted to protect or manage the heritage record beyond specifically identified locales. Over the latter part of the 20th century, concerns over the loss of the archaeological record due to large-scale development and looting provoked an expanding body of professional and avocational archaeologists to argue for change. Specifically, archaeological groups called on governments to take the necessary steps to protect the archaeological record from loss. These efforts helped contribute to the rise in legislative regimes of various effectiveness throughout the late twentieth century that required archaeological sites to be conserved in one manner or another prior to regulated impacts (see Lipe 1974; McGimsey et al. 1977; Carman 2002; For Canada specifically, see Byrne 1976; Turnbull 1977; Burley 1995; Birch 2006; Ferris 2000, 2007; Pokotylo and Mason 2010; Williamson 2010; Dent 2012; La Salle and Hutchings 2012; Zorzin 2011, 2017).

For example, in 1969, then Canadian Archaeological Association (CAA) President, J.V. Wright, stressed the immensely worrying problems facing the country’s archaeological heritage, and the growing issue of site destruction (Burley 1994:81). Archaeological communities recognized that these historic and archaeological sites were endangered, non-renewable resources, which led to a growing concern for their welfare (Burley 1994:80). In Canada, heritage legislation and the management of lands and its resources operate separately by jurisdiction at the provincial level, with provinces developing archaeological and heritage policy in response to their specific regional needs and histories (Burley 1994; Dent 2012). As a result, the establishment of government agencies
to manage archaeological resources and work to advance effective conservation in their respective jurisdictions was variable – and variably effective – across the country through the end of the 20th century (e.g., Turnbull 1977:129; see Dent 2016).

Generally, while there was extreme variation in the specific practices of heritage conservation across the provinces through the end of the twentieth century, this assortment of regional laws and regulations helped establish general archaeological conservation principles, especially at the provincial level. For example, provinces began to impose regulations on the land use of public and private developers that invoked a “developer proponent pay” principle, in line with broader “polluter pays” policies that had emerged in North America in the second half of the 20th century (Zorzin 2015a). For example, the Canadian Environmental Protection Act (CEPA), states that producers of pollutants should bear the responsibility and pay for their actions (Government of Canada, CEPA 1999). This principle, in effect, implies that the instigator of environmental damage as well as other impacts on public interests, including heritage resources, should mitigate that loss in some manner (e.g., Graves-Brown 1997; Johansson and Johansson 2010). Coupled other environmental and/or heritage legislation and policies, “proponent-pay” meant that developers were required to engage with specialists who could mitigate the damage and/or destruction of archaeological resources due to development and/or construction (Ferris 1998).

As a result of these new expectations for conservation, the heritage management industry began to be viewed as something either government employees or private consultants undertook on behalf of development clients. Specifically, these changes in law majorly affected archaeological practice, resulting in a substantial boom of private sector professional archaeologists, as a result of redefining the management of the archaeological record (Pokotylo and Mason 2010:60). Consequently, a “new era of compulsory concern for archaeological resources” (Byrne 1976:113) emerged, contributing to the development and rise of a new form of archaeological specialist – the CRM consultant.
2.2 The Evolution of Cultural Resource Management: Conservation, Accumulation, and Contract Archaeology

Due to the rapid and unprecedented rise of CRM, the industry has had to quickly adapt, adjusting to the sectors it serves, as the reach and nature of CRM shifted over the last forty years. Upon the introduction of the CRM industry, this form of archaeological practice was meant to address the worries expressed for the archaeological record and the critical loss it was experiencing due to the development of lands. As legislative requirements increased, demand for CRM grew, and so did the private sector that provided those practitioners. As the industry experienced an accelerated growth that it had not been prepared for, CRM evolved, altering the practice’s understood intents from those that drove its inception (Byrne 1976:118; Ferris 2007).

The rise in developer-led projects drove the need for CRM archaeologists, especially in Provinces that expanded archaeological conservation requirements while moving into the 21st century. This demand resulted in a spike of permits being issued for consulting archaeologists, relative to the few being administered for research purposes. As time went on, it became apparent that the scale of CRM was becoming unparalleled and co-opted the discipline so much that CRM had begun to define archaeology as whole. To put this into perspective, available data based on the New Brunswick government’s records show that between 2006 to 2016, only 31 research permits were issued (Figure 1). When compared to the total number of permits over the whole decade (n=875), academic research only accounts for 3.5% of all permits issued, with the majority of the remaining permits issues for CRM or related purposes (New Brunswick data taken from Dent and Beaudoin 2018). While both the province and its archaeology are on a smaller scale than other parts of the country, this comparison demonstrates the growth of CRM, and illustrates the scale to which it has come to operate.
On a larger scale, roughly 5000 archaeological projects were issued permits across select regions of Canada between 1965 and 1989, while just over 9000 permits were issued between 1990 and 1999, (Dent and Beaudoin 2018). In the following decade, that number more than tripled to over 29,000 permits and was on track to further increase over the following decade, according to data released by Dent and Beaudoin (2018; see also Figure 2). This trend highlights how quickly the industry grew and began to dominate archaeological practice across Canada. Further, when examining the growth of CRM on a regional basis, there are examples of this trendline occurring independently across the country, with many provincial jurisdictions seeing similar developments between the 1980s and into the turn of the century. For example, Ontario saw an increase of just over 300% in the number of projects taken up by consultant archaeologists over that time, and projects in British Columbia almost tripled (Ferris 2007; La Salle and Hutchings 2012). The distribution of field permits also displays a similar pattern, producing large upticks in the number of permits issued across Canada. For example, 89% of archaeological permits issued in New Brunswick between 1984-2018 were for CRM projects; in Nova Scotia, 76% of permits issued were for CRM between the years of 2000-2016 (Dow et al. 2022;
Dent and Beaudoin 2018). These trends have only continued into the present where data is available; project numbers have increased exponentially year over year, with growth seen over 670% per annum since the 1980s (Dent and Beaudoin 2018).

Consulting archaeology has become the dominant form of practice, and arguably, mostly defines archaeology’s relevance in Canadian society today (see Dent 2016; Hutchings 2018; Welch et al. 2018; Zorzin 2015a). This growth has made such an impact on the profession that CRM in North America is considered the largest source of employment for archaeologists, with roughly 90% of practices and associated costs of all archaeology being due to government mandated requirements imposed on development activities (Dent 2016:46; Welch and Ferris 2014). This rapid growth led to a diversification of the practice beyond the academy and CRM began to call for new and different training and education needs (Ferris 2002:57; Welch et al., 2018:). However, this rapid growth also left little room for evaluation on how archaeology was being transformed and did not present much opportunity to explore or understand just how consequential CRM really was to archaeology in Canada.

Figure 2: Number of archaeological projects in Canada 1965-2016 (Dent and Beaudoin 2018).
It was suggested early on that due to the reluctance of some professional archaeologists to engage with CRM, coupled with the generally small community of practitioners, the origins of the profession experienced a shortage of adequately trained personnel (Byrne 1976:118). It has also been argued that the consequences of a swift, unprecedented expansion of CRM left little room for professional growth and resulted in a lack of clearly defined standards, ambiguous expectations of practice and created a void between ‘doing archaeology’ and ‘doing archaeology right’ (Ferris 2007:86). Worries for this outcome had been echoed for decades, with suggestions that this could mean that “the quality of archaeological work would seriously decline, bringing the entire profession to disrepute” (Byrne 1976:118).

It has become more apparent in recent decades that CRM has evolved as a profession in relation to the many factors that influence it, effectively transforming the practice. These contributing factors – such as economic growth, a client-driven market and regulatory oversight – collectively applied a kind of pressure that archaeological practice had not experienced before (Ferris 2007:35). For example, while developers generally seek quick and inexpensive solutions to meeting regulatory requirements, the use of heavy machinery and rapid harvest and accumulation of archaeological resources is a CRM industry practice developed in response to this external factor (Carman 2015:31; Ferris 2007; Ferris and Welch 2015:79). Consequently, the priorities and values driving archaeological conservation began to shift, rebranding CRM as “contract archaeology” and a client-service industry (Welch and Ferris 2014:96; Zorzin 2015a:117). Along the way, then, contract archaeology was carried out under speed and pressure, and often resulted in a failure to complete analysis, properly conserve sites and produce adequate publications (Ferris and Welch 2014:95; Carman 2015:31).

Archaeology was once solely considered a discipline concerned with expanding the knowledge and understanding of the past; however, in recent decades it has become primarily an industry controlled by policy and law, and some suggest it began following the rhetoric of ‘accumulation’ (Smith, 2004). It has been argued that due to the capitalist economic system which governs CRM, the practice has been fundamentally altered (Zorzin 2015a:117). Further, the rise of contract archaeology has further normalized this
extractive-consumptive paradigm, so that we have been made to believe and accept that this way of practice – the focus on accumulating more and more – is the only way for us to do archaeology (Ferris and Welch 2015:78). Consequently, contract archaeology and its commodified form of practice has contributed to a partition within the discipline, effectively dividing archaeologists into two groups: consultants and academics.

2.3 The Isolation of Cultural Resource Management: Academic & Applied Archaeology

As commercial archaeology continued to expand, the existence of the industry was enough to spark debate. Skepticism regarding the worth and value of contract archaeology compared to academic practice arose, with suggestions that the work carried out under the pressures and conflicting obligations of CRM could not contribute “authentic, high-quality data or research”, and that it was primarily “focused on accumulation” (Birch 2006:17; Ferris and Welch 2015:78-79). Over time, CRM archaeology was essentially isolated from academic practice, placing contract archaeologists into their own field of endeavour, “applied archaeology” (Carman 2015:38; Ferris and Welch 2015:78). Creating this distinction between applied and academic archaeology, as argued by Carman (2015:38), allowed for some to treat contract archaeology as though it was irrelevant to the academy, resulting in problematic and untrue assumptions that CRM is separate from the rest of discipline. Additionally, it has been argued that the output of CRM data typically remains unattainable and has been said to be lost in the void of grey literature or the collection management crisis (Ferris and Welch 2015:79; Zorzin 2015a:117).

For example, it is estimated that in the US, nearly 350,000 reports have been written between 2004-2018; however, much of that work has gone unnoticed due to the nature of CRM largely taking place within “relatively opaque bureaucratic processes” (Kansa et al. 2018:491). An unfortunate consequence of this has resulted in CRM findings often seeing little citation in research, and further, is mostly inaccessible to other communities, including Indigenous descendant communities (Kansa et al. 2018:491). While CRM research is still relevant and often used in academic studies, it should be noted that those
with the means and access to grey literature are typically of the community, and often utilize it for the purposes of dissertation. Additionally, disparity remains when examining the source of published articles, as there is an alarming lack of equal representation from both applied and academic practitioners, with the former actually being required to write technical reports as a part of their job, while endeavors in journal or article reports are often left to the latter (Fulkerson and Tushingham 2019:381). This focus on the technical output of CRM data provides challenges for practitioners, and often means that technical reports are excluded from academic publications and are instead placed within the elusive library of grey literature (Fulkerson and Tushingham 2019). Nonacademic archaeologists have largely remained on the “periphery of representation in peer-reviewed journals” (Fulkerson and Tushingham 2019:381), an alarming circumstance to consider, as CRM firms have become the largest employer of individuals who graduate with an undergraduate degree in an archaeology-related field in Canada (Carman 2015:38; Hutchings and La Salle 2015; Ferris and Welch 2015; Fulkerson and Tushingham 2019).

Critiques that CRM is nothing more than fieldwork and is not comparable to academic research have unfairly diminished the profession and its practitioners (Welch et al. 2018; Carman 2015; Hutchings and La Salle 2015). In fact, there have been calls to recognize that CRM has a place in the academy, and that there is a responsibility to better train future practitioners for the realities of contract archaeology – such as offering a stronger focus on the technical aspects and not just the theoretical, since otherwise, their only education of applied archaeology often comes after they find a job in the industry (Vawser 2004:18). While academic field schools are offered to university students and are meant to indoctrinate students into the more hands-on aspects of archaeology, they are not always accessible to all (e.g., barriers such as financial or physical). Additionally, not every program can offer them, they are not all created equally, and many may not have the capacity to train all students interested.

Further, as other archaeologists have argued, contract archaeology involves and requires education and training in academic archaeological practice, and expert knowledge is needed in areas of artifact identification, local cultural histories, and different theoretical philosophies so that archaeological interpretations can be made (Berggren and Hodder
2003:426). Many of these skills are learned by CRM professionals through academia, and so they are reaping the rewards of their scholarship. However, there are many techniques and methods of CRM archaeology that are not discussed or taught in the academy, and this has often left graduates with a sense of unease or misinterpretation of the industry and its realities.

Despite the schism between teaching and practicing CRM archaeology, there remains certain expectations of practice one can only achieve through an advanced degree. For example, permits and licenses held by CRM practitioners often require a university degree of a certain pedigree (often master’s or above), and certain employment positions within CRM companies expect that level of education and formal training. Given that it is the expectation to have higher education in order to work as a contract archaeologist, there is a growing demand for academics to acknowledge that the students they are educating are not being trained to replace the next available seat at the tenure table. More likely than not, students will be out in the field, working as contract archaeologists for the majority – if not the entirety – of their career (White et al. 2004:29). In this regard, academic and applied archaeology are intrinsically linked, and as noted by Birch (2006:16), not only can applied archaeology be well regarded, but academic archaeology is dependent on it. Discussions on bridging the divide have also begun, with archaeologists offering their reflective views and advice, as well as universities seeing more calls for action and demands to address the pedagogical gap (see Ferris and Welch 2015; Welch et al. 2018; Biehl 2013; Gillespie 2004; Whitley 2004; White et al. 2004; Vawser 2004; Berggren and Hodder 2003).

The diversification of CRM over the years and the lack of access to applied practice reports, coupled with few adequate options of CRM-focused education until more recently, has given rise to a new and distinct form of archaeological practice. However, it has also resulted in varying expectations from the profession and its practitioners, as the orientations of CRM have begun to pivot over time. As the industry continues to grow, worry over the quality of work that can be carried out under a constricting, contractual agreement leads to skepticism that contract archaeology is just that — a contract — and that the private industry is more accountable to their clients than to the discipline itself.
(Ferris and Welch 2015:78; Carman 2015). For example, Birch (2006:13) has noted that “Cultural Resource Management [in Ontario] is largely conducted as a compliance mechanism that serves the development process rather than an endeavour that aims to discover more about the human past.” While Birch is specifically discussing Ontario, similar views have been expressed about the industry in general (see Zorzin 2015a, b; Welch et al. 2018: 2; Hutchins et al. 2018; Cushman and Howe 2011). And it is from these critiques that questions around the ethics of CRM have emerged.

2.4 Problems in Cultural Resource Management: Ethics & Commodification of Practice

The CRM industry has commoditized archaeology as a practice, effectively placing an economic value on heritage. It has been argued that commercial archaeology is explicitly the result of capitalist enterprise, reflecting the neoliberal values of the Western society that produced it (Ferris and Welch 2015:78; Hutchings 2018). Despite any good intentions with the introduction of CRM, it has been suggested that the industry today functions primarily to the benefit of large developers and bureaucratic offices, assisting in the modification and monetization of the lands (Hutchings 2018; Zorzin 2015a). It has been argued that CRM has fundamentally changed how the research and resources of archaeology are both investigated and disseminated; in essence, commercial archaeology has become a tool, approved for “the alteration and commoditization of land and resources through mitigation and removal of the archaeological heritage of those places, by means of a fee for service utilization of government — and profession — sanctioned expertise and privileged right to alter that record” (Ferris and Welch 2015:79).

As commercial archaeology has continued to operate primarily within the private sector, market and regulatory demands have continued to prioritize quick turnover of projects over “proper” heritage management, forcing the consulting archaeologist to try and find a balance (Zorzin 2015a; Welch et al. 2018: 2; Hutchins 2018; Cushman and Howe 2011). This juggling act has played out in a series of practical and political constraints, resulting in an industry impacted by market and regulatory demands, which “…tend to prioritize efficient delivery of ‘project clearances’ and ‘compliance’ ahead of the effective
conservation of heritage resources” (Welch et al. 2012:2). Unsurprisingly, ethical issues and industry critiques have arisen in response to the narrative that cultural resource management is “compliance driven” (King 1998:11) and that its sole purpose is to “ensure conformity to the state heritage regime under which the specific management system operates” (Hutchings 2018:72).

In the past, CRM has operated similarly to the lawless Wild West: lacking clear standards and expectations of practice, paralleled by anecdotes of “dispositions to a sort of archaeological habitus known only by a select few” (Ferris 2007:88; Zorzin 2011). While some regions have responded to this by creating an extensive set of standards, such as Ontario, boilerplate legislation does not exist nationwide, and historically, not all regions have followed the same guidelines or have had the same expectations of practice. Similarly, the specifications of practice are still not all equally representative between every province; for example, Alberta requires “research permit” holders (which includes archaeological survey and mitigative work) to have had at least 24 weeks of supervised training, and at least six weeks of laboratory analysis and/or archaeological curating (Government of Alberta 2002). Conversely, Nova Scotia’s “archaeological resource impact assessment” permits (which includes archaeological investigation in advance of development) can be granted with only 20 weeks of field work experience; however, 10 of those weeks must be in a supervisory capacity (Government of Nova Scotia n.d.). This unregulated system has meant that archaeology operates differently on a regional basis, which has led to the development of industry critiques in the face of this operational uncertainty.

For example, there have been critiques that the industry has been faced with a number of ethical issues of practice, levelled at it from within the discipline such as low wages and poor working conditions, and has faced many critiques of professional misconduct and malpractice. For example, critics have accused some CRM archaeologists of leveraging their expertise in exchange for financial gain or have underbid competitors. Since consulting practitioners can negotiate their compensation against the level and quality of the archaeological recovery and analysis to be carried out, they essentially control and monetize the quality and quantity of archaeological documentation they do, and “the
consequences of decisions, and ethical preferences, translate immediately into quality and quantity of personal compensation, as well as quality of satisfaction for “properly” managing the archaeological record” (Ferris and Welch 2015:77; Ferris and Dent 2020: 35).

As a result, CRM appears to have adopted a ‘quantity over quality’ mentality, contributing further critique, such as: failure to conserve sites, denying heritage protection and triaging material solely based on archaeological notions of significance — despite how that value may be viewed differently by other, non-archaeologist groups (Welch and Ferris 2014:96; Zorzin 2017:427). In this new form of practice, the value placed upon archaeological resources shifts, causing both political and ethical restraints. The significance of an item is often only understood through the value placed on it by the archaeologists themselves, as understood through an archaeologists point of view. In actuality, archaeologists are not the sole custodians of cultural resources, and in fact, CRM notions of value and significance mean vastly different things to non-archaeologists, especially for members of descendent groups (Welch and Ferris 2014:96).

As a discipline, archaeology has been critiqued by descendent groups and Indigenous scholars, argued to be an “exclusionary practice” that has “harmed Indigenous people” (Steeves 2015:130). As North American archaeology is predominately focused on Indigenous archaeological heritage, the assumption of a mostly white, non-Indigenous archaeological community has been met with concern (Hutchings and La Salle 2015:14). Further, it is generally accepted that archaeologists working in settler societies are consistently taught under Western schools of thought, resulting in a lack of Indigenous ontologies, epistemologies and/or worldviews being present in the discussion around the value and significance of archaeological resources (Ferris and Dent 2020:32; Steeves 2015). CRM, settler-archaeologist stewardship, and the application of non-Indigenous archaeological ontologies have also been questioned for having an unfair reach and perpetrating a colonial narrative within archaeology by “creating the past through a Western-only lens” (Steeves 2015:130; Ferris and Dent 2020). While some scholars have stated that archaeologists should not have to choose between science and respecting
Indigenous communities, as positive and effective collaboration is possible, others have pointed out that community and inclusive CRM projects are often only in reply to the critiques of archaeology and CRM, and not for the sake of Indigenous involvement in and of itself (Colwell-Chanthaphonh et al. 2010:234; Steeves 2013:131).

While these critiques are part of a broader examination of archaeology as a whole, almost all archaeology done in Canada is CRM-based. As such, there is a current narrative that the perceived flaws within archaeological practice are the result of CRM operating under the paradigm of a neo-liberal state rooted in a capitalist ideology, which gave rise to an industry dedicated to providing compliance services (Zorzin 2015a:117; Hutchings 2018:78). Indeed, these critiques center on the core ethos of CRM as a business first practice, bringing issues of corporate ethics into archaeology (Dans and González 2021:449). In this vein, it has been suggested that the “adaptation of CRM to corporatist neoliberalism led to a cost-driven business model” (Dans and González 2021:460) and that as time has gone on, the model through which CRM operates no longer serves it, and instead, may actually be contributing to its downfall (Dore 2017; see also Cushman and Howe 2011).

For the first few decades of operation, cultural resource management firms were viewed as a value-added professional service — knowledge, training, experience, and quality all had value clients would pay for to meet development compliance requirements (Dore 2017:234). However, into the 21st century, the perspective on CRM by those who pay for it changed: consulting archaeology was no longer about the value of expertise and experience, but instead more about a variably priced commodity service (Dore 2017:235). Despite this change in consumer perspective, CRM firms have continued to follow a value-added business model, as it correlates well with the heritage values many consulting archaeologists are motivated by, despite operating in an economy that views these services through a commodity business model, inevitably creating conflict between business values and heritage values (Dore 2017:235). The commodified nature of archaeology in CRM explains the need to reevaluate business practices, heritage values and archaeological management (Dore 2017; Cushman and Howe 2011; Dans and González 2021). As noted by Dore, while archaeology has been almost entirely privatized
for the last 40 years, “there isn’t a tradeoff between good business and good science” (2017:237). If the business side of CRM is unable to operate successfully, then the practice of CRM fails; consequently, the failure of the consulting industry will jeopardize the entire discipline of archaeology, mimicking earlier fears of industry disrepute (Dore 2017:237; Byrne 1976).

2.5 Conclusion

Collectively, the issues and critiques I have presented all contribute to the ongoing commentary that CRM has not lived up to its original promise of “honouring the past while serving the needs of present and future generations” (Cushman and Howe 2012:56; Welch et al. 2018:3). Through a combination of the growing demands of the practice, relying on a fluctuating economy and varying regulatory bodies, there has been an evolution of how the industry is structured and operates. As a result, CRM has experienced several critiques, such as: inconsistent or insufficient standards, guidelines, and resources; inadequate performance relating to the documentation and conservation of archaeological resources, both during and after extraction; providing a clear understanding as to why this work is being done; and, to what end and for what purpose and for whom. While some issues have been addressed over time, there remains concern that some problem areas still exists, and that in order to fully address and improve upon these areas, a fuller and more insightful understanding of the practice and the practitioners is needed.

It is estimated that nearly 90% of all archaeology undertaken in North America is in the heritage compliance industry; consequently, CRM has become the most viable career option for archaeologists and recent graduates of archaeology-related programs (Ferris and Welch 2015:77; Dent 2016). However, neither the private sector nor their government regulators track or document the demographic makeup of the industry. Other than critiques and anecdotal considerations, we know virtually nothing about how it works day-to-day in practice, nor do we fully comprehend the intentions or education of current professionals, nor do we know how they understand their own roles and responsibilities in mediating heritage resources, despite the fact that these practitioners
collectively, shape and influence how archaeology is performed. That lack of insight provides a less than ideal understanding of consulting archaeology and highlights the need to build a professional profile that explores the makeup and diversity of practitioners, their level of credential and experiential expertise, and their personal sentiments regarding the impact their practice has as what, arguably, mostly defines archaeology’s relevance in society today.

Finally, while it is important to understand that no single industry can remain free of criticism, it is also crucial to understand the nuances that accompany critiques of CRM. Due to the nature of the practice, and the little knowledge we have of the industry, concerns of practice are often directed from outside sources (i.e., academia, businesses, non-CRM individuals, etc.). Due to this, the lens through which certain commentary is given can be inherently biased, whether it is because of the field the critique is coming from, or simply because the individual(s) does not have an inside understanding of the practice, and therefore cannot form the same opinion that a CRM practitioner would. Additionally, due to the underlying makeup of the industry not being well understood, critiques can rely on generalizations or straw dogs, which often cannot offer any true resolution, nor does it provide a comprehensive take on the industry. Therefore, my survey actually offers CRM practitioners the opportunity to respond to the issues that have been raised in the various critiques of practice, thus allowing for an insider view and opinion of CRM.
Chapter 3

3 Reviewing the Current Profile of Cultural Resource Management

Despite the exponential growth and different critiques of CRM archaeology in North America, little research has focused on the makeup and community of practitioners shaping this industry. Government regulators do not track the profession beyond basic credentialism, such as minimum education requirements and fieldwork output; professional groups and associations service members who are primarily working in the industry, but they do not profile their membership. While there is a growing body of research focused on the rise of the practice and the makeup of the profession, the output of existing scholarship is still relatively small and focused on practice, rather than practitioners.

In this chapter, I will review the available research about this practice and its practitioners. For the purposes of this discussion, I will be focusing on CRM practice specifically and will only address more general studies about the archaeological profession as it relates to CRM trends and insights. Understanding the nature and impact of CRM to archaeology and in society is not possible if we do not understand who these professionals are and how they conceptualize this very distinct form of practice.

3.1 The Profile of the CRM Industry: Reflections on Growth and Expansion Over the Last 40 Years

In Canada, there have been studies over the years on CRM, either specifically or generally, that offer valuable insights into the makeup of the industry, both regionally or nationally (see Birch 2006; Zorzin 2011; Hutchings and La Salle 2015; Dent 2016; Desrosiers 2017; 2019; Jalbert 2019). It is important to note, however, that before we can provide a more comprehensive sense of the industry, and those that work in it, we need to reflect on the rise of CRM archaeology over the last 40 years.
The rise of CRM as the predominant form of archaeology in recent decades, as outlined in Chapter 2, is paralleled by an increase in the number of practicing CRM archaeologists. For example, a study done in Quebec revealed that 68% of all archaeologists employed in the province worked in commercial archaeology (Zorzin and St-Pierre 2016:416); similarly, a study done in British Columbia found that 97% of all archaeology done in the province was CRM-based (Hutchings and La Salle 2015:13). Elsewhere in the world, similar studies have yielded comparable results suggesting this trend in the makeup and nature of archaeology and archaeological practitioners is dominated by commercial archaeology and heritage management regimes, worldwide (see Everill 2009; Ulm et al. 2013; Aitchison 2013; Aitchison and Rocks-Macqueen 2014; Aitchison et al. 2020; Mate and Ulm 2021).

There is also available data produced by various professional organizations. For example, the British Columbia Association of Professional Archaeologists (BCAPA) keeps a public directory of CRM firms and lists practitioners who are BCAPA members. While not all members are necessarily working as consultant archaeologists — the list includes students and those with a leave-of-absence as well — when accounting for all listed archaeologists, 82% of BCAPA members are not currently affiliated with academia, either through employment or education (BCAPA 2021). Similarly, the Ontario government keeps a public list of all archaeologists licensed to practice in the province, segmented by categories of research, professional and avocational. On the assumption that those with an avocational license do not work in CRM, and therefore are not included, 51% of the archaeologists listed are not currently affiliated with academic research. Following suit, the Register of Professional Archaeologists (RPA) provides a list of all registered archaeologists. Of those Canadian RPA practitioners, 66% are not currently affiliated with academia.

### 3.2 The Profile of the CRM Archaeologist: What is Known of the Contemporary Consulting Archaeologist?

While the rise of CRM as an industry can be documented generally for the last 40 years, data on the increasing number of individuals who work in this field has only more
recently been published and shared amongst the discourse. For example, the topic of representation and participation in the general practice of archaeology has been increasingly explored in recent years: studies have focused on gender (Brown 2018; Gonzales 2018; VanDerwarker et al. 2018; Jalbert 2019; Hodgetts et al. 2020; Overholtzer and Jalbert 2021); racial makeup (see Rocks-MacQueen 2013; Steeves 2015; Dent 2016; Jalbert 2019; Hodgetts et al. 2020); and age profiles of current workers in the field (see Jalbert 2019; Aitchison et al. 2020; Mate and Ulm 2021). Such studies include the Canadian context (Zorzin and St-Pierre 2016; Desrosiers 2017, 2019; Jalbert 2019; Overholtzer and Jalbert 2021), as well as studies in the United States, Europe, and Australia (Aitchison and Rocks-Macqueen 2014; Lazar et al. 2014; Gonzales 2018; Aitchison et al. 2020; Mate and Ulm 2021). Comparing these recent studies with a handful of earlier studies on the demographic profile of CRM archaeologists (see Zeder 1997; Bernick and Zacharias 1995; Aitchison 1997, 1999, 2000, 2003; Birch 2006; Everill 2006, 2009) will allow for an examination of change through time.

3.2.1 Gender Makeup and Distribution

As a practice, archaeology has been understood historically to be a white, male-dominated field (e.g., Bernick and Zacharias 1995; Zeder 1997). The extent to which that is still true, in archaeology generally and in CRM specifically, and the extent to which the discipline is diversifying, is important to consider given changing attitudes and social norms surrounding archaeology and archaeological heritage in society. In the 20th century, archaeology, like many other fields in and out of academia, reflected a gender bias against women and female-identifying individuals (Zeder 1994; Bernick and Zacharias 1995; Gonzales 2018; Overholtzer and Jalbert 2021). Moving into and within the 20th century, archaeology as a discipline began to see more diversity; for example, when considering gender makeup specifically, studies indicate that of those pursuing archaeology degrees, women make up more of the student population and typically have an overall higher education than their male counterparts. However, disparity among women holding positions failed to reflect that majority, as most individuals successfully pursuing professional careers in archaeology were typically men (Zeder 1994; Bernick and Zacharias 1995).
More recent studies have indicated that more women are entering the field of CRM, and in some cases even outnumber their male co-workers; however, archaeologists who hold the senior level, prestigious, and high paying jobs in CRM remain predominately men (Gonzales 2018; Jalbert 2019). This trend remains despite the fact that women continue to form the majority of students enrolled in a graduate program for archaeology at all levels (Jalbert 2019; Overholtzer and Jalbert 2021). That pattern also appears to be consistent for all countries I was able to examine for this review, though more recent studies are beginning to suggest that in the workforce, women are approaching or even surpassing parity with the men in their field (Hodgetts et al. 2020; see Aitchison et al. 2020; Mate and Ulm 2021; Overholtzer and Jalbert 2021).

Recent data from within Canada and elsewhere suggests that the gender diversity of CRM is expanding, and that even in the last decade, women have begun to reach parity or flip the ratio (Jalbert 2019; Hodgetts et al. 2020). However, gender inequality has persisted over time: men continue to hold more of the senior positions in both academia and CRM; men are more likely to be awarded grants and women are less likely to be published in peer-reviewed journals; and, the gender gap in some parts of the world has not closed nearly as much as others, if at all (Brown 2018; Gonzalez 2018; VanDerwarker 2018; Aitchison 2013; Aitchison et al. 2020; Overholtzer and Jalbert 2021).

3.2.2 Racial Diversity and Inclusion

Anecdotally, it is believed that the current racial profile of the archaeological community within Canada is predominately white (see Ferris and Dent 2020). Such a belief is hardly unexpected, as it has been suggested that archaeologists working in settler societies often come from white households (Ferris and Dent 2020:32), and the majority of Canadians today self-report to be of European backgrounds and/or identify as Caucasian (Government of Canada 2022b). Recent studies of Canadian archaeology in general certainly suggest a fairly homogenized population, with 80-90% of individuals surveyed identifying as white (Hodgetts et al. 2020; Jalbert 2019). These numbers align with results from other countries, suggesting that archaeology worldwide is still lacking in racial
diversity (Rocks-MacQueen 2013; Ulm et al. 2013; VanDerwarker et al. 2018; Aitchison et al. 2020; Mate and Ulm 2021).

Earlier studies suggested the population of archaeological communities at the time of those studies was overwhelmingly white in both the USA and the UK, with some studies reporting percentages as high as 98-99% (Aitchison and Edwards 2008; Rocks-MacQueen 2013; Altschul and Patterson 2018). This was also the trend noted for Australia, where 95-99% of archaeologists identified as white (Ulm et al. 2013:35). More recent studies still point to a predominance of white archaeologists, but at slightly lower percentages, ranging from 80-85%, and to as low as 70% (VanDerwarker et al. 2018; Brown 2018; Goldstein et al. 2016; Hodgetts at all. 2020).

While contemporary studies suggest a slight and slow increase in the diversity of practitioners, the archaeological community in North America continues to be predominantly white. Within the context of racial diversity and archaeology, I believe it is important to be cognizant of how North American archaeology is almost entirely focused on Indigenous heritage, and yet lacks Indigenous representation within the practice. Some Canadian studies have indicated Indigenous participation in CRM to range from 2% to 5.3% (Jalbert 2019; Hodgetts et al. 2020). In the USA, that range is 0.6% to 2.2% (Goldstein et al. 2016; VanDerwarker et al. 2018). That demographic underscores the current challenges of working towards the decolonization of archaeology, a prominent issue within the discourse of Indigenous archaeology (Atalay 2006; Smith and Wobst 2004; Nicholas 2006; Steeves 2015; McNiven 2016), and one that will be discussed in Chapter 6.

3.2.3 Age Groups

In recent decades, it has been suggested sustaining the exponential growth of the archaeological community required an increasing younger cohort of people joining the profession, both in Canada and internationally (Ulm at al. 2013; Aitchison 2013). This trend would be the practical consequence of recruiting willing workers into CRM positions that had not existed before that practice’s emergence. Moreover, as a relatively young profession overall, CRM has only recently begun to experience generational
turnover. In effect, the exponential growth in CRM since the 1990s has created a constant need for more and more workers, ensuring a youthful cohort would dominate the practice.

From the studies I reviewed, most archaeologists who participated in those studies were 40 years or younger, and the majority fell into the 25–35-year age group (VanDerwarker 2018; Jalbert 2019; Hodgetts et al. 2020). It has been noted that there is an ongoing changing profile within the profession: the increasingly younger demographic is becoming a direct reflection of the workforce and the educational systems that produced it (Mate and Ulm 2021). Some studies specifically acknowledge that not only is there a growing young body of professional archaeologists, but that cohort is also disproportionately shifting the gender profile of the demographic towards women of a younger age group; for example, of individuals working in Australian CRM who were 45 years old and younger, 69.4% identified as women (Mate and Ulm 2021: 232). This correlates with the composition and distribution of university enrolment numbers for women in archaeology, and more broadly, for women enrolled in higher education. These numbers also align with the observable trends of more women pursuing higher education, and women beginning to outnumber men in the archaeological community (Gonzalez 2018; Brown 2018; Mate and Ulm 2020).

### 3.3 Conclusion

The limited studies into the makeup and demographic profile of archaeology generally, and CRM in particular, offer a generalized picture of the profession and its practitioners. Archaeological practice in Canada remains mostly made up of people who are white; however, there does appear to be an increasing parity in terms of gender makeup. Growing numbers of women are being seen, particularly in entry-level positions and the more junior part of the workforce. Additionally, males still disproportionately comprise more senior decision makers, suggesting real change brought on through diversification is still a ways off.

The research reviewed here has provided this study with some general trends and expectations with respect to anticipating the results of my surveys. Given both the
fundamental transformation of practice, and the very consequential decision-making this industry effects on the archaeological heritage of Canada, building a professional profile on CRM and its practitioners can help us to understand both the limitations of that decision-making, and the opportunities that might exist for transforming those norms to reflect a wider, more representative diversity within CRM practice in the 21st century.
Chapter 4

4 Research Methods & Survey Development

In this chapter I review my research methods and outline how I structured my project. As noted in Chapter 3, we are limited when it comes to drawing an accurate representation of the contemporary CRM industry in Canada. That review provided a basic framing of the archaeological practitioners in general, in Canada and elsewhere, and allowed me to carve out my own path to build my research design.

4.1 Research Goals

In order to build a profile of the professional community in CRM, I needed to engage with that community directly. Doing so could have included limited interviews or direct participant observation. Alternatively, I could have undertaken a more removed analysis focused on publicly available CRM output, which characterizes many previous studies of CRM in Canada (e.g., Dent 2016; Ferris 1998, 2007; La Salle and Hutchings 2012). However, I wanted to generate a more detailed, moment-in-time profile of the CRM community in Canada and examine the practitioners’ attitudes and sentiments towards their occupation and industry, as these existed in 2021. To obtain this kind of data, I was more inspired by studies elsewhere that sought to build similar profiles of regional or national CRM communities (e.g., Aitchison 2013; Aitchison and Rocks-Macqueen 2014; Aitchison et al. 2020; Desrosiers 2017, 2019; Jalbert 2019; Ulm et al. 2013; Mate and Ulm 2021). Critical to these studies was the use of direct surveys of CRM companies and professionals for either one-off, moment-in-time profiles, or to build a continuing, longitudinal trend for the industry. As such, I focused on developing a survey-based quantitative study, with the goal of obtaining a dataset that could be aggregated to provide a profile of those who participated. While not without its flaws (see Einola and Alvesson 2021), survey-based research proved useful as it directly compiled self-referential information drawn from company managers and employees; this provided the opportunity to examine how, at the least, the participants of this study respond to the questionnaires, thus providing aid in the exploration and understanding of the phenomenon that is the
CRM profession in Canada. My method of choice directed the route through which I designed, distributed, and collected feedback for analysis, as reviewed below.

The use of anonymous questionnaires, which were circulated online for a specified amount of time, was the selected tool to gather demographic information and general opinions, solicited from a fixed question survey (i.e., ‘choose from the options below’, rather than soliciting opened ended, written replies). As a tool, survey research is very useful at collecting basic descriptive data, as required in building a demographic profile of the profession, and for gaining a sense of the range of attitudes towards commonly understood topics, in this case the training, experience and operation of undertaking CRM archaeology. A driving factor for the implementation of survey research is that “questions asked can be used to accurately describe practices, conditions, experiences, personal characteristics, or opinions of respondents” (Einola and Alvesson 2021:103). Having the ability to study the compiled responses of volunteers through their participation would provide me with a set of responses that I hoped would represent reliable indicators of the current reality of CRM, at least as expressed through the views of those participants (Einola and Alvesson 2021).

The primary aim of this study was to gather data on CRM archaeology and its practitioners. With the data I hoped to collect, I wanted to achieve three goals: 1) create a clearer and more specific understanding of industry practices, expectations and prospects through current ,“slice-in-time” responses from CRM office managers; 2) develop a demographic and sentiment profile through responses from self-identified CRM professionals, including their current attitudes and experiences working in CRM; and, 3) with the aggregate responses of office managers and professionals, to gain insight into the current structure of the CRM industry and profession. Ultimately, the end goal of my research is to contribute to the ongoing analysis of contemporary cultural resource management archaeology in Canada and build a professional profile of the industry.

4.2 Survey Design and Development

Initially I considered releasing a single survey, directed towards CRM professionals. However, the absence of a detailed profile of the profession meant I had no real sense of
what kind of response I could get back, or indeed how to effectively reach prospective respondents directly. What I did have, however, were the publicly available CRM company lists most provincial jurisdictions maintained for prospective clients. These contact lists meant I could reach out directly to office managers, and gain a perspective on company make-up, personnel structure, and a sense of the industry at a given moment-in-time. Doing so would also increase the profile of my study within CRM offices across the country, that would then help recruit individuals responding to the eventual follow-up sentiment survey. Finally, the preliminary survey, hereafter referred to as the industry survey would also provide a counterpoint to the follow-up responses received directly from individuals self-identifying as CRM professionals, who could provide a greater sense of personal sentiment and experiences working in CRM, but not the wider industry context companies need to operate within. As such, I decided to develop two distinct surveys: one I would send directly to CRM office managers, and another, open survey to CRM practitioners, each of which would be distributed and promoted differently.

The design for each of my surveys would solicit similar information, but also include sections unique for each set of respondents. The industry survey sent to CRM managers was meant to solicit responses about the personnel makeup of their particular office, recruitment practice, and the scale of work undertaken on a specific date by that office. The second survey, which I will refer to here as the sentiment survey, solicited responses from individuals self-identifying as CRM professionals, to explore the participants’ opinions toward their profession and experiences entering the field, I also wanted to know if their opinions have or have not changed over the course of their careers. Additionally, I wanted to include a series of questions asking about respondents’ perceived sense of the goals and role of CRM in archaeology and Canadian society.

The intent for both surveys was to gather quantitative data. I decided that my surveys would follow a fixed-choice approach which allowed for the data to be aggregated once submitted, and potentially reach a large pool of potential respondents. Having the capacity to reach a wide pool of respondents was important to garner a sense of transnational trends and possible regional differences. The resulting dataset would also better provide a representative demographic makeup of the profession than I could have
obtained from undertaking a more limited study based on interviews of individuals. The results from fixed response questionnaires would also help provide a baseline for any future longitudinal study examining the changing demographics and attitudes of the profession over time. It may be that interviews and more intensive regional studies in the future will be able to build on the results here, but initially, given the limited information currently available on the makeup and sentiment of the industry and profession, I felt this method was best able to ensure success of this and future studies.

Designing questions for my surveys was informed by previous research and questionnaires that also aimed to develop a profile of the CRM industry and practitioners undertaken elsewhere. Specific surveys that provided guidance include those done by Landward Research (Aitchison et al. 2020; Aitchison and Rocks-McQueen 2021), that explore industry work trends in Britain and Europe, and market and economic sentiments and trends undertaken in North America by Heritage Business International (HBI, personal correspondence 2021; 2022). These studies provided me with examples of what might be important to look at when examining the CRM industry in Canada, and what might not be necessary for my specific project. For example, these studies examine demographics, industry numbers and growth, worker skills, and employment trends, but these ongoing studies also explore dimensions of practice that are more tied to longitudinal economic and workplace trends, such as asking questions on market conditions, client relations, health, and safety, etc. Overall, from these studies I was able to develop compatible questions within the areas of demographics, education, personal experiences and/or opinions and expectations of practice. In addition, I wanted to capture sentiments of practitioners and office managers to gain insight into how respondents saw their profession and their role in heritage compliance management and as professional archaeologists. The design for the survey ended up being a series of questions, some of which were single or multiple-choice selections of fixed responses, others directed respondents to choose a specific interval scale (e.g., age range), and some questions were ranked, providing respondents with ordinal scales to reflect sentiment against fixed statements (e.g., on a scale of 1-5).
I chose to develop both of my surveys using Qualtrics, a “Application Service Provider (ASP) with a Software-as-a-Service (SaaS) platform for creating and distributing online surveys and related research services” (Qualtrics 2015). Qualtrics is provided for free to Western faculty, students, and employees and is approved as online survey software by the Office of Research Ethics (Western University 2020).

Together, I felt that these two surveys would provide a robust reflection of the CRM industry in Canada and the people working in that profession.

4.2.1 Industry Survey

The industry survey was directed at CRM company office managers (either a single manager, or multiple managers if the CRM company maintained multiple regional offices) and meant to gather data related to employment and company operations. This is discussed in further detail below. Emails were sent to CRM firms across the country, selected based on their presence on publicly available contact lists, or through available information made public on their respective websites. The email introduced the study, explained what the project was seeking to accomplish, and invited firms to participate by following the survey link provided in the email. In the case of consulting companies that maintained multiple offices, they were encouraged to provide a response from each separate office, and only describe the specific make-up and activities carried out at that office. In the email (Appendix D), it was requested that the survey be anonymously completed by one individual on behalf of the office, such as an office manager, senior administrator, or company principal. The survey was launched on October 15th, 2021, and was only accessible via the secure, anonymous link provided in the email. As this survey was designed to gather a “slice-in-time” state of each office, it was asked that responses be based on the firm as it was on the fixed date of October 15th, 2021, to the best of their abilities.

The questionnaire was split up into three sections: 1) office work profile; 2) office demographic profile; 3) expectations of employees. Please refer to Appendix F for the complete survey with all questions asked. The purpose of these questions was to inform the researchers of the general demographic make-up of CRM employees, of which would
be cross-examined with the sentiment survey demographics to yield an analysis of who, on a basic level, is currently working in CRM. Additionally, the questions were meant to address how individual firms viewed education and experience, as well as to gauge the general idea of practitioner position types and permanency, which would later be examined in conjunction with both concerns of job stability in the field, as well as how many of the individual practitioners corroborated industry statements on employment. Finally, by exploring industry metrics on employment and demographics, there is the opportunity to look at how industry practices compare to business critiques of practice, such as issues regarding pay and social discussions on CRM, such as representation and gender equality. I will briefly break down each section, and the questions asked, below.

4.2.1.1 Office Work Profile

The office work profile was meant to document the scale of work currently undertaken at each respondent’s office. Questions in this section included identifying all regions of the country where the office worked; years of operation and project numbers per annum; primary sector of work; and staffing levels.

4.2.1.2 Office Demographic Profile

This section was meant to document the individuals working at an office. Participants were asked to describe the personnel working at their office on October 15th, 2021. They were directed to respond as the Office Manager, describing personnel by makeup and position, as they understood them to be. The intent was for the respondents to complete this portion of the survey from memory rather than conduct any sort of detailed audit of the office in order to answer. Questions in this section included identifying personnel by race, gender, and age; the number of people working in the office; employee position, permanency, and salary range. These questions were meant to provide a basic understanding of employment diversity.

4.2.1.3 Recruitment Practices

This section sought to document any factors respondents valued or expected when evaluating the skills of prospective, archaeology-skilled employees. Participants were
asked to use an ordinal scale from 1-5 (1 being not very important and 5 being very important) for how each factor listed in the question did or did not influence the interview and hiring process. These factors included letters of reference or personal recommendations; level of education; and, previous experience. The goal of this section was to understand how hiring decisions are made.

4.2.2 Sentiment Survey

The second questionnaire was designed to recruit anonymous responses from individuals who self-identify as CRM workers and were currently or previously employed by a company that conducts archaeological heritage compliance work in Canada. The survey was circulated online via social media and by word of mouth and was launched on October 15th, 2021. Participants could have worked within a larger engineering firm or in a company that solely focused on heritage compliance services. They could be employed full time, part time and/or seasonally as CRM archaeologists. The survey requested that participants answer each question based on their personal understandings, experience, and knowledge.

The questionnaire was split up into five sections: 1) demographic profile; 2) educational experience and attitudes; 3) employment experience; 4) career and employment sentiments; and, 5) additional thoughts or opinions. Please refer to Appendix G for the complete survey with all questions asked. The purpose of these questions was to inform the researchers of the general demographic make-up of CRM employees, as expressed by the practitioners themselves. This would then offer a dataset that can be look at next to both the industry survey, and with other practitioner surveys that yielded comparable results. The questions of the sentiment survey were meant to both build a demographic base of who the practitioners were, but also to explore their own experiences in the field, from education to practice, as well as to illicit their personal sentiments regarding CRM archaeology as a whole. Through the exploration of the CRM consultant, the sentiment survey provides the opportunity to address problem areas such as representation, as well as allowing the chance to compare personal experiences and beliefs to critiques of practice. This is especially prominent, as stated earlier, many critiques of practice are
oversimplified and often come from the outside. But collecting a more comprehensive view from the very people who work in this field, we can explore how concerns for the practice have or can change, and how exactly these issues do or do not play out for those involved. I will briefly break down each section, and the questions asked, below.

4.2.2.1 Demographic Profile

This section asked respondents to self-identify themselves by gender, race, age and where they were born or raised.

4.2.2.2 Educational Experience

This section asked respondents to identify their educational background, as of the day of survey participation, and how their education was reflected in their career as an archaeologist. Questions included level of education; degree specialization; sentiments and attitudes toward their education; and how well their degrees prepared them for their career in CRM.

4.2.2.3 Employment Experience

This section asked respondents to describe their employment history and current work status. Questions included number of years doing archaeology and CRM; number of employers; position title and permanency; regional areas worked.

4.2.2.4 Career and Employment Sentiments

This section asked respondents to provide career and employment sentiments on working in archaeology and CRM, to gain a sense of attitudes toward their career and field of employment. Participants were asked to use an ordinal scale for each sentiment listed, ranking their responses along a scale of 1-5 (1 being not very important and 5 being very important). Questions considered satisfaction with their career choice; expectations for the future of their employment; assessing how their employer provided mentorship and job training; and their view on what being a consulting archaeologist means. These questions were influenced by previous studies.
that examined similar concepts and based on various critiques of practice, of which were discussed in Chapter 2.

4.2.2.5 Additional Thoughts or Opinions

The last section of the sentiment survey provided a limited textbox (250 characters) should any participant feel that they wanted to provide any additional thoughts or opinions, either on the survey itself or on a topic the survey did not cover. Respondents were asked to avoid using any identifying information in their reply, as the survey was intended to be anonymous. Providing this section was necessary in order to allow respondents the opportunity to express their reflexive take on the survey and intent of the study and gave them more autonomy in their responses.

4.3 Limitations & Considerations

Every research project faces challenges and limitations that need to be considered and understood when designing a method and analyzing the resultant dataset. The following were considered in this study.

4.3.1 How do we define “CRM archaeologists” for this study?

To ensure a more clear and concise understanding of what respondents were being asked to explore, it was important to have a clear sense of how the surveys define “CRM Archaeologist”. Other scholars have noted the difficulty in assigning any specific definition to the term or dictating who can and cannot identify as one (Zorzin 2010; Jalbert 2019). Typically, CRM archaeologists are considered to be made up of private sector consultants, public sector government archaeologists, Tribal managers (in the States), Indigenous Liaisons/Monitors, etc., all involved in the management of the archaeological record as impacted by regulated land use development activities. For this study, I wanted to solely focus on the private sector industry – those professionals who work for firms hired in a fee-for-service contract with an outside client, to plan for, identify, and potentially remove archaeological resources in fulfillment of regulatory requirements tied to the conservation of those resources.
As a result, both surveys used the term “consultant archaeologist”, and made clear this term was referring to those who work in the private sector, as a fee-for-service archaeologist. As well, my use of consultant company lists for the industry survey ensured that I was specifically reaching out to that sector of the broader heritage compliance sector.

However, for the sentiment survey I could not restrict circulation or word of mouth to just those individuals who were currently employed as “consultant archaeologists.” In fact, I recognized early on that some people may wish to respond to the survey who no longer worked in CRM, and as such made sure questions accounted for both currently and previously employed individuals. I could have included a question on employer type in the sentiment survey to help filter out any responses that were not from individuals working as a consultant archaeologist in a private sector CRM firm, but I did not want to have to second guess respondents self-identifying as a CRM archaeologist who chose to provide a response for this study. I attempted to curb any misinterpretations that my survey or invitations could cause by outlining inclusion criteria, purposes of the study and any risk/reward benefits (no direct risk or reward, but the possibility of contributing important data) prior to individuals consenting to their participation. Additionally, the poster that was circulated promoting the sentiment survey (see Figure 5) did specifically ask for volunteers who identified as CRM archaeologists and worked (or had worked) for a private sector consulting company, and/or in heritage compliance services.

4.3.2 Sample Size

In earlier chapters, I spoke of the limited information regarding CRM archaeology in Canada including the lack of career and employment statistics (Jalbert 2019). A consequence of this limited sense of the size and makeup of the profession in Canada is that configuring or predicting a sample size for this study was not possible. Understanding the size of the CRM population in Canada is entirely informal and speculative, via contact information through company advertising, on websites or public social media accounts, and from the output of the industry as reported on by provincial regulators.
For this study, I at least had a sense of scale for my industry survey, as I knew how many requests I would be emailing out to CRM companies based on publicly accessible lists and/or information. There is extensive and exhaustive literature in the social sciences generally, and market surveys specifically, of and around predicting response rates, and the factors that affect those rates (e.g., Cook et al 2000; Holtom et al 2022; Sax et al 2003). However, I also knew that restricting responses to an office manager and asking that the survey be based in the Fall, typically a busier time of year for CRM firms as clients begin to push to get projects completed before winter, would affect response rates. For the sentiment survey, however, I simply had no idea what kind of response rate I would achieve, knowing it would at least in part be affected by how well I could promote the study.

As such, while I feel I did receive a level of response that has provided me with a viable dataset to analyze here, I recognize that gathering more precise metrics on this profession in the future will be key to furthering our comprehension of the practice.

4.3.3 Other Considerations

I also should acknowledge that volunteer surveys do pose limitations, the first and most obvious of which is that the resulting dataset is reflective of the makeup and sentiments of those individuals who chose to take the time and provide responses, providing a responses bias within my dataset. Any extrapolation of the trends here to the broader CRM industry in Canada or particular regions of the country should be understood with respect to those boundaries. Additionally, due to the nature of how the sentiment surveys were formatted and advertised, there may be an inherent response bias due to the use of social media and online platforms, thus eliminating certain groups who may not have access to the internet or who might not wish to participate on social platforms, and potentially contributing to a larger representation of other groups. This is important to note when considering that younger people are more apt to use social media, and therefore could provide a response bias. Additionally, when looking at the industry survey, it is important to consider the impact that the COVID-19 pandemic may have had; for example, it is wholly possible that due to the pandemic, the number of CRM firms that were operating may have
changed, as COVID-19 protocols varied by province, and thus may have contributed a bias to the number of responses. Further, there may have also been an impact on employment numbers, as staffing shortages have been a large concern for many industries, whether due to sickness and health concerns, or individuals simply changing parts of their lives (jobs and careers included) due to the stress of COVID-19. Lastly, it should be acknowledged that there is also the potential for location bias – as I attend an Ontario university, under the guidance of a well-known supervisor, there is a possibility for responses collected due to affiliations or personal connections to both the research institution and researchers.

As well, while the use of exclusionary or multiple response choices to questions are relatively straightforward, use of ordinal questions was a bit more open-ended in the sense that the sliding scale of importance could possibly be interpreted differently by participants. I attempted to ensure that questions were clearly laid out and easily understood, but I also acknowledge that, regardless of question format, when asking another person to place their experiences and perspectives within an arbitrary sentiment scale, there is always room for interpretation. There is a need to be cognizant that subjectivity exists: data can be gathered without really knowing what is behind a respondent’s numerical answer which may not always be reflective of the intent of the question (Einola and Alvesson 2021:104). As researchers, we need to ensure that in response to such instances, or the potential for them, that we address them in a way that avoids researcher influence or bias being placed on the answers and acknowledges these possible outcomes in addition to advancing cautious interpretations from the resulting data.

It should also be noted that the nature of CRM — being a for-profit, seasonal, and as-needed industry — means that the workforce is never static. Jalbert (2019:144) speaks to this point, observing that a major consequence of the seasonal nature of this for-hire business will be that “not all individuals employed in this area will be captured” when surveying the population “due to the limitations created by this structure.” This is particularly important to keep in mind for my own research, as both of my surveys were constricted by a short response-time window towards to end of field season, when many
firms and/or archaeologists may have a much different experience with CRM then say, mid-summer. Due to the timing of the survey, there are other groups who may not be represented in the dataset, such as students (who typically work during the summer months).

Lastly, I am well aware that CRM firms, for the most part, tend to work more regionally than nationally, both a reflection of the variable amount of work available by region, and variation in regulatory environments. As such, I wanted to ensure that “regional” conceptions of where companies and professionals worked reflected typical divides. For example, many British Columbia and Alberta firms will work in both provinces, while most Ontario firms only work in Ontario (e.g., see Dent 2016). In terms of defining regions, I split the country up as follows: Western Canada, or simply the West (British Columbia and Alberta), the Prairies (Saskatchewan and Manitoba), Ontario, Quebec, Atlantic Canada (New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland and Labrador) and the Northern Territories, or the North (Yukon, Northwest Territories, and Nunavut).

As noted previously, my lack of French language skills limited my ability to reach out to Québec firms and practitioners, and so while I allowed for individuals to note if they came from or worked in Quebec, I was not able to properly promote this study there. This limitation obviously restricts my dataset to only include English-speaking parts of the country, though I will be able to reference the work of Desrosiers (2017, 2019), Zorzin (2011), and Zorzin and St-Pierre (2017) to gain at least a limited sense of the similarities and differences with that part of the country.

4.4 Ethics Approval

Prior to launching this study, I needed to apply for and receive ethics approval for my research based on the guidelines provided by the Western Non-Medical Research Ethics Board (WNMREB). While my research did require contact and communication with other people, it specifically depended on online participation with other human beings, therefore necessitating that the appropriate procedures and interactions took place prior to my data collection. Importantly, I needed to ensure my methods of communication, the
words I used during that discourse and in the actual surveys all provided clear, concise information regarding the intent of the survey, and ensured that all participants understood the need for their consent and understood how their responses would be compiled aggregated and presented. Critically, participants needed to know the surveys were designed to be anonymous, precluding the ability of individuals to reveal any private information about themselves or their workplace. By extension, the online surveys track or gather personal data of those who participated. Both surveys were available through an anonymous link; the sentiment survey also provided a QR code that could be scanned to get to the survey, and it was also anonymous.

As it was hosted online, my surveys required that the participants agree to an informed consent clause. The splash page of both surveys included a detailed ‘Letter of Information and Consent’ (Figure 3, 4, examples of the page; see Appendix B and/or C for full letters), and in order to proceed to the survey, respondents had to agree that they understood the information provided, and that they consented to their anonymous opinions/information being used for the purposes of my study. It was, in fact, the first question answered of the survey and respondents could not proceed without answering that critical question. I also provided respondents with the option that, if decided that they did not want to move forward with the survey, they could choose to decline. In the event of that happening, anyone who refused to participate would be automatically exited from the survey and brought to a page that thanked them for their time and that no further action was needed. Respondents were told that they could withdraw from the survey at any time; however, once responses were submitted there would be no way to withdraw. Respondents could also leave the survey unfinished and return to it later, picking up where they left off, and they were permitted to skip any questions they did not wish to answer. Respondents were also informed that, after the closing date, any incomplete survey would be destroyed and not included in the aggregated sample. My surveys did not offer, nor provide, any compensation in any form to the participants and their choice to provide a response to the survey was entirely voluntary.
Figure 3: Excerpt of Letter of Information and Consent

Consent Decision:

By selecting ‘Yes, I agree to participate’ you are confirming that you:

- Understand the letter of consent and information.
- Understand that your participation is voluntary, and that you may choose to withdraw at any time.
- Understand that your answers will be anonymous and your identity confidential.

☐ Yes, I agree to participate

☐ No, I do not agree to participate

Figure 4: Excerpt of Consent Decision
4.5 Survey Distribution & Response Rate

Due to the nature of my project being a master’s thesis, and therefore limited in the scale to which I could take on research and data, I needed to ensure that I did not take on too much information than I was capable of aggregating and analyzing. We minimized that risk by only accepting survey responses for a limited time (from October 15th until the end of 2021). The industry survey was circulated via email. Emails were sent to every company contact appearing on consultant lists obtained from provincial, territorial, and professional organizations (Table 1). A single email was sent to each firm, excepting where a firm maintained multiple regional offices in or between regions of the country. In that case an email was sent to each regional office of the company. I made the email lists on Qualtrics and was therefore able to directly distribute the industry survey from that platform. In total, I directly sent emails to 195 CRM companies, including multiple regional offices when appropriate. An initial batch of emails was sent on October 18th, 2021. Of those emails, 17 either bounced back, failed to send, or happened to be a duplicate email. When removing those from the count, I was left with 178 confirmed emails sent. I also sent a reminder email to the entire CRM email list (another 195 emails) on December 24th, 2021, one week before the survey closed.

By the time I closed the industry survey, I had received a total of 58 partial or full responses, or “started surveys”. Started surveys are considered any survey where a respondent at least clicked on the link, and also includes submitted surveys. The emails resulted in a 33% (n=58/178) response rate. The first round of emails saw 45 surveys started and 21 submitted, with a completion rate of 47%. The second round of emails had an additional 13 emails started, and only 3 finished, with a completion rate of 23%. Of the 58 started surveys, there was an overall response rate of 33%. By the time the survey closed, a total of 24 responses were submitted, a completion rate of 41%. As per this research project’s terms, incomplete surveys were not included in the results and were therefore destroyed.
Anecdotally, incomplete industry surveys range from barely begun, to almost complete. My impression on this high rate of incompletion, is that office managers, despite being encouraged to work from their memory of personnel, positions, and wage structure, sought to accurately detail their responses, and doing so made their ability to fill in the survey much more onerous. It is worth considering how this information could have been gathered more easily for respondents and underscores the point that the more demanding a survey, the lower the response rate (e.g., Sax et al 2003). Another possible reason for

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| British Columbia & Alberta:  
  - “Alberta Historic Resource Consultants Contact List”. 2020, Alberta Culture, Multiculturalism and Status of Women. | British Columbia & Alberta:  
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  - The Register of Professional Archaeologists (only individuals practicing in Canada) |
| Saskatchewan & Manitoba:  
the low engagement could be a lack in rapport and trust. While my survey is not the first to ask intimate details regarding a company’s workplace, there are still those who are hesitant to contribute such information to a stranger. For example, I had someone reach out to me asking for more information about the survey, specifically regarding their anonymity. While I specifically state in both the email and the Letter of Information and Consent (Appendix B and C) that all answers would remain anonymous and not be tracked back to any of the individuals, or their firms, this person was still worried, and I am sure they were not alone. In the end, the 24 completed surveys represent a 13% (n=24/178) completed response rate.

The sentiment survey was promoted on social media; I distributed a poster (Figure 5) explaining the intent of the study, and inviting questions if people wanted further information. Aside from advertising the survey independently on my own social accounts (i.e., Facebook, Twitter, LinkedIn), I also compiled a list of regional archaeological societies and associations and reached out to them via their social media accounts (Table 2). I was able to distribute this survey nation-wide, reaching what I feel overall is a large and diverse group. A specific sense to this approach’s effectiveness was when the Saskatchewan Association of Professional Archaeologists (SAPA) requested that I present remotely at their monthly meeting. A similar request was made of me by the Ontario Archaeological Society (OAS), presenting another opportunity to share my research. Unfortunately, I was unable to attend the OAS 2021 Symposium; however, my poster was included as part of their conference welcome packs.
Overall, I received slightly more sentiment survey responses (n=53) than the total of both completed and incomplete industry survey responses. While I would have preferred more of the industry responses to have been completed in order to provide a more robust background to the sentiment survey, I am satisfied that I do have a viable dataset from which to examine trends and makeup of the industry in the profession, nationally and regionally. While a smaller dataset does limit itself and can therefore impact the interpretation, I also acknowledge that my survey results are not reflective of the entire CRM population, and instead, only provide a glimpse into the industry and the views expressed by those who work in it. However, that glimpse still contains valuable information and is a steppingstone to gathering an even more complete and robust dataset going forward. I concluded that the number of responses I had received was sufficient to proceed with analysis and closed both surveys on December 31st, 2021.
Chapter 5

5 Building a Professional Profile of CRM in Canada: Presentation & Discussion of Quantitative Data

This chapter presents the quantitative data collected from my two surveys, both circulated in the Fall of 2021. As noted in Chapter 4, the majority of the questionnaires were designed to provide insight into the demographic makeup and practice of CRM. They also sought the respondents’ sentiments regarding the practice of archaeology generally, and CRM specifically. In this chapter, I will review the quantitative results from each survey that together provide insight into the makeup of this industry and profession. The sentiment responses will be reviewed in Chapter 6.

5.1 Overview of Survey Results

The industry survey garnered 24 completed responses when I closed access to the survey on December 31st, 2021. As noted in Chapter 4, I sent emails to 178 CRM companies requesting their participation. In total, 58 surveys were started and/or finished, providing an overall response rate of 33%. When the survey closed, 24 responses had been submitted, a completion rate of 41%. I should note, however, that I was made aware from respondent emails that some companies with multiple offices chose to pool into a singular compiled response from those offices. In other words, multiple requests to separate regional offices were encapsulated in a single response. All unfinished surveys were not considered in this survey and were destroyed completely. The sentiment survey generated 53 completed responses by the time I closed access to it on December 31st, 2021. As with the industry survey, incomplete survey responses were not used.

5.1.1 Limitations & Considerations

It is worth noting some of the limitations of the responses I received. For example, both surveys saw over 58% of responses completed within the first 10 days after the survey was opened, with that completion rate dropping off markedly afterwards.
considering both surveys, the majority of participants submitted their answers within the first few weeks of launch, with a combined total of 61% (n=44/77) of the responses, while only 8% (n=6/77) submitted within the last 30 days. I was able to send a reminder email for the industry survey, resulting in an uptick of responses, albeit a small one. In the 30 days before the reminder email, the survey had not garnered any additional responses, but saw two come in the same day the email was sent, and 12.5% of all responses came in after the reminder email (Table 2). As I was not able to personally remind respondents that the sentiment survey would be closing at the end of December 2021, I had to rely on social media and hope that people remembered to fill it out. Social media engagement with the poster occurred until November 25th, 2021, when I personally shared it for the last time during my presentation on the project at the SAPA meeting.

<table>
<thead>
<tr>
<th>Response Submission Date</th>
<th>Industry</th>
<th>Sentiment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within 14 days of launch October 15th – 29th</td>
<td>14 responses, 58% of total</td>
<td>33 responses, 62% of total</td>
</tr>
<tr>
<td>15-30 days of launch October 30th – November 14th</td>
<td>4 responses, 17% of total</td>
<td>10 responses, 19% of total</td>
</tr>
<tr>
<td>31-60 days of launch November 15th – December 15th</td>
<td>3 responses, 12.5% of total</td>
<td>8 responses, 15% of total</td>
</tr>
<tr>
<td>Final 14 days of survey December 16th – December 31st</td>
<td>3 responses, 12.5% of total</td>
<td>2 responses, 4% of total</td>
</tr>
</tbody>
</table>

It is also worth noting that response totals for individual questions within each survey will vary. That variation reflects instructions to the respondents that they could chose not to answer any question and that some questions, particularly in the industry survey, asked for a general estimate of the employee numbers by different variables. This meant that while one participant could have said that they employed 50 individuals, their assumptions on the demographic breakdown of those people might not necessarily amount to “50”. In hindsight, perhaps using a different method of data collection for those kinds of questions would have been more helpful, since using a form field box where the individuals could write an exact number (even if it was an estimate) left room for error. Some respondents also provided percentages as opposed to raw numbers, which were not
useful metrics. Using an interval scale may have allowed for more precise metrics and may have also encouraged more respondents to supply a consistent form of answer.

For the sentiment survey several questions were not answered by all 53 respondents. Notably, 15% of the sentiment survey questions generated less than 53 responses. Similarly, for the industry survey, 50% of the questions asked generated fewer than 24 responses. Therefore, there were several respondents who skipped multiple questions. As noted in Chapter 4, this lack of participant-wide responses for half of the questions asked in the industry survey may be tied to the high number of incomplete surveys. If so, this pattern again underscores that the industry survey design may have been too onerous to ensure ease of completion for respondents, leading to high incompletion rates, of either the survey as a whole or of individual questions. Where incompletion rates for questions are observed, these will be noted in the discussion below.

It should also be considered that the industry survey sought to gather a sense of the overall demographic of employees within the individual CRM firm. As such, questions could only be entirely answered if they were relevant to the respondent’s office. For example, if a respondent indicated that they employed 10 people, seven of which were field crew, two were field directors, and one was CEO, then that participant could only speak to those three positions with respect to questions of salary, experience, etc. Overall, respondents answered every question as it directly related to them, only identifying the particular roles that they employed, resulting in some sections of certain questions left blank (see Appendix F and/or G for the particular survey sections that included a multi-component question). Likewise, there were a few matrix tables that were almost entirely avoided by many respondents. In hindsight, this question format was too convoluted and demanded more time and energy than reasonable to complete (see Appendix F and/or G for the particular survey sections that included a matrix table).

Finally, when reviewing the data, it is important to consider how it is reflective of both the country at large and of the individual regions I surveyed. As discussed in Chapter 4, for the purposes of my study I decided to break down the different regions, and will be referring to them, as follows: Western Canada, or simply the West (British Columbia and Alberta), the Prairies (Saskatchewan and Manitoba), Ontario, Quebec, Atlantic Canada
(New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland and Labrador) and the Northern Territories, or the North (Yukon, Northwest Territories, and Nunavut).

5.2 Industry Survey Results – General Profile

The industry survey was broken down into three different sections, each encompassing a group of questions that reflected different categories, as discussed in detail in Chapter 4. The industry survey asked office managers or company principals/CEOs to provide a sense of the size and make-up of their company office and workforce, as it was on a specific date: October 15th, 2021. For this analysis, I will go over the survey and present the data, broken down by categories that are reflective of:

1) the office demographic profile;
2) the office employment profile; and,
3) the office operations profile.

The remainder of the survey data – the sentiment-oriented questions – will be explored in Chapter 6. In order to develop a working profile of CRM based on the industry survey, the data collected has been aggregated from all responses. To view the wording of the specific questions, please refer to Appendix F for the complete list of industry survey questions.

5.2.1 Note on the dataset

When looking across all responses, the total number of employees that are represented in this dataset fluctuates, due to several questions asking for raw numbers of employees based on different variables (e.g., race, gender, age). For example, Section 2, Question 1 asked the number of people employed in the respondent’s office. The compiled responses provided a total of 335 employees. But when asked to identify employees by gender category (male, female, unsure), the compiled total of employees was 343. Additionally, Section 2, Question 3 allowed the respondents to provide an “estimate of a generalized percentage,” when considering the number of employees within each age, as an alternative to raw numbers. Only two respondents used percentages, and the rest input
numbers. While it was simple to calculate the numbers based on the overall employee population for each response, in retrospect, the survey question would have been clearer if I had used another method of measurement, such as a scale. While asking for exact numbers appeared to have been the best option for collecting accurate data, it has instead left some questions either over or underrepresented, or at least lacks some consistency between responses. For the sake of brevity, I will be examining the number of employees across regions of each dataset, which means that if a company indicated they worked in more than one region, I am going to assume that all employees they list also work in all regions. The discussion of each question will be exclusive to the set of numbers compiled for that question, and the total numbers will be indicated.

5.2.2 The Industry Geographic Profile

Question 1 of Section 1 asked respondents to note all regions of the country their office conducts work in, so long as at least 10% of their projects occurred in each of those regions. All 24 respondents answered this question, accounting for a total of 29 regional selections. Of that total, the vast majority of respondents indicated that they were based in BC/Alberta (41%, n=12/29) or Ontario (34% n=10/29). The predominance of these two regions is in part a reflection of who responded to the survey, but also mirrors where the majority of CRM work occurs in the country (Dent and Beaudoin 2018).

Most offices (79% n=19/24) conduct their work in a single region of the country. Of those 19 respondents, 47% (n=9) work solely in Ontario, and 42% (n=8) work in BC/Alberta, while the remaining two firms work solely in Atlantic Canada. Of the five (21%) respondents out of 24 that reported their office worked in multiple regions, four (80%) undertook at least 10% of projects in BC/Alberta, while only one firm based outside of Ontario did at least 10% of their projects in that province (Figure 6). This pattern suggests that the CRM industry in Ontario is relatively insular to competition from elsewhere, at least as suggested within the dataset of this survey, while a wider range of inter-regional companies regularly secure work in BC/Alberta. Notably, no company works exclusively in Saskatchewan/Manitoba or the Northern Territories, which may be indicative of the amount of work available in those regions (Dent and Beaudoin 2018). I should note that
Desrosiers’ study (2017) noted 24 firms working in Québec. He did not mention how much work those firms conduct outside the province but given the absence of firms in this survey indicating they regularly work in Québec, it may be that CRM work in Quebec is similarly insular to that seen for Ontario in this study.\(^1\)

![Figure 6: Number of respondents working in each region](image)

When I consider these responses in light of office employee numbers (Section 2 Question 1; see Table 2) I note that the largest number of employees accounted for are based in Ontario, with 146 out of 335, making up 44% of this employee dataset. Similarly, the second largest count was from British Columbia and Alberta (the West), with 99, or 30% of the workforce represented in the survey responses. Another 27 (8%) are based in Atlantic Canada. However, as a small number of respondents indicated that their office worked in more than one region, in those instances correlations between office employee numbers and where they are based is subject to some ambiguity.

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\(^1\) It should be noted that the licensing system of Ontario is a probable instigator for the insular nature of archaeology in the province; for example, in order to work as a consultant archaeologist in Ontario, one must have 260 days of experience, half of which must be had in Ontario (Land-based archaeological licensing, Government of Ontario, 2022).
Table 3: Number of employees by region

<table>
<thead>
<tr>
<th>Regions Worked</th>
<th>Number of Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ontario</td>
<td>146</td>
</tr>
<tr>
<td>The West</td>
<td>99</td>
</tr>
<tr>
<td>Atlantic Canada</td>
<td>27</td>
</tr>
<tr>
<td>The West/The Prairies</td>
<td>34</td>
</tr>
<tr>
<td>The West/The North</td>
<td>19</td>
</tr>
<tr>
<td>Atlantic Canada/Ontario</td>
<td>10</td>
</tr>
<tr>
<td><strong>Grand Total:</strong></td>
<td><strong>335</strong></td>
</tr>
</tbody>
</table>

5.2.3 The Industry Demographic Profile

This portion of the discussion is comprised of questions from Section 2 and Section 3. Section 2, Question 1 asked the participant to give the number of employees currently working at their office on the date of October 15th, 2021. The intent of this question was to draw a moment-in-time perspective on how each office was operating on that particular day. Section 3 asked questions that explored workforce demographics. Section 3, Question 1, for example, asked for a breakdown of employees by permanence (i.e., full-time, part-time, or seasonal), not counting any third-party/monitors/liaisons. In hindsight, the survey should have specified that the person completing the survey should also include themselves; some respondents’ numbers reflected that miscalculation. For example, one respondent input “0” as the answer for total employees, and in Section 3, Question 1, when asked for the respondents to give the number of employees working in each position they entered “1”. Assuming that they work as an independent consultant, it seems that they just did not account for themselves in the first question. Future studies should be as clear as possible on how best to count employees.

Respondents reported a total workforce of 335 employees, based on 24 total survey responses. Based on that dataset, the average number of employees per office was 14 across the 24 responses, with the smallest firm consisting of 0 employees (see above) and the largest firm reporting 74. When accounting for the individual who did not include themselves, the total number of employees becomes 336; the average number remains at
14, with two respondents indicating only one employee. Two thirds (n=16/24) of respondents said that they employed 15 people or less, 17% reported staff levels between 20 and 30 people, and only the single response of 74 exceeded 30 people. It is not possible to distinguish if multiple responses encompass different regional offices of the same firm or not, which may be the case for the 74 result. If I discount the 74 figure as an outlier, then the average number of workers across the respondents drops from 14 to 11; however, it is anecdotally known that there are many firms and offices of similarly large size, and so while this number may be an outlier within my own dataset, it may not be an outlier in reality. For example, by looking for CRM firms on networking sites, such as LinkedIn, one can garner an idea of just how many people are employed with different companies: in British Columbia, Archer CRM Corp. has 42 employees (LinkedIn 2022), and Ecofor Consulting Ltd. lists 51 (LinkedIn 2022); in Ontario, ASI employs anywhere from 52-67 full-time staff and roughly 100 seasonal staff each field season (ASI Wikipedia 2022) and according to their LinkedIn (2022) page, they currently have 102 employees. However, it is also worth noting that larger firms may be more apprehensive to answer surveys like mine, which could explain the low number of larger firms that participated.

Section 2, Question 3 (see Appendix F) of the industry survey asked managers to estimate the age of the workforce in their office, using specific age ranges. One respondent did not provide any ages. Based on the 349 employees listed by age for this question, respondents reported that 14% (n=50) of the workforce was younger than 25, 70% (n=244) of the workforce ranged in age from 25 to 44 years of age, and only 15% (n=55) were over 45 years old. When considered with respect to region of the country, the West had the most employees aged 45 and up (46%; n=30/65), and Ontario had the greatest percentage of employees in the younger demographic, with 40% aged 19-35 years old (n=73/182). Overall, the age distribution appears to skew to a younger demographic, which is similar to that reported in Quebec (Zorzin 2015a), the United Kingdom and

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2 As mentioned earlier, for this question, respondents could have estimated age ranges by precents. Only two respondents did that. In order for me to be able to integrate their responses with the rest of the responses that used raw numbers, I took their total staff number from Section 2, Question 1, and then translated their percentages into whole numbers.
Australia (Aitchison and Edwards 2008; Mate and Ulm 2021; Ulm et al. 2013). This pattern may correlate with general upward trends of young professionals in the overall labour market observed in recent years, suggesting that the CRM industry is comparable in its percentage of younger workers to the general workforce (Government of Canada 2022a; Gao 2015, Bialik and Fry 2019; Fry 2020; Hobbs 2017). This pattern continued with the results of the sentiment survey and will be further explored below.

![Age Range of Employees](image)

**Figure 7: Age range of employees**

Section 3, Questions 3 and 4 (see Figures 8 and 9 or Appendix F, and Table 4) asked about gender and racial profiles of office workforces as estimated by office manager respondents. Each respondent provided their best estimate to the breakdown of their employees. In terms of racial profile, overall, respondents collectively estimated 82% (n=282/343) of their employees were white, 14% (n=47) were Indigenous, 3% (n=9) were persons of colour, and 1% (n=5) were unknown (Figure 8). Interestingly, 77% (n=40/52) of all Indigenous-identified permanent employees across all regions work in BC/Alberta, and one firm located in The West indicated that almost their entire office was made up of Indigenous people, with 76% (n=19) of the 25 employees they accounted for identified as Indigenous. Another office indicated 80% of their firm to be employed as Indigenous Liaison Staff/Monitors (n=8/10) and 90% of their office was identified as Indigenous.
These two firms together make up 60% (n=28/47) of the employer-identified Indigenous population in the survey results. Seeing as how these two firms both employ a high number of Indigenous individuals, isolating these figures as potentially Indigenous community-run CRM firms – which are growing in number nationwide, but specifically in the western part of Canada – the remaining numbers may be indicative of Indigenous representation in non-Indigenous firms. The percentage of Indigenous employees identified across all employers is 14%; however, when excluding the aforementioned two firms from final counts, the percentage of Indigenous employees drops to only 6% (n=19/315). This also means that the ratio of white people goes up, with 89.5% of employees now identified as white.

Compared to racial profiles reported in other recent studies (see Jalbert 2019; Hodgetts et al. 2020) the recalibrated numbers are consistent with other research, and perhaps more representative of the entire population. While the number of white employees is dominant in my findings, it is notably less than some research, especially from outside Canada (Aitchison et al. 2021; Mate and Ulm 2020). Additionally, with or without including the suspected community-run firms, the Indigenous representation in my dataset remains higher than what has been reported in other surveys from the United States, and is quite similar to other studies in Canada, possibly reflecting a uniquely Canadian trend (for Canada see Jalbert 2019; Hodgetts et al. 2020; for USA see Goldstein et al. 2016; VanDerwarker et al. 2018).

Respondents estimated the gender identity of their employees, to the best of their knowledge. Overall, 52% of all employees were estimated to be male (n=180/343) and 47% (n=162) were female (Figure 9). One respondent identified as having an employee whose gender they were “unsure” of. The overall slight male predominance in workforces is consistent with other CRM surveys from outside of Canada (see Aitchison et al., 2020; Mate and Ulm 2021), however Canadian studies have also reported an upward trend of more women in the workforce (see Hodgetts et al. 2020; Jalbert 2019; Overholtzer and Jalbert 2021), which will be further explored when I present the data of my sentiment survey.
When examining the gender distribution regionally, it is important to keep in mind that, as with other questions, looking at the employee demographics by individual regions presents some challenges, as some respondents reported a number of employees for the whole firm, regardless of whether all those employees work in every region listed. Looking at the gender breakdown by region does provide different numbers than when
considering the original workforce breakdown provided by the respondents (343 employees overall, including firms working in multiple regions, compared to a total of 417 when only examining the data as single regions). One possible inference is the variation of gender distribution overall compared to the breakdown regionally. It has been noted in my data that some regions actually have a higher percentage of female employees; for example, data on The West suggests a female dominated sector, with 53% of employees identified across all firm locations estimated to be women (Table 4). So, while it is possible that this is simply a response bias, it could also be indicative of a higher prevalence of women in the field in these provinces compared to other parts of Canada. For example, when looking at the number of regional offices (58) for the engineering firm Stantec – a company that employs many CRM archaeologists and technicians – BC and Alberta had the largest concentration of regional offices (n=18/58) nationwide and the company has been named one of the world’s top “Female-Friendly” companies (Samji 2021). While purely speculative, it is an interesting observation to make, and perhaps is something that will provide insight if gender distribution by regions worked continues to be monitored in future surveys.

Table 4: Gender identification of employees by region

<table>
<thead>
<tr>
<th>Region</th>
<th>Count of Male Employees</th>
<th>Count of Female Employees</th>
<th>Count of Unsure</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ontario</td>
<td>86</td>
<td>71</td>
<td>1</td>
<td>158</td>
</tr>
<tr>
<td>BC/Alberta</td>
<td>79</td>
<td>89</td>
<td>0</td>
<td>168</td>
</tr>
<tr>
<td>Saskatchewan/Manitoba</td>
<td>17</td>
<td>17</td>
<td>0</td>
<td>34</td>
</tr>
<tr>
<td>Atlantic Canada</td>
<td>21</td>
<td>17</td>
<td>0</td>
<td>38</td>
</tr>
<tr>
<td>Northern Territories</td>
<td>8</td>
<td>11</td>
<td>0</td>
<td>19</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>211</strong></td>
<td><strong>205</strong></td>
<td><strong>1</strong></td>
<td><strong>417</strong></td>
</tr>
</tbody>
</table>

5.2.4 The Industry Employment Profile

Section 2, Question 1 asked for the number of those employed by permanency, broken down as full-time, part-time, seasonal/contract and third party (including liaisons and monitors). All respondents answered this question, which yielded a total number of 362,
again higher than the original workforce number of 335. That this question provides respondents with the ability to identify third party/monitor employees may account for the larger overall total. Of the responses received, 52% of all employees (187/362) were employed full time, 35% (n=128) were seasonally employed, 7% (n=25) were part time, and 6% (n=22) were third party employees. Across all respondents, only half of the workforce is seen as permanent, suggesting a highly mobile and transient workforce. This is unsurprising, given that CRM is a seasonal and as-needed employer, as has been observed by others (Jalbert 2019; Zorzin 2011).

That seasonal pattern is also seen when considering variation across responses; for example, 18 respondents indicated having seasonal/contract employees, and of them, 45% (n=8/18) reported an equal or greater ratio of seasonal to full time employees. Across all responses, the average number of seasonal employees was seven, with the largest number being 42 and the lowest being one. Interestingly, the average number of full-time employees was only eight; the most full-time employees was 30 and the least was one. The remaining breakdown of employees by permanency is shown in Figure 10.

![Figure 10: Number of employees by position permanency](image-url)
Section 3, Question 5 (see Appendix F) asked respondents to indicate the number of new full-time, part-time, and seasonal/contract employees they hired over the past 12 months, by gender and racial profile. Overall, 126 new employees were accounted for by gender (Table 5), and 73 by racial profile (Table 6). While the response rate to this question was less than complete, as only 71% (n=17/24) of respondents indicated new employees by gender, and 58% (n=14/24) provided numbers by race, I found the high number of new hires notable, especially given the less than complete return on the question. For example, if I compare the entire workforce reported for all 24 respondents (n=335) against the 126 new hires by gender (Table 5) that suggests at least 38% of the entire reported workforce only recently began their tenure at their current place of employment. The very high numbers of new seasonal and part time employees (a combined total of 66% of new employees) underscore the transitory, seasonal nature of employment in this profession and industry. However, respondents identified one third of new hires as permanent positions suggesting that other factors, including industry expansion or high turnover, might be considered.

Over the last year, respondents indicated they had hired more women than men in every permanence category, making up 56% (n=71/126) of new employees (Table 5). They also hired more white people than any other racial category, 81% (n=59/73) (Table 6). Those patterns were stable across individual respondents, where female new hires ranged from 4% to 57% of all new hires, by gender, and white employees ranged from 13% to 85%. It has been noted before that while the number of women entering into the archaeological workforce has been growing steadily, the number of women who are employed in higher-ranking positions remains low (Zeder 1994; Bernick and Zacharias 1995; Brown 2018; Gonzalez 2018; Overholtzer and Jalbert 2019). Unfortunately, the industry survey did not allow for the option to indicate the number of employees occupying their position by their gender; however, this observation is present in my sentiment survey dataset, and will be discussed more in depth later on. However, it is interesting to see that my dataset reflects a large influx of female identified new hires, thus reiterating the notion that more women are entering the field.
Table 5: Number of new employees by gender

<table>
<thead>
<tr>
<th>New Employee</th>
<th>Male Employees</th>
<th>Female Employees</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time</td>
<td>16 (37%)</td>
<td>27 (63%)</td>
<td>43</td>
</tr>
<tr>
<td>Part-time</td>
<td>4 (44%)</td>
<td>5 (56%)</td>
<td>9</td>
</tr>
<tr>
<td>Season/Contract</td>
<td>35 (47%)</td>
<td>39 (53%)</td>
<td>74</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>55 (44%)</strong></td>
<td><strong>71 (66%)</strong></td>
<td><strong>126</strong></td>
</tr>
</tbody>
</table>

Table 6: Number of new employees by race

<table>
<thead>
<tr>
<th>New Employee</th>
<th>White Employees</th>
<th>Indigenous Employees</th>
<th>Black Employees</th>
<th>POC Employees</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time</td>
<td>25 (78%)</td>
<td>6 (19%)</td>
<td>0 (0%)</td>
<td>1 (3%)</td>
<td>32</td>
</tr>
<tr>
<td>Part-time</td>
<td>4 (80%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>1 (20%)</td>
<td>5</td>
</tr>
<tr>
<td>Season/Contract</td>
<td>30 (83%)</td>
<td>6 (17%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>36</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>59 (81%)</strong></td>
<td><strong>12 (16%)</strong></td>
<td><strong>0 (0%)</strong></td>
<td><strong>2 (3%)</strong></td>
<td><strong>73</strong></td>
</tr>
</tbody>
</table>

Section 3, Question 1 asked about the number of people employed by the positions they held in the office. All respondents filled out this section of the survey. Respondents had the option to provide a general number of employees in each of the following categories: Company Principal/CEO, Company Manager, Field Director/Manger, Field Staff/Crew, In-House Specialist (e.g., Collections or Lab Staff, Report Writing, GIS, Database/IT, etc.), Indigenous Community Liaison/Monitor, Non-Archaeological Heritage Specialists (e.g., built heritage, museums), and Office Administration. Across all responses it is suggested that the majority of those employees across all positions worked as field staff/crew, at 41% (n=142/344). The next largest cohort is field directors (18%; n=62). The remaining breakdown of employees by position is shown in Figure 11.
Interestingly, while 7% of employees were reported as third-party (n=22/362), in Section 2 Question 2, when asked about the number of employees in each position, 55% of third-party employees were indicated to be Indigenous liaisons/monitors. It is unclear what positions the additional third-party employees are hired as, and while it may have been helpful to allow for respondents to provide their own details, or have more options to choose from, perhaps it is an avenue that can be explored in a future study. When comparing the number of employees in each position by the regions worked, The West had the highest concentration of employees in every category except for in-house specialists, where Ontario leads employment. Ontario also has the greatest number of seasonal/contract employees, making up 42% of the province’s total employees (n=67/160) and 46% of all seasonal/contract employees (n=67/146). Ontario also employs 33% of the new part-time and seasonal hires. I was surprised to note that total numbers of employed positions by region in general had in-house outnumbering company managers, (51 employees to 47 employees, respectively). Additionally, company principal/CEOs and company managers we close (55 and 51). Field staff/crews outnumber all positions, which is not surprising when also considering the large number of contract/seasonal employees, most of which are typically employed as field technicians (Table 7).
The last set of questions in Section 3 asked the respondents to provide general estimates of salary ranges for each position they employ. 22 out of 24 respondents answered this question. It should be noted that respondents did not always give a salary range for each position, so salary range responses vary by employment position. Regardless, the data that was collected does provide some insights. Table 8 presents the highest and lowest wages that were given for each position, as well as the average salary based on all ranges provided for each position.

<table>
<thead>
<tr>
<th>Number of Employees</th>
<th>CEO/Company Principal</th>
<th>Company Manager</th>
<th>Field Director</th>
<th>Field Crew</th>
<th>In-House Specialist</th>
<th>Indigenous Monitor/Liaison</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>9</td>
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<td>0</td>
</tr>
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<td>0</td>
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<tr>
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<td>0</td>
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</tr>
<tr>
<td>14</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>6</td>
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<td>0</td>
</tr>
<tr>
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<td>0</td>
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</tr>
<tr>
<td>17</td>
<td>2</td>
<td>2</td>
<td>7</td>
<td>6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>29</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>14</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>25</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>15</td>
<td>4</td>
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</tr>
<tr>
<td>12</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
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<td>2</td>
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</tr>
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<td>6</td>
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<td>13</td>
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<td>5</td>
<td>6</td>
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</tr>
<tr>
<td>10</td>
<td>5</td>
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<td>3</td>
<td>15</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>21</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>12</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>20</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>74</td>
<td>2</td>
<td>11</td>
<td>10</td>
<td>35</td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
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<td>0</td>
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<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total: 335</strong></td>
<td><strong>41</strong></td>
<td><strong>42</strong></td>
<td><strong>62</strong></td>
<td><strong>142</strong></td>
<td><strong>45</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>
Table 8: Salary range by position type

<table>
<thead>
<tr>
<th>Position</th>
<th>Salary Ranges</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Company Principal/CEO</td>
<td>160,000</td>
<td>26,000</td>
</tr>
<tr>
<td>Company Manager</td>
<td>179,000</td>
<td>30,000</td>
</tr>
<tr>
<td>Field Director</td>
<td>100,000</td>
<td>27,000</td>
</tr>
<tr>
<td>Field Crew</td>
<td>80,000</td>
<td>15,000</td>
</tr>
<tr>
<td>In-House Specialists</td>
<td>83,200</td>
<td>20,000</td>
</tr>
<tr>
<td>Indigenous Community Liaison staff/Monitors</td>
<td>80,000</td>
<td>65,000</td>
</tr>
<tr>
<td>Non-Archaeological Heritage Specialists (e.g., Built Heritage, Museums)</td>
<td>90,000</td>
<td>22,000</td>
</tr>
<tr>
<td>Office Administration</td>
<td>75,000</td>
<td>20,000</td>
</tr>
</tbody>
</table>

Interestingly, while one typically assumes that a company principal/CEO is always the highest paid position, the firms I surveyed actually indicated that a company manager has the highest individual salary. Based on averages however, the Company Principal/CEO salary is still the highest. I think it is also important to note the range of field crew salary. This is the position that, while not as often employed full time, does account for the majority of employees, and is usually the entry-level position for new graduates. I was surprised by how low the low end of the salary range is for this position, though I imagine that is most likely based on the pay for this position on a part-time/contract basis. However, I was even more surprised by how high it can get, as it is almost on par with a field director. The large variance of position salaries could be reflective of the large degree to which CRM archaeology as a profession varies between individual offices and across regions, such as how the opportunity for work, competition with other industries, available positions, and degree/experience requirements all collectively influence how each position is paid. In retrospect, I think that information on salary ranges would have been even more insightful had I asked for the respondents to reflect on hours worked; archaeology is notorious for long working days, and so to have an idea of salary compared to hours actually worked (especially if people are employed full-time, but are not working the same amount of hours over the winter) would be beneficial and something to consider in future studies. It would also be helpful to distinguish between
salary and hourly wages, or paid/unpaid leave, such as rain/weather or sick days, especially for positions that may be more prone to hourly pay (i.e., field technicians), and due to the variation of minimum wage provincially.

5.2.5 The Industry Operations Profile

In Section 1, respondents were asked to provide certain details on the operation and project management of their respective firms. Accounting for the years of operation by all regions worked, firms working in multiple regions are counted in each region, resulting in 29 responses from 24 respondents. Overall, 45% (n=13/29) of firms have been in operation for 16 or more years, with 5 each from Ontario and The West. What I found most surprising was the number of firms that have been operating for a relatively long time, especially considering the profession is still relatively new by comparison to other industries, and when accounting for the younger profile of consulting archaeologists. With this in mind, it may be that many of these long-standing companies include earlier iterations of CRM companies that have since been acquired by larger companies or reported based on the oldest of a series of corporate regional offices (see Golder 2021; Stantec 2021; Wood PLC 2017). As I have no way of knowing for sure if any of the firms who contributed to my survey were both part of the same parent company, or different regional offices of one firm, I cannot definitively say that this is the case, though it remains an interesting speculation.

Figure 12: Number of firms by years active
Question 3 of Section 1 asked the number of projects completed within the last year (Table 9). All 24 respondents answered this question. Respondents were allowed to enter into a text box the number of projects based on their own estimate; there was no scale or range of options from them to choose from. The average number of projects completed by all firms within the last year was 67 projects; the most projects completed was 300, and the least was six. Of five companies who had completed 100 projects or more, 60% (n=3) were from Ontario. 71% of respondents (n=17) indicated that the number of projects was an increase overall from the previous year, and 42% (n=10) indicated that the increase was by as much as 20%. It is important to note that as the survey took place in the fall of 2021, it stands to reason that the previous year saw an unprecedented decline in projects due to COVID-19, and therefore, this increase in project numbers could actually be more representative of average projects. In retrospect, it would have been interesting, and probably beneficial, to have asked respondents to detail if and how their project numbers differ from pre-COVID times. That said, those who did see a decrease in projects (n=3) experienced significant downturns: 67% (n=2) saw a decrease by 21-30% and 33% (n=1) had a decrease by over 50%. Interestingly, all three of these firms were based in Ontario, two of them operating for 16 years or more. Those companies that saw a large increase (30% or more), were based in BC/Alberta (83%, n=5/6) and all but one has only been in business for 5 years or less. While this could be a response bias, it may also be telling as to how the CRM market is, or is not, developing in certain parts of the country. Additionally, the decrease in CRM activity for certain firms could also be due to lasting socio-economic impacts of the pandemic. Lastly, when asked about the remainder of work for 2021, 87.5% of respondents indicated that they anticipated their projects numbers to remain at the same level or increase (n=21/24). The same number of respondents also believed that they would be keeping staffing levels the same or increase them over the rest of the year. Overall, 96% of respondents indicated that they worked for both private and public sector clients; I have no way of knowing the individual company breakdown of private to public projects/clients, although I think that may be worth exploring in a future survey.
Table 9: Project numbers over 2021 as indicated by each firm

<table>
<thead>
<tr>
<th>1. Which parts of the country does your office primarily work within? Please choose all that apply if 10% or more of your projects are located in more than one region.</th>
<th>3. Since the start of 2021, how many projects has your office initiated?</th>
<th>4. Is that an increase or decrease in the number of projects your office undertook over the previous period in 2020?</th>
<th>4B. Please indicate a general percentage increase</th>
<th>4B. Please indicate a general percentage decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ontario</td>
<td>300</td>
<td>Increase</td>
<td>11-20%</td>
<td>N/A</td>
</tr>
<tr>
<td>Ontario</td>
<td>10</td>
<td>Decrease</td>
<td>N/A</td>
<td>More than 50%</td>
</tr>
<tr>
<td>BC/Alberta, Northern Territories</td>
<td>6</td>
<td>Increase</td>
<td>More than 30%</td>
<td>N/A</td>
</tr>
<tr>
<td>BC/Alberta</td>
<td>42</td>
<td>Increase</td>
<td>11-20%</td>
<td>N/A</td>
</tr>
<tr>
<td>BC/Alberta, Saskatchewan/Manitoba</td>
<td>50</td>
<td>Increase</td>
<td>11-20%</td>
<td>N/A</td>
</tr>
<tr>
<td>Ontario</td>
<td>15</td>
<td>Decrease</td>
<td>N/A</td>
<td>21-30%</td>
</tr>
<tr>
<td>BC/Alberta, Northern Territories</td>
<td>107</td>
<td>Increase</td>
<td>Less than 10%</td>
<td>N/A</td>
</tr>
<tr>
<td>Ontario</td>
<td>12</td>
<td>No Change</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Ontario</td>
<td>15</td>
<td>Decrease</td>
<td>N/A</td>
<td>21-30%</td>
</tr>
<tr>
<td>BC/Alberta</td>
<td>189</td>
<td>Increase</td>
<td>More than 30%</td>
<td>N/A</td>
</tr>
<tr>
<td>BC/Alberta</td>
<td>41</td>
<td>Increase</td>
<td>More than 30%</td>
<td>N/A</td>
</tr>
<tr>
<td>BC/Alberta</td>
<td>25</td>
<td>No Change</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Ontario</td>
<td>40</td>
<td>Increase</td>
<td>11-20%</td>
<td>N/A</td>
</tr>
<tr>
<td>BC/Alberta</td>
<td>31</td>
<td>Increase</td>
<td>More than 30%</td>
<td>N/A</td>
</tr>
<tr>
<td>BC/Alberta</td>
<td>48</td>
<td>Increase</td>
<td>11-20%</td>
<td>N/A</td>
</tr>
<tr>
<td>Ontario</td>
<td>182</td>
<td>Increase</td>
<td>More than 30%</td>
<td>N/A</td>
</tr>
<tr>
<td>Ontario, Atlantic Canada</td>
<td>40</td>
<td>Increase</td>
<td>11-20%</td>
<td>N/A</td>
</tr>
<tr>
<td>Atlantic Canada</td>
<td>35</td>
<td>Increase</td>
<td>Less than 10%</td>
<td>N/A</td>
</tr>
<tr>
<td>Ontario</td>
<td>60</td>
<td>Increase</td>
<td>11-20%</td>
<td>N/A</td>
</tr>
<tr>
<td>BC/Alberta, Saskatchewan/Manitoba</td>
<td>34</td>
<td>Increase</td>
<td>11-20%</td>
<td>N/A</td>
</tr>
<tr>
<td>Ontario</td>
<td>200</td>
<td>No Change</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>BC/Alberta</td>
<td>80</td>
<td>Increase</td>
<td>21-30%</td>
<td>N/A</td>
</tr>
<tr>
<td>BC/Alberta</td>
<td>50</td>
<td>Increase</td>
<td>More than 30%</td>
<td>N/A</td>
</tr>
<tr>
<td>Atlantic Canada</td>
<td>6</td>
<td>No Change</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

5.2.6 Summary of Industry Patterns

After reviewing the data, there are some visible patterns that reflect similar trends that have been discussed in other studies. For example, the demographic profile is consistent with other studies, such as racial and gender breakdown; there does seem to be an uptick in more women entering the field; and, the age distribution of employees is on par with
conversations on younger people dominating the field, which will be further explored in the sentiment survey review. Overall, it appears that CRM is trending to be more inclusive with respect to gender and the inclusion of Indigenous peoples; no conclusive remark can be made regarding the inclusion of other marginalized groups, such as people of colour. My data also appears to suggest that both The West and Ontario remain hotspots for CRM work and CRM companies. The survey also affirms just how important seasonal workers are in the context of CRM archaeology. Interestingly, my data displays a large variation in position pay, and may illustrate how my specific dataset provides data that is reflective of the broader discussions on employment, hours worked, cost of living and expectations of employees. These concepts will be further explored in Chapter 6.

While the data I have collected is only a starting point, with the aim of further qualification as part of a deeper, longitudinal study, this analysis in conjunction with other studies, helps to provide a rich baseline for future research.

5.3 Sentiment Survey Results – General Profile

For this first portion of the sentiment survey results, I will go over the aggregated data that is reflective of:

1) the self-identification of CRM practitioners;
2) the educational experiences of CRM practitioners; and
3) the employment experiences of CRM practitioners.

The remaining data of this survey – the sentiment profile – will be explored in Chapter 6. The questions were explained in detail in Chapter 4; for a full and complete list of all questions asked, in the order that they appeared, please refer to Appendix G.

5.3.1 Self-Identification of CRM Practitioners

The first section of the sentiment survey asked respondents to provide a profile of themselves. Question 1 asked respondents to self-identify their gender. All respondents answered, with 55% (n=29) identifying as female, and 45% (n=24) as male. While the question also provided “Non-binary/Third Gender”, and “Prefer not to answer” as
possible answers, none of the participants self-identified within any of these categories. The self-identification of practitioners indicated that the respondent pool to the sentiment survey skewed more towards women participants when compared to the gender estimations offered in the industry survey (55% women vs 47% women in the collective workforce represented in the industry survey).

Question 2 asked respondents to indicate their racial identity. Possible answers included White, Indigenous - First Nations, Indigenous - Inuit, Indigenous - Métis, Black, and Person of Colour. All respondents answered the question, with 92% (n=49) identifying as White, 2% (n=1) identified as Indigenous - First Nations, 2% (n=1) identified as Indigenous - Métis and 4% (n=2) identified as a Person of Colour (Figure 13).

![Figure 13: Racial self-identification of respondents](image)

Questions 3-7 asked respondents to indicate where in the world they came from. The results indicated that the majority of respondents (89%, n=47) had been raised in Canada. Respondents were also asked where in Canada they came from, using the same regional breakdown as the industry survey (Figure 15). Ontario accounted for most selected region (53%, n=25), followed by the West (Alberta and British Columbia: 21%, n=10); the Prairies (Saskatchewan and Manitoba: 13%, n=6), Atlantic Canada (Newfoundland and Labrador, Nova Scotia, New Brunswick, and Prince Edward Island: 11%, n=5), and Quebec (2%, n=1). The Territories (Yukon, Northwest Territories and Nunavut) was also
an option; however, no one chose it. Of those who said that they had not been raised in Canada (11%; n=6; see Figure 14), the majority came from Europe (66%; n=4). The other two individuals indicated they were from the United States of America and Mexico/Central America.

**Figure 14: Distribution of non-Canadian born respondents**

USA (17%)  
Mexico/Central America (17%)  
Europe (66%)

Question 8 asked respondents to self-identify the age-range they currently fit within (Figure 16). All respondents answered: 64% (n=34) indicated they were younger than 39 years of age, and just under 17% (n=11) were older than 48 years of age.

**Figure 15: Distribution of Canadian born respondents**

Atlantic Canada (11%)  
Ontario (53%)  
Quebec (2%)  
Prairies (13%)  
The West (21%)
In comparison with the age range respondents offered of employees in the industry survey, the respondents to the sentiment survey skewed younger. Of course, age estimations by office managers are not entirely comparable, but the differences between the two surveys also might suggest that respondents motivated to answer the sentiment survey were drawn more from younger age cohorts in the profession. This difference is certainly reinforced when considering gender by age brackets, since the predominance of women is even more marked in the two youngest age ranges at 38% of all respondents. Whether this gender difference reflects a greater motivation of women at these age ranges to answer the questionnaire, or a reflection of gender differences in the profession at that age cohort is considered below.

![Graph showing respondent age ranges by gender](image)

**Figure 16: Respondent age ranges by gender**

Section 3, Question 7 provided respondents with the option to indicate all regions of the country they worked in; this resulted in some answers including multiple regions by a single participant, meaning 60 regions were identified by the 53 respondents (Figure 17). I expected for there to be an overwhelming presence from Ontario, as it is the most populous province in the country, has the largest concentration of university

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3 In hindsight, also making sure the age brackets between the industry survey and the sentiment survey were consistent would have assisted comparisons between the two datasets. Subsequent paired surveys should be conscious of such inconsistencies may limit subsequent analysis.
archaeological programs, and consistently is one of the provinces where there is a high number of CRM projects undertaken each year (Government of Canada 2022c; Dent and Beaudoin 2018). Likewise, the industry survey indicated that Ontario contained a large proportion of the reported workforce (47%; n=9/19) and also had high numbers when accounting for all regions people worked (34%; n=10/29). This was also the case in the sentiment survey, as 55% (n=33) said that they worked in Ontario (Figure 17). Unlike the industry survey, however, the West (British Columbia/Alberta) was represented significantly less in the sentiment survey at 25% (n=15), compared to 42% in the industry survey. That percent rises to 37% if I add the Prairies (Saskatchewan/Manitoba). Other regions compared between the two surveys in following ways: while still selected by few participants, the Northern Territories were more greatly represented in the industry survey; Atlantic Canada presented equally in both surveys (three respondents in each survey included the region as part of their work area); and while Quebec was not included as part of the distribution process for the industry survey (though it did remain as a work location option for both surveys) the sentiment survey did receive one respondent who worked in the region.

Figure 17: Number of respondents by regions
The differences between the regions in the two surveys could be indicative of Western firms more regularly working across regions of the country or may suggest I was more successful at recruiting more Western CRM firms to participate in the industry survey than Western-based CRM professionals in the sentiment survey. Additionally, the large number of respondents from Ontario may be explained by the fact that I attend an Ontario-based university, and that my supervisor is a well-known Ontario archaeologist. These two factors may have had some influence on who chose to respond to my survey. While I also tracked responses by gender, the distribution did not differ noticeably, or was too small a dataset to draw any observations. Section 3, Question 8 asked respondents to indicate the regions of the country they worked in, and if they were part of a union. All respondents answered these questions. From the latter question, 13% (n=7) indicated that they were unionized, all of whom worked in Ontario. CRM worker unionization is a relatively new trend in Canada (e.g., Ferris, personal communication 2022; see also Kolhatkar 2022), so this percentage of unionized workers will be interesting to track in the future.

Finally, in Questions 9 and 10, I asked respondents to indicate if they held memberships in archaeological organizations or in professional CRM organizations. The majority of respondents did: 77% (n=41/53) held a membership in a national or regional archaeological society, while 67% (n=35/52 - one person chose not to answer) said that they were part of a professional CRM organization. It is worth noting that in Ontario, membership in an archaeological organization is a requirement for both research and professional archaeological licenses (Land-based archaeological licensing, Government of Ontario 2022). Of those who practice in Ontario (n=33), only 12% (n=4) did not hold a membership in either category; however, these four respondents were in the lowest age bracket, and indicated they were not currently working for a CRM firm, suggesting that this group of individuals could be students. In terms of the total number of those who did not hold membership in either option, only 9% (n=5/53) of respondents indicated that they were not a current member of any archaeological organization; conversely, 32% of respondents held a membership in both an association and a professional organization.
Section 2, Questions 1-3 asked respondents to identify their educational background and possible future aspirations. For education (Figure 18), all respondents answered and reported having at least an undergraduate degree, underscoring that the educational pathway into CRM is conventionally through university. In addition, only 24% (n=13) of respondents indicated they only held an undergraduate degree. By category, most respondents held at least a master’s degree (47%; n=25). Moreover, if I assume “some graduate education” is most likely at the master’s level, then the clear majority of respondents (62%; n=33), hold or are working towards their first graduate degree. This emphasis on university level education is highly likely a reflection of licensing/permitting qualifications or perceived measures of professionalism in the industry, with provinces like Ontario requiring a master’s to direct CRM projects, while professional associations note either a preference, or an exclusionary highest category of membership reserved for practitioners holding a graduate degree (e.g., Ontario Association of Professional Archaeologists, Association of Professional Archaeologists of New Brunswick, British Columbia Association of Professional Archaeologists). Conventionally the path to becoming a professional academic archaeologist involves the attainment of multiple graduate degrees and CRM professional accreditation appears to mirror that norm. The obvious consequence of this consistency is a profession of highly educated workers across all employment categories (see below).

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4 I reviewed membership categories for these organizations. See the following URLs for further information: **Ontario APA**: https://www.apaontario.ca/member-categories; **APANB**: https://apanb.wildapricot.org/resources/Documents/APANB_Bylaws_April-2014_Final.pdf (membership levels); https://apanb.wildapricot.org/resources/Documents/2012%20New%20Brunswick%20Archaeological%20Guidelines%20and%20Procedures%5B1109%5D.pdf (minimum qualifications to practice in NB); **BCAPA**: https://www.bcapa.ca/members/subscribe/#professional).
Figure 18: Breakdown of respondents by degree type

Given the response to Question 1, it is not surprising that for all employment positions, the percent of reported workers with at least some graduate degree is over 50%. For field staff, 53% (n=8/15) have some graduate education, half of which hold either a master’s (n=3) or PhD (n=1). Such a high number of respondents holding or working towards a graduate degree presumably speaks to either a competitive market for senior positions, or the aspirational intents of workers to secure a higher job classification. Additionally, it could also be indicative of other requirements needed to obtain a professional archaeological license, such as a certain number of hours worked in the field, which typically cannot be obtained while exclusively a student. This pattern is also reflected in the Field Director position: of the nine respondents in this position, 56% (n=5/9) hold more than an undergraduate degree. The emphasis on graduate education increases markedly for the other three categories of positions, with Company Managers (93%; n=14/15), Company Principals (92%; n=11/12), and In-House specialists (100%; n=2/2) all holding more than an undergraduate degree. While archaeologists have debated since the inception of CRM about whether the off-shoot practice “is” archaeology as variously defined academically (e.g., Birch 2006; Byrne 1976; Carman 2000, 2015; Welch et al., 2018; White et al. 2004), there appears to be no question that professionals in CRM are generally enculturated through multiple levels of archaeology as conceived of and taught in the academy. The full breakdown of position by degree can be viewed in Figure 19.
By gender, 72% (n=21/29) of women hold more than an undergraduate degree, compared with 79% (n=19/24) of men. However, 62% (n=18) of women hold a master’s or PhD, compared to only 58% (n=14) of men. Overall, it appears that women outnumber men in three of the four categories (Figure 20), suggesting that women overall are better educated compared to their male peers in this survey, which also corroborates other studies that have looked at women and university educations (see Brown 2018; Gonzalez 2018; DeGrete, N. 2018; Ce et al., 2018).
Jalbert 2019; Hodgetts et al. 2020; Overholtzer and Jalbert 2021). I will look at how gender breaks down by job position and experience further below.

Section 2, Question 2 of the survey asked respondents if they specialized in archaeology during their university education. In total, 87% (n=46) indicated they studied archaeology (Figure 21). Section 2, Question 3 asked if respondents were currently considering returning to school. Two respondents did not answer the question, so out of 51 respondents, 71% (n=36) said they were not. Given the already high education achieved by the respondents, this response suggests the graduate degree (master’s or some graduate education) is the threshold for professional educational criteria in CRM, again consistent with the advertised requirements of both professional organizations and regulatory bodies.

Of those who were interested in further education (Figure 22), 80% (n=12/15) were specifically looking to advance their degrees in archaeology, while the remaining 20% (n=3) wanted to pursue something different. Among those looking to advance their degrees, 50% (n=6/12) currently hold an undergraduate degree, and 25% have some graduate education. Assuming that all nine of these individuals will be or are planning on entering graduate programs, this data reinforces the notion that a graduate education is desired by most CRM professionals. Interestingly, 75% of respondents looking to advance their degrees are already employed in CRM: 42% (n=5) are employed as field crew, 33% (n=4) as field directors, 17% (n=2) as company managers and 8% (n=1) as in-house specialists.
Of those wishing to return to school for archaeology, 67% (n=8) have been employed for 1-10 years (4 individuals for 1-5 years, and 4 for 6-10 years). All three respondents looking for another degree have also been employed for 1-10 years (2 individuals for 1-5 years, 1 for 6-10). All three of these respondents were also employed as field staff, with two employed at the time they completed the survey. Additionally, 58% (n=7/12) of those looking to advance their degrees are women, as are 66% (n=2/3) of those looking to
obtain a different degree, adding to the discourse on how more women than men are obtaining their master’s and doctorate degrees (Gonzales 2018).

5.3.2 Employment Experience of CRM Practitioners

In Section 3, Questions 1, 3 and 8 of the sentiment survey asked respondents to identify how long they have been working in CRM, whether or not they work full time, part time or seasonally, and whether, at the time of their filling in the questionnaire, they remained employed in CRM.

Question 1 asked how long participants had been working in CRM in total, defined in the survey to mean spending all or part of the year earning income in a position doing CRM archaeology. Given that the responses reflective of age previously indicated the population of respondents skewed young for this survey, it is perhaps not surprising to find that half of all the practitioners indicated they have worked as a CRM archaeologist for 10 years or less (51%, n=27), while 74% (n=39) had worked in CRM for less than 16 years. Of additional insight, men were more likely to indicate a longer career in CRM: of those who have worked in the industry for more than ten years, men make up 58% (n=15/26), and 70% (n=7/10) of those who have worked for two decades or more (Figure 23). This response may also indicate a generational shift by gender, further illustrating the degree to which more women are entering the field, and the stark lack of female representation until more recently.
Question 8 of the sentiment survey asked respondents to indicate if, at the time of their participation in the survey, they were currently employed in CRM. Overall, 79% (n=42) of respondents indicated they were. Of those who were employed, there was an even split between women and men. Notably, according to responses from Question 3, of those employed, 79% (n=33) were employed full time (Table 10), which was much higher than the full-time employee workforce (52%) represented in the industry survey. This difference, again, may simply reflect the difference in respondent cohorts between the two surveys. However, the timing that of the survey towards the end of the CRM field season across much of the country, with seasonal employees ending their employment with CRM firms, may also contribute to that difference.

Table 10: Breakdown of respondents by employment status at the time of the survey

<table>
<thead>
<tr>
<th>Employment Type</th>
<th>Gender</th>
<th>Currently Employed?</th>
<th></th>
<th></th>
<th>Total</th>
</tr>
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<tr>
<td></td>
<td></td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time</td>
<td>Female</td>
<td>14 (33%)</td>
<td>4 (36%)</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>19 (45%)</td>
<td>2 (18%)</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Part-time</td>
<td>Female</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>1 (2.5%)</td>
<td>0 (0%)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Season/Contract</td>
<td>Female</td>
<td>7 (17%)</td>
<td>4 (36%)</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>1 (2.5%)</td>
<td>1 (10%)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td><strong>42</strong></td>
<td><strong>11</strong></td>
<td><strong>53</strong></td>
<td></td>
</tr>
</tbody>
</table>
Further insight can be drawn from the admittedly smaller sample of people not currently employed in CRM, since 73% (n=8/11) of those respondents were women. As I will note later on, the sentiment survey revealed that more women worked as field crew (77%; n=11/15) than men, and as this position tends to be seasonal, that may explain the high number of women who were not currently working for a CRM company. I should note, however, that 46% (n=5) of those not working reported that they were last employed on a seasonal/contract basis, and all fell within the 19–28-year age range. Presumably, this cohort could represent students, considering their younger age range. Nonetheless, 54.5% (n=6/11) did say they had been employed full time, and of those 67% (n=4/6) were female. Age wise, most of these respondents came from the 38-48 (67%; n=4/6) age ranges.

That high percentage of women in seasonal positions is further reinforced by the different trajectories of years worked in CRM between women and men (see Figure 23). Women peak in the study sample with 38% (n=11/29) of women employed less than 6 years. Only a quarter of the male (n=24) respondents (n=6) on the other hand, have been employed for less than 6 years. Even more striking, 29% (n=7) of men have been employed for over 20 years, compared to only 10% of women (n=3). Given the trend in gender age ranges discussed above, it appears this dataset encompasses a younger cohort of CRM professionals, and as a result women skew higher in younger age ranges; this pattern is noted more widely in archaeology in a number of studies (see Lazar 2014; Jalbert 2019; Hodgetts et al., 2020).

Question 7 of Section 3 asked respondents to identify the principal position or role they currently hold or last held while working in CRM. Figure 24 provides a chart breakdown by the position categories offered to respondents in the survey. All categories were selected by at least two respondents, with the exception of “Indigenous community Liaison staff/monitor,” which was not selected by any respondent. Arguably, the job categories respondents could select were more diverse among senior positions (e.g., Company Principal/Company Manager/Field Director/In-House specialist), while a single “field crew” designation was available to more junior employees. Nonetheless, only 15 respondents, or 28% overall, chose field crew. An equal number identified as company
managers, and an additional 23% (n=12) chose Company Principal/CEO. In other words, the survey may be perceived as weighted towards more senior personnel. However, this dataset contrasts with the reported ages and years of experience of respondents, which suggests that advancement into more senior positions occurs at relatively early ages along the CRM career path.

![Figure 24: Number of respondents employed in each position by gender](image)

By gender, men were twice as likely to identify as a company principal than women, and two thirds (n=16) of men identified as having a senior position - either a company principal or company manager. Whereas only 38% (n=11) of women identified as holding a senior position. Remarkably, the same percent and number of women identified as field crew, while only 17% (n=4) of men so identified, making up the 27% of all respondents identifying as field crew. While differences in years of field experience may be skewing the gender differences in senior positions, it is hard not to assume that there is a gender bias creating a glass ceiling that constrains women from progressing into more senior positions in the profession – a reality that has been noted for archaeology more generally for decades (Lazar 2014; Handly 1995; Gonzales 2018; VanDerwarker et al., 2018; Overholtzer and Jalbert 2021; Zeder 1993). For example, when I consider years working in the discipline, I note that twice as many women have worked for 10 years or less; however, more men have been employed for 15 years or more, at 58% (n=15). This data further contributes to the discourse on how women find it more difficult to advance, and
therefore remain, in the industry. It also captures the older, male skewed demographics that are only beginning to shift. Finally, when considering the ages and experience levels of respondents by position, 100% of field crew-identified respondents indicated they had worked for less than 5 years. They also tended to identify within the 19-28 age range (80%; n=12). On the other hand, 85% of company principals and company managers indicated that they have worked for more than 16 years in CRM and most reported being 39 years and older (59%).

When considering full-time or seasonal employment, 92% of seasonal workers (n=12) said they were employed as field crew. Conventionally this high percentage is consistent with the notion that field crew members come and go over those periods of the year when fieldwork is undertaken (e.g., Everill 2006). For more senior positions, all company managers (n=15/15) and 92% of company principals (n=11/12) worked full-time (8%; n=1/12 indicated part-time), while 11% of field directors indicated they were employed seasonally (n=1/9). Not counting field staff, 6% of women in the other position types were seasonal (n=1/18), while none of the men were. By years of experience, 25% (n=4/16) of respondents were seasonal with less than 1 year of experience, 69% (n=11) had up to 5 years of experience and only 6% (n=1) had more than 10 years.

It is also worth considering positions and full time/seasonal trends against the 11 respondents who indicated they were not currently employed in CRM. Of the remaining 42 respondents who were employed at the time of taking this survey, 79% (n=33) were employed full-time and 19% (n=8) were seasonal. For those who were not currently employed, 45% (n=5/11) had been seasonal, meaning that there was a slight majority of full-time employees who were not working (55%; n=6). 83% of those full-time employees that had been working in the field for 15 years or more; all 5 of the seasonal participants had been working for less than 5 years. As stated earlier, the data seems to suggest that many of the respondents who identified as a seasonal/contract CRM archaeologist were younger with fewer years of experience and were presumably students.
5.3.3 Summary of Sentiment Patterns

As with the industry data, the trends that have appeared in the sentiment survey dataset again affirm previous conversations surrounding the practice, and the practitioners, of CRM. Specifically, we can see that the growing number of women in the field is far more evident in the practitioner, self-identified survey. Whether this is due to the larger sample size, the timing of the surveys or the possibility for errors in the industry data provided by respondents, it stands to reason that my data corroborates other studies regarding the growing demographic of women in archaeology. However, while it is clear that the industry is seeing more women join, there are still gender-based issues regarding employment type, permanency, and seniority. Additionally, the sentiment survey reinforces just how young contemporary CRM archaeologists are, complimenting other studies and the industry survey. The continued influx of young people into CRM is of great importance to the future of the industry and will be explored more in Chapter 6.

In terms of regional variation of CRM practitioners, the sentiment survey did yield comparable results to the industry survey, with a few minor differences that, while interesting, may be due to response bias. The sentiment survey was advertised in a very different way than the industry survey, as a result certain regions may have heard about the survey more than others. While I had tried to mitigate that possibility as much as I could, I have to keep in mind that as I attend an Ontario-based university, and much of my communication was with other Ontario associations, it stands to reason that I would see a larger number of Ontario respondents. In addition to that, my supervisor is also a respected archaeologist based out of Ontario. However, that is also not entirely surprising as Ontario is the most populated province and undertakes the most CRM projects. Additionally, other studies note the large prevalence of CRM in Ontario, suggesting that it may really be the largest population of CRM archaeologists (see Jalbert 2019; Hodgetts et al. 2020).

Finally, this data emphasizes the importance of higher education for those who pursue a career in CRM archaeology. This is a critical takeaway which will be further explored in Chapter 6.
5.4 Summary of Industry & Sentiment General Profiles

This chapter has offered a profile of the CRM industry and profession drawn from the two survey respondent pools. Together, the results of the surveys reflect a profession made up of workforce that is highly educated, skews young, and is predominantly in the West and Ontario. It also reflects the growing presence of women in the workforce over the more recent years, and though the respondents are disproportionately less experienced and holding less-senior positions in the profession, this is also reflective of change over time regarding gender and equal representation. The trend is also likely reflecting established gender biases that have existed in the profession, and hopefully, indicates that this bias is being redressed. These trends can be further documented in a more longitudinal study, as a long-term exploration of the industry will continue to provide insight into the future. What is still only slowly being redressed, however, is the overwhelming predominance in the profession of a workforce that is made up of white individuals. That dominance is not as severe as noted in previous studies of the past two decades, which may suggest some improvement, however if present that transformation is occurring very slowly. In the following chapter, I will explore the results of the sentiment sections of the surveys and consider some specific trends those sentiments speak to in furthering this profile of CRM practice in Canada.
Chapter 6

6 Building a Sentiment Profile of the Profession: Exploring how the values and experiences of CRM Practitioners Translates into Practice

In this chapter, I will explore how industry sentiments vary among practitioners, as noted by various trendlines that emerged from the survey responses I received. By drawing together both the professional profile and industry make-up that I discussed in Chapter 5, I examine the trends that have emerged from the aggregated data. Specifically, I will be discussing the survey questions that were intended to solicit a sentiment response from the participant, with the aim of understanding their particular and individual (or collective, in the case of the few sentiment questions asked on the industry survey) feelings, opinions and attitudes on the profession. While the industry survey did not prioritize sentiment questions, it did still ask the respondents for their views on certain topics, providing comparable data which can be further explored alongside the sentiment survey responses. In addition to comparing my two surveys, I will also correlate trendlines from relevant sources that have conducted similar or comparable studies and then contrast the various datasets available on CRM archaeology and examine how other research measures against my own findings.

While my research largely relies on quantitative data, aspects of the survey results communicate the various sentiments held by archaeologists. Keeping in mind the considerations of survey-based quantitative research I discussed in Chapter 4, I believe that the data I have gathered, while aggregated, maintains the ability to further illuminate and elaborate on the sentiments, attitudes, and understandings of contemporary CRM in Canada, by the very people who work in the industry. Following this framework, I am going to provide an exploration of industry sentiments via the following: 1) how millennial attitudes on CRM are reflected in the practice; 2) the dissonance between CRM archaeological practice and conventional archaeological education; and, 3) an analysis of
how the values and beliefs of individual practitioners compare to the industry critiques of practice that were discussed in Chapter 2.

6.1 Sentiment Data Analysis – An Overview

The sentiment survey asked respondents to answer several questions relating to their personal perceptions and perspectives of CRM. For the sake of brevity, I will only be examining the questions that I thought provided sufficient information about the sentiments that were presented and related to the topic of analysis, CRM archaeology. As the sentiment survey was intended to undertake a thorough exploration of practitioner values and opinions, the bulk of the data discussed in this chapter will be from that survey’s dataset. However, the industry survey also asked its respondents similar questions, such as ranking the importance of skills or qualifications. I will also be comparing the practitioner sentiments with the industry survey, and with quantitative data from both surveys, as appropriate. To view the full lists of questions that were asked in both surveys, please refer to Appendix F and G.

Regarding participant response totals, I will be going over the sentiment survey by observing the number of responses overall. While the sentiment survey had garnered 53 total responses, not all participants provided an answer for each question; however, the total number of responses will be indicated for each sentiment to account for any variance. The industry survey had a total of 12 sentiment related questions. While there were 24 total survey responses, not all 24 respondents provided an answer to every sentiment question. For both surveys, the total responses are indicated with each percentage, to account for any discrepancies among the answers. Additionally, within the sentiment survey, all related questions except for Section 4, Question 3 also include a ‘not applicable’ option. Section 4, Question 3, the last survey question, asked for respondents’ views on certain topics, and thus was not in need of an ‘N/A’ on the scale. The other questions, however, are more specific and ask for information based on experiences that a respondent may or may not have encountered during their career.

Both surveys asked the respondents to indicate on a scale of 1-5 (1 being strongly disagree, and 5 being strongly agree) how each sentiment applied to them. For the sake
of brevity, I have decided to convert the scale to be interpreted on a positive/negative basis; therefore, those who answered the questions with a 1 or 2 will be placed in the negative category, and those who answered with a 4 or 5 in the positive category. However, this also means that neutral answers (number 3 on the scale), while still providing important data, will not be analyzed individually. They will still be considered but will not always be specifically evaluated except when necessary (i.e., when a question leads to comparatively more neutral answers). It should be noted that it was important for all respondents to have the option of choosing a neutral answer, or to choose to opt out of a question.

6.2 The Attitudes on Professional Archaeological Practice: Millennial & Generation Z Perspectives

This discussion will focus primarily on the data collected in the sentiment survey and explore how the various sentiments vary by age. I will also draw upon other questions from the sentiment survey or industry survey, as needed to provide context. For a full list of all sentiment questions, please refer to Appendix G.

Before I begin my discussion, it should be noted that I will be referring collectively to a portion of the respondents as “Millennials”, and at other times will mention another demographic, “Generation Z”, or simply, “Gen Z”. The former is a term coined for the generation of people born between the years of 1981 and 1996, while the latter refers to those born between 1997 and 2012 (Bialik and Fry 2019). The age ranges that I included for both of my surveys were initially chosen to fit within 10-year intervals, as that scale is common; however, in hindsight, had I known that examining practitioner attitudes based on established generations would have become an important element to my research, following a different system to break down the ages would have been more beneficial. Unfortunately, I did not anticipate the age-related trends in the data, and so neither of the age brackets that were used within my surveys fit nicely within the proper generational age ranges. Therefore, it is important to be cognizant of these limitations with respect to the interpretation of the data surrounding specific age groups. Additionally, it would have been to my benefit had I used the same age ranges for both surveys, which was an
absentminded miscalculation that went unnoticed before the survey responses were collected. I am therefore aware that there are some limitations regarding the data analysis, resulting in some respondents being stranded in sort of generational limbo, where their responses could not be calibrated among their peers due to the cut-off being a year or two earlier or later. While in reality, those individuals who are identified as Millennials are actually 27-42 years in age (as of 2023), I am restricted to the age groups I originally chose; consequently, some Millennials are unaccounted for while others were unintentionally lumped together with Gen Z, who are ages 11-26 (as of 2023) (Brunjes 2023). While this has posed some issue with interpreting the data, I do believe that there are still valuable insights to be made. This is also an important lesson for future studies to adjust the age ranges so that they better reflect the societal generations that people typically fit within. For now, I will consider my datasets within the boundaries of these well-studied generational cohorts to the best of my abilities, with the acknowledgment that there are some limitations on the extent of my analysis or interpretations.

As discussed in Chapter 5, most respondents of the sentiment survey reported they were 38 years old or younger, at 64% (n=34). The industry survey yielded comparable results, with 73% of employees indicated by their employers to be between the ages of 25-44. Studies have noted that over the recent decades, the archaeological practice has observed a consistently younger workforce, both in Canada and globally (Ulm at al. 2013; Aitchison 2013) and over time, the majority of individuals working in the field have tended to be 40 years old and younger, with most people being 25-35 years old (VanDerwarker 2018; Jalbert 2019; Hodgetts et al. 2020). Of these different age ranges, those considered to be Millennials account for a large portion of individuals. The prevalence of this generation among the workforce is a consistent theme noticed in other industries as well; they continue to be the largest demographic of employed individuals, the most populous generation living today, and are also believed to be the most well educated (Government of Canada 2022a; Gao 2015; Dimock 2019; Fry 2020; Hobbs 2017). Marked by very specific historical events (e.g., 9/11 and the Iraq and Afghanistan wars), political or socioeconomic developments (e.g., the 2008 recession and election of the first black American president), and unceasing technological advancements (e.g., growing up with the internet and experiencing the transition from flip phone to smart
phone), Millennials have been thought of as a very different generation from previous ones (Bialik and Fry 2019; Hobbs 2017). A consequence of the very culture they grew up in, Millennials – and now Gen Z – are entering the workforce with different mindsets, systems of values, and expectations of labour compared to their predecessors. This has created an imbalance between the current prevailing economic and employment systems and the expectations of these generations (Hobbs 2017).

Within my sentiment survey, the majority of respondents can be considered Millennials; therefore, through examining the respondents’ experiences in both the workplace and their education, there is the ability to tease out specific insights into how this generation of archaeologists compare, not only to older practitioners, but also to similar trends of Millennial attitudes in other work force studies (Gao 2015; Hobbs 2017; Deloitte 2022). As time goes on, more of the younger generations will begin to replace those positions left vacant from retirement or fill new roles, ensuring a shift in labour dynamics that reflect their worldviews, effectively changing how industries run themselves moving forward (Hobbs 2017; Deloitte 2022). While it is not unique for new generations to enter the workforce by any means, it has been noted that this specific generation is so different compared to their progenitors (e.g., they marry later, are less likely to have children, are far more ethnically diverse, care more about the environment and social justice, and while they are more highly educated, they are also in far more debt), that Millennial views on social and economic factors largely influence their position in the workforce, thus altering expectations for, and performance within, the workplace (Wood 2019:113; Schroth 2019:9) Keeping this in mind, I aim to explore the potential for similar attitudes expressed by the respondents, as reflected by their age, in order to garner a better understanding on how the younger generations of CRM archaeologists view their career. In order to do this, I am going to break down the data into two sections: ‘education’ and ‘career and employment’. I will then analyze how the younger respondents of my survey compare with both the older respondents and to other research on the Millennial workforce, thus exploring how professional attitudes of practice vary by age and if that may affect the future of CRM archaeology.
6.2.1 Education

When comparing the number of degrees by age, generally those in older generations are more likely to have a graduate degree; of the 13 respondents who only had an undergraduate degree, only one person was over 38 (8%), and when including those with some graduate education (n=8), together only 19% of those combined respondents are not Millennials (n=4/21). In terms of graduate studies, 60% (n=15/25) of those with a master’s degree are aged 19-38; however, 71% (n=5/7) of those with a PhD are 39 and older (Table 11). When looking at those who wished to continue their education, 28% (n=15/53) said they did; of those, 80% (n=12/15) are looking to advance their degrees in archaeology, and all but one of them (92%; n=11/12) are Millennials. This display of wanting higher education is a trend that has been noticed about Millennials generally; for example, in 2019, it was estimated that roughly 39% of those aged 25-37 had a bachelor’s degree or higher, which is much higher than the number of individuals with higher education of either of the two previous generations (Bialik and Fry 2019).

<table>
<thead>
<tr>
<th>Age</th>
<th>Undergraduate Degree</th>
<th>Some Graduate Education</th>
<th>Master’s Degree</th>
<th>Doctorate</th>
<th>Total</th>
</tr>
</thead>
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<td>14</td>
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<tr>
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<td>1</td>
<td>20</td>
</tr>
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<td>5</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>49-58</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>59+</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
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</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>8</td>
<td>25</td>
<td>7</td>
<td>53</td>
</tr>
</tbody>
</table>

The sentiment survey also asked the respondents to indicate how well they felt that their educations had prepared them for their careers. Overall, 53% (n=28/53) of respondents did not feel like their education had prepared them to be a field crew member (Table 12). 71% (n=20/28) of those people where under the age of 38; 50% (n=10) were 19-28 and
50% were 29-38 years old. Additionally, of those individuals who were also employed as field staff (n=15), 60% (n=9) felt that their education did not effectively prepare them.

Similarly, 75% (n=40) of respondents did not think their education prepared them for being a field manager/director (Table 13), and of those people, 67.5% are under the age of 38 (n=27), with 30% between the ages of 19-28 (n=12). Of the number of employed field directors, 67% (n=6/9) indicated that their education did not prepare them for that role.

Table 12: Sentiment respondent answers to “My university/college education in archaeology effectively trained me to be a field worker in CRM”

<table>
<thead>
<tr>
<th>Age</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>N/A</th>
<th>Total</th>
</tr>
</thead>
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<td>19-28</td>
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<td>14</td>
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<tr>
<td>29-38</td>
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<td>7</td>
<td>2</td>
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<td>0</td>
<td>20</td>
</tr>
<tr>
<td>39-48</td>
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<td>5</td>
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<td>10</td>
</tr>
<tr>
<td>49-58</td>
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<tr>
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<td>0</td>
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<tr>
<td>Grand Total</td>
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<td>6</td>
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Table 13: Sentiment respondent answers to “My university/college education in archaeology effectively trained me to be a field manager in CRM”

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<tr>
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<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
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<th>Total</th>
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</thead>
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<td>0</td>
<td>14</td>
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<td>29-38</td>
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<td>6</td>
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<td>20</td>
</tr>
<tr>
<td>39-48</td>
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<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>49-58</td>
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<td>0</td>
<td>6</td>
</tr>
<tr>
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<td>3</td>
</tr>
<tr>
<td>Total</td>
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<td>53</td>
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</tbody>
</table>
### Table 14: Sentiment respondent answers to “My university/college education in a archaeology effectively trained me to be a report writer of CRM reports”

<table>
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<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
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<th>Total</th>
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<td>29-38</td>
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<td>7</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>39-48</td>
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<td>3</td>
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<td>10</td>
</tr>
<tr>
<td>49-58</td>
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<td>1</td>
<td>1</td>
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<td>0</td>
<td>6</td>
</tr>
<tr>
<td>59+</td>
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<td>1</td>
<td>0</td>
<td>1</td>
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<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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<td><strong>11</strong></td>
<td><strong>13</strong></td>
<td><strong>9</strong></td>
<td><strong>2</strong></td>
<td><strong>1</strong></td>
<td><strong>53</strong></td>
</tr>
</tbody>
</table>

Interestingly, of those who entered university *not* planning to specialize in archaeology, 70% (n=21/30) were 38 and younger. Additionally, of those who intended to pursue archaeology, 40% (n=6/15) were over 39 years old. It seems that potentially the younger generation is either only just learning about archaeology after entering university or did not develop an interest until later in their education. While this could simply be a response bias, it could also indicate that archaeology as a discipline is not as mainstream as it once was. Despite more young people entering the field professionally, they are perhaps not considering archaeology as an option until after entering university; conversely, it could be possible that those who do enter university to pursue archaeology end up changing their minds. Additionally, a considerable amount of those who knew they wanted to study archaeology were older, which could suggest that their exposure to the practice was different than that of the younger professionals, and so perhaps interest in or representation of the discipline has fluctuated over time. For example, social sciences as a whole, and anthropology and/or archaeology specifically, are less often considered as a first choice for students entering university: many of the top college majors or career aspirations of Millennials have begun to lean towards vastly different disciplines, such as information science technology, business, marketing, media, and finance (Epps 2017).
6.2.2 Career & Employment

Overall, 49% (n=26) of respondents in the sentiment survey indicated that they were expecting to have a long-lasting career in CRM. Of them, 61.5% (n=16) are under the age of 38. However, of those who are considering leaving their career in CRM (n=16), either immediately (n=6) or within the next 1-3 years (n=10), a collective 87.5% (n=14/16) are also under 38 years old (Figure 25). Interestingly, the only non-Millennials who indicated they did not think they would be continuing in CRM are both in the two oldest age-ranges, which suggests that for them, retirement may be the reason for their response. Additionally, when asked if they expected a long career in general, of those who did not think that they would, 80% (n=12/15) of them are under 38 years old. When comparing this data to earlier discussions on employment titles and years of experiences, there is a correlation between age and career progression. As the data suggests, respondents who identified as a seasonal/contract workers were typically younger; individuals interested in ending their career in CRM are also typically younger. This may suggest that there is little room to grow beyond contract work in the industry, and thus, practitioners may become disillusioned quickly.

![Number of respondents who are considering leaving their career by age](image-url)

**Figure 25: Number of respondents who are considering leaving their career by age**
When comparing the number of respondents who fall into the Millennial range, of those who are thinking of leaving immediately (n=6), in 1-3 years (n=8) or do not anticipate a long career in CRM (n=12), 76% of that age group collectively express a disinterest in pursuing CRM archaeology as their forever career. However, as each option was selectable, some respondents selected multiple options, thus having their inclination to find another career count more than once (e.g., one respondent indicating they were thinking of leaving their career in 1-3 years and also indicated they do not expect a long career). Taking that into account, and only counting each respondent once in terms of their desire to leave the field, at any point, leaves a total of 18 individuals, making up 34% of all respondents. Of this group, 78% (n=14) are under 38 years.

Considering the high number of respondents who indicated that their university had not properly trained them for the careers may explain why a number of individuals are looking to leave the practice. In fact, it is an established pattern for Millennials (especially the older ones) to regret the career path that they chose and to want something different (Lui 2021). Many Millennials express that, as their generation was pushed to attend post-secondary, the ability to pick a future for oneself was rushed, and eventually caused resentment (Lui 2021). The forced choice of attending university, and subsequently not enjoying your career path, may be further suggested by my earlier note on the number of Millennials who did not attend school with the aim of becoming an archaeologist, yet ended up in that field anyway. This could suggest that archaeology is portrayed very differently in the academy compared to the reality of professional practice, leaving individuals disenchanted with a career that is very different from what they expected, and thus resulting in an early departure from CRM.

When asked about their salary in relation to their education and/or experience, 34% (n=18) of sentiment survey participants indicated that they did not believe they were compensated fairly (Table 15); 83% (n=15) of those are under 38 years of age. Of those who did not feel well-compensated, 44% (n=8) are intending to leave their careers in CRM, either immediately or within three years. 100% of these individuals are also under 38 years old. It is also worth noting that 62.5% (n=5/8) of these respondents are employed as field crew, which also happens to be to lowest paying position according to the
industry survey. Further, it has been suggested that, Millennials are paid less than their Baby Boomer co-workers, despite usually having a better education (Leonhardt 2019). It can be reasoned that seniority (and therefore, older employees) corresponds with higher incomes; however, it has also been noted that there is a huge generational wealth gap, and that despite Millennials dominating the workforce with stronger educations, Baby Boomers are still making more money and are up to ten times wealthier (Hoffower 2020; Leonhardt 2019).

Table 15: Respondent answers to "My current compensation reflects both my educational and skill level"

<table>
<thead>
<tr>
<th>Age</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>N/A</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-28</td>
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<td>7</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>29-38</td>
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<td>4</td>
<td>3</td>
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<td>20</td>
</tr>
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<td>39-48</td>
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<td>49-58</td>
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<td>1</td>
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<td>6</td>
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<tr>
<td>59+</td>
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<td>0</td>
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<td>7</td>
<td>11</td>
<td>16</td>
<td>1</td>
<td>53</td>
</tr>
</tbody>
</table>

Despite the large number of sentiment survey respondents who indicated that they were interested in a long career in CRM (49%), it is interesting to see that of those who expressed a want for change (n=16), the majority could be identified as Millennials (n=14/16; 87.5%) who stated they were looking for something different is interesting. While it is not clear as to why so many young people may want to pursue another career, contributing factors could include some of the issues that I have discussed here, such as an inadequate education that left them unprepared for a workforce that, in their minds, does not pay them enough. Recent research has shown that the top concern of Millennials today is the cost of living; 45% of them live paycheck-to-paycheck and 31% are not confident they will be able to retire. Having an income that was “too low” was the number one reason why Millennials leave their job (Deloitte 2022). Additionally, Millennials often do not expect to stay in a position for more than three years (Hobbs
2017) and nearly a quarter of them would like to leave their current job in two years (Deloitte 2022). This pattern points to a larger culture of job fluidity among Millennials that could be also reflected in my survey.

Keeping Millennials in the workplace, according to a recent survey, depends largely on if their employers align with their personal values, such as societal and environmental impact (Deloitte 2022). Survey questions did not outright ask if the respondents felt that their employers’ practices matched their belief systems, but a few sentiment questions did ask about ethical issues. For example, the act of decolonizing archaeology entails continued efforts to work with and for the Indigenous peoples whose heritage is being managed. In the sentiment survey, 54.5% (n=18/33) of those who agreed that their employers encouraged enhanced engagement with Indigenous peoples were between the ages of 19-38. Conversely, of those Millennials who are looking to leave their careers, either immediately or within 3 years, 40% (n=4/10) indicated to have some sort of misalignment with their employer; for example, of them 75% (n=3/4) felt that they had a responsibility to publish findings that their employers did not share; conversely, one respondent indicated that they felt they had less of a responsibility than their employer encouraged of them.

6.2.3 Summary of Millennial and Gen Z Perspectives

The Millennial generation will continue to replace the vacant spots of the workforce as older generations retire. Because this specific group has grown up in a much different world than other, older generations, they have come to expect different things from the workforce. By examining how this generation understands and values both their career and education, we can create a baseline from which future studies can continue to monitor how Millennial (and the emerging demographic of Gen Z) archaeologists perceive of and contribute to CRM archaeology, and through that insight, we can evaluate how the industry adapts to its changing workforce.
6.3 The Education of the CRM Archaeologist: Does University Actually Prepare Future Practitioners?

Both of my surveys included questions directly and indirectly related to academia. Section 2 of the sentiment survey was dedicated entirely to education. That part of the survey collected both aggregated demographic data, as well as sentiments. Section 4 of the industry survey asked respondents to indicate the influence education has in the hiring process. This discussion will focus primarily on the data collected in Section 2 of the sentiment survey and will be correlated with Section 4 of the industry survey. I will also draw upon other questions from the sentiment survey, as needed.

In Chapter 2, I discussed in detail the divide between academic and applied archaeology, such as the concerns that have been voiced over the perceived lack of adequate curriculums and educators that misrepresent the practice or who do not properly train and prepare graduates for their future careers (see Carman 2015; Hutchings and La Salle 2015; Ferris and Welch 2015; Vawser 2004; White et al. 2004). These concerns are fueled by fact that CRM is the most employable sector for graduates with archaeology degrees and is accepted as the career for archaeological graduates (Dent 2016; Whitely 2004). While my data suggests an emphasis on university education, adding to the rhetoric that higher education is both needed and expected of CRM archaeologists, other factors provoke further questions on the merits of higher education for professional archaeologists.

Question 1 of Section 2 of the sentiment survey indicates that 75% (n=40/53) of the respondents have had some amount of graduate training (breakdown: 47% master’s degrees, n=25; 13% doctorate, n=7; and 15% some graduate education, n=8). When asked about any future plans of returning to school in Question 3, 29% (n=15/51) of respondents indicated they were interested in a return to school, and of them 80% (n=12/15; 23.5% of total population) said that they have intentions of specifically furthering their education in archaeology, reinforcing the idea that a degree at the graduate level is a minimum requirement. Additionally, of those who are looking to advance their degree, the majority (42%; n=5/12) were already employed as field staff.
This may suggest that the goal behind their return to school is to advance their knowledge and expertise in order to obtain a higher-ranking role.

The belief that a graduate education is imperative to CRM is corroborated by the industry survey. When asked how important an educational background was, possession of a degree is generally expected of every position but was indicated to be most important for higher-ranking positions. Having an undergraduate degree was considered by 77% (n=17/22) of respondents to be important for a company manager, and 81% (n=17/21) said it was important for field directors. Having a graduate degree is again most important for higher-up positions (company manager at 71%, n=17/24; field director at 50%, n=11/22). However, a graduate degree is not as important for other positions, as 55% (n=11/20) indicated that an advanced degree was not crucial for field crew positions (Figure 26 and 27).

**Figure 26: Number of industry survey respondents who indicated the level of importance of undergraduate education for each position**
Figure 27: Number of industry survey respondents who indicated the level of importance of graduate education for each position

The fact that 100% of the sentiment survey respondents who were interested in furthering their education in archaeology also happened to be employed as field crew — 33% (n=4/12) of which have worked less than 5 years, and 42% are in the 19-28 age range (n=5/12) — further suggests that there is a common goal amongst young CRM professionals to strive for higher-ranking positions. This tendency may reflect that many provincial archaeological regulations require a post-graduate degree in order to practice as a consultant archaeologist (see New Brunswick Archaeological Services 2012; Alberta Historical Act 2021; Ontario Ministry of Heritage, Sport, Tourism and Culture Industries 2022). Additionally, 67% (n=10/15) of company managers that were surveyed in the sentiment survey indicated that they had a master’s degree, and another three (20%) had doctorates. When examining the educational expectations of CRM firms with the actual credentials (or aspirations) of practitioners, it is clear that an advanced degree is at least perceived to be the preference for certain positions, and also seems to indicate a growing cohort of CRM archaeologists with educations at higher levels. For example, it has been noted that as many as 90% of archaeologists with a PhD will never have a permanent academic job, meaning that if they want a career in archaeology (which presumably, after
that long studying it, one would think they do) then their best option is a career in CRM (Rocks-McQueen 2016). While CRM professional accreditation appears to mirror the process of becoming an academically trained archaeologist, such a highly educated profession means that workers across all employment categories present with similar educational backgrounds, leaving little room for distinction and career development based on education alone. This could also play a part in why younger CRM practitioners are looking to leave the practice, as a lack of advancement opportunities was considered to be a top reason for the wider population of young professionals to leave their jobs (Deloitte 2019; Waters 2022).

Despite the large number of respondents with, or hoping to obtain, graduate degrees, the majority of respondents actually indicated that their education did not effectively train them for their careers. The sentiment survey proposed several statements in Section 2, Question 4 regarding the respondents’ education and if it had prepared them for certain positions. As detailed in the previous section, more than half of the respondents felt that their educations did not prepare them well enough for their careers (see Table 12, 13, 14). The extent to which many respondents indicated that their university education did not prepare them for their careers is worrisome, and further illustrates the need for a more comprehensive CRM education in archaeology programs. It has been noted by other researchers that the academy has a responsibility to provide archaeology students with the most up-to-date field and laboratory skills, and to ensure that new graduates entering the workforce are not lacking in the essential skills and qualifications their educations should have provided them with (White et al., 2004; Whitely 2004). It has also been argued that due to the variation in education curriculums, CRM professionals have grown to anticipate a poor quality of graduate-level CRM training and have instead tried to rectify this through on-the-job training (Whitely 2004:23). This perceived schism between the academy and CRM practice has been building for decades, ultimately leading to a two-way knowledge gap; CRM as a teachable discipline could benefit from other forms of education, such as public archaeology, and academic archaeology could benefit from broadening its horizons and implementing more technical and field-based teachings.
With that in mind, it is interesting to see the results of the sentiment survey, where Section 4, Question 1 asked respondents about their on-the-job experience. In total, 85% (n=45/53) of respondents agree that their experience in CRM has effectively trained them to be a field worker (Table 16.); 68% (n=36/53) agree that they have been effectively trained as a manager (Table 17); and 73% (n=38/52) agree that they have received effective on-the-job training in writing CRM/field reports (Table 18). When comparing the experience learned by practitioners to what is expected of them from CRM firms, the industry survey respondents indicated that having a year or more of field experience was important specifically for both field manager (86%; n=18/21) and director (90%; n=19/21) positions. When asked about field crew, 40% (n=8/20) of industry survey respondents agree that experience is important, and another 40% felt neutrally about it (Table 16). The industry survey also asked respondents to indicate skills and qualifications that they deemed important for each position. Respondents felt that technical report writing was most important for positions of company manager (95%; n=20/21) and field director (70%; n=14/20). Over half of the sentiment survey respondents did not think their education had effectively trained them in report writing and of those individuals, 70% (n=21/30) have advanced degrees. This is another example of the aforementioned knowledge gap: academia does not typically teach students how to write technically, thus leaving future archaeologists lacking in these skills. It is also very possible that many professors are neither necessarily proficient in nor recognize the importance of technical report writing, as their own work tends to stay within scholastic boundaries.

<table>
<thead>
<tr>
<th>Degree</th>
<th>Strongly Disagree</th>
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<th>Neutral</th>
<th>Agree</th>
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<td>15</td>
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<td>25</td>
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<td><strong>31</strong></td>
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</tr>
</tbody>
</table>
Table 17: Sentiment responses to "My experience in consulting archaeology has effectively trained me to be a manager" by degree

<table>
<thead>
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<th>Degree</th>
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<th>Neutral</th>
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</tr>
<tr>
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<td>14</td>
<td>22</td>
<td>1</td>
<td>53</td>
</tr>
</tbody>
</table>

Table 18: Sentiment responses to "My experience in consulting archaeology has effectively trained me to be a report writer of CRM reports" by degree

<table>
<thead>
<tr>
<th>Degree</th>
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<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
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<td>2</td>
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<td>6</td>
<td>16</td>
<td>0</td>
<td>25</td>
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<tr>
<td>Some Graduate</td>
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<td>2</td>
<td>14</td>
<td>24</td>
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</tr>
</tbody>
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Overall, it appears that CRM practitioners’ educations have prepared them far less for their careers than the time they have spent learning on the job; this common experience is further predicated by the fact that industry professionals value experience over education when considering a new hire (Figure 28). While it has been noted for decades that a comprehensive archaeological education in the field of resource/heritage management is imperative to the field of CRM archaeology, the implementation of such programs is still relatively new (Welch et al. 2018; Whitley 2004).
Figure 28: Industry responses to "On a scale of 1-5 (1 being not very important and 5 being very important), how would you rate: experiential background – more than a year’s field experience?"

At the undergraduate level, current research suggests that the education and professional preparation for commercial archaeology is still lacking; for example, a survey conducted by archaeologists in Colorado, found that students were not being well prepared to enter the CRM workforce (Larkin and Slaughter 2021). While the results of their research indicated that 71% of surveyed academic archaeologists thought they were preparing their students well, only 37.5% of surveyed CRM archaeologists noted that graduates were ‘partially’ prepared and 62.5% answered that they were ‘sometimes’ prepared; none of the CRM archaeologists answered definitively ‘yes’, or ‘no’ (Larkin and Slaughter 2021:10). At the graduate level, current research indicates that, while there is a growing number of CRM-specific programs (Welch et al. 2018), the knowledge gap of preparing students for the workforce persists, as both CRM firms and government regulators have advocated for archaeology graduate programs to feature in-depth CRM-focused skills training (Welch and Corbishley 2020).
The industry and sentiment surveys provide a collective insight into how the CRM industry values both education and skills, and how that is or is not acquired from or translated back into the academy. It has been noted by others that universities have an obligation to prepare future practitioners and ensure that they are ready for the realities of consulting archaeology; unfortunately, it is typical for their only education of CRM to be once they have started a job (Vawser 2004). While archaeology as an academic discipline is not the only program to be critiqued as having a “skills gap” (Harrison 2017), the expectation of closing that gap has been a discussion since as early as the 1960s (Hester 1963; Welch et al. 2018; Larkin and Slaughter 2021). Despite plenty of attention over the years, these concerns have yet to be resolved (see Whitley 2004; Lipe 2000; Miller 2000; Welch et al. 2018; Wooley Vaswer 2004; Gifford-Gonzalez 2017).

Considering the emphasis that is put on obtaining an advanced degree — and the fact that many high-ranking positions require one — coupled with the reality that CRM firms seem to almost expect to have to provide training in addition to an employee’s graduate degree, is disheartening. While I am not the first person to point out the evident gap between scholarship and practice in archaeology, this is an issue that has gone unresolved for too long. It is disappointing to realize that while university programs are seeing some improvements — such as the Applied Archaeology program at the University of Western Ontario (UWO, Department of Anthropology, 2022) or the Heritage Resource
Management Professional Program at Simon Fraser University (SFU, Department of Archaeology, 2022) — these programs are too few in number to meaningfully address the issue.

6.4 How the Values & Beliefs of Practitioners Compare to Industry Critiques of Practice: An Overview

The sentiment survey included four different questions that asked the respondents to provide their own perspective on a number of different views or experiences. Section 2 of the survey included one sentiment question, which asked questions about participants’ educational experiences as discussed previously. Section 4 of the survey contained the remaining three questions: Question 1 referred to their career in CRM; Question 2 referred to their current or last employer; and Question 3 asked for their personal views on their role, beliefs, and responsibility as a CRM archaeologist. The majority of the following analysis is based on the sentiment questions present in Section 4; however, I will draw upon other sentiments as appropriate. I will also include brief mention of the anonymous comments that were left with some sentiment survey responses where relevant. For a full list of all sentiment survey comments, please refer to Appendix G.

In Chapter 2, I highlighted some of the industry critiques that have emerged over the years. Many of these concerns stem from a contention that, as an industry, CRM is opaque. No provincial jurisdiction maintains a public profile of those working in this industry, resulting in little knowledge of the values, practices, beliefs, and decision-making processes of those who work in consulting archaeology. One of the primary goals behind my research was to explore how these concerns, or gaps in knowledge, can be gauged within those who practice consulting archaeology, and how their work is or is not affected. The sentiment survey specifically asked respondents a series of questions that explored some of the noted critiques of practice, such as: a lack of publications and dissemination of information; the concern for a compliance, capitalistic driven industry; and the relationship between practitioners and the Descendant communities whose heritage is being managed. Overall, the goal was to solicit a general understanding of how these practitioners understood some of the issues surrounding consulting archaeology.
how they viewed their role in CRM, and if any correlations could be drawn between how they conceive of the practice and how it is critiqued.

6.4.1 CRM: For-Heritage or For-Profit?

To begin this analysis, I will look at how the respondents’ sentiments may correlate with concerns over the CRM industry transforming into a client driven enterprise (Hutchings 2018; Zorzin 2015a; 2015b). In Section 4, Question 3, respondents were asked how they viewed their roles in the industry. Of those answers, 46% (n=24/52) of sentiment survey respondents indicated that they saw themselves as an archaeologist first, and a heritage worker second; however, 41.5% (n=22/53) said that they did not believe consulting archaeology to have the same aims and practices as other forms of archaeology (Figure 29). This may suggest that while many respondents see themselves as archaeologists, they do not necessarily feel as though consulting archaeology is comparable to say, academic archaeology. This may further illustrate the continuing divide between the two cohorts.

![Figure 29: Sentiment responses to Section 4, Question 3 (Part1)](image)

Interestingly, when asked about the roles of practitioners, 29% (n=15/52) of respondents indicated that they believed that the principal role of a consultant archaeologist is to service client interests, efficiently and effectively. Additionally, 21% (n=11/52) believed
the principal role of a consultant archaeologists is to maximize employment and profit for archaeologists working in CRM. It should be noted that the former question also saw a number of respondents choosing to answer neutrally (34%; n=18/52). This also means that of the remaining respondents, this question only received 36.5% (n=19/52) of answers that disagreed with the statement. While clearly more people disagree than agree, the large number of people who chose neutrally may also speak to the way individuals feel about this issue. In my own experiences, the topic of roles and responsibilities of an archaeologist, to all stakeholders involved, is neither an easy one to address, nor is it casually discussed often, so I can understand that some respondents may have either been conflicted in their answer or did not want to provide any definitive stance on the topic. This question also demonstrates the very real struggle of balancing heritage and business needs in this industry. And while those who agreed are not in the majority, the two camps collectively make up a quarter of the people surveyed, reinforcing the critique that the industry possesses a penchant for profit over heritage protection. However, it is also important to note that a rise in one (i.e., profit and client driven ideals) does not always necessitate a decline in archaeological conservatism, and that while concerns for these ideals are valid, ultimately, client-driven archaeology is not necessarily synonymous with profit-driven archaeology. There are many nuances within consulting archaeology, specifically around driving forces behind the work. Unfortunately, the scope of my study was limited and therefore I could not touch on them all. In the future, however, it would be interesting to monitor these predilections over time and against other variables and factors, such as by age or degree type.

Additionally, while the responses to the employer-focused sentiments asked in Section 4, Question 2 suggests that participants felt as though their employers were able to balance heritage and business needs well, at 60% (n=31/52), a remarkable 77% (n=41/53) said that they have experienced their company rushing to complete a project in the face of client pressure. While it is wholly possible for firms to balance business and heritage needs, and that innocuous project decision making can be influenced by the client, it is also noted that accelerated completion times are the result of CRM’s unavoidable capitalistic entanglements; these intersections have been characterized as producing an industry that depends on quick project turnovers, regardless of the consequences, such as
poor conservation and/or documentation of sites and resources (King 1998; Zorzin 2011; Ferris and Welch 2015; Ferris and Dent 2020; Wylie 1996). Unfortunately, the industry survey did not request corporate sentiments relating to these critiques, so the only opinions gathered are those of practitioners. As CRM archaeologists, respondents seem to be caught somewhere in the middle when it comes to examining the industry’s capitalistic ideals, possibly due to facing their own struggles and negotiations regarding the issue, both internally and externally. That said, the data does at the least indicate that CRM firms do face client pressures – though to what end, for what reasons and under what circumstances is not clear, leaving room for further exploration on the topic in the future.

6.4.2 CRM: Artifact Research or Artifact Rescue?

In the same vein of concern over compliance driven CRM, is the worry over the nature of the archaeology that is being done as a direct result of CRM facing client pressure. For example, salvage archaeology is critiqued for its compulsion to collect as much archaeological data as possible and has been described as offering a lack of “good archaeology” (Ferris and Welch 2014:95; Carman 2015). As a discipline, CRM arose from extractive-consumptive academic paradigms and these underpinnings remain foundational to the practice. Research and resources are both investigated and dispersed differently from contemporary academic archaeological practice, resulting in academics critiquing the practice for relatively poor or rushed excavations, and little output of data, which also remains typically inaccessible, such as in unpublished or classified reports (Ferris and Welch 2014; Zorzin 2011).

When asked about their views regarding development risks and salvage archaeology (Section 4, Question 3), 75% (n=40) indicated they believed that as a practice, consultant archaeology must document and recover as much of the archaeological record as possible that is at threat of developmental impact; further, 68% (n=36) agreed that the principal role of a consultant archaeologist was to protect, document, recover and act on behalf of the archaeological record at risk of destruction (Figure 30). These two sentiments confirm that the rhetoric of accumulation (Smith 2004) maintains a place in CRM archaeology, despite any of its negative consequences. Presumably, the respondents have these beliefs
due to the ideas of record recovery being something they have both been taught and expected to demonstrate. Some regulatory standards maintain a strict protocol for artifact recovery, and the fear of losing out on non-renewable resources creates a drive for archaeologists to ensure that nothing of the record is lost. However, the accumulation of cultural resources has also created dire consequences, of which still impact artifact recovery and storage today.

![Figure 30: Sentiment responses to Section 4, Question 3 (Part 2)](image)

One such consequence is the indefinite housing of these excavated materials (Kersel 2015; Kletter 2015). As early as the 1970s, it had been apparent that there was, and continues to be, a lack of storage for cultural resources (Kersel 2015). Globally, archaeological projects are excavating more and more as the world continues to develop and redevelop lands, filling up more collection and curation centres (Kersel 2015; Kletter 2015). Seeing that the sentiment survey results confirm this ‘more is more’ ideal when it comes to archaeological resources evokes further worry over the management of artifact collections. While the motive behind these repositories is typically to house artifacts until research is complete, CRM is notorious for its lack of, or generally slow progression in publications, with technical reports often falling into the void of grey literature and ignored by many academic journals and researchers (Harlan 2009). This has been the
unfortunate consequence of the schism between academia and CRM: at its outset, CRM was conceived as a necessary companion to academic research – preserving the material past so that it could be studied in the future. However, as academic paradigms and epistemologies shifted, the inclination to research and write about the archaeological resources collected for them by the very structure they had advocated to create began to decline, and while still possible, the opportunity to study CRM collections tempered (Dent, personal communication, 2022). As a result, unpublished excavation reports accompany “temporarily” housed artifacts which often cannot be loaned out or archived as the presumed forthcoming publication will require access to these materials, causing further issues with storage facilities (Kersel 2015). A concern that results from these issues is the notion that if archaeologists have a responsibility to share their work, how well can that occur with so many projects yielding so many artifacts that are being stored indefinitely?

The sentiment survey did not outright address this issue, but it did attempt to gauge how the practitioners felt about publication, artifact storage and rescue archaeology. In Section 4, Question 3, respondents were asked if they believed that, as a consultant archaeologist, they had a responsibility to present talks on the archaeology they have investigated; nearly half of them did, at 47% (n=25/53). Similarly, when asked if they thought they had a responsibility to publish findings, 43% (n=23/53) said that they did (Figure 31). Additionally, in Section 4, Question 2, 45% (n=24/53) of the respondents indicated that their employers encouraged them to publish findings and/or attend archaeological conferences. While it is not clear if this data is equally reflective of both conferences and publications, an additional 30% (n=16) of respondents said that their employers did not encourage either of these things. Although the sentiments presented here suggest that the practitioners surveyed generally believe that the dissemination of information gathered via CRM excavations is important, many of them are also in favour of artifact storage. When asked about it, 45% (n=24/53) agreed that recovered archaeological resources are stored for the purpose of contributing to future research. While keeping artifacts stored is done with good intentions, those same beliefs are part of why there has yet to be a definitive solution to the problem. While many options have been suggested, such as long-term loans or catch-and-release archaeology, the issue remains (Kersel 2015). One
particular approach that has been broached is the deaccessioning of older artifacts. While this route has its own hurdles, it also offers the possibility of deaccessioning by repatriation.

![Figure 31: Sentiment responses to Section 4, Question 3 (Part 3)](image)

6.4.3 CRM: Heritage Stewardship or Authorized Heritage?

The repatriation of archaeological artifacts has been a conversation across the globe and has seen most of its success in the repatriation of human remains, in part due to legislation like the United States Native American Graves Protection and Repatriation Act (NAGPRA) (National Park Service 2022; Hole 2007; Fisher 2012; Curtis 2010). Currently, Canada does not have any federal law to specifically dictate or facilitate the repatriation of archaeological remains, human or cultural; provincially some movement has been made, such as Alberta’s First Nations Sacred Ceremonial Objects Repatriation Act (FNSCORA) (Fisher 2012). However, repatriation of artifacts conventionally falls under the jurisdiction of the current holder, typically a museum, who may have their own rules and regulations (Fisher 2012). While organizations like the United Nations have produced agreements such as the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) stating that Indigenous peoples have the “right to practice and revitalize their cultural traditions”, it has been a slow progression towards repatriation (Bernstien 2021).
Regardless, there has been a growing discourse regarding the housing and repatriation of Indigenous artifacts in Canada. Section 4, Question 3 asked participants if they believed that recovered materials should be returned to Descendant Indigenous communities, even if lost to archaeological research, with 64% (n=34/53) agreeing. In addition, 71% (n=37/52) reported that the principal role of a consultant archaeologist is to service and represent the interests of the Descendant communities, whose heritage is being managed (Figure 32). Similar to other sentiment questions of controversial topics, it is important to note that both questions also had many neutral answers (24.5% (n=13/53) and 19% (n=10/52), respectively), meaning that those who disagreed with those statements are in the minority by a large margin.

![Figure 32: Sentiment responses to Section 4, Question 3 (Part 4)](image)

As a practice, archaeology has encountered various ethical dilemmas, such as issues with looting, stewardship, gatekeeping, as well as the discourse surrounding an archaeologists’ way of knowing and applying that meaning towards an Indigenous culture already complete with their own ontologies (Ferris and Dent 2020; Scarre and Scarre 2006; Wylie 1996). As a result, there has been a call for archaeologists to continue to decolonize the practice and to become more reflexive of their positions within the practice of archaeology and heritage management (Steeves 2015; Dent 2016; Hutchings 2018; Ferris and Dent 2020; Moro Abadía 2006).
This is an especially crucial area to examine, as the topic of heritage stewardship has experienced criticism; for example, there has been extensive discourse on authorized heritage management and its relationship with CRM, capitalism and Descendant communities (see Hutchings 2018; Hutchings and La Salle 2017; Smith 2006). It has been noted that ‘managers’ of cultural resources are often made to “ensure conformity to the state heritage regime under which the specific management system operates” (Hutchings 2018:71; Smith 2004). Over time, heritage stewardship programs have been co-opted by these “capitalistic heritage regimes, which focus on large scale resource extraction, production and consumption” (Hutchings 2018:71). The fear that CRM as an industry no longer functions to the benefit of heritage stewardship (rather than management), can be further exemplified by the earlier conversation on the critiques over business practices and corroborated by the sentiment survey responses. A few anonymous comments left on the sentiment survey further alluded to this contention of heritage stewardship in CRM. One respondent brought up the struggle of finding a balance between managing expectations and responsibilities to the archaeological record, Descendant communities, and their clients; another indicated they felt that there was a difference between what the role of a CRM archaeologist is and what it should be; and lastly, one respondent echoed the rhetoric of state sanctioned heritage by saying that the primary role of a consulting archaeologists is to satisfy regulation. These comments contribute to the conversation on heritage stewardship, and its ability to either function or fail in the face of government regulators.

With that said, the sentiment survey also included questions aimed at exploring how the practitioners surveyed view their own role in CRM archaeology, and if it presented any differently than the industry has been viewed in the past. For example, Section 4, Question 3 asked if the respondents believed that the expertise and role of the CRM archaeologist is what determines heritage value and significance of the archaeological record. While there was again a large number of neutral answers (38%; n=20/52) the majority disagreed with this statement, at 42% (n=22/52). This mirrors my earlier discussion in Chapter 2 on the implications of the ‘values’ that may be placed on cultural artifacts by archaeologists, despite how those same items may be viewed by members of Descendent groups (Welch and Ferris 2014; Ferris and Dent 2020). In addition, Section 4,
Question 1 of the sentiment survey asked the respondents if their experience working in consulting archaeology has given them a unique perspective and privilege to understand the place and country they live and work in, of which 90.5% (n=48) agreed. Question 2 of the same section asked if their current or latest employer encouraged enhanced engagement with Descendant communities, of which 62% (n=33) said yes. Collectively, these answers show a growing appreciation for the communities whose heritage is being managed by practitioners.

6.5 Sentiment Analysis Conclusion

In this discussion, I have provided an overview of the general views and experiences of CRM, as perceived by the practitioners who participated in my sentiment survey. By analyzing their answers, I was able to compare certain sentiments to some of the more prevalent critiques facing CRM today, as well as gauge how those who are currently working perceive their role in CRM and value the education they received. Emerging from this exercise is an exploration of how the folks who make up the industry today value the work they do. It also elucidates how some of the more prevalent critiques are understood from those within the practice. Additionally, it may accent any particular topics suggesting an ongoing transformation of industry practices and beliefs, or highlight some areas that are still of concern. While my dataset is in no way exhaustive, and only represents a small portion of the profession, compiling this data provides a new quantifiable insight into the beliefs, values, and experiences of those working in CRM, and will provide a baseline capable of informing future studies.
Chapter 7

7 Discussion, Concluding Remarks & Future Directions

I began this project with the intention of compiling enough data to have a rough profile of who CRM practitioners were, and how they viewed their roles in CRM. My research goals and questions evolved in their complexity along the way. Aside from simply wanting to know who these practitioners were, I also wanted to gain their input on how they felt about certain issues or if they had any strong feelings about CRM in general. I circulated my surveys with the hopes of gathering data on how the industry operated — as viewed through the expectations, roles, and responsibilities of practitioners, coupled with how each individual office understood its presence in the industry — and used that information to generate a more robust and clearer picture of the CRM industry and the practitioners who work in it. The sentiment survey gathered data on individuals, both with the sentiment questions and also with allowing the option for respondents to provide any final comments or questions about the survey and the research.

7.1 Discussion

My research is part of a growing field of interest, and the route I took to gather my data, as well as the data itself, differ in comparison to existing research, offering a new perspective through which to understand CRM in Canada. While I began this research project knowing little about the CRM industry, the more work I put in, the more passionate I became. The degree to which certain problems persist is jarring; for example, the privileging of regulatory compliance over archaeological conservation; low wages and a lack of publications; misrepresentation of the practice due to an industry population that is largely unknown, specifically in context to the demographic make-up of practitioners, therefore directly stifling effective conversations about diversity and representation of the practice; and, the shortfalls of an academic education uncalibrated to the skills needed for the workforce. Considering that many individuals who work in CRM are aware of these issues to some extent is especially concerning. Unfortunately, conceiving of ways to try and mitigate these problem areas is challenging and cannot happen without a better
understanding of the practice. Many of the root causes of these concerns are not critically engaged with on a discipline-wide scale, such as why and how decisions are made, why and how employees are hired, and why and how education factors – or does not factor – into CRM work. In order to address these questions, we need to better understand who the individuals are working in this profession. It is an understatement to say that the CRM industry is generally not well understood — government regulators do not typically compile metrics of practitioners, and while professional associations and organizations may document their regional archaeological industry to some extent, this is neither consistent nor collectively considered across the country. CRM developed at a time when trying to holistically regulate the practice was not possible because it was a relatively new industry and poorly understood. As the industry continued to evolve, it grew past the point of easily resolving any concerns, and many issues are now longstanding structural problems. Now, oftentimes, concerns are voiced but solutions are not necessarily feasible, and thus, CRM has become an industry hobbled by its inherent flaws and general unfamiliarity with the wider practice beyond local experiences.

7.2 Concluding Remarks

When comparing the aggregated data with the provided comments (see Appendix H for a full list of all comments), there is an obvious correlation between issues posited within the survey and the experiences of the respondents. While it is not possible to simply take this data and find a resolution for these issues now, as the concerns facing CRM today carry with them many nuances and barriers themselves, facing these obstacles is a necessary first step towards reconciling identified problem areas of the practice in the future. Examining the history of this practice, the research done by recent scholars from Canada and around the world, and analyzing the data I collected for this project, collectively demonstrate that issues of the practice persist and highlight certain areas that deserve to be reassessed moving forward. For example, some of the more critical issues are:

1) The disconnect between archaeology as a practice and archaeology as a discipline, and how that schism is translated, both in the academy and onto CRM.
2) The professional struggle to balance heritage and business needs, and the consequences this can manifest; for example, the tensions brought on from capitalistic and regulatory compliances, and how the two can be reconciled so as to ensure the best outcome and proper management of the heritage and its resources, as well as for the clients who are paying for these services.

3) The restrictions or barriers certain demographics may face within the practice, such as female identifying individuals, Indigenous peoples, or other visible minorities, and how those difficulties are translated to the practice of CRM, specifically in regard to securing a career and the opportunity for advancements.

With this thesis, I have attempted to present, examine, and discuss these issues, and their related problem areas. By combing through the relevant literature and applying relevant knowledge to my own dataset, I was able to illustrate how particular concerns or specific problem areas persist and manifest in the profession. Further, the sentiment survey’s comment section reaffirmed previous claims or concerns about the industry and gave further insight on how those who are working in CRM feel about the various issues or areas of interest. For instance, two respondents mentioned academia in their replies: one person said they were happy to see that the divide between consulting and academic archaeology was shrinking, and that collaboration was important. Another person agreed that universities were not providing adequate training for this field of work. Additionally, several people made comments relating to the role of the consulting archaeologist. One respondent alluded to the struggle of finding a balance between managing expectations and responsibilities to the archaeological record, Descendent communities, and their clients, echoing earlier discussions on this very topic. Another person said that there is a difference between what the role of a CRM archaeologists is and what it should be, and that they often have to cater to the client at the expense of archaeological resources and Indigenous groups.

Another, and very important, issue that this thesis has raised is the value of education, and its relevancy to archaeological practice. While for the last several decades the notion of obtaining a degree has been emphasized for many individuals, the drive for a higher education seems to be especially popular among archaeologists. However, as the previous
research has suggested in conjunction with the results outlined in this thesis, the education system is failing them (Dent 2016; Larkin and Slaughter 2021; Welch and Corbishley 2020; Welch et al., 2018; Whitely 2004). Not only were many respondents unhappy with the quality of their education, but it seemed as though on-the-job training was more important to the industry and expected of the practitioners. Further, even outside of archaeology, there have been conversations about how higher education is more or less “dying” – less students are attending post-secondary, many young adults are opting for quicker and cheaper training programs, or simply on-the-job experience, and others are seeing the value of a self-taught curriculum, thanks to the internet (Harris 2018; Illing 2021). Others have noted that the academy has become too complacent and too arrogant, a feeling that may translate to CRM archaeologists who have felt that their educations did not serve them well, adding to the already great divide between academic and applied archaeology (Vedder 2021). A particular concern over graduate education and its perceived importance for archaeology as an industry compared to its failure to prepare archaeologists for CRM is a topic that should carry forward into future research.

Finally, developing my research’s particular profile is specifically important as the demographic profile of the CRM archaeologist is likely going to change over time – not only will the profile itself evolve as this research reaches a larger and larger audience, but also as the workforce itself changes. Currently, Millennials are in majority; however, the next generation to enter the workforce, Gen Z, will bring with them even more diversity and varying values, some of which may not only corroborate Millennial thought and behavioural patterns, but also establish new and innovative ways of working and existing in their contemporary and future socio-economic climate. For example, while salary is a driving force behind a Millennials’ decision to stay or leave a job, Gen Z are less likely to factor in money when considering a career and are actually more inclined to choose a job they enjoy (Gomez et al. 2019). How these generational changes will affect the practice of CRM and the values of CRM practitioners is an essential element to keep in mind with future studies.
7.3 Final Thoughts & Future Directions

My research is just the beginning of a much larger, longitudinal study contributing to a comprehensive understanding of CRM, and presents the basic building blocks needed to continue this research, including a critical assessment of what worked and what did not work. While my goal was to generate a basic demographic profile, and to hopefully detail some of the sentiments regarding the practice, larger areas of interest emerged from the research than I had originally anticipated, such as how attitudes on the profession can be examined through different variables (i.e., age and education) and how the changing profile of contemporary CRM can be reflected by those attitudes. Ultimately, this thesis has the potential to inform future research, offering a starting point for the exploration and analysis of these, and many other, areas of interest. The data my research provides can be reviewed and used to draw comparisons in an effort to continue monitoring the professional profile of CRM longitudinally.

However, it is important to appreciate that my dataset cannot be considered exhaustive, and in fact, it is only reflective of a fraction of the entire industry. As stated before, the true number of archaeologists practicing in Canada is difficult to determine; due to the nature of CRM as a for-profit, seasonal, and as-needed employer, tracking CRM archaeologists, and therefore profiling them, is neither a convenient nor perhaps even an appreciated exercise (Jalbert 2019). Over the years, the minimal input regarding historical tracking of the practice, as well as the lack of career and employment statistics has left the industry opaque to consideration, not allowing for accurate reflections and accounts on the industry and its true numbers. While there has been other research in North America looking to account for numbers of firms (Heritage Business International L3C, 2022) and practitioners (Hodgetts et all., 2020; Jalbert 2019), the exact totals are still unknown. Therefore, my research can only represent the portion of the consulting archaeological community that chose to engage with it. It is important to note that while the data will not resonate with every CRM archaeologist, it does contribute to the long and determined mission of better understanding the CRM industry as a whole. We can neither explore the consequences of the values, decision making, and practices of the industry, nor are we
able to thoroughly examine, or try and solve, more specific problem areas until we have a better profile of the industry.

By collecting the data that this thesis has provided, going forward, researchers will be able to better document the evolving demographic break down of practitioners; track the changing makeup and operational nature of employment, credentials, and experiential expertise; and observe the staffing roles and responsibilities of this unique cultural group that arguably, most defines archaeology’s relevance in the contemporary world. Ultimately, a more refined profile will emerge that highlights the important aspects of this industry, that when compared to similar research of the industry elsewhere will provide further insight into the phenomenon of 21st century CRM generally, and in the Canadian context specifically.
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Waters, Shonna


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Western University


Whitley, T. G.

Wikipedia contributors

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Wood PLC


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WSP Golder


Wylie, Alison


Zeder, M. A.


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Zorzin, Nicolas, and Christian Gates St-Pierre

Appendices

Appendix A: Ethics Approval

Date: 14 October 2021
Tis Dr. Neal Ferris
Project ID: 118974

Study Title: Surveying the Industry: A Professional Profile of Cultural Resource Management in Canada
Short Title: CRM Industry Survey Profile 2021
Application Type: NMRB Initial Application
Review Type: Delegated
Full Board Reporting Date: November 5 2021
Date Approval Issued: 14 Oct 2021 17:04
REB Approval Expiry Date: 14 Oct 2022

Dear Dr. Neal Ferris,

The Western University Non-Medical Research Ethics Board (NMRB) has reviewed and approved the WREM application form for the above mentioned study, as of the date noted above. NMRB approval for this study remains valid until the expiry date noted above, conditional to timely submission and acceptance of NMRB Continuing Ethics Review.

This research study is to be conducted by the investigator noted above. All other required institutional approvals and mandated training must also be obtained prior to the conduct of the study.

Documents Approved:

<table>
<thead>
<tr>
<th>Document Name</th>
<th>Document Type</th>
<th>Document Date</th>
<th>Document Version</th>
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<tr>
<td>Industry-Email-July23</td>
<td>Recruitment Materials</td>
<td>23/Jul/2021</td>
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<tr>
<td>Sentiment-Script-July23</td>
<td>Recruitment Materials</td>
<td>23/Jul/2021</td>
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<tr>
<td>Sentiment-Submit-Page-July23</td>
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<td>23/Jul/2021</td>
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<tr>
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<td>23/Jul/2021</td>
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<tr>
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<td>Online Survey</td>
<td>23/Jul/2021</td>
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<tr>
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<td>Recruitment Materials</td>
<td>30/Jul/2021</td>
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<td>Sentiment-Letter-of-Information-and-Consent-Oct5</td>
<td>Implied Consent/Assent</td>
<td>05/Oct/2021</td>
<td>Clean</td>
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</table>

No deviations from, or changes to the protocol should be initiated without prior written approval from the NMRB, except when necessary to eliminate immediate hazard(s) to study participants or when the change(s) involves only administrative or logistical aspects of the trial.

The Western University NMRB operates in compliance with the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCP2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario. Members of the NMRB who are named as investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB. The NMRB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

Please do not hesitate to contact us if you have any questions.

Sincerely,
Kelly Patterson, Research Ethics Officer on behalf of Dr. Randall Graham, NMRB Chair

Note: This correspondence includes an electronic signature (validation and approval via an online system that is compliant with all regulations).
Appendix B: Letter of Information and Consent (Industry Survey)

Letter of Information and Consent – Industry Survey:

Surveying the Industry: A Professional Profile of Cultural Resource Management in Canada

Principle Investigator:
Dr. Neal Ferris, PhD, Anthropology
Department of Social Science, Western University

Graduate Student Investigator:
Sydney Rowinski, Anthropology
Department of Social Science, Western University

Invitation to Participate:

You are invited to participate in a national survey of the archaeological compliance and consulting industry in Canada, being conducted by MA student Sydney Rowinski and Dr. Neal Ferris of Western University in the Department of Anthropology. As a participant of this evaluation, you will be asked questions related to the general make up of personnel, staffing roles office activities and personnel recruitment practices, as it exists for your office.
Purpose of this Study:

CRM has seen substantial growth and development since its introduction several decades ago, and the industry has continued to rise and expand, becoming the largest employer of archaeologists in North America. However, information on both the industry and its practitioners remains poorly documented across the sector, and little researched. The intent of this study is to generate, for the first time, a profile on this distinct profession and form of practice, providing insights into the make-up of the practitioners who shape contemporary archaeology and its relevance in Canada today.

Inclusion Criteria:

Participation in this study is allocated only for private sector archaeological consulting firms working in Canada. In the case of consulting companies that maintain multiple offices, we are hoping for a response from each separate office, speaking to the specific make up and activities as they are carried out at that office. Ideally, one person, on behalf of that office, would complete the survey, such as an office manager, senior administrator, or company principal.

Participation:

Participation in this study is voluntary. You are not obliged to answer any question you deem objectionable or that elicits any negative feelings or response. You may choose to withdraw from the survey at any time; however, should you decide to remove yourself prior to submitting the survey, your answers and any acquired data will be permanently removed. The study will be available online and will only allocate for one response per invitation.
Procedure:

If you decide to participate in this study, you will be asked for your explicit consent to participation. By selecting ‘yes’ you will be agreeing to your voluntary participation in the survey and the evaluation of your answers. If you select ‘no’ you will be automatically removed from the survey. You do not waive any legal right by consenting to this study.

Please try to answer each question to the best of your ability – there is no wrong answer. This survey seeks non-specific, summary information, and will be incorporated with other replies to create aggregated results for the study. The survey is expected to take 15-20 minutes to complete.

Risks & Benefits:

Although there will be no direct benefit to the participants, the findings will contribute important data needed to create a professional profile and will help gain a better insight into the industry. There is no perceived risk to the participant(s).

Confidentiality:

Throughout this survey, your identity nor the identity of your company will not be recorded, and your anonymity will be protected. The aggregate results of this study will contribute towards a longitudinal survey of the profession that Dr. Ferris will be researching over the long term. All survey responses will be anonymously collected, and no information is being sought or wanted that would identify your company or yourself specifically. Only aggregate results will be retained following the completion of this survey and Miss. Rowinski’s Master’s degree, not individual responses. To help us ensure confidentiality, please do not put your personal or company name on any response.

Only the aggregate results of this research will be reported within Miss. Rowinski’s thesis and may also be published in professional journals and/or presented at conferences. Representatives of Western University’s Non-Medical Research Ethics Board may require access to your study-related records to monitor the conduct of the research. The data provided with your anonymous answers will be stored on a private and personal server for a minimum of 7 years, with the sole purpose of being available for further longitudinal research.
Contact Information:

Thank you for your interest in participating in this research survey. Should you have any questions or require additional information, you are welcome to contact Dr. Ferris or Sydney Rowinski. If you have any questions or concerns about the conduct of the study, as well as your rights as a research participant, please contact Western’s Office of Research Ethics.

Thank you for your interest in participating in this research survey.

Consent Decision

By selecting ‘Yes, I agree to participate’ you are confirming that you:

- Understand the letter of consent and information.
- Understand that your participation is voluntary, and that you may choose to withdraw at any time.
- Understand that your answers will be anonymous and your identity confidential.

☐ Yes, I agree to participate

☐ No, I do not agree to participate
Appendix C: Letter of Information and Consent (Sentiment Survey)

Letter of Information and Consent – Sentiment Survey:

Surveying the Industry: A Professional Profile of Cultural Resource Management in Canada

Principle Investigator:
Dr. Neal Ferris, PhD, Anthropology
Department of Social Science, Western University

Graduate Student Investigator:
Sydney Rowinski, Anthropology
Department of Social Science, Western University

Invitation to Participate:

You are invited to participate in a national survey of the archaeological compliance and consulting industry in Canada, being conducted by MA student Sydney Rowinski and Dr. Neal Ferris of Western University in the Department of Anthropology. As a participant of this evaluation, you will be asked questions related to your employment experience, as well as your impressions of the industry and archaeology.
Purpose of this Study:

CRM has seen substantial growth and development since its introduction several decades ago, and the industry has continued to rise and expand, becoming the largest employer of archaeologists in North America. However, information on both the industry and its practitioners remains poorly documented across the sector, and little researched. The intent of this study is to generate a first ever career and sentiment profile for this profession across select regions of Canada.

Inclusion Criteria:

You may participate in this study if you identify as an archaeologist and are working or have recently worked for a private sector, consulting archaeological company. That work may either be within a larger engineering firm or in a company that solely focuses on heritage compliance services. You may work full time, part time and/or seasonally.

Participation:

Participation in this study is voluntary. You are not obligated to answer any question you deem objectionable or that elicits any negative feelings or response. You may choose to withdraw from the survey at any time; however, should you decide to remove yourself prior to submitting the survey, your answers and any acquired data will be permanently removed. The study will be available online and will only allocate for one response per invitation.
Procedure:

If you decide to participate in this study, you will be asked for your explicit consent to participation. By selecting ‘yes’ you will be agreeing to your voluntary participation in the survey and the evaluation of your answers. If you select ‘no’ you will be automatically removed from the survey. You do not waive any legal right by consenting to this study.

Please try to answer each question to the best of your ability – there is no wrong answer. This survey seeks non-specific, summary information, and will be incorporated with other replies to create aggregated results for the study. The survey is expected to take 10-15 minutes to complete.

Risks & Benefits:

Although there will be no direct benefit to the individual participants, the findings will contribute important data needed to create a professional profile and will help gain a better insight into the industry. There is no perceived risk to the participant(s)
Confidentiality:

Throughout this survey, your identity will not be recorded, and your anonymity will be protected. The aggregate results of this study will contribute towards a longitudinal survey of the profession that Dr. Ferris will be researching over the long term. All survey responses will be anonymously collected, and no information is being sought or wanted that would identify your employer or yourself specifically. Only aggregate results will be retained following the completion of this survey and Miss. Rowinski’s Master’s degree, not individual responses. To help us ensure confidentiality, please do not put your personal or employer name on any response.

Only the aggregate results of this research will be reported within Miss. Rowinski’s thesis and may also be published in professional journals and/or presented at conferences. Representatives of Western University’s Non-Medical Research Ethics Board may require access to your study-related records to monitor the conduct of the research. The data provided with your anonymous answers will be stored on a private and personal server for a minimum of 7 years, with the sole purpose of being available for further longitudinal research.
Contact Information:

Thank you for your interest in participating in this research survey. Should you have any questions or require additional information, you are welcome to contact Dr. Ferris [redacted] or Sydney Rowinski [redacted]. If you have any questions or concerns about the conduct of the study, as well as your rights as a research participant, please contact Western’s Office of Research Ethics at [redacted] or [redacted].

Thank you for your interest in participating in this research survey.

Consent Decision

By selecting ‘Yes, I agree to participate’ you are confirming that you:

- Understand the letter of consent and information.
- Understand that your participation is voluntary, and that you may choose to withdraw at any time.
- Understand that your answers will be anonymous and your identity confidential.

☐ Yes, I agree to participate

☐ No, I do not agree to participate
Appendix D: Invitation to Participate (Industry Survey)

This is the email that was circulated to archaeological firms asking for their participating in my survey:

Dear Archaeological Consulting Company,

We are reaching out today as it is our understanding your firm currently provides services related to archaeological heritage compliance work for private and public clients in Canada. That understanding comes from identifying your firm as it appears on commercial archaeological consulting company contact lists provided by regulatory agencies, professional organizations, or directly on your company’s website. If you are not currently undertaking commercial archaeological consulting work, please disregard this request. Otherwise, we hope you are willing to participate in our survey, which is designed to generate a national profile for this industry across Canada.

This survey is being conducted by myself, Sydney Rowinski, as part of my Master’s research at Western University in the Department of Anthropology. I am working with Dr. Neal Ferris, the Lawson Chair of Archaeology at Western. Together, we are seeking to document the make-up of the professionals working in the archaeological heritage compliance profession, the nature of the practice in Canada, and the sentiments of practitioners in the industry. The intent of this specific survey is to generate a first ever employment and demographic profile for this profession. Our survey emulates those that have been conducted for the UK and Western Europe, Australia, and parts of the United States, and is intended to give a sense of this predominant form of archaeological practice globally, and in Canada, today.

The survey seeks information related to the general make up of personnel, staffing roles office activities and personnel recruitment practices, as it exists for your office at a fixed date: October 15th, 2021. We are hoping an office manager, senior administrator or company principal would fill in the survey for your office. We only ask for a reply that reflects your particular office: if your firm maintains several regional offices, please only respond for your location.

This survey seeks non-specific, summary information, and will be incorporated with other replies to create aggregated results for the study I am pursuing for my Master’s degree. Aggregate results from my study will contribute towards a longitudinal survey of the profession Dr. Ferris will be researching over the long term. All survey responses will be anonymously collected, and no information is being sought or wanted that would identify your company or yourself specifically. Only aggregate results will be retained following the completion of my Master’s degree, not individual responses.

Your time and effort are both greatly appreciated, and we thank you for your response.
Should you have any questions or require additional information, please email myself at [email protected], or Dr. Ferris at [email protected]. Below you will find a secure and anonymous link that will direct you to the survey.

Sincerely,
Sydney Rowinski

Follow this link to the Survey:
Take the Survey

Or copy and paste the URL below into your internet browser:

Follow the link to opt out of future emails:
Click here to unsubscribe
Appendix E: Request for Advertisement (Sentiment Survey)

This is the email that was circulated to archaeological organizations and associations requesting that they share my survey poster:

Dear Archaeology Association/Society,

My name is Sydney Rowinski and I am a Master’s student at Western University in the Department of Anthropology. I am working with Dr. Neal Ferris, a professor in this department, and together we are undertaking research on the make-up and experiences of professional archaeological consultants working in archaeological heritage compliance industry in Canada. I am reaching out today as it is my understanding that you currently operate an association or society for professional archaeologists. That understanding comes from identifying your organization as it appears on your website and/or social media. If the association is not currently accepting requests or has ceased operations, please disregard this email. Otherwise, I hope that you are willing and able to help in the promotion and circulation of our survey entitled “Surveying the Industry: A Professional Profile of Cultural Resource Management in Canada”.

This study is in need of anonymous volunteers to participate, and it would be helpful and much appreciated if your organization would be so kind as to share our promotional poster on your social media account or newsletter and help us to spread the word to as many consulting archaeologists as possible. Our intent with this survey is to generate a first ever career and sentiment profile for this profession across select regions of Canada by documenting the demographic make-up and sentiments of practitioners working in the archaeological heritage compliance industry. This survey is one of two I am conducting, with the other being an industry focused questionnaire. Together, these surveys will contribute to my project and will generate, for the first time, a profile on this distinct profession and form of practice that is shaping contemporary archaeology in Canada today.

Attached you will find the poster, of which includes all the relevant information and contact info, as well as access to the survey. Below there is also an anonymous and secure link to the survey itself (through Western’s access with Qualtrics), of which contains additional information on the survey, my research and what can be expected for the participants and of the generated data.

We hope you’ll consider circulating this survey, and we thank you in advance for your contribution to this study. Should you have any questions or require additional information, please email myself at [srowinski@uwo.ca](mailto:srowinski@uwo.ca), or Dr. Ferris at [nferris@uwo.ca](mailto:nferris@uwo.ca).

Sincerely,
Sydney Rowinski

Anonymous Link to Survey: [https://uwo.eu.qualtrics.com/jfe/form/SV_bCb3sFN3xxJqQf4](https://uwo.eu.qualtrics.com/jfe/form/SV_bCb3sFN3xxJqQf4)
Appendix F: Industry Survey

Welcome & Information
Hello and thank you for choosing to participate in this survey! We are happy to have your valuable input and appreciate your contribution. The following questionnaire is intended to help document and generate a demographic and sentiment profile of individuals who self-identify as archaeologists employed by a company that conducts archaeological heritage compliance work in Canada. This work is often referred to as CRM (Cultural Resource Management) or ARM (Archaeological Resource Management) and is conducted by private, for hire, Archaeological Consulting companies.

Why Are We Doing this Research:
CRM has seen substantial growth and development since its introduction several decades ago, and the industry has continued to rise and expand, becoming the largest employer of archaeologists in North America. However, information on both the industry and its practitioners remains poorly documented across the sector, and little researched. This survey will generate, for the first time, a profile on this distinct profession and form of practice, providing insights into the make-up of the practitioners who so shape contemporary archaeology and its relevance in Canada today.

Who Should Answer this Survey:
We are looking for a single response for each private sector archaeological consulting firm working in Canada. In the case of consulting companies that maintain multiple offices, we are hoping for a response from each separate office, speaking to the specific make up and activities as they are carried out that office only. Ideally, one person, on behalf of that office, would complete the survey, such as an office manager, senior administrator, or company principal. Our intent is that you can complete the survey from off the top of your head, rather than expect you to conduct detailed research to precisely answer each query.

Throughout this survey you will be asked questions on the make-up of your office personnel and activities, as you generally understand the answers to be. You will be asked to address your company’s activities and regional focus, number, and demographic make-up of office employees, staffing roles and general priorities for staff recruitment.
Notice:
The survey is designed to reflect a common point in time. So, we would ask that you provide your replies as it applies to the fixed date of: October 15th, 2021.

We would like to thank you again for your participation and contribution.

Section 1: Office Work Profile
The following questions are intended to document the sense of the scale of work directed by your office in the region of the country your office primarily works within. Please note: Answers should only reflect the activities for your office. If your office is one of several regional offices for the company you are a part of, report activities only for your specific office.

1. Which parts of the country does your office primarily work within? Please choose all that apply if 10% or more of your projects are located in more than one region.

- [ ] BC/Alberta
- [ ] Saskatchewan/Manitoba
- [ ] Ontario
- [ ] Quebec
- [ ] Atlantic Canada
- [ ] Northern Territories
2. How long has your office been operating in CRM

- Less than a year
- 2-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- Over 20 years

3. Since the start of 2021, how many projects has your office initiated?

(Insert number here)

4. Is that an increase or decrease in the number of projects your office undertook over the previous period in 2020?

- Increase
- Decrease
- No Change

[if increase] 4B. Please indicate a general percentage increase

- Less than 10%
- 11-20%
- 21-30%
- More than 30%
[if decrease] 4B. Please indicate the general percentage decrease

- Less than 10%
- 10-20%
- 21-30%
- 31-50%
- More than 50%

5. The projects initiated in 2021 were for:

- Public Sector Clients
- Private Sector Clients
- Both Public and Private

6. For the rest of 2021, do you anticipate the number of projects your office undertakes to:

- Increase
- Decrease
- Stay at the same level

7. For the rest of 2021, will you be:

- Decreasing staffing levels at your office
- Keeping staffing levels the same as currently
- Increasing staffing levels at your office
Section 2: Employee Demographics

The following set of questions are intended to reflect the number and demographic characteristics of individuals working at your office. The intent is to reflect a profile for the specific date of **October 15th, 2021**. Unless otherwise stated, please reflect the makeup of your office on that date. We are seeking here replies that are based on your general impressions/understandings of the people working in your office, as you understand those to be, as the office manager:

1. On October 15th, 2021, how many people worked at your office:

<table>
<thead>
<tr>
<th>Number of employees</th>
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<tbody>
<tr>
<td>[Bar Graph]</td>
</tr>
</tbody>
</table>

| 0 | 20 | 40 | 60 | 80 | 100 | 120 | 140 | 160 | 180 | 200 |

2. Of that number, how many of those people were employed:

<table>
<thead>
<tr>
<th>Permanently, Full-time</th>
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<tr>
<td>[Bar Graph]</td>
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</table>

<table>
<thead>
<tr>
<th>Permanently, Part-time</th>
</tr>
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<tr>
<td>[Bar Graph]</td>
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<table>
<thead>
<tr>
<th>Seasonally or on limited contract</th>
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<tr>
<td>[Bar Graph]</td>
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<table>
<thead>
<tr>
<th>Third-Party Employees (e.g., Community Monitors)</th>
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<tr>
<td>[Bar Graph]</td>
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<table>
<thead>
<tr>
<th>Unpaid Interns/Volunteers</th>
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<tr>
<td>[Bar Graph]</td>
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</table>
3. Please indicate how many of those individuals fall within the general age ranges (you may give an estimate of generalized percentages):

- Under 18
- 18-24
- 25-34
- 35-44
- 45-55
- 55+

Section 3: Employment Role Demographics

Note on the next set of questions:

The following section asks you to break down the main categories of employment by position category type and the general demographic makeup of those persons holding those positions and working at or from your office on October 15th, 2021.

Position categories are intended to be generalized. We are asking you, as the office administrator, to identify the demographic makeup of persons working in or from your office as you understand people to present across those categories, rather than to survey persons to confirm how they self-identify.

Would you please indicate the demographic makeup of the persons working at or from your office as you understand this makeup to be? Would you please identify the number of individuals you estimate to be in each position category, recognizing that any one individual might serve several roles?

Please click the button right arrow to submit previous responses and move onto the next section.

1. Of the people working in your office, how many individuals are employed in each position category?
   - Company Principals (e.g., CEO; Owners): _______
   - Company Managers (e.g., Project Managers or Leads): _______
   - Archaeological Project Field Directors: _______
   - Archaeological Project Field Staff/Crew: _______
   - In-House Specialists (e.g., Collections Lab Staff, Report Writing, GIS, Database/IT, etc.): _______
   - Indigenous community Liaison staff/Monitors: _______

   Total: _______

2. Of the people working in your office, how many individuals are employed:
   - Permanent Full-Time: _______
   - Permanent Part-Time: _______
   - Seasonal/Contract: _______

   Total: _______

3. Of the people working in your office, how many individuals fall into the following categories:
   - Male: _______
   - Female: _______
   - Unsure: _______

   Total: _______
4. Of the people working in your office, how many individuals fall into the following categories:

- White: _______
- Black: _______
- Indigenous/Metis/Inuit: _______
- Person of Colour: _______
- Unsure: _______

Total: _______
5. How many individuals would you categorize as new employees (i.e., working for your office for less than 12 months)

<table>
<thead>
<tr>
<th></th>
<th>Number of Full-Time Employees</th>
<th>Number of Part-Time Employees</th>
<th>Number of Seasonal/Contract Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Unsure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indigenous Metis Inuit</td>
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<td></td>
</tr>
<tr>
<td>Black</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Other Person of Colour</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Unsure</td>
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<td></td>
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</table>
6. For this next question, we are seeking to understand the general salary range, estimated per hour, for each of the general employment categories, based on a lower and upper salary range. Please note that if there is a fixed payment for all positions in a category, please input the same figure in the low and high ranges. Would you please include permanent full time, part time, and seasonal in these ranges?

<table>
<thead>
<tr>
<th>Low</th>
<th>High</th>
<th>Are any positions in this category Unionized</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>

- **Company Principals (e.g., CEO; Owners)**
- **Company Managers (e.g., Project Managers or Leads)**
- **Archaeological Project Field Directors**
- **Archaeological Project Field Staff/Crew**
- **In-House Specialists (e.g., Collections Lab Staff, Report Writing, GIS, Database/IT, etc.)**
<table>
<thead>
<tr>
<th>Indigenous community Liaison staff/Monitors</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-ArchaEOLOGICAL HERITAGE SPECIALISTS (e.g., Built Heritage, Museums, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office Administration (e.g., HR, Admin. support, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 4: Credentials & Skills

This section is seeking to understand the important credentials and experiences your office values when evaluating the skills and make up of prospective archaeology-related employees, by job position category, on a scale of 1-5 (1 being not very important and 5 being very important).

Would you please answer based on your general understanding of how those credentials influence your decision whether to interview before hiring a prospective employee?

1. On a scale of 1-5 (1 being not very important and 5 being very important), how would you rate each of these credentials per position?

<table>
<thead>
<tr>
<th>Position</th>
<th>Educational Background - some or complete undergraduate degree</th>
<th>Educational Background - some or complete graduate degree</th>
<th>Letters of Reference from CRM Archaeologists</th>
<th>Recommendation from someone already working in your office</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Managers (e.g., Project Managers or Leads)</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
</tr>
<tr>
<td>Archaeological Project Field Directors</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
</tr>
<tr>
<td>Archaeological Project Field Staff/Crew</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
</tr>
<tr>
<td>In-House Specialists (e.g., Collections Lab Staff, Report Writing, GIS, Database/IT, etc.)</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
</tr>
<tr>
<td>Indigenous community Liaison staff/Monitors</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
</tr>
</tbody>
</table>
2. On a scale of 1-5 (1 being not very important and 5 being very important), how would you rate each of these credentials per position?

<table>
<thead>
<tr>
<th>Position</th>
<th>Experiential Background No or minimal previous field experience</th>
<th>Experiential Background More than a year's field experience</th>
<th>Experiential Background Report/Technical writing skills</th>
<th>Experiential Background Holds/has held a Permit/License</th>
<th>Experiential Background Knowledge of Regional Archaeology/Material Record</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Managers (e.g., Project Managers or Leads)</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
</tr>
<tr>
<td>Archaeological Project Field Directors</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
</tr>
<tr>
<td>Archaeological Project Field Staff/Crew</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
</tr>
<tr>
<td>In-House Specialists (e.g., Collections Lab Staff, Report Writing, GIS, Database/IT, etc.)</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
</tr>
<tr>
<td>Indigenous community Liaison staff/Monitors</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
</tr>
</tbody>
</table>

3. On a scale of 1-5 (1 being not very important and 5 being very important), how would you rate each of these credentials per position?

<table>
<thead>
<tr>
<th>Credentials</th>
<th>Letters of Reference from CRM Archaeologists</th>
<th>Recommendation from someone already working in your office</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-House Specialists (e.g., Collections Lab Staff, Report Writing, GIS, Database/IT, etc.)</td>
<td>1-5 or N/A</td>
<td>1-5 or N/A</td>
</tr>
<tr>
<td>Role</td>
<td>Minimum</td>
<td>Maximum</td>
</tr>
<tr>
<td>---------------------------------------------------------------------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Company Managers (e.g., Project Managers or Leads)</td>
<td>1-5 N/A</td>
<td>1-5 N/A</td>
</tr>
<tr>
<td>Archaeological Project Field Directors</td>
<td>1-5 N/A</td>
<td>1-5 N/A</td>
</tr>
<tr>
<td>Archaeological Project Field Staff/Crew</td>
<td>1-5 N/A</td>
<td>1-5 N/A</td>
</tr>
<tr>
<td>In-House Specialists (e.g., Collections Lab Staff, Report Writing, GIS, Database/IT, etc.)</td>
<td>1-5 N/A</td>
<td>1-5 N/A</td>
</tr>
<tr>
<td>Indigenous community Liaison staff/Monitors</td>
<td>1-5 N/A</td>
<td>1-5 N/A</td>
</tr>
</tbody>
</table>
4. Are all prospective employees **always, sometimes or never** interviewed before deciding to hire them? Would you please indicate the instance of interviewing before hiring for each position below:

Would you please indicate which of the position categories are **always, sometimes or never** interviewed before hiring?

<table>
<thead>
<tr>
<th>Position Category</th>
<th>Always</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Managers (e.g., Project Managers or Leads)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Archaeological Project Field Directors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Archaeological Project Field Staff/Crew</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-House Specialists (e.g., Collections Lab Staff, Report Writing, GIS, Database/IT, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indigenous community Liaison staff/Monitors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Archaeological Heritage Specialists (e.g., Built Heritage, Museums, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office Administration (e.g., HR, Admin. support, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

You have reached the end of the survey. Please click on the bottom right arrow to complete your submission and record your answers. There will be no option to return to the questionnaire after clicking this button.
Appendix G: Sentiment Survey

Welcome & Information
Hello and thank you for choosing to participate in this survey! We are happy to have your valuable input and appreciate your contribution in helping us to generate a sentiment profile of the commercial consulting archaeology profession. For your reference, throughout this survey we will be referring to the industry by its common term, Cultural Resource Management (CRM).

Why Are We Doing this Research
CRM has seen substantial growth and development since its introduction several decades ago, and the industry has continued to rise and expand, becoming the largest employer of archaeologists in North America. However, information on both the industry and its practitioners remains poorly documented across the sector, and little researched. This survey will generate, for the first time, a profile on this distinct profession and form of practice, providing insights into the make-up of the practitioners who so shape contemporary archaeology and its relevance in Canada today.

As the largest source of employment for individuals who graduate with an undergraduate degree in an archaeology-related field in Canada, gaining insight into how this industry operates is not only necessary, but will also be beneficial to the sector, and for current and future practitioners.

Who Should Answer this Survey
You identify as an archaeologist working or has recently worked for a private sector, consulting archaeological company, either working within a larger engineering firm or in a company that solely focuses on heritage compliance services. You may work full time, part time or seasonally.

If you meet these criteria, you will be asked questions on your employment experiences, roles, and impressions of consulting archaeology. We are also looking to gain a profile of your workforce, so we will ask demographic questions of age, gender and racial identity. We ask that you answer each question as you personally value/understand the answer to be, based on your experience and knowledge.

We would like to thank you again for your participation and contribution. Attaining the proper knowledge and sentiments of this field through its industry practitioners is vital to shaping our understanding of this important archaeological profession in Canada.
Section 1: Demographic Profile

The following set of questions are asking you to identify your demographic profile, as you understand that to be, and self identify with the relevant categories listed in each question.

1. How would you describe your gender identity?
   - Male
   - Female
   - Non-binary / third gender
   - Prefer not to say

2. How would you describe your racial identity?
   - White
   - Indigenous - First Nations
   - Indigenous - Inuit
   - Indigenous - Metis
   - Black
   - Person of Colour

3. Were you born within the region understood presently to be Canada?
   - Yes
   - No
[if born in Canada] 3B. In which region of Canada where you raised?

- Atlantic Canada (New Brunswick, Nova Scotia, PEI, Newfoundland & Labrador)
- Ontario
- Quebec
- Prairies (Manitoba, Saskatchewan)
- West (Alberta, BC)
- Territories (Yukon, Northwest Territories, Nunavut)

[if not born in Canada] 3B. In which region of the world were you born?

- United States of America
- Mexico/Central America
- South America
- Europe
- Africa
- Asia
- Australia
3C. How long have you been in Canada?

- Less than a year
- 1-5 years
- 6-10
- 11-20
- 20+

3D. Did you come to Canada hoping to work in archaeology?

- Yes
- No

4. What age range do you fall within?

- 19-28
- 29-38
- 39-48
- 49-58
- 60+

5. Are you currently a member of a regional or national archaeological society?

- Yes
- No
6. Are you currently a member of a professional CRM organization?

- Yes
- No
Section 2: Educational Experience

Would you please answer the following set of questions to reflect your current understanding of your educational background, as that status exists on the day you answer these questions?

1. What is your highest level of education?
   - High School/Secondary School
   - Some University/College
   - Undergraduate degree
   - Some Graduate education
   - Master’s Degree
   - Doctorate

2. If you completed undergraduate/graduate education, did you specialize in archaeology?
   - Yes
   - No
   - N/A

3. Are you currently contemplating a return to school to pursue another degree, or complete your degree, if you left it?
   - Yes, related to archaeology
   - Yes, but not related to archaeology
   - No
On a scale of 1-5 (1 representing you strongly disagree and 5 representing you strongly agree), please answer the following sentiment statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>I entered university/college knowing I wanted to be an archaeologist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>My university/college education in archaeology effectively trained me to be a field worker in CRM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>My university/college education in archaeology effectively trained me to be a field manager in CRM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>My university/college education in archaeology effectively trained me to be a report writer of CRM reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>My university/college education in archaeology effectively trained me to be a material culture specialist in archaeology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>My university/college education in archaeology effectively trained me to appreciate Canada’s Indigenous heritage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>My university/college education in archaeology effectively trained me to appreciate the history of contemporary Indigenous peoples of Canada</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>I feel my university/college education in archaeology has given me unique skills to interact and work with the people I encounter most days in my job</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>I feel my university/college education in archaeology has given me a unique perspective and privilege to understand the place and country I live and work in</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
</tr>
</tbody>
</table>
Section 3: Employment

The following set of questions are intended to generate information about the nature of your employment in CRM.

1. How many years have you worked as a CRM archaeologist (defined as spending all or part of the year earning income in a position doing CRM archaeology)?
   - <1
   - 2-5
   - 6-10
   - 11-15
   - 16-20
   - 21+

2. How many CRM firms/Heritage Compliance employers have you worked for over your career?
   - 1
   - 2
   - 3
   - 4
   - 5
   - 5+

3. Are you currently working for a CRM company?
   - Yes
   - No
4. How many years have you worked with your current or most recent previous employer?

- <1
- 2-5
- 6-10
- 11-15
- 16-20
- 21+

5. Are you currently a member of a union for archaeological CRM workers?

- Yes
- No

6. Which parts of the country do you primarily work in currently? (Select all that apply)

- BC/Alberta
- Saskatchewan/Manitoba
- Ontario
- Quebec
- Maritimes
- Northern Territories
7. Please indicate your principal position/role in the company you currently work at or last worked at, and the level of permanency of that employment. We recognize that some people may work more than one position, so please select the position you view as your primary role:

Position Category

- Company Principal (e.g., CEO; Owner)
- Company Manager (e.g., Project Manager or Lead)
- Project Field Director
- Project Field Staff/Crew
- In-House Specialist (e.g., Collections Lab Manager or staff, Report Writing, GIS, Database/IT, etc.)
- Indigenous community Liaison staff/Monitor

Employment Type

- Full Time
- Part Time
- Seasonal/Contract
Section 4: Career and Employment Sentiments

The following set of questions are intended to generate information on your current understanding and feelings toward your career and field of employment.

1. On a scale of 1-5 (1 representing you strongly disagree and 5 representing you strongly agree), please answer the following sentiment statements:

With respect to your career in consulting archaeology:

<table>
<thead>
<tr>
<th>Sentiment</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>My intention has been to pursue a career in consulting archaeology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I view my employment in consulting archaeology as a way to earn income/experience as I continue in academic archaeology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I view my employment in consulting archaeology as a way to earn income/experience as I work in a public sector position (e.g., regulatory compliance, Museum, etc.)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>I am currently planning on leaving my career in consulting archaeology immediately</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>I am currently planning on leaving my career in consulting archaeology in the next 1-3 years</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>I am currently planning to have a long-lasting career in consulting archaeology</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>My experience in consulting archaeology has effectively trained me to be a field crew member</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>My experience in consulting archaeology has effectively trained me to be a manager</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
My experience in consulting archaeology has effectively trained me to be a report writer of CRM reports

My experience in consulting archaeology has effectively trained me to be a material culture specialist in archaeology

My experience in consulting archaeology has effectively trained me to interact and work with the people I encounter most days in my job

My experience in consulting archaeology has given me a unique perspective and privilege to understand the place and country I live and work in
2. On a scale of 1-5 (1 representing you strongly disagree and 5 representing you strongly agree), please answer the following sentiment statements:

**With respect to your current or last employer in consulting archaeology:**

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>My current compensation reflects both my educational and skill level</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>My employer encourages staff to attend archaeological conferences and/or publish findings</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My employer encourages staff to improve their educational/professional qualifications</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In my experience, our company effectively balances archaeological and business needs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In my experience, our company does not encounter client pressure to rush a project to completion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In my experience, our company values the input and direction we receive from Provincial /Territorial staff oversight</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>In my experience, our company encourages enhanced engagement with descendant communities whose heritage we are managing and documenting</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

3. On a scale of 1-5 (1 representing you strongly disagree and 5 representing you strongly agree), please answer the following sentiment statements:

**With respect to your views on being a consultant archaeologist:**

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am an archaeologist first and a heritage consultant/worker second</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

179
As an archaeologist, I view the aims and practices of consulting archaeologists to be the same as other types of professional archaeologists.

As a consultant archaeologist, I have a responsibility to present talks detailing the archaeology I’ve investigated.

As a consultant archaeologist, I have a responsibility to publish findings detailing the archaeology I’ve investigated.

As a consultant archaeologist, I believe consultant archaeology must document and recover as much of the archaeological record at threat of development impact as possible.

I believe that the recovered archaeological record is kept and stored primarily to aid in future research.

I believe being an archaeologist means being an expert at recognizing the material culture record in precise detail.

I believe the expertise and role of the CRM archaeologist is what determines the heritage value and significance of the archaeological record under investigation.

I believe that the recovered record should be returned to Descendant Indigenous communities whose heritage it represents, even if it is lost to archaeological research.

I believe the principal role of a consultant archaeologist is to protect, document and act on behalf of the archaeological record at risk from development.

I believe the principal role of a consultant archaeologist is to service our client’s interests efficiently and effectively.
I believe the principal role of a consultant archaeologist is to service and represent the interests of the Descendant communities whose heritage is being managed.

I believe the principal role of a consultant archaeologist is to maximize employment and profit for archaeologists working in CRM.

Section 5: Additional Closing Thoughts or Opinions

If there is something within this survey that you would like to comment on or if there is something that we have not addressed that you feel important to note, please feel free to do so here. **Remember that this is an anonymous survey, and therefore your answer must not include any identifying information** (max. 250 characters).

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

You have reached the end of the survey. Please click on the bottom right arrow to complete your submission and record your answers. There will be no option to return to the questionnaire after clicking this button.
<table>
<thead>
<tr>
<th>Section 5: Additional Closing Thoughts or Opinions</th>
</tr>
</thead>
<tbody>
<tr>
<td>If there is something within this survey that you would like to comment on or if there is something that we have not addressed that you feel important to note, please feel free to do so here. Remember that this is an anonymous survey, and therefore your answer must not include any identifying information (max. 250 characters).</td>
</tr>
<tr>
<td>Need more questions about unionization, safety, and work culture as these are significant to our well-being/career trajectory. Also want to see questions about racism and discrimination as I have been shocked to see this so prevalent in my crew.</td>
</tr>
<tr>
<td>You should also investigate the ways unions are introducing a new power structure and/or broker in professional archaeology. 50-60%+ of Ontario archaeologists are now unionized- this is a significant development that is ignored in academic discourse.</td>
</tr>
<tr>
<td>For the one question I didn’t answer, I was unsure what was meant by a professional archaeological membership. Some examples or description would have helped me out with that one.</td>
</tr>
<tr>
<td>Also, I agree that a study like this is long overdue! Good luck!</td>
</tr>
<tr>
<td>There’s a difference in what the principal roles of a CRM archaeologist IS and SHOULDBE, I believe. Unfortunately we are have to cater to client budget and timeline and the archaeological record and what’s right for Indigenous groups suffers.</td>
</tr>
<tr>
<td>I know it’s not that important, but I do want to point out that the Maritimes is only NB, PEI, and NS, it does not include Newfoundland. The term you were looking for is Atlantic Canadian, which is all four.</td>
</tr>
<tr>
<td>You asked if I was raised in Canada, and then what part of Canada I was born. I was raised in Canada, but born overseas arriving in Canada as a baby. This actually shows some kind of inherent bias that is quite off putting. I almost quite the survey.</td>
</tr>
<tr>
<td>Consulting archaeology can be a very difficult balance between managing the expectations and responsibilities to the archaeological resource, descendent communities, and our clients.</td>
</tr>
<tr>
<td>Pleased to see the divide between consulting and academia shrinking. Collaboration allows for great projects. Even more importantly we are transitioning with Indigenous Groups and the colonial nature of our discipline. Looking forward to the future!</td>
</tr>
<tr>
<td>On the Prairies, groups always moved and to base archaeological sites (i.e., artifacts) to the nearest First Nation (IR) isn't always the case. IR were created and groups (proto-historic; historic) were placed on these IR.</td>
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<td>Many of these questions were leading, and lacked the nuance about professional heritage resource management in North America. This survey seemed to be presented with little understanding of professional archaeology.</td>
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Right now there is a schism in how CRM practice is perceived and understood by government regulators, practitioners and descendent communities. This lack of alignment and understanding of our role creates additional tensions.

Universities are not providing adequate training for this work, and of late, the MHSTCI (and the BAO) are not providing clear guidance on what they want, particularly for cemetery work, avoidance and protection, and Indigenous engagement requirements.

Many of the concepts presented here, particularly at the bottom of the last two sections, are a bit too complex to easily answer solely on a sliding scale of 1 to 5.

I would have liked to see the same questions about Indigenous appreciation in the CRM skills section as was in the academic section. Also the principal role of CRM is to satisfy state regulation; everything else relates to how that role is realized.

There is a small subset of archaeologists who are employed directly by developers to manage CRM for that specific developer (most crown-owned electrical utilities in Canada seem to have a staff archaeologist).

My university experience was great for archaeology but the main reason it didn't help prepare me as much for CRM was that it was in the early 1990s when CRM was just coming into its own in Canada; I don't know how suitable modern day BA programs are.