Broadening #MeToo: Tracking Dynamics in Canadian Archaeology Through a Survey on Experiences Within the Discipline

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Abstract. The #MeToo movement has turned global attention to structural power differentials grounded in gender, race, sexual orientation, and other aspects of identity, leading archaeologists to confront injustice in different sectors of our discipline, with a focus on sexual harassment and sexual assault. In 2019, the Canadian Archaeological Association's Working Group on Equity and Diversity conducted a survey of Canadian archaeologists to identify the extent of both sexualized and non-sexualized forms of discrimination, exploitation, harassment, and violence in our field. Our survey yielded 564 responses from archaeologists representing a wide range of genders, ages, career stages, and sectors. The results indicate a large portion of Canadian archaeologists have had negative experiences in the course of their work and study. This first stage of analysis focuses on demographic trends among survey respondents and noteworthy differences in their experiences based on gender, career stage, and participation in the academic or cultural resource management sector.

Résumé. Le mouvement #MeToo a attiré l'attention mondiale sur les écarts de pouvoir structurels fondés sur le sexe, la race, l'orientation sexuelle et d'autres aspects de l'identité, ce qui a amené les archéologues à faire face à l'injustice dans différents secteurs de notre discipline, en mettant l'accent sur le harcèlement sexuel et les agressions sexuelles. En 2019, le Groupe de travail sur l'équité et la diversité de l'Association archéologique canadienne a mené une enquête auprès d'archéologues canadiens afin d'identifier l'étendue des formes de discrimination, d'exploitation, de harcèlement et de violence sexualisés et non sexualisés dans notre domaine. Notre enquête a reçu 564 réponses d'archéologues représentant un large éventail de sexes, d'âges, de stade de carrière et de secteurs. Les résultats indiquent qu'une grande partie des archéologues canadiens ont eu des expériences négatives au cours de leurs travaux et de leurs études. Cette première étape de l'analyse met l'accent sur les tendances démographiques chez les répondants à l'enquête et les différences notables dans leurs expériences fondées sur le sexe, le stade de carrière et la participation au secteur académique ou de la gestion des ressources culturelles.

Our sciences stand to be better—more rigorous, more creative, more inclusive—if a greater diversity of people is involved in their practice.
– Alison Wylie (2010:241)

MANY CANADIAN ARCHAEOLOGISTS, like those elsewhere, were ini-

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tially drawn to the discipline by the excitement of connecting with people in the past through the things they left behind. Many of us look back fondly on our formative experiences as students, when we first fell in love with archaeology (e.g., Supernant et al. 2020; Welch 2020). The challenges and rewards of material analysis and fieldwork led us to continue our studies and pursue archaeology careers. We all have stories to tell about our journeys as archaeologists—a favourite class, the long hours in the lab that led to an "aha" moment, the humour and camaraderie at a field site. There are other kinds of stories, too, that get told more quietly, to more carefully chosen audiences—the unjust supervisor, the passive aggressive co-worker, the casual "joke" about the attractiveness of a student, the acts and events that happened in the field that "should stay in the field" (Radde 2018). These experiences inform and imbue the culture of archaeology.

The four of us came to this work because we are all aware of a range of negative behaviours that have continued to occur as we progress through our careers, but have not seen our institutions and professional organizations take decisive action to assess nor address the problem. Events at the 2019 meeting of the Society for American Archaeology (SAA) precipitated action by professional archaeological associations worldwide to develop policies to support member safety in all workplace contexts[1] (Bondura et al. 2019; Foxx et al. 2019; Hays-Gilpin et al. 2019). While these developments are aimed at some of the most serious forms of negative behaviours in archaeology, our collective experiences in the discipline suggest that the problem is much broader. As established professionals, three tenured university faculty (LH, KS, JW) and a director of a private cultural resource management (CRM) firm (NL), we feel we owe it to our students and junior colleagues, who are situated in more vulnerable positions, to bring these concerns to light.

As four archaeologists with more than a century of aggregated practice, we have lived, witnessed, and heard from colleagues, students, and other archaeologists about many forms of negative experiences. The two most recurrent negative anecdotes that come to mind—which generate different responses depending on the individual's standpoint—are as follows. First, archaeology has a fieldwork culture that can range from irreverent to coarse, what one of our respondents called the "wild west". Alcohol overconsumption often plays a role when archaeologists socialize in field and other contexts (Miller 2018). There can be considerable pressure to partake in the widespread drinking culture, and it can facilitate and be used to justify many forms of inappropriate behaviour. While many thrive in this culture, others have been excluded, repulsed, and/or harmed by it.

Second, young scholars and practitioners, and particularly women and visible minorities, have suffered discrimination and other abuses from senior faculty and CRM management, demographic classes that remain predominantly white, cisgender, and male. This senior demographic has varying levels of awareness of their privileges, of the powers they wield in others' lives and futures, and of the harms they can cause. Ongoing demographic shifts toward gender balance and greater diversity in our discipline are neither a guarantee of a cultural change nor a rationale for inattention to historical and current patterns of behaviour. We

need continued attention to how we treat one another within our community of practice.

The #MeToo movement has helped to upend the doctrine of silence around sexual abuse and other forms of inequity. This movement, founded by Tarana Burke in 2006, is dedicated to gauging the status and magnitude of the problems of sexual abuse and harassment against women and marginalized peoples and to creating resources to support survivors of sexual violence. It catapulted into public consciousness in 2017 with the #MeToo hashtag and has since grown to examine power structures along multiple vectors, including inequalities in workplace environments related to gender-based power, pay, and opportunity differentials. The pervasiveness of the movement is unsettling cultural norms and professional standards around the world, including those in archaeology (Jagsi 2018; Lukose 2018; O'Neil et al. 2018).

In early 2018, we asked the question: What does #MeToo mean for archaeology in Canada? Originally, we had only anecdotal evidence on which to draw, because we lacked even basic demographic data for the Canadian archaeological community, let alone nation-wide reporting on the experiences of individual archaeologists. This lacuna prompted us to form the Canadian Archaeological Association Working Group on Equity and Diversity and to set about gathering data to fill this void. In February 2019, we launched a survey to document disciplinary demographics and to gather data that would help us understand how different identity categories intersect to shape the experiences of individual archaeology students and practitioners. The survey solicited information on a broader spectrum of nega-

tive behaviours than previous surveys of field disciplines (e.g., Clancy et al. 2014; Meyers et al. 2015; Meyers et al. 2018), including discrimination, verbal harassment, exploitation, physical violence, unwanted sexual touching, and sexual violence. The survey sought to capture the full scope of these behaviours and to enable and guide follow up interviews to understand historical and experiential dimensions of negative incidents among a sample of archaeologists with diverse backgrounds.

Our work is unsettling on several levels. The survey results point to systemic inequities and pervasive negative experiences within archaeological practice in Canada. This should concern all Canadian archaeologists and encourage behavioural self-study, more cognizant witnessing, and introspection and discourse about the desired futures of our discipline and its attendant culture. Reflections on how and why we may have, perhaps unwittingly, supported inequities and related harms may be uncomfortable, but this discomfiture is important in exposing and ultimately dismantling the power structures and precepts of our professional culture that systemically disadvantage many archaeologists based on intersectional identities. Our position is that the discipline benefits when it is practiced by people with a wide variety of backgrounds and personal experiences, who approach archaeology from multiple perspectives and knowledge bases (Wylie 2010), consciously and with care for each others' wellbeing (Lyons et al. 2019; Supernant et al. 2020).

In this paper, we present our first phase of analysis of the survey responses. We start with a review of current research in equity and diversity issues. We discuss the design of the survey, its scope and

definitions, and what factors influenced our choice of categories, questions, and options. We outline the demographics of our respondents and break down the frequency with which they reported negative behaviours based on their gender, workplace sector, and career stage at the time of the incident. We examine the perpetrators' demographics and the setting in which incidents took place. Our next phase of analysis will take an intersectional approach to the quantitative data below and use qualitative interviews to explore the nuances of negative experiences. Above all, this project aims not to assign blame, but to promote dialogue and to encourage all Canadian archaeologists to contribute to positive change. We join colleagues in the SAA and other professional archaeological organizations worldwide in striving to make archaeology safer, more accessible, more inclusive, and more reflexive (Blackmore et al. 2016; Bondura et al. 2019; Foxx et al. 2019; Hays-Gilpin et al. 2019).

Context

A growing body of research explores equity and diversity issues in archaeology. Demographic studies are providing essential baselines using commonly documented categories: gender and age/career stage, followed by ethnicity and race. Recent demographic data on archaeologists in the United States (SAA 2015), United Kingdom (Aitchison and Rocks-Macqueen 2013), and Europe (Lazar et al. 2014) show that in those regions, women are approaching parity with men. Among practitioners under the age of 40 (45 in the US) women outnumber men; the inverse is true among those over 40. There are approximately twice as many women as men among archaeology students in the US (SAA

2015) and in many European countries (Lazar et al. 2014).

Among archaeology faculty members at Canadian universities in 2019, there are almost twice as many women as men at the assistant professor level, men slightly outnumber women at the associate level, and men outnumber women by a factor of more than 2:1 among full professors (Overholtzer and Jalbert 2020). These numbers include archaeologists, bioarchaeologists, and classical archaeologists. The large proportions of women among assistant and associate professors are largely driven by their representation among bioarchaeology and classical archaeology faculty. If archaeology is considered alone, women comprise 46% of assistant professors, 29% of associate professors, and 31% of full professors (Overholtzer and Jalbert 2020). In CRM, men received almost twice as many permits as women across Canada between 2012 and 2014 (Jalbert 2019:149). When it comes to Canadian students, women form the majority of students enrolling and graduating in archaeology and anthropology at all levels. Women outnumber men by a factor of 2:1 at the undergraduate and master's levels, and continue to outnumber men, though to a lesser degree, in PhD programs (Jalbert 2019). In Canada, as elsewhere, it appears that disproportionately more women than men are leaving archaeology as they advance through the ranks (Overholtzer and Jalbert 2020), reflecting the "leaky pipeline" phenomenon (Van Anders 2004).

Ethnicity and race are social categories where archaeology shows little demographic diversity. Archaeological practitioners in Western, English-speaking nations remain largely white. The most recent data from the US is the SAA 2015 Member Needs Survey

(SAA 2015). For ethnicity, 2,521 people selected from 8 possible categories as follows: African American 0.3%, Asian/Pacific Islander 1.9%, Caucasian (non-Hispanic) 77.7%, Hispanic/Latino(a) 6.7%, Native American/Alaskan Native 0.8%, Multi-racial 2.5%, Prefer not to answer 7.7% (SAA 2015). Relative to the US population, African Americans remain highly underrepresented, as are Asians and Native Americans, though to a lesser degree. In the UK, the discipline is even more homogeneous, with 99% of archaeological practitioners who answered a survey identifying as white, a number unchanged since at least 2008 (Aitchison and Rocks-Macqueen 2013:98). Diversity among UK archaeologists does not reflect the diversity of the broader population. Until recently (Jalbert 2019), there was little quantitative data about the ethnic diversity of Canadian archaeologists.

Explorations of the interplay between identity and equity issues within archaeology have so far focussed largely on gender. Studies show that in the US and Canada, women are hired into faculty positions at PhD granting universities less frequently than men (Gonzalez 2018; Speakman et al. 2018). Women are consistently and substantially under-represented as lead authors across a range of American archaeology publications (Bardolph 2014; Tushingham et al. 2017) and are markedly under-cited compared to men (Hutson 2002). They submit and re-submit manuscripts at much lower rates than men (Bardolph and VanDerwarker 2016; Bardolph 2018; Heath-Stout 2020a) and journal prestige is correlated with the percentage of authors who are straight, white, cisgender men (Heath-Stout 2020b). Women also submit fewer grant applications than men (Goldstein et al. 2018) and

receive, on average, half the amount of funding awarded to men (Jalbert 2019).

Several recent surveys have explored experiences of sexual harassment and assault at archaeological field sites and those of other field-based disciplines in the US (Clancy et al. 2014; Meyers et al. 2015; Meyers et al. 2018). These studies recognize the importance of documenting fieldwork experiences as distinctive contexts that entail intense interpersonal relationships, vulnerabilities, and power differentials. A majority of those who responded to these surveys report experiencing sexual harassment, with women three to four times more likely than men to experience sexual harassment and four to five times more likely than men to experience sexual assault (Clancy et al. 2014; Meyers et al. 2015; Meyers et al. 2018). Trainees and people in the early stages of their careers are far more vulnerable to sexual harassment and assault than those at later career stages (Clancy et al. 2014). Gender, sexual orientation, and other aspects of identity also shape the experiences of people of all genders and career stages, but these issues remain underexamined (but see Jalbert 2019; Radde 2018).

VanDerwarker and her students (Brown 2018; Gonzalez 2018; Radde 2018; VanDerwarker et al. 2018) undertook a survey of the California archaeological community that assessed co-linked factors influencing harassment, equity, and mentorship. Radde (2018) confirms that, although reporting rates are low, harassment comes in many forms and is experienced at disproportionately higher levels by vulnerable communities across different workplace settings in archaeology. Gonzalez (2018) found that subtle gender discrimination is part of the cultural fabric of both CRM and academia and deserves attention alongside

more blatant forms of disparity, such as pay differentials and processes for professional ranking and advancement. Brown (2018) explored the role of suitable mentors in decision-making processes through the graduate school years and beyond, noting that women and students of colour have been historically underserved by their advisory relationships.

Survey Design and Dissemination

Our aim with the Equity and Diversity in Canadian Archaeology (EDCA) survey was to better understand both the demographics and experiences of archaeologists within the Canadian archaeological community. Basic questions drawn from anecdotes and surveys in other jurisdictions anchored our study. We wanted to know if, how, and under what circumstances Canadian archaeologists have experienced a range of negative behaviours. How common are incidences of sexual harassment and sexual violence, as well as other forms of harassment, violence, discrimination, and exploitation? Do Canadian archaeologists experience these behaviours equally in different work and study settings? Is their highest incidence in the field? Is there variation across academic and CRM sectors?

In designing the EDCA survey, we strove to balance the depth and breadth of the questions against the time it would take respondents to complete, given that completion rates decline as survey length, question length, and question difficulty increase (Liu and Wronski 2018). To streamline the process, "no" responses took users directly to the next section, while "yes" responses prompted follow up questions. We wrote the survey in English and had the final version translated for parallel delivery in French. The survey was divided into sections that invited responses about respondents'

demographics, their awareness and sense of the effectiveness of institutional policies, and their experiences (personal or witnessed) of discrimination, non-sexual violence, verbal harassment, exploitation, unwanted sexual touching, and sexual violence and assault. We offered open text boxes to invite both comments on how individual experiences impacted their careers, and suggestions for making the disciplinary culture of archaeology in Canada safer and more inclusive.

In the demographics section, we asked respondents to report their gender identity, age, sexual orientation, ethnic/racial background, career stage, and workplace sector. We had to make many choices about the nature and breadth of responses for each of these questions. For gender identity, we used an open text box to allow for diverse gender identification without limiting people to predetermined categories. Choices for sexual orientation included asexual, bisexual, gay, heterosexual, lesbian, pansexual, queer, questioning, and other. For ethnic/racial background, we used categories from the 2016 Canadian census[2] because pilot testing suggested that an open text box was too ambiguous. Some respondents critiqued the available choices and the conflation of ethnicity and race. As arbitrary social constructs, ethnicity and race are difficult to tease apart. They impact the lives of archaeologists differently and represent an important vector of potential inequity to explore. Career stage included one question about highest degree obtained and another about current work or study position. Workplace sector included avocational, college, CRM, Federal Government, Indigenous Government/Organization, Municipal/Regional Government,

Museum, Provincial or Territorial Government, University (graduate), University (undergraduate only), and Other (please specify).

Our categories of negative experience are defined in Table 1. For each category, the survey asked about the respondent's career stage at the time of the incident, the perceived gender of the perpetrator, and the perpetrator's relationship with the respondent. It also asked where the incident(s) took place and whether or not the respondent reported it. We asked about the frequency with which respondents had witnessed such behaviours directed at others. We asked for further details about any witnessed events, but those responses are not considered at this stage of our analysis because more intensive study is needed to allow us to better understand the prevalence of negative behaviours and the relationship between bystanders and reporting (National Academies of Sciences and Medicine 2018). Given the breadth of the survey, and following Clancy and co-authors (2014), we did not ask for details of multiple incidents of any given negative behaviour, but rather the one that was most significant to the individual.

Our working group drafted the survey and revised it several times based on feedback from our eight-member advisory board and practitioners we invited to complete pilot versions. The CAA directors reviewed and approved the final version. The preamble included both a trigger warning to alert participants to the possibility that the survey could refresh traumatic experiences and a list of support resources for survivors. We received ethics approval from the University of Western Ontario Non-Medical Research Ethics Board, and all respondents provided informed consent. The final version was implemented using the online survey platform Qualtrics.

The survey was open from February 14 to April 10, 2019. It was advertised through the Canadian Archaeological Association e-mail list and provincial and professional archaeological associations across Canada. We shared the survey link on social media, targeting Canadian archaeology groups on Facebook and

TABLE 1. Definitions of negative experiences used in the EDCA survey.

Negative Experience	Definition
Discrimination	Being belittled, made to feel uncomfortable, bullied, or overlooked on the basis of your age, gender, sexual orientation, ethnicity, or some other identity category
Verbal Harassment	Having inappropriate remarks, or derogatory jokes or comments directed at you
Exploitation	Being expected to work without pay or faced with unreasonable expectations from a person in a position of authority
Physical Violence	The threat of or actual non-sexualized physical violence such as verbal threats, shouting, pushing, physical intimidation
Unwanted Sexual Touching	Being touched, kissed, fondled, or grabbed in a sexual way without consent
Sexual Violence/Sexual Assault	Violent non-consensual forms of sexual contact such as rape and attempted rape

circulating it on Twitter. We received 564 responses to the survey, with the largest number of responses coming in the first few days the survey was open, and within a day of subsequent reminders sent out through e-mail and social media. Two hundred and seventy-four respondents (48.6%) indicated that they were CAA members, representing 41% of the 664 members of the CAA. Many indicated membership in provincial archaeological associations in Canada. All respondents self-identified as living and/or working in Canada.

The responses form a rich and robust dataset representing many different perspectives from within the discipline in Canada. As with any survey, there are biases and limitations. Respondents are self-selected and are likely a better representation of Canadian archaeologists interested in the topic than of the nation's archaeologists (Dillman et al. 2014; Saleh and Bista 2017). There is no way of knowing if our sample is biased towards people who have experienced harassment or other negative behaviours or if those individuals chose not to complete the survey to avoid reliving trauma (Clancy et al. 2014).

Survey Results

Our dataset speaks to the nature, structure, and pervasiveness of negative experiences among Canadian archaeologists during their training and in the course of their work. Our survey results demonstrate that negative experiences are widespread among respondents in the Canadian archaeological community. A full 80% of women and 75% of men indicate that they had one or more negative experiences "a few times" or "many times". In the following presentation of results, we address several broad questions: Who did we hear from? Who experienced various negative behaviours and under what circumstances? Who are the perpetrators? Are these incidents reported? To protect respondents' privacy, we combined categories any time there were three or fewer respondents in a category. If there was no way to combine categories, we excluded these responses from the reported numbers. We recognize that combining or excluding categories from our quantitative data analysis might silence some voices; our intention is to draw out these experiences in future qualitative data while protecting the privacy of our respondents. For this first round of analysis, we have chosen to focus on gender, sector, and career stage of our respondents, with further analysis to follow.

Who Did We Hear From?

In this section, we present demographic information about the survey respondents.

Gender, Age, and Sexual Orientation
Among survey respondents who indicated their gender (n = 495), cisgender women accounted for 63%, cisgender men 35%, and non-binary people 1.4% (Figure 1). The "non-binary" category includes all respondents who self identified as something other than woman/female or man/male, and includes responses of "non-binary", "bigender", "kinda male", "genderqueer", and "trans man". Women outnumbered men in all the under 60 age categories. Women outnumber men by a factor of over 3:1 in the 20–29 age category, the age at which most people are completing their undergraduate and graduate training. We saw the largest response from people aged 20–29 and 30–39. Within these two age groups combined, more than twice as many women responded (71%) as men
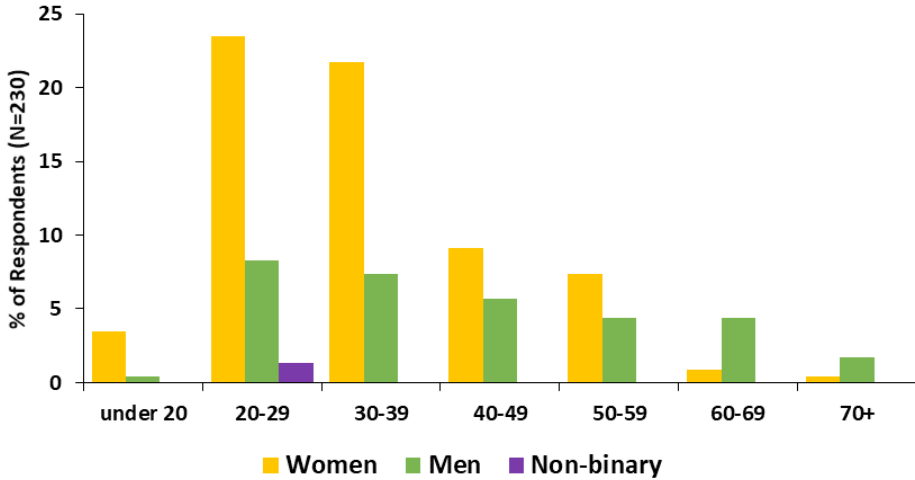
Figure 1. Proportion of respondents by age and gender.

(25%). Women also outnumber men to a considerable degree among our 40–49 and 50–59 year-old respondents.

Table 2 reports the sexual orientation of respondents. Most respondents identified as heterosexual, with bisexual the next most frequent category. Asexual, gay, and lesbian were all reported at the same rate, with pansexual, queer, other, and questioning following in descending order.

Table 2. EDCA survey respondents' sexual orientation.

Sexual Orientation	Percent of Respondents (N=563)
Heterosexual	78.2
Bisexual	10.0
Asexual	2.1
Gay	2.1
Lesbian	2.1
Pansexual	1.8
Queer	1.4
Other	1.2
Questioning	1.1
TOTAL	100.0

Similar demographic trends for age and gender were noted in the SAFE survey (Clancy et al. 2014) and the Survey of Southeastern Archaeologists (Meyers et al. 2015). As discussed above, women outnumber men up to the 40–49 age category, where men begin to outnumber women (Jalbert 2019). With the age and gender responses we received, it seems likely that response rates for our survey were higher among women than men, perhaps because women are more likely to have these types of experiences, making them more likely to respond.

Geographic Distribution and Ethnic/Racial Diversity

In this section, we look at the social and geographic diversity of survey respondents. We received responses from all Canadian provinces and territories except for Nunavut. The highest proportions of respondents (N=560) listed Ontario (33.1%), British Columbia (25.2%), and Alberta (17.3%) as their primary place of residence. While people reported doing fieldwork on every continent (N=820), most respondents work

within Canada (71.0%), particularly the Western (29.4%) and Central (24.0%) regions. Individuals could select more than one location for fieldwork, so the reported percentages are calculated based on the total numbers of responses, not respondents.

Table 3 presents the distribution of ethnicity/racial background responses in the survey and compares it to 2016 Canadian census data. In creating the table, we assigned some of the "Other" survey responses to existing census categories, as appropriate. We grouped "European" and "French-Canadian" in the "White" category and combined all categories of Asian respondents to protect anonymity.

Our results confirm that Canadian archaeology (N = 551) remains a very white discipline (87.3%). Indigenous practitioners (5.3%) constitute a slightly higher proportion than in the Canadian census results. Asian Canadians (2.7%) and Black Canadians (0.0%) are substantially underrepresented among respondents relative to the Canadian population. Compared to the demographic data from the SAA Member Needs Survey, EDCA respondents demonstrate greater Indigenous representation and less representation from Latinx, with similar underrepresentation of Black and Asian communities (SAA 2015). Our survey population has a slightly higher proportion of "white" people than either the SAA survey or UCSB survey for California (VanDerwarker et al. 2018:142). Our next stage of analysis will take an intersectional mixed-methods approach, examining whether ethnic diversity is increasing in younger generations of archaeologists and how it intersects with other identity categories to affect the incidence of negative experiences.

Work/Study Sector
We heard from archaeologists across the full range of sectors represented within the profession in Canada, with responses from both those employed in archaeology and students studying archaeology at the undergraduate and graduate levels. Figure 2 presents the overall distribution of respondents by work/study sector

TABLE 3. Comparison of Ethnic/Racial background of survey respondents to 2016 census data.

Ethnicity/Race	% of Respondents (N = 551)	% of Canadian Population (N = 34,460,065)
Asian[a]	2.7	14.9
Black	0.0	3.5
Indigenous	5.3	4.9
Latin American	1.1	1.3
Multiple	2.4	– [c]
White	87.3	72.8
Other[b]	1.3	1.9
Total	100	99.3

[a] Includes the following 2016 Canadian Census Categories: Chinese, Filipino, Japanese, Korean, South Asian, Southeast Asian, West Asian.
[b] Includes the following groups from the EDCA survey with small numbers of respondents: Arab, Caribbean, Jewish, Polynesian.
[c] Comparisons to 2016 census data are difficult because of the way they were reported in the Census in Brief. 0.7% of Canadians reported being part of multiple visible minorities, and 41.1% report multiple ethnic origins, though they might not represent more than one of the broad categories listed here.
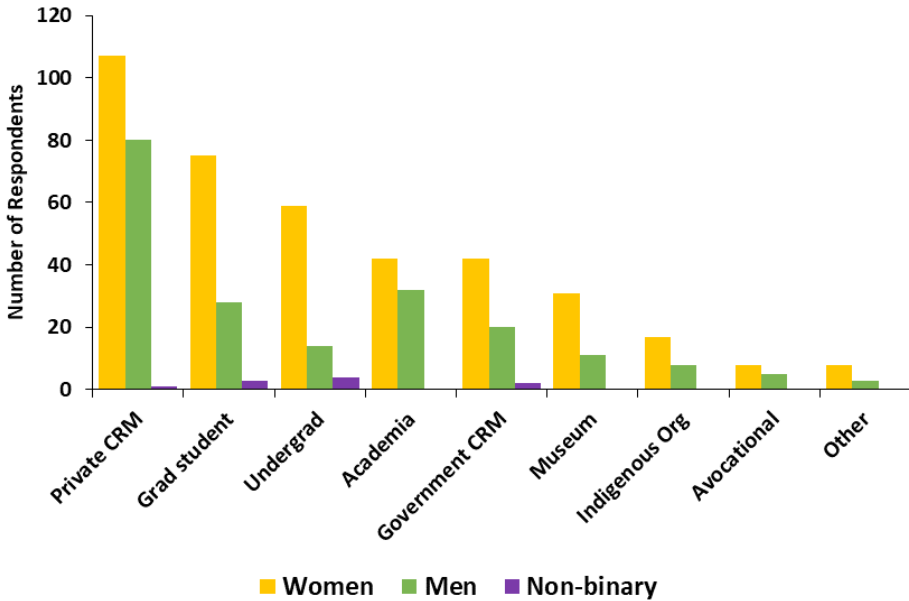
Figure 2. Number of respondents by sector and gender.

and gender. Because respondents could select more than one sector, we calculated the percentages based on the total number of responses (N = 600) rather than the number of respondents.

The largest number of responses were from the cultural resource management sector (46.2% in total), including private firms (31.3%); government CRM including national, provincial, territorial, and local government agencies (10.7%); and Indigenous governments, organizations, and firms (4.2%). Students and people employed in the academic sector comprised the second largest category of responses at 42.8%. Within this group, graduate students comprised 17.7% of responses, undergraduate students 12.8%, and college and university faculty, staff, and postdoctoral researchers ("academia") 12.3%. The remaining 11.0% of respondents indicated work in museums (7.0%), avocational archaeology (2.2%), and employment elsewhere both within and outside of archaeology (1.8%). Responses from women substantially outnumber those from men in all categories[3].

Who Experiences Discrimination?

In this section, we look at who experiences discrimination. Because discrimination encompasses behaviours that may also have been reported in other categories, we present these results separately. Our analysis uses proportions within gender categories, rather than absolute numbers, so the large proportion of women in the sample does not dominate the results. Because of the small number of non-binary respondents, and reports of discrimination or harm from those respondents, we were concerned about protecting their anonymity and decided not to include these responses in the quantitative analyses. Instead, because of the clear importance of the experiences and perspectives of non-binary archae-

ologists, we highlight these in the discussion and plan to focus on issues and concerns linked to non-binary identities in the next stage of our analysis.

Table 4 summarizes the rates at which people report discrimination and indicates that cisgender women experience discrimination at higher rates than cisgender men. Figure 3 presents the basis on which respondents report discrimination. Respondents could select more than one category, so we report percentages based on the total number of responses in each gender group. Women report being most frequently discriminated against based on gender (49.6%) and age (20.4%). Men report

discrimination primarily based on age (27.7%) and seniority[4] (26.8%), which are often linked, and ethnicity (21.4%).

Who Experiences Harassment, Exploitation, Physical and Sexual Violence? A Comparison of Negative Experiences

We take a comparative approach to the range of other negative behaviours and actions experienced by Canadian archaeologists. Table 5 presents the frequency with which respondents report each type of experience. The categories are listed from most frequent to least frequent. Among all respondents, 60.3% report at least one experience of verbal harassment, 49.4% report experiencing exploitation, and 32.5% physical violence. The values are considerably lower, though still very concerning, for unwanted sexual touching (14.7%) and sexual violence/assault (4.3%). In the following sections, we compare data across this spectrum of negative experiences through the

TABLE 4. Frequency of discrimination reported by gender category.

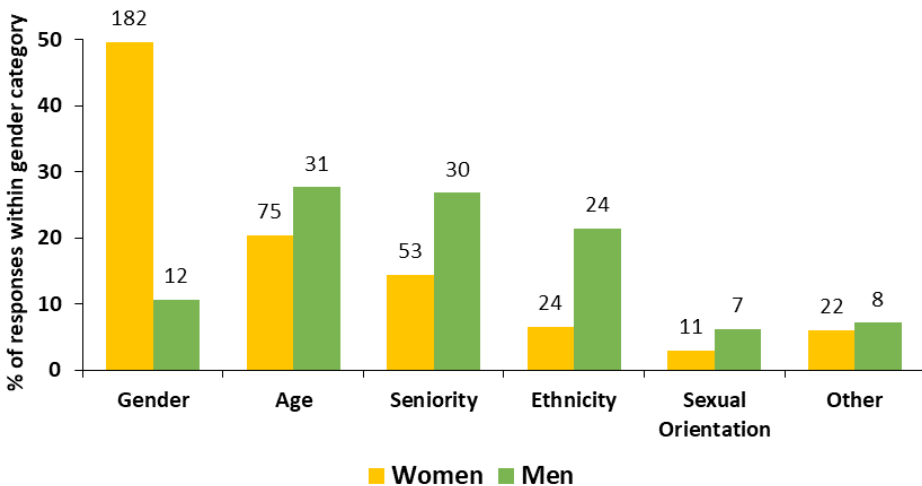|	Women (N=290)	Men (N=166)
Never	20.7%	50.0%
Once/A few times	54.8%	42.2%
Many times	24.4%	7.8%

FIGURE 3. Proportion of respondents within each gender category to report experiences of discrimination based on a range of identity categories. The values above the bars indicate the number of respondents (N) who indicated discrimination on that basis.

Table 5. Frequency with which respondents report negative experiences

	Never	Once	A Few Times	Many Times	Total to Experience
Verbal Harassment (N=484)	39.7%	7.4%	36.6%	16.3%	60.3%
Exploitation (N=466)	50.6%	5.6%	26.2%	17.6%	49.4%
Physical Violence (N=492)	67.5%	13.4%	16.9%	2.2%	32.5%
Sexual Touching (N=463)	85.3%	6.9%	6.9%	0.9%	14.7%
Sexual Violence/Assault (N=460)	95.7%	3.0%	1.1%	0.2%	4.3%

lenses of gender, workplace sector, and career stage.

Negative Experiences by Gender
Figure 4 presents the five types of negative experiences by gender category. The data track the reported incidence of these experiences by cisgender women and cisgender men, from generally less to more egregious behaviours (left to right on the x-axis). One or more experiences of verbal harassment were reported by 66.5% of women and 49.7% of men. Exploitation was reported by 47.7% of women and 53.3% of men. A total of 29.7% of women report experiences of non-sexualized physical vio-

lence in comparison to 36.1% of men. Five times the proportion of women (21.7%) as men (4.1%) reported at least one instance of unwanted sexual touching. Women reported sexual violence and assault at twice the rate of men: 6.3% of women and 2.7% of men.

Female respondents are more likely than their male counterparts to experience verbal harassment, unwanted sexual touching, and sexual violence and assault. Gendered differences are less pronounced for exploitation and physical violence, and in both cases, a higher proportion of men report these experiences than women. Respondents experienced unwanted sexual touching
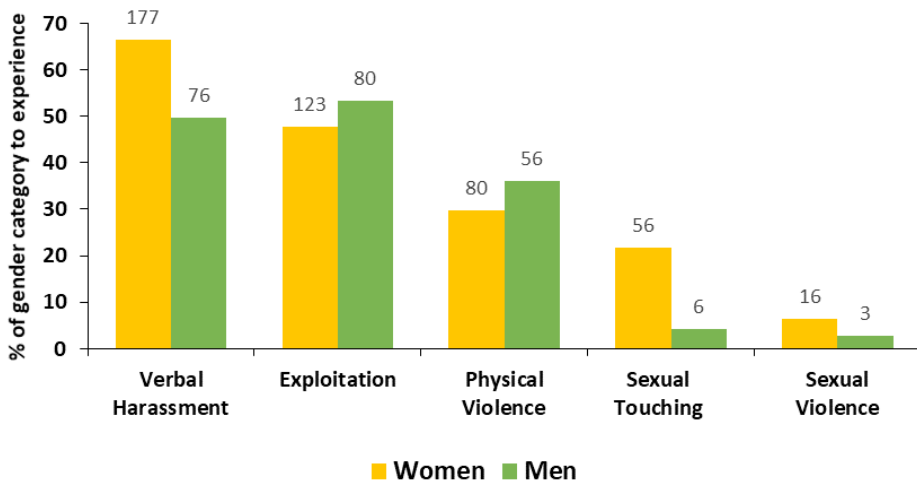

Figure 4. Proportion of women and proportion of men to report negative experiences. Numbers above bars indicate the number of respondents (N) to report each type of experience.

and sexual violence at much lower rates overall but with more pronounced differences between men and women.

Negative Experiences by Sector and Career Stage

A comparison between the two largest sectors in which respondents work or study, CRM and academia (universities and colleges), suggests that the prevalence of different types of negative experiences varies between the two. For this first stage of analysis, we draw the CRM data only from the largest CRM category, private firms. Figure 5 charts the incidence of negative behaviours in CRM and academia by career stage, calculated as a proportion of all respondents who reported each type of experience.

These data provide a time-averaged picture of trends within Canadian archaeology over at least the last 50
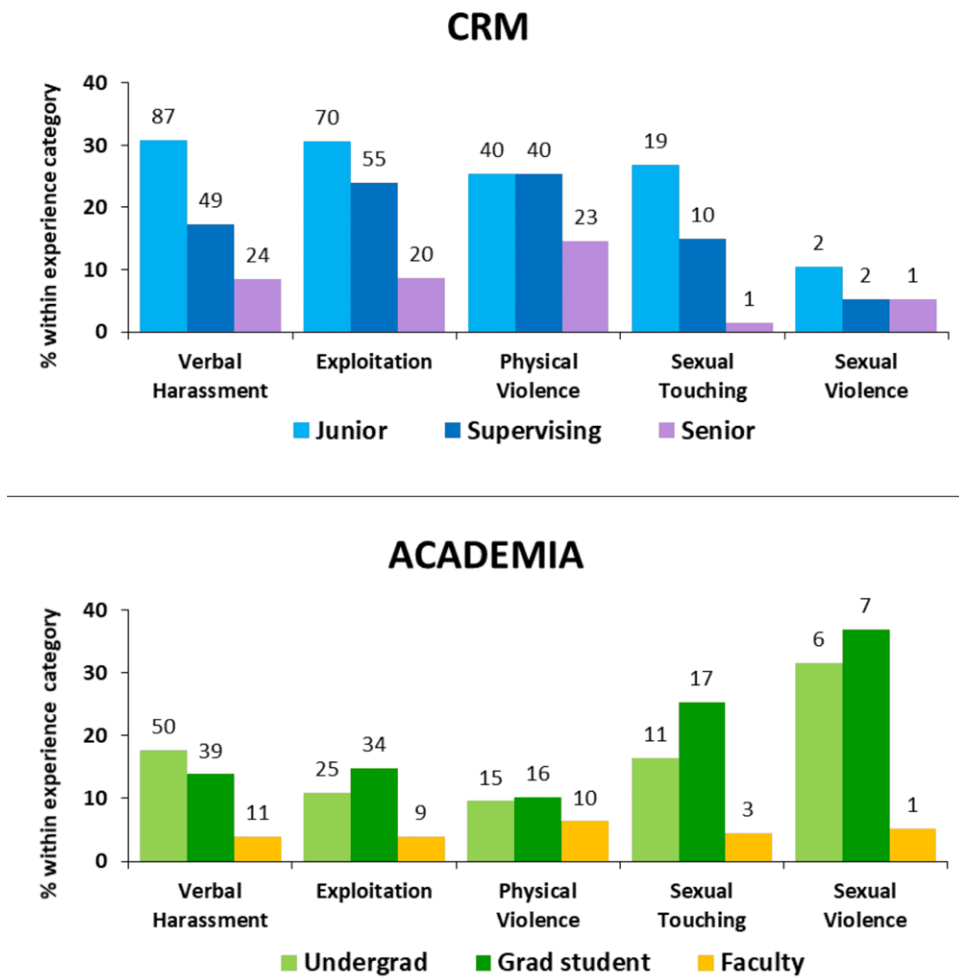
FIGURE 5. Proportions of reports of each type of negative experience by sector and career stage. Values above bars indicate number of respondents (N) in each category.

years. Older respondents, some of whom were over 70, are looking back over their entire careers when completing the survey. Younger respondents, who are in the majority, are reporting on shorter time periods. All archaeologists have at least some experience in academia (i.e., as students), and many move between sectors during their careers. It is therefore impossible to determine how varying response rates from different sectors might have influenced the results. The data suggest general trends that we will investigate in follow-up interviews examining individual career trajectories.

Verbal harassment, exploitation, and physical violence are reported at higher rates by those in CRM roles at the time of the incident. Over half (56.7%) of all reports of verbal harassment occurred when the respondent was in CRM; 35.5% occurred when respondents were in academia. The difference is more pronounced for both exploitation and physical violence: 63.3% of experiences of exploitation and 65.6% of experiences of violence occurred when respondents were in CRM roles, while 29.7% of experiences of exploitation and 26.1% of experiences of violence occurred when respondents were in academic roles. Unwanted sexual touching is reported at similar rates by those employed in CRM (43.2%) as by those in academia (46.2%) at the time of the incident. Sexual violence represents the largest difference between sectors, with more than three times the proportion of reports indicating that survivors were in academic roles at the time (73.7%), than in CRM roles (21.1%), though the sample sizes are small.

As noted in earlier studies (Clancy et al. 2014; Meyers et al. 2015, Meyers et al. 2018; VanDerwarker et al. 2018), people report negative experiences at earlier career stages much more frequently than at later career stages across both CRM and academic sectors. Across all types of experiences, the lowest proportions of reports come from those in the most senior positions at the time; CRM directors and faculty comprise considerably lower proportions of reports than their junior colleagues. In both CRM and academia, senior practitioners report physical violence at higher rates relative to junior colleagues than other types of negative experiences. Within CRM, field technicians comprise the largest proportion of reports across all categories (Verbal Harassment 30.9%, Exploitation 30.6%, Physical Violence 25.5%, Sexual Touching 26.9%, Sexual Violence 31.6%), though field directors account for an equivalent number of reports of physical violence. In academia, graduate students generally account for a larger proportion of reports of negative experiences than undergraduates (Grad students: Verbal Harassment 13.8%, Exploitation 14.8%, Physical Violence 10.2%, Sexual Touching 25.4%, Sexual Violence 10.5%). This trend is likely attributable to the reality that grad students tend to devote more of their time to archaeology than undergraduates and have different relationships with supervisors, both of which could put grad students more at risk. Verbal harassment is an exception to this rule: those who were undergraduates at the time account for a slightly higher proportion of respondents (17.4%) than graduate students (13.8%).

Who Are the Perpetrators?

We asked respondents to identify the perceived gender of their perpetrator(s). Across all categories of negative experiences, perpetrators are overwhelmingly identified as men. The proportion ranges

from 61.5% for exploitation to 92.3% for unwanted sexual touching (Figure 6). Men account for 79.5% of perpetrators of physical violence and 89.5% of perpetrators of sexual violence and assault. Respondents identified women perpetrators in every category: they constituted between 1.5% (unwanted sexual touching) and 26.2% (exploitation) of perpetrators. Respondents also indicated "both men and women" as perpetrators, particularly for exploitation (9.3%) and verbal harassment (7.0%). In the exploitation category, some respondents identified CRM firms or university departments as the perpetrator (2.8%).

The survey asked respondents to specify their relationships to perpetrators for all categories of experience except exploitation, where, by definition, the perpetrator holds authority over the respondent. In Figure 7, we show that for most categories, the perpetrator is most commonly someone with authority over the respondent. However, all types of experiences are frequently also per-

petrated by peers, and peers comprise the majority of verbal harassers (47.1%). Physical violence is the only category where subordinates form a considerable proportion of perpetrators (19.1%) relative to other groups. The "other" category accounts for a considerable proportion of perpetrators of physical violence (26.8%), unwanted sexual touching (22.4%), and sexual violence (21.1%), suggesting that many of these experiences are perpetrated by non-archaeologists with whom archaeologists interact in the course of their work and study, a pattern also noted by VanDerwarker and colleagues (2018).

Where Do Incidents Happen? Workplace Context

We asked respondents to identify workplace contexts for their negative experiences. Choices included field sites, place of work or study, and other settings that respondents were invited to specify. Field sites were the most common setting for all types of negative experiences
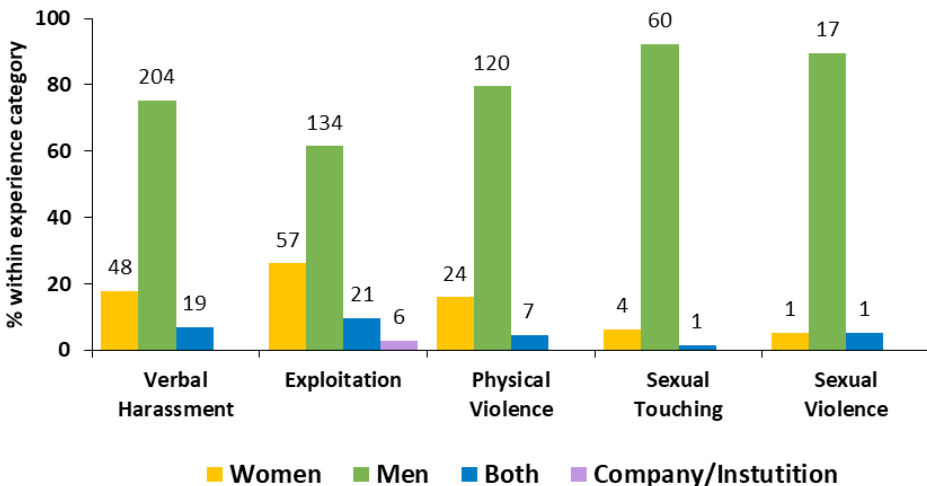

FIGURE 6. Gender of perpetrator illustrated as a proportion of all perpetrators within each category of negative experience. Values above bars indicate the number of responses in each category.

except sexual violence (Figure 8), which primarily occurred in "other" contexts (47.4%) but also occurred frequently in the field (42.1%). Verbal harassment (67.5%), physical violence (72.4%), and sexual touching (54.5%) are reported at double to triple the rate in field settings than other contexts. Exploitation is almost as common in institutional (42.5%) as field contexts (51.3%). In addition to field sites, unwanted sexual touching frequently takes place in
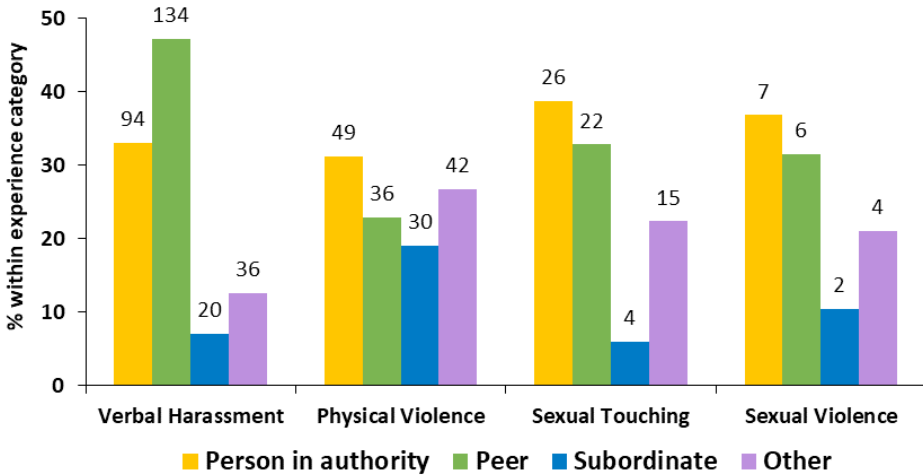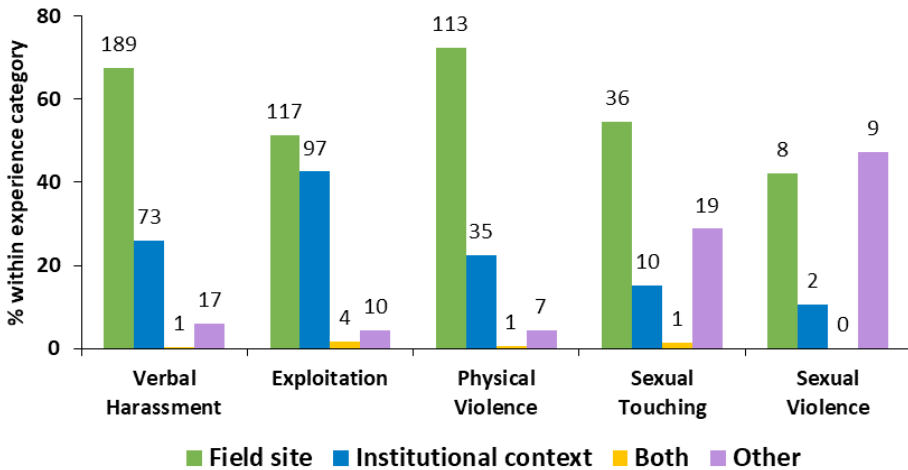

FIGURE 7. Relationship of perpetrator to respondent illustrated as a proportion of all responses within that category of negative experience. Values above bars indicate the number of responses in each category.

FIGURE 8. Context in which negative experiences took place illustrated as a proportion of all responses within that category of negative experience. Values above bars indicate the number of responses in each category.

"other" locations, often liminal spaces less clearly linked with expectations for professional conduct, as discussed below. Incidents of sexual violence reported in our survey were most prevalent in such "other" settings, followed closely by field sites. Our results therefore support conclusions from prior studies indicating that field sites are not safe spaces for many archaeologists (Clancy et al. 2014; Meyers et al. 2018).

Are Incidents Reported?

The vast majority of all types of negative experiences go unreported (Figure 9). Exploitation is seldom reported (15.7%), followed in ascending order by verbal harassment (23.2%), sexual touching (25.0%), sexual violence (31.6%), and physical violence (44.2%). Our respondents suggest that when these incidents are reported, they generally experienced low levels of satisfaction with the official responses to the reports.

Most of these incidents take place within small communities of people—field crews, university departments, CRM offices—that are hierarchically structured. We posit that verbal harassment and exploitation go unreported for various social reasons: perpetrators remain in proximity and may amplify their efforts or take revenge; reporting mechanisms and/or those responsible for responding are seen as ineffective. Because someone in authority often perpetrates the negative experiences, reporting could result in job loss or reduced access to professional opportunities, letters of reference, or promotion. Though the #MeToo movement has begun to affirm respect for survivors, sexual touching and violence often go unreported because of victim shaming. Finally, it takes effort and commitment to report and assure due consideration and just resolution of even minor incidents. Doing so often exposes survivors to both re-traumatization and to further social sanctions for "rocking the boat."

Discussion

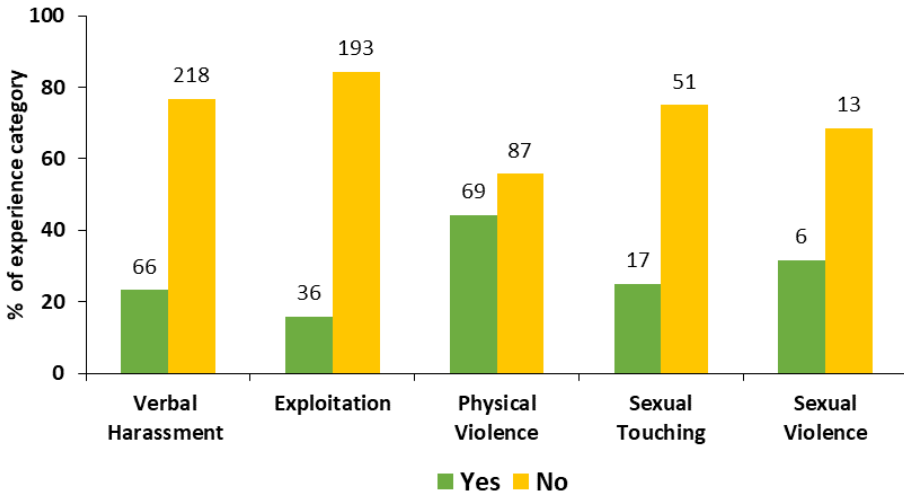Our survey results help to elucidate the nature, scope, and prevalence of

FIGURE 9. Rates at which negative experiences are reported.

negative behaviours experienced by respondents in the Canadian archaeology community. While our study has important parallels to previous disciplinary surveys, it is distinct in its exploration of a broad range of negative behaviours: discrimination, verbal harassment, exploitation, physical violence, unwanted sexual touching and sexual violence. Our first stage of analysis has focused on different forms of negative experiences across gender, career stage, and workplace sector in Canadian archaeology. Overall, our results indicate that negative experiences have been occurring consistently and at high levels. Discrimination and inappropriate behaviors are definitely not confined to a few perpetrators, organizations, or types of working/learning contexts.

Our survey data corroborate and support the anecdotes we have all heard. The results show that archaeologists have negative experiences frequently, although not equally, across gender, career stage, and workplace sector. Cisgender women and younger people within our disciplinary community are more vulnerable. The same is likely true of minority groups, an area we will be exploring in our next phase of intersectional mixed-methods analysis and follow up interviews. Despite growing representation of cisgender women within all sectors of archaeology at all levels, they remain more vulnerable than men to discrimination, verbal harassment, unwanted sexual touching, and sexual violence. Many respondents referred to both CRM and academic archaeology as an "old boys club." Cisgender men, on the other hand, are somewhat more impacted than women by exploitation and physical violence. Non-binary respondents reported lower incidences of negative experiences compared to women and men (again, the sample sizes were very small). Responses provided in the open text boxes suggest that archaeologists from the LGBTQ2S+ community have to think carefully about their personal safety, in terms of what contexts they choose to work in, how they navigate graduate programs, and what personal details they choose to share with co-workers, echoing the findings of Heath-Stout (2019). Among Californian archaeologists, Radde (2018:252) found that LGBTQ2S+ practitioners often faced harassment from both supervisors and non-archaeological personnel at field sites.

Across all categories, the significant majority of perpetrators identified are cisgender male archaeologists. In the category of sexual violence specifically, most perpetrators are male archaeologists and men who are not involved in archaeology directly, a trend also noted by Radde (2018). There are, however, women perpetrators across all categories. One of our respondents commented:

> I would like to … point out that there are often issues in CRM where there is conflict between female field techs and female supervisors … I have seen it manifest in female crew members not supporting one another in trying to advance their careers, I have also seen … female field directors behaving in a competitive or demeaning way to female members of their crew.

Our data suggest that exploitation and physical violence are distinct from the other categories in terms of targets, perpetrators, and reporting. Men report both exploitation and violence at slightly higher rates than women. While still in the minority among perpetrators,

women are more likely to perpetrate exploitation than any other category. This category is complex because multiple structures and power relationships come into play. Some respondents identified institutions and companies as perpetrators of exploitation, highlighting the systemic nature of exploitation in both academia and CRM. Unpaid work can be an important part of archaeological training (Burchell and Cook 2014), but without clear expectations for all parties and careful attention to power differentials and intellectual property rights, it can easily become exploitative. Many respondents who work in CRM and are paid hourly reported being asked to work unpaid hours in order to finish a job on schedule.

Physical violence is more likely to be reported than any other experience category, perhaps in part because it occurs across a range of different power relationships, because it is perceived as more serious than verbal harassment, and because those who experience it are less likely to be stigmatized than survivors of sexual harassment and assault.

Our data confirm that all individuals are more vulnerable to negative behaviours as students and early in their careers, underlining the importance of power differentials in many such behaviours. Students and early career archaeologists experience *every type* of negative behaviour at higher rates than faculty and supervisors, echoing the findings of Clancy and colleagues (2014). In the open text boxes provided in our survey, female graduate students often reported harassment by their supervisors, both male and female (cf. Radde 2018). Our respondents shared incidents in which their supervisors belittled them, bullied them, or took credit for their research. A few respondents also reported unwanted

sexual contact from their supervisors. Field technicians, both male and female, reported feeling "disposable" and many women in CRM reported not feeling that they are given the same opportunities as their male colleagues. Many respondents from CRM and academia shared perceptions that reporting their negative experiences would entail repercussions. A woman who left CRM to pursue a degree in another field wrote:

> There is a pervasive "old boys" culture in archaeology that requires women to take abuse from male subordinates and colleagues or risk being seen as "difficult" or "unable to take a joke". In CRM the risk of not being hired back if you make a complaint discourages women (and men) from complaining about their treatment.

Our data allowed us to examine the contexts in which negative incidents occurred. Except for sexual violence, respondents report all types of negative experiences most commonly at field sites. This supports assumptions by Clancy and co-authors (2014), and Meyers and colleagues (2015; Meyers et al. 2018) that field sites, where close working conditions and intimacies are created, may increase vulnerability and foster higher rates of negative behaviours. Sexual violence, however, is most common in "other" contexts, followed by field sites. For our respondents, these other contexts include conferences and liminal spaces like private parties and hotel rooms associated with field and work travel, where vulnerability is increased by circumstance, proximity, the intensity of short-term social arrangements, and often by alcohol consumption, as discussed above.

Our data also point to notable differences between the two primary workplace sectors in archaeology, CRM and academia, indicating that Canadian archaeologists experience verbal harassment, exploitation, and physical violence more frequently when working in CRM than as students or faculty. In contrast, sexual violence is reported at much higher rates in academic settings than in CRM, though the sample sizes are very small. Several respondents gave personal testimonies in the open text boxes about sexual violence perpetrated by male professors in field and institutional contexts. Several poignant testimonies detailed the impediments to incident reporting, the ineffectiveness of reports that they made, and/or the negative impacts on their career trajectories.

One respondent pointed out that many issues faced by archaeologists are part of broader patterns, noting that

> [t]hough I have experienced inappropriate behaviour and discrimination in Archeology [sic], I also experience it every day of my life so it's nothing new.

Without discounting this respondent's views, we do not think we should use broad societal intransigence as a rationale for inaction. Because work and study constitute large parts of archaeologists' lives, actions that make archaeology safer can support the most vulnerable members of our community.

Several senior respondents suggested that injustice within the discipline is diminishing. A senior male archaeologist noted that,

> with one exception, all this unacceptable behavior reported above occurred some decades ago. It has

been my experience that awareness and behaviour regarding abuse and discrimination has improved.

One of the challenges of our survey data is the difficulty of establishing how long ago the negative experiences occurred. That said, because most of our respondents are younger and report negative experiences at high rates, there is no clear trend toward equity, respect, and safety. Some senior archaeologists may see the discipline getting better, in part, because they are no longer in vulnerable positions or have reduced contact with younger colleagues. We hope that our results help everyone recognize that unacceptable behaviours are still widespread.

Our next set of challenges include working collectively to develop strategies to reduce negative experiences and promote changes in our disciplinary culture. Additional survey analysis is ongoing, but we can suggest several areas for action. First, Canadian archaeology needs greater accountability to professional codes of conduct. Archaeological and anthropological organizations and institutions across North America have reviewed or developed member safety and anti-harassment policies in response to the events of #SAA2019 (e.g., Hays-Gilpin et al. 2019). Second, we need to work to change how we relate to one another in all areas of our discipline. This will need to involve open conversations about the responsible use of alcohol and other substances in all contexts where archaeologists gather. Certainly, those of us in leadership positions need to think carefully about how to foster environments where no one feels pressured to imbibe.

Members of our working group have developed principles of community

and heart-centred practices that we hope help move our discipline toward inclusive and safe spaces for learning and practicing (Lyons et al. 2019; Supernant et al. 2020). We believe that guiding documents that set out clear expectations for appropriate behaviour in different communities of practice, including mentoring relationships, could play an important role in promoting such change (e.g., Colaninno et al. 2020). The most effective are "living documents" that are crafted explicitly for continuous and responsive revision, are aspirational rather than proscriptive, and emphasize what community members should do rather than what they should not (see Atalay 2012; Lyons 2011; Perry 2018). A next step for our working group will be to compile a series of examples of guiding documents from different archaeological contexts for CAA members to use as a guide in developing their own.

Directions and Reflections

This analysis, like any other, has limitations. Surveys always involve compromises between depth and breadth of the questions and overall length. Several choices we made in designing the survey limit our ability to assess the frequencies and severities of negative experiences and temporal trends in these frequencies. We need demographic data for Canadian archaeologists in order to better interpret the survey results. On our recommendation, the CAA will soon begin collecting demographic information as part of the membership renewal process to track temporal trends in age, gender, ethnicity, and sector of practice. Regardless of the limitations, the results of our survey should concern all archaeologists practicing in Canada and prompt us to reflect critically on

the disciplinary culture we uphold and enable. A culture that contributes to the exclusion, lesser valuation, exploitation, marginalization, or harm of any archaeologist because of their gender, sexual orientation, ancestry, age, seniority, or any other aspect of their identity reduces the diversity of voices in our discipline and therefore diminishes its interpretive power.

There are several next steps for our working group. The interviews underway with about 30 survey respondents who agreed to discuss their views and experiences will provide higher resolution temporal information on negative behaviours. These semi-structured interviews with archaeological practitioners from diverse backgrounds will help us understand the dynamics that underlie their career trajectories and retention in the discipline; their approaches to collegial and mentoring relationships; and their experiences of fieldwork, training, teaching, and management. Areas which warrant further exploration include identifying effective institutional practices for encouraging reporting and changing workplace cultures. We have yet to explore the data on witnessed behaviours or on government CRM and museum sectors. We are also undertaking text analysis of the survey's open-ended questions, which asked respondents to share their experiences and suggest ways to promote equity and diversity. Finally, while this first stage of analysis examined several cross-cutting identities, it cannot be truly intersectional without a fuller investigation of the ethnicity, sexual orientation, age, and seniority data, and the multiple ways in which identity categories intersect with each other. Our plans for next steps include a closer look at the experiences of Indig-

enous respondents, given their unique relationship with Canada's archaeological record and settler colonial history. We will also dive more deeply into the complex structures and power relationships surrounding exploitation. Our follow-up interviews will explore the complexities of intersecting identities and experiences as they relate to the visibility/invisibility of certain identity categories in different contexts.

Change is often uncomfortable and the changes underway and recommended for Canadian archaeology have the potential to create intergenerational tensions. Participation in the survey provoked discomfort among some senior archaeologists. The CAA received two complaints about the survey, critiquing it on methodological and other grounds. Both were from senior white cisgender men. Several senior cisgender women also expressed concerns, among them a white CRM director (60–69) who wrote:

> the way these questions are worded is designed to get a specific response that will do nothing to explicate the real gender issues facing women in archaeology but just frame us as timid, fearful victims who are not able to do our jobs because of our gender.

The tone and content of the critical responses to the survey from some senior practitioners contrasts with comments in text boxes and unsolicited e-mails from early and mid-career archaeologists, and other senior archaeologists, both women and men, who appreciated the survey as a means for giving voice to often-silenced views. Many of them see this work as providing important data to spur action that will address real issues. While

there is clearly a diversity of opinion among senior archaeologists, the fact that negative feedback came exclusively from this group suggests that those who are more established and more powerful in the discipline are more likely to be uncomfortable calling out the injustice of past and present practices.

The results of the survey provide important grounds for us to admit that Canadian archaeology has problems we must confront, that many of us have been complicit in negative behaviours, and that we have much work to do to create a more equitable and supportive culture in Canadian archaeology. Calling attention to the problem and fostering conversations about it can be an important catalyst for change, as we have seen with the #MeToo movement. As one female grad student with CRM experience wrote:

> I think often times people don't realize they're being discriminatory and discussing the topic more openly might help people understand all the issues at play.... It's been my experience that people in a position of power often don't recognize some of their own negative behaviour or actions. Making this a larger discussion and discussing specific issues would hopefully have an impact on their actions.

Sharing our stories and providing specific examples of experiences of injustice can help to create a culture where people will no longer stay silent. As four mid–late career archaeologists with different backgrounds and experiences, we were unsettled by these results. We hope you are as well, and we call upon all archaeologists, but especially those in positions of power and

privilege, to lean into that discomfort and work together to create a safer, more inclusive, more equitable archaeology in Canada.

Notes

1. In April of 2019, David Yesner, a former professor at the University of Alaska, who had been sanctioned for sexual harassment and sexual assault via a Title IX investigation, was allowed to register for the Society for American Archaeology Annual Meeting in Albuquerque. Several of his survivors were also in attendance, and the impacts of both his presence and the lack of expeditious and unequivocal action by the SAA to remove him made the annual meeting unsafe for these survivors and others. Using Twitter, a number of archaeologists helped raise awareness of this situation, employing hashtags such as #SAA2019 and #MeToo, leading to wide reporting of the events (Flaherty 2019; Grens 2019; Wade 2019). The fallout continues to reverberate through the SAA and related professional organizations, pushing many to adopt new policies and codes of conduct related to harassment, intimidation, and exploitation.

2. Categories are as follows: Arab, Black, Chinese, Filipino, First Nations, Inuk, Japanese, Korean, Latin American, Métis, South Asian, Southeast Asian, West Asian, White, Other

3. Our respondents show a more balanced representation between CRM and academic archaeologists than other similar surveys. Meyers and co-authors (2015) drew responses primarily from CRM. They report 75.0% CRM respondents and only 8.7 % academics and 7.6% graduate students. Clancy and colleagues (2014) primarily surveyed academics. Their survey, which also drew responses from field disciplines outside of biological anthropology and archaeology, counted 58% trainees (undergrads, grad students, and post-docs) among the respondents, as well as 26.9% faculty and a small group of non-academics (6.5% of respondents), which could include CRM practitioners.

4. Seniority relates to the amount of authority associated with someone's position and is usually linked to their

number of years of experience. We separate it from age because younger people can have more years of experience and older people fewer, depending on their career histories.

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