SFU OFFICE OF THE
VICE-PRESIDENT, ACADEMIC

MEMORANDUM

ATTENTION: Senate	TEL

FROM: Jon Driver, Vice-President, Academic and Provost *pro tem*, and Chair, SCUP

RE: External Review of the Department of Archaeology (SCUP 20-01)

DATE: January 10, 2020	TIME

At its January 8, 2020 meeting, SCUP reviewed and approved the Action Plan for the Department of Archaeology that resulted from its External Review.

The Educational Goals Assessment Plan was reviewed and is attached for the information of Senate.

Motion:

That Senate approve the Action Plan for the Department of Archaeology that resulted from its External Review.

c: G. Nicholas
        N. Krogman

SFU   OFFICE OF THE VICE-PRESIDENT, ACADEMIC AND PROVOST

8888 University Drive, Burnaby, BC   TEL: 778.782.4636   avpacad@sfu.ca
Canada V5A 1S6   FAX: 778.782.5876   www.sfu.ca/vpacademic

MEMORANDUM

ATTENTION	Jon Driver, Chair, SCUP	**DATE**	December 11, 2019
FROM	Wade Parkhouse, Vice-Provost and Associate Vice-President, Academic	**PAGES**	1/1
RE:	Faculty of Environment: External Review of the Department of Archaeology		

Attached are the External Review Report and the Action Plan for the Department of Archaeology. The Educational Goals Assessment Plan is included, for information only, with the Action Plan.

Excerpt from the External Review Report:
"…we found the Department to have a highly collegial work place and positive student interactions…we can affirm that the Department has outstanding research programs conducted by internationally recognized faculty members with tremendous grant funding acumen and publication results…the Department has led the way nationally and internationally in community engagement, particularly with indigenous communities, and in areas such as its Heritage Resource Management M.A. program."

Following the site visit, the Report of the External Review Committee* for the Department of Archaeology was submitted in April 2019. The Reviewers made a number of recommendations based on the Terms of Reference that were provided to them. Subsequently, a meeting was held with the Dean of the Faculty of Environment, the Chair of the Department of Archaeology and the Director of Academic Planning and Quality Assurance (VPA) to consider the recommendations. An Action Plan was prepared taking into consideration the discussion at the meeting and the External Review Report. The Action Plan has been endorsed by the Department and the Dean.

Motion:

> That SCUP approve and recommend to Senate the Action Plan for the Department of Archaeology that resulted from its external review.

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*External Review Team:
    John W. Ives, University of Alberta (Chair of External Review Committee)
    M. Anne Katzenberg, University of Calgary
    David Killick, University of Arizona
    John Craig (internal), Simon Fraser University

Attachments:
    1.   External Review Report (April 2019)
    2.   Department of Archaeology Action Plan
    3.   Department of Archaeology Educational Goals Assessment Plan

cc   Naomi Krogman, Dean, Faculty of Environment
      George Nicholas, Chair, Department of Archaeology

External Review, Department of Archaeology, Simon Fraser University

Conducted March 13-14, 2019, Simon Fraser University

John W. Ives (Chair, External Review Committee)
Executive Director, Institute of Prairie Archaeology
Professor, Department of Anthropology
University of Alberta

M. Anne Katzenberg
Professor, Department of Anthropology and Archaeology
University of Calgary

David Killick
Professor, School of Anthropology
University of Arizona

Executive Summary

At the request of Dr. Glynn Nicholls, Director, Academic Planning and Quality Assurance, Simon Fraser University, and ably assisted by Dr. John Craig, Department of History, Simon Fraser University, the External Review Committee conducted March 13 and 14 interviews with the Chair and faculty members (including Canada Research Chairs), administrative, Museum and laboratory staff members, undergraduate and graduate student representatives and senior administration officials including the Dean, Faculty of Environment, the Associate VP Research, and the Dean, Graduate and Postdoctoral Studies. We toured laboratory and Museum facilities, and enjoyed student research demonstrations in some of the labs. Both the undergraduate and graduate student presentations we received were made in a highly professional manner. The Committee was provided beforehand with a carefully prepared self-study document, with great attention to detail, for which we thank the Department members.

Seven years after the last external review, we found the Department to have a highly collegial work place and positive student interactions. As reflected accurately in the most recent QS rankings of archaeology programs, in which Simon Fraser's Department of Archaeology rose to 27th in the world, we can affirm that the Department has outstanding research programs conducted by internationally recognized faculty members with tremendous grant funding acumen and publication results. Consistent with Simon Fraser University's credo, the Department has led the way nationally and internationally in community engagement, particularly with indigenous communities, and in areas such as its Heritage Resource Management M.A. program.

Perhaps borne of the exigencies of a field discipline (and in many ways to its great credit), the ethos of the Department has been to avoid complaining about challenges, and to proceed independently in effecting solutions. This sometimes works to the detriment of the Department in that there may be hesitation in asking for assistance in meeting reasonable needs. The External Review Committee agrees that the two issues of specific interest identified in the Terms of Reference—adequacy of Museum, technical and administrative staff in meeting current and projected needs as well as faculty renewal planning relative to the Department's demographic profile—are the prime challenges to its continued success.

The Department has administrative, laboratory and Museum shortfalls that should be the subject of specific, reasonable and prioritized staffing and modest funding requests to alleviate stresses created by burgeoning workloads and multiple roles with which individual staff members contend. It is important that the Department develop succession planning now for the several Faculty members likely to retire in the next three to five years. Undergraduate and graduate students had understandable course and teaching experience concerns, some of which can be addressed by the staffing measures given above, and others of which can be resolved through dialogue and procedural changes. Implementing those measures will provide a continuing, bright future for the Department of Archaeology.

1.0 Quality of Department of Archaeology Programs

1.1 Undergraduate

The undergraduates with which we met made an excellent presentation and were conversant with issues affecting the program. There is the adage that in volunteer settings, it is really only ten percent of those volunteering who participate in highly active ways; it was clear that the group of students with which we spoke were among those significantly engaged in departmental activities, and there was a high degree of satisfaction with the Department.

Two specific issues were clear, and they are related to administrative staffing level shortfalls. There does not seem to be a reliable 24 month schedule by which students can determine which courses will be on offer—some of them a degree requirement. Both undergraduates and lecturers were aware of first through fourth year student number requirements for courses, but had uncertainty about who exactly determines when a course will not be offered because of low enrollment. Greater clarity around course cancellation would be helpful, especially with regard to required degree courses. The Department should develop a means to forecast course offerings over a rolling two year period for undergraduate students. The Department is aware of solutions to these challenges, as given at p. 428, appendix PP. The less than halftime position devoted to an undergraduate adviser is insufficient; the undergraduates we spoke with indicated that it was at times difficult to schedule advising sessions. Staffing to a full position level would allow direct attention to these specific matters.

With respect to mandatory enrollment levels for first through fourth year courses, undergraduates are aware of the trade-off that exists between sufficient enrollment versus the experiential learning that takes place in smaller course enrollments, and concerned about what can seem arbitrary decisions about whether a course would be offered not. Undergraduates were receptive to more active use of tutorials (rather than exclusively lecture presentations), as discussed below with regard to graduate students views on acquiring teaching experience.

Undergraduate enrollments generally in North America are declining in a number of programs because of underlying factors that are not unique to any institution. There are two factors that are more directly related to the Department of Archaeology. The Faculty of Arts is larger, and therefore created a greater pool of potential majors from which to draw in years past. This is one consequence of the shift to the Faculty of Environment, and can in part be construed as a growing pain. Undergraduates felt that the Faculty of Environment office staff were not as knowledgeable about archaeology program requirements, which may be detrimental when students from other faculties enquire. The second factor that arose in discussions with undergraduates, lecturers and faculty members was that of direct admission. At the high school level, archaeology is not necessarily perceived as a viable career choice. Both secondary students and their parents may hold this view, without any exposure to coursework, or sufficient knowledge of actual employment prospects. This limitation is not readily counteracted, the best option seeming to be a tactical approach to outreach activities armed with indications of student satisfaction and empirical information on employment successes. Dean Ingrid Stefanovic indicated that a new hire would be working on outreach recruitment activities; it would be helpful if the Department of Archaeology could be a key player in that initiative. The visibility measures outlined at p. 427 in Appendix PP are well worth exploring, with Faculty of Environment assistance. Student (and staff) engagement with the Palaeo-Olympics certainly is a good recruitment tool.

Undergraduates themselves did not raise the subject of whether a B.Sc. or B.A. option would be useful, and the faculty comment on that topic seemed neutral: it is true that CRM employers are more directly concerned about another order of skill sets (word processing, database management and similar needs).

1.2   Graduate

Like the undergraduates, the Graduate Caucus members made a concise and highly professional presentation to the external review committee, affirming a positive view of the Department's graduate program. Students are pleased with supervisors and value the interaction they have with their peers. They did voice specific concerns in the three areas also outlined in the self-study report, concerning teaching experience, professional development and funding transparency. They are naturally concerned about a lack of employment opportunities, and indicated that the Department had not produced a tenure track appointment in North America for its Ph.D. graduates since 2009. This is no doubt a reflection of a relatively tight academic job market, but also must be squared with the reality that more than 80% of those with archaeological degrees find employment in private or public sector settings outside of academia.

The specific concerns surrounding teaching were that teaching assistant positions were essentially about marking, rather than hands-on teaching assignments. Students were supportive of a conceptual shift in which some class time would be given over to teaching assistant led tutorials where face-to-face time with undergraduates would accomplish two things: it would provide active teaching experience, and, as the discussion progressed, was thought to promote the kind of engagement that leads to a greater degree of undergraduate recruitment. This approach was endorsed in our meeting with lecturers, assistant and associate professors.

There does seem to be uncertainty regarding the role of lecturers, governed by union agreements, and graduate student teaching opportunities. While lecturers do have specified rights surrounding course offerings, both the graduate students and the Dean of Graduate and Postdoctoral studies indicated that departments have discretionary power to set aside a proportion of sessional teaching assignments for graduate students. The external committee is certainly aware of the sensitive dynamic that exists for who makes course offerings, how graduate students can acquire teaching experience, and recruitment success based on the quality of overall course experiences. A shift to more teaching assistant engagement in tutorial settings and a re-examination of the extent to which graduate students could teach some sessional courses, within defined labour relations parameters, could go some distance in meeting graduate students concerns in this regard.

The concerns about teaching experience were related to more general discussions of professional development. The graduate students felt that Faculty of Environment driven workshops were too general in character, and would welcome departmental faculty members offering more workshops in grant writing, SSHRC applications, and conference presentations. Students were appreciative of the conference travel and support that is provided. Like the undergraduates, the Museum emerged as a greatly appreciated skill-generator with direct career employment prospects. A greater degree of research assistantship funding in this connection, for the Museum, would certainly be welcomed by graduate students, and would aid the Museum situation.

Students explicitly requested a greater degree of transparency for offer letters at the time of acceptance to the graduate program. They found current letters to be too general in character, and wanted clear funding details, timelines and indications of other grants and opportunities that might be available. The committee does not of course have access to offer letters, but it would seem normal for students to know the exact level of financial support and its timelines from an offer letter, along with some stipulations of subsequent scholarship or bursary opportunities for which they would either be eligible or (as at some institutions) required to apply for in the course of their graduate tenure. They acknowledge that shortfalls in administrative staffing levels have an impact on communication and there was strong student willingness to engage in dialogue in determining who should be responsible for pursuing these opportunities.

The students with which we spoke were not aware of degree completion scholarships. In terms of times to completion for degrees, graduate degrees in archaeology and anthropology frequently take longer to complete because of the time consuming nature of the research; this is especially true in the many areas where it is important to build a relationship of trust with First Nations communities. The somewhat longer timelines for both graduate degrees are not at all unusual in a North American context.

In sum, graduate students enjoy the Department's collegial atmosphere, access to internationally prominent researchers, and advanced laboratory settings. There has been some interruption of continuity regarding the graduate chair role, but students are optimistic about working with Dr. Driver and Dr. Lepofsky over the next three years. The specific issues they raise are approachable, and there is a genuine willingness to engage in dialogue about them.

1.3 Heritage Resource Management (HRM) M.A. Program

Simon Fraser's development of this program showed great foresight, for which the Department is very much to be commended. It provides broader contextual training in heritage management in an accessible way for those already engaged in an archaeological resource management career, and it addresses a practical matter arising from unevenness in provincial and territorial archaeological heritage legislation across Canada. Different legislative provisions, ranging from the effect of the *Natural Resources Transfer Act* for the prairie provinces to heritage legislation developed in different time frames by other provinces, have meant that there are varying educational thresholds for those who can hold an archaeological permit. Alberta, for example, required a thesis M.A. with prescribed amounts of field experience, a model that Saskatchewan and then Newfoundland emulated. British Columbia, with its earlier generation of legislation, required only a Bachelor's degree. The SFU HRM model, providing both context and the requirement of a thesis M.A., has the notable advantage of allowing British Columbia-based consulting archaeologists to acquire an M.A. and to become permit holders in jurisdictions where that is a requirement. This is a factor for British Columbia and Alberta, for instance, in regions such as northeastern B.C. and northwestern Alberta, where natural gas developments frequently span the provincial border. Archaeologists with the capacity to hold permits are pivotal in the business of archaeological resource management. The SFU HRM program therefore met key graduate training needs *and* resolved a critical business factor (one that had arisen in interprovincial discussions in the past).

While private sector positions in archaeological heritage management in fact dominate part- or full-time employment prospects, there are likely a finite number of practising consultants (and supportive

employers) who would take the step of entering the existing SFU program. There is the distinct possibility that declining HRM enrollment numbers might reflect a certain degree of "market saturation," with 22 students from the first two cohorts in process. The self-study report indicated that as of January 2019, there were seven additional applicants, after the cancellation of the 2018/19 HRM offering, with some optimism that a 2019/2020 cohort could go forward. It could be that British Columbia is reaching a point where the pool of potential applicants is becoming circumscribed, for which there is no simple remedy.

Like other leading edge programs, this is also not a straightforward area in which to be working. Unlike other professional disciplines in Canada, there is little tangible agenda for career upgrading or advancement connected with being a professional archaeologist. There have at times been discussions with organizations (such as the Association of Professional Engineers and Geoscientists in Alberta) for various forms of accreditation and ongoing education beyond the initial archaeological degree, but nothing has ever come to fruition. It will be difficult for one or a few institutions, professional organizations, or regulatory agencies to turn the tide in a constructive direction, particularly with what might be regarded as an "anti-regulatory" tendency dominating provincial politics across the nation at this particular moment.

Simon Fraser would nevertheless be well-positioned to be a leader in promoting a change in perspective, although to be truthful, dividends in enrollment from a broader spectrum of applicants might not be forthcoming in the short to moderate term. One thing the Department might consider would be to request attendance for a presentation at the annual meeting of the Canadian Association of Provincial and Territorial Archaeologists (held immediately prior to the Canadian Archaeological Association meetings, and slated for Edmonton next year), both to raise visibility of the program and its goals with regulators, and to shift the landscape with regard to professional upgrading in this country. Most provincial jurisdictions have associations of consulting archaeologists, from which member applicants would come. In-person contact with those organizations might be productive at the national level (or at least for western Canada). There also can be regular meetings between consulting archaeologists and provincial regulatory offices, at which a direct presentation might be effective. Annual meetings of state archaeologists preceding the Society for American Archaeology conference could provide a similar forum in the U.S.; there is also the Registry of Professional Archaeologists in that country, creating a somewhat different climate for the HRM initiative SFU has. In terms of broader North American reach, it might be worthwhile to request an opportunity to address such a meeting (the next one to be held in Austin, Texas).

Because so much of British Columbia has not been subject to treaties, or has been the subject of modern day treaties that explicitly address heritage matters from an indigenous perspective, the province is in a unique position with respect to post-Truth and Reconciliation activities. A genuinely important avenue that might be pursued for the SFU HRM program would be to work with First Nations communities or groups of First Nations communities to foster both undergraduate (HRM certificate) and HRM M.A. enrollment that would produce well qualified students who could then return to their communities to work in archaeological resource management capacities. There is no doubt that this would also be a long term initiative affecting enrollment, but it is one that should be considered in evaluating the sustainability of the HRM graduate degree program. We were not able to speak with Drs. Yellowhorn or Reimer during the review process, and it would interesting to know their views on the likelihood of successfully pursuing such a strategy.

Despite the challenges, we would encourage the Department and the Faculty of Environment to take a longer view of its importance and sustainability.

2.0 Quality of Faculty Research

The quality of faculty research in the Department of Archaeology is outstanding. Throughout the ranks, faculty members are fully engaged in research activities including success in attracting external funding, publishing in high quality journals and training graduate students. The Department has two tier 1 CRC's, both of whom are highly regarded internationally. Dr. Collard (Tier 1 CRC since 2017 following two terms as a Tier 2 CRC) is an honorary research fellow at two prominent U.S. universities and maintains an affiliation with UBC. He is highly regarded for his research into human evolution and cognition. He maintains international collaborations including a large research grant from Australia. He has also made tremendous contributions to graduate training and knowledge translation through numerous media interviews.

Dr. Richards has a truly remarkable research record. He has collaborated and published with a who's who of archaeology and anthropology, pioneering a number of isotopic systems for better understanding paleoecology and paleodiet. He has trained numerous graduate students and post-doctoral fellows who have gone on to prominent positions. He has set up a state-of-the-art isotope facility within the Department. This is unusual because most isotope facilities are centralized on campuses and serve multiple units. Not surprisingly, he has a stellar record of external funding including NSERC, SSHRC, CFI, various European grants and private foundation grants. Dr. Richards is also generous with his time in terms of service to his institution and to his discipline, including numerous media interviews.

Others at the rank of professor are fully engaged as active researchers. Dr. Burley has a long record of successful funding from SSHRC and other external agencies such as the National Geographic Society. He has maintained an active research record with regular publications in high quality journals through his long career, which includes several terms as Head of Department.

Dr. D'Andrea has a very respectable research record with continuous funding from SSHRC, including both Insight Grants and a Partnership Development Grant. Other external awards include the Wenner Gren Foundation and the National Geographic Society. She has served as Department Head and many other service contributions within the institution. She has trained numerous graduate students and provided media interviews to translate her research to the public.

Dr. Driver has maintained an active research record as well as graduate training even while serving as Dean of Graduate Studies for eight years, followed by eight years as Provost. He has an excellent record of service to the institution, First Nations people, and the discipline in addition to his continuous record of funding, both external SSHRC and others, and internal smaller grants.

Dr. Galdikas has an international reputation for her work with orangutans. She continues her affiliations with other institutions but has been less active in scholarly work (grants, graduate training and publications over the last 8 years).

Dr. Lepofsky is a very active and highly innovative scholar with an excellent record of external funding with SSHRC, PDG, NGS, WG, others and outstanding contributions to community outreach and engagement.

Dr. Nicholas has just completed a complex SSHRC partnership grant building upon his extensive work on heritage, cultural resources, indigenous archaeology, DNA and indigenous rights. Successfully

coordinating such major projects is a significant accomplishment and follows a long record of successful funding from SSHRC and other agencies. He has been a very good citizen of his institution and discipline.

Dr. Welch – Professor and Director of the Program in Heritage Resource management is affiliated with White Mt Apache, involved in heritage issues and affiliated with Arizona State Museum. He has attracted funding from numerous sources including the Tri-councils and has held various contracts with companies and nations as well as participating in George Nicholas' Partnership grant. He was a Tier 2 CRC for two terms (10 years) and has a very impressive record of research.

Dr. Yang also has a remarkable record of research, funding, publications and training. He has many collaborations, has been involved in two partnership grants and has maintained ties with China, benefiting students from Canada and China.

The Department of Archaeology also has an impressive group of early to mid-career scholars who are building their careers, obtaining funding and training graduate students. Dr. Cardoso was recently elected to the College of New Scholars in the Royal Society of Canada. The level of engagement in research is impressive in all ranks with all instructors also publishing regularly and participating in funded research.

Given this level of engagement it is not surprising that the Department compares favorably in terms of external funding within the institution. Table 5.5 of the self-study document indicates comparative data for average research income per faculty member compared to other SFU departments in Social Sciences and Earth Sciences. Archaeology leads all other departments until 2016, when Dr. Nicholson's SSHRC partnership grant ended; however, Archaeology remains near the top of the list in the last two years.

In comparison with other archaeology units in Canada, SFU is outstanding in terms of research impact. (Figure 5.1 of self-study illustrates the impact as highest among Canadian institutions. It is also noteworthy that (table 5.3) the impact remains very high among the current faculty, indicating that the Department is not riding on previous accomplishments but continuing to make strong contributions in research impact.

The very strong faculty research record is an attraction for graduate students as faculty are receiving funding to help support graduate and post-doctoral research opportunities. All of this feeds back on undergraduate training. The number of awards received by members of faculty is also very impressive. The Department has one member of the Royal Society of Canada (Richards) and one member of the RSC College of New Scholars (Cardoso). Richards and Collard are Fellows of the Society of Antiquaries (London). Equally impressive are the awards from professional organizations and communities (Lepofsky and Driver) and teaching (Nicholas). The level of community-engaged research is a model for others to follow.

SFU can be very proud of the faculty research accomplishments of this Department. It is critical to have strong support personnel to maintain this level of research activity. Both highly trained laboratory technical staff and office staff facilitate faculty research activities and free up time for innovation and graduate training.

3.0   Administration of the Unit

3.1 Administrative and Technical Staff Complements

3.1.1 Administrative Staff

The administrative staff complement consists of 3.4 positions, comprised of a Manager, Chair's Assistant/Graduate Program Assistant, Undergraduate Assistant and Budget Clerk, and Undergraduate Advisor (the 0.4 position). These are hard-working, dedicated staff members, important contributors to the Department's collegial atmosphere and hence its success. Although no one complained to us, it was apparent in interviews and the self-study passages that heavy work volume and multiple roles were seriously taxing administrative services, raising the significant possibility of burnout for key personnel. The unit Manager in particular has roughly a dozen important roles, including the vital matter of office cohesion. The rapid turnover of staff in recent years is a particular matter of concern, as the Manager must train new staff. We were told that the high cost of housing in the area is a major reason why it is difficulty to retain staff, and that this is a university-wide problem.

3.1.2 Technical Support Staff

The support staff consists of 2.25 positions—the Laboratory Manager, a full-time technologist, and a quarter-time laboratory technician funded out of Dr. Richard's CRC Chair. This tiny crew has a staggering range of responsibilities. The Manager is responsible for laboratory safety and security in both the Institute for Forensic Research and in all of the archaeology laboratories. She and the two other support staff are responsible for checkout/checkin and maintenance of the Department's vehicles, boats and a wider range of field equipment, including such high-tech items as GPS, surveying equipment and ground-penetrating radar. They are responsible for training students in the use of such equipment, but report that they don't have the time even to learn how to use these technologies. We were very surprised to hear that they are also responsible for all Departmental computers, whether in faculty offices, the administrative offices, and the laboratories. This includes installation and updating of antivirus software and even trouble-shooting and replacement of network hardware (routers, etc.). In our own universities, IT support is centralized at the level of a Faculty (e.g., Faculty of Social Sciences) and at the University of Arizona antivirus software updates are installed remotely. We were told that the Faculty of the Environment has one IT support staffer, but that it can take up to a week for a visit to resolve a reported problem. It was also alarming to hear that the support staff are given no regular training in IT management, and that even if such training was available, they would have no time to attend. Frankly, this sounds like a disaster waiting to happen—the university IT environment is only as strong as its weakest link. Given the kinds of information the Department may hold in connection with forensic cases, Museum collections, and student records, dedicated expertise in this area, whether through additional staffing or a viable centralized service would address a workload issue and hopefully, forestall hacking that would be difficult to explain in the aftermath.

Speaking for both the Administrative and the Technical Staff, there are work volume issues across the board, some of them related to staff turnover and the need for re-training. This is not necessarily a classification problem; rather, we understood that in an earlier era there was a higher ratio of staff to faculty. The staff that talked to us are clearly loyal and dedicated, but we got the definite impression, even if they didn't say so directly that they are worn out by the workload. Rather than allowing for additional fraying of staff morale, this external review committee feels that addressing this deficit is

probably the most urgent priority. The loss of either of the Managers would be a severe blow for the Department—they are each carrying too large a load.

3.2 Facilities

3.2.1 Institute for Forensic Research

The review team viewed the laboratory complex of the Institute for Forensic Research. This is a high quality facility for conducting autopsies on partially decomposed or skeletal remains from forensic contexts and requires a high level of security as well as a careful protocol for containment of biological materials (i.e., cleanliness and sterile procedures). The review team understands that following the retirement of Dr. Skinner, the Centre for Forensic Research was less active and the full time technician retired and was not replaced. With the hiring of Dr. Cardoso, now a director of the Institute, the facility has become more active and provides an opportunity for graduate training (depending on specific cases and need for confidentiality). We understand that although this is a shared facility with Criminology and reporting to the VP, Research, the current technical support comes only from existing laboratory staff in the Department of Archaeology.

Dr. Cardoso has reinvigorated the Institute and he carries a heavy teaching, research and administrative load. Recently inducted into the RSC College of New Scholars, he shows great promise. The current case load is an average of four cases per year. The reference document for the Institute indicates that the university will cover initial costs with an expectation that the Institute will bring in external funding to maintain activities and purchase equipment as it becomes better established.

Given the relatively recent turnover in the Institute and the retirement of the full-time technician, the review committee recommends half-time technical support for the Institute for Forensic Research. In addition to supporting the Institute, additional technical support will relieve the Archaeology technical staff, who have taken on this added load following the retirement of the previous full-time technician.

3.2.2 Archaeological Laboratories

One of the most conspicuous changes in the discipline of archaeology since 2000 has been massive growth in the application of scientific techniques to the investigation of archaeological questions. Many Departments of Anthropology in North America have been caught flat-footed by the speed of this incursion, and are either in denial or are scrambling to catch up. The SFU Department of Archaeology, building on the legacy of Erle Nelson (FRSC), has adapted swiftly to this change. Recent hires include two faculty members (Michael Richards and Francesco Berna) with specializations in archaeological science – Dr. Richards in light stable isotopes, and Dr. Berna in studying earliest human control of fire. They have each been provided with first-rate laboratory facilities. The equipment in both laboratories is state-of-the art, and staffing and space appears adequate.

The Department also has excellent laboratories for more traditional types of archaeological science. There is a well-secured repository for human remains, an area of particular sensitivity at present; these remains are being actively prepared for return to First Nations. The zooarchaeology laboratory has a large comparative collection that is much used by both SFU faculty and students, and by archaeologists working outside the university. This needs more working space, but the faculty and staff using it report no other immediate needs. We did not see the botanical laboratories or the x-ray fluorescence laboratory

of Dr. Reimer. Faculty seem well satisfied with the amount and quality of space available for routine archaeological analysis.

In summary, we are very much impressed by the laboratory facilities in the Department of Archaeology. These do not of course cover the same range of techniques available at larger North American universities that focus on archaeological science, like the University of Arizona or the University of Pennsylvania, but clearly SFU has made smart choices about which areas to invest in. We noted above that the job market in academic archaeology is very tight, but it should also be noted that more than half of advertised tenure-track positions in archaeology for North America over the last three years have indicated a preference for candidates with expertise in some area of archaeological science.

3.2.3 Museum

The Department of Archaeology wholly owns and operates a museum, which performs several functions. It houses archaeological and ethnographic collections that derive from the research of Department of Archaeology faculty, staff and students; it also provides a temporary home for collections of First Nations that lack facilities to house them. There are about 20,000 historic and recent ethnographic artifacts, mostly donated, and a photographic collection of about 135,000 images and movies that document departmental research, but also include donated images of cultures worldwide.

The second function of the Museum is to display some of its collection, both in the single large hall on the lower floor of the Education building, and through the Museum's web site. The third function is to contribute to the Department of Archaeology's teaching mission. The Museum Curator, Dr. Barbara Winter, teaches courses in Archaeological Conservation (ARCH 348-5) and Management of Archaeological Collections (ARCH 349-5). She also provides practical training through unpaid internships—eight at present, and 30 over the last 5 years. The graduate student representatives told us that this training has enabled a number of graduates to find employment in museums throughout Canada, and that they greatly value it.

· The student perception of the role of the Museum is evidently at odds with that of the University. The last external review (2012) recommended increased staffing and funding for the Museum, but nothing came of it. A handout provided to us by Dr. Winter states that this same recommendation has been made by each of the last *three* external review committees, to no effect.

In our opinion the Museum is woefully under-resourced. The display area is not fit for the purpose. The humidity varies wildly, and the fire suppression system looks dodgy, so the cream of the collection—objects in wood and other perishable materials—languishes in the storage rooms where the humidity, at least, is controlled. With an annual budget of only $10,000 (excluding Dr. Winter's salary) the Museum cannot in any case develop new exhibits. The computers run Windows 7, which is no longer supported by Microsoft—and thus is acutely vulnerable to hacking—and the Museum cannot afford the annual license fee for any acceptable inventory management software system or secure backup. Nor is there any space or equipment for the conservation treatments on the collections.

Dr. Winter relies entirely upon volunteered labor in managing the Museum. She reports that she currently has 15 volunteers, each working 3-10 hours a week. She also tells us that she will retire in two years, so there is not much time to find a solution to the problems outlined here. The University should not imagine that it can simply advertise for a replacement—we cannot foresee any competent museum professional being willing to take the position at the current level of support. The Museum should be

given a significant increase in operating funds (with respect to collection safety, paid research assistantships, and sorely needed database accession software) and at least a second staff position. Successful though the Museum has been within the constraints noted above, the University is foregoing many other positive opportunities in not attending to the risks connected with the current situation.

4.0 Work Place Environment and Objectives

Throughout our visit and in this report, the collegial nature of relationships within the Department have been at the forefront. That collegiality is an intangible but genuine element in the Department's success, and is most desirable to sustain. While administrative and technical staff are very much dedicated to their roles, the external review committee was certainly aware of the strain that they are feeling in complex roles that have become reactive more so than proactive. There are the self-study remarks quoted at pages 21 and 22 indicating that administrative staff are overworked, underfunded and at times feel taken for granted. If allowed to continue, this could certainly fray a collegial atmosphere. As discussed below, with respect to issues of specific interest and our concluding recommendations, this is a priority area to address.

As can be readily understood, while excited about and definitely valuing the move into the Faculty of Environment, the Department of Archaeology was the last unit to arrive, and growing pains are to be expected—several of which our recommendations are intended to address. Suffice it to say the Departmental staff members are sensitive to their new position at the institution, and at times will value reassurance as they integrate themselves.

The Department of Archaeology at Simon Fraser has been at the forefront not just of research involving First Nations, but in research in the service of First Nations community interests. The work with Tla'amin First Nation is an excellent example, and the halftime status of Dr. Lepofsky, who was directly involved in that example, will diminish First Nations outreach capacity overall. Relationships with indigenous communities should be considered a priority in faculty succession planning for the future.

Anecdotally, M.A. and Ph.D. graduate students from many years prior to the alumni census information in Appendix HH remain proud of their earlier association with the Department, and in a number of cases are conversant with its work today.

5.0   Future Plans

5.1 Geographic Information Systems (GIS) and Quantitative Methods

Our evaluations and recommendations elsewhere in the report do deal with future planning, that we will not repeat here. As yet unmentioned, one theme that emerged in faculty discussions and self-study passages (including Appendix GG, student comments on training priorities), affecting both graduate and undergraduate students, was the desire for more GIS and quantitative methods courses. GIS has emerged as an essential skill for all archaeologists, whether in academic, public archaeology or private sector consulting roles. This is especially true with respect to HRM certificate and M.A. program needs. While GIS training can be sought in other programs, such as Geography, there is nothing quite like both in-house disciplinary expertise and Department-accessible GIS work stations. Given the shortfall in Information Technology (IT) capacity the Department currently has, this should be considered as a priority area for the future. In a Department with a strong science orientation regarding

archaeology, and in this case building on the legacy of the late Jack Nance, it would be equally valuable to cultivate expertise in quantitative methods more generally once again.

6.0 Issues of Specific Interest

6.1 Appropriate Levels of Museum, Technical, and Administrative Staff

Without belaboring points made in other sections of the report and our recommendations below, we conclude that current staffing levels for Museum, technical and administrative staff are not adequate, diminish staff morale, and create challenges for both students and faculty members. That this topic is identified as an issue of specific interest in the terms of reference suggests to us that the current Dean and senior administration are aware of these challenges and receptive to proposals. In some instances, there are potential procedural solutions to difficulties, but in most cases, some additional staffing will be required. Key Museum needs have been identified over multiple cycles of external reviews, and really should be addressed in this cycle. They expose Simon Fraser to two particularly important forms of risk: 1) The current Museum Director might retire within the foreseeable future; without succession planning, this could result in a damaging loss of knowledge, especially given that accessioned collections are necessarily being managed by an ad hoc series of databases, rather than a single, coherent one; 2) The collections are at unwarranted risk to fire or other forms of calamity. Both kinds of risk can and should be ameliorated: the hiring of a full time curatorial assistant would be highly appropriate, and could open new opportunities for the Faculty of Environment and the entire University.

Technical and administrative staffing challenges have been evaluated in earlier sections of the report, but there are important shortfalls there. Rounding out the Undergraduate Advisor position to a full time appointment would be appropriate, as would providing half-time assistance in connection with the forensic lab. In the view of our committee, many of the relatively few, but key challenges the Department faces could be addressed by injecting 1.5 to 2.0 full time positions into the Museum technical and administrative areas described here, coupled with judicial reassignment of more manageable roles.

6.2 Faculty Renewal Plan

The Department's most recent renewal plan, as described in the self-study (a year old at the time of this writing), assumed a *status quo* for existing faculty members. It identified as priority hires: 1) A CRM specialist who could aid of the HRM program, potentially serving as half-time director of the Professional MA in HRM program, and 2) Another bioarchaeologist to ensure that the Department can fulfill it teaching obligations for teaching and with respect to the Bioarchaeology Certificate. The needs around the HRM program are critically heightened at this time, we feel, elevating it to the foremost priority. These are both suitable goals. The renewal plan did not address the question of whether the Department should "replace" retirees or seek new directions.

We recommend that succession planning be of equal if not greater importance in the next re-drafting of the renewal plan. There is a significant demographic gap between senior faculty members, who have had highly successful research careers (along with active administrative roles) and the most recent hires. While the youngest faculty members most definitely promise a bright future for the Department, they do need the opportunity to establish career paths without being burdened too quickly with administrative responsibilities that could come with roles such as the Chair or Graduate Coordinator.

There was great student and faculty optimism that Dr. Driver had committed to a three year span as the Graduate Program Chair. Nevertheless, there is a strong likelihood that a significant number of retirements could take place within the next three to five years. It is vital therefore, that the Department set a direction for that eventuality, or even for unforeseen developments. That should include agreed upon direction for a replacement strategy, and consideration of external appointments at the Associate rank to bridge that demographic gap.

The tenor of the general discussion amongst faculty members during our first day of deliberations seemed to be toward a "like-replacing-like" strategy. The Department has had an effective Pacific and western North American focus in much of its work. It is always a consideration that an institution heavily funded by a tax-paying public be seen to undertake work with high relevance in its own jurisdiction. A "like-replacing-like" approach (if that is the determination of faculty members) to skill sets and topical areas would serve the Department well, maintaining a mix of international and more specifically western North American interests, commensurate with the Department's highly ranked disciplinary status.

On the other hand, we were told (by the representatives of the graduate students) that the Department last placed a graduate in a tenure-track academic position in 2009. While 80% of archaeology PhD's in North America do not obtain tenure-track positions, it is still the case that the reputation of an academic Department rests in part upon the success of its graduates in the academy. The current faculty might want to give some serious consideration to hiring new faculty who could train students in the areas that are in highest demand in the academic job market. The two areas that crop up most frequently in recent advertisements for tenure-track jobs in archaeology are in Collaborative Heritage Management—meaning collaboration with First Nations/Native Americans—and in archaeological science. Both of these areas are likely to remain priority areas for hiring in North America, and SFU has made hires in both of these areas within the last decade. The faculty might want to consider reinforcing these areas rather than replacing on a like-for-like basis.

7.0 Recommendations

Just prior to the visit of the external review committee, QS released its annual review of universities. Four years ago, QS began ranking archaeology programs; all of the factors QS takes into account in such rankings are not immediately apparent, and it would appear that QS evaluates both anthropological and classical archaeological programs at an institution. In the case of the Simon Fraser archaeology program, QS results would be almost wholly attributable to the Department of Archaeology. The Department of Archaeology rose 17 places in the most current QS ranking of archaeology programs, to a position of number 27 in the world, tying the University of Arizona.

While one should be measured in assessing such ranking results, the Department of Archaeology's global ranking (along with specific metrics such as citations per paper and H-Index citations) is a clear and accurate reflection of the high quality of Simon Fraser's archaeology program, of which the Department and institution can be justifiably proud—it is, as the current Dean described it, a gem among faculty programs. The key recommendations of the external review committee are therefore geared to sustaining the high quality of the program, with a view to ensuring its long term stability. In that connection, the two issues of specific interest identified for the external review committee,

appropriate levels of museum, technical, and administrative staffing and the faculty renewal plan, are insightful and at the head of our list of recommended strategies.

The Department of Archaeology has staffing needs that should be the subject of specific, prioritized requests to the Faculty of Environment in order to alleviate stresses in office administration, lab and technical support, and faculty areas. We recommend that:

1. The Department address its administrative office staffing shortfall by creating a full time (rather than 0.40) position for an undergraduate advisor for academic counselling, 24-month scheduling of course offerings for undergraduates (including graduate requirement review), targeted recruitment and retention activities, and work volume issues.

2. The Department address its shortfall in lab and technical support by:
   a. Developing a more equable support strategy with Criminology for shared forensic and autopsy facilities, involving half-time technical support for the Institute for Forensic Research, thereby diminishing the workload for Department of Archaeology staff members;
   b. Developing an Information Technology strategy, whether through Departmental staffing or reliable and timely centralized Faculty or University service, alleviating workload in that area in connection with security, maintenance, and other services.

3. The next draft of the Faculty Renewal Plan place equal priority on succession planning for anticipated senior faculty retirements over the next several years:
   a. Because of the Department's demographic profile, consideration should be given to "infilling" appointments at the Associate Professor level, in concert with an agreed upon strategy, such as "like-for-like" topical and regional subject matters, or, hires in the now prominent areas of collaborative heritage management with an indigenous focus or archaeological science.
   b. There is a need for immediate action with respect to the HRM M.A. program. Continue with plans for an additional HRM specialist and bioarchaeologist, both of which might be hired at an Assistant level, but that might also be considered at the Associate level, as per 3 a.

The Museum is highly valued by students for its capacity to provide volunteer activities and training with real world career prospects, and it has long been identified as an area in need of significant staff and resource support. We recommend that:

4. The Department consider strategies to broaden the Museum's mandate, and garner a greater degree of institutional support for its role.
   a. If the Department, Faculty of Environment, and University are amenable to a change of perspective, consider funding a strategy study by locally available museum specialists to chart an expanded course for the Museum's future.

5. The University address immediate and pressing needs the Museum has by:
   a. Providing a much needed curatorial position to the single existing staff member, the Director, with consideration of knowledge transfer and succession planning.
   b. Ensuring acquisition of a comprehensive database management system for existing, accessioned materials.
   c. Installing protective measures, such as sprinkler systems, to prevent catastrophic loss of collections.

d. Creating more funded research assistantships for both undergraduate and graduate students.

Three specific measures would increase graduate student satisfaction with an already successful program. We recommend that:

6. That the Department review its letters of offer for graduate students with a view to providing clarity on the level of and timelines for financial assistance and other opportunities for which students may be eligible.
7. That the Department develop a strategy for making fuller use of discretionary teaching assignments for graduate students.
8. That the Department develop additional in-house workshop settings specific to archaeological career needs.

Finally, the two day format for interviews works reasonably well, and it is true that there are likely few times of a year that will not be busy. Nevertheless, in this case, the post-interview period was rather full with conferences, thesis and dissertation defences, candidacy exams and end-of-term and other commitments for this particular group. Our final recommendation would be to set aside one-half of a third and final day for collective committee outlining and initial drafting of the review document, while the review process is still fresh in participants' minds.

Appendix 1: Itinerary and Schedule of Meetings, March 13-14

Simon Fraser University
Department of Archaeology
Itinerary for External Review Site Visit
March 13 – 14, 2019

Reviewers:	Dr. Jack Ives, University of Alberta (Chair of External Review Committee)
	Dr. Anne Katzenberg, University of Calgary
	Dr. David Killick, University of Arizona
	Dr. John Craig, Simon Fraser University

Wednesday, March 13, 2019

7:15	8:00	Car service from hotel to SFU Burnaby Campus – Drop off at Strand Hall Parking Lot	
8:00	9:00	Opening meeting with Senior Administrators: Wade Parkhouse, Associate VP Academic (Chair) Glynn Nicholls, Director, Academic Planning Dugan O'Neil, Associate VP Research Jeff Derksen, Dean, GPS (or designate) Ingrid Stefanovic, Dean, Faculty of Environment	Strand Hall, PCR Room 3187 Continental breakfast served
9:00	9:15	Walk to Department – George Nicholas	
9:15	9:45	George Nicholas, Chair, Archaeology	EDB 9638
9:45	10:00	Break	EDB 9638
10:00	11:00	Tour: Archaeology Department/Labs, Forensic Centre	Shannon/Peter
11:00	11:30	Meet with Lab Manager and Staff	EDB 9643
11:30	12:00	Meet with Office Manager and Staff	EDB 9643
12:00	1:00	Lunch with Former Chairs	DAC
1:00	2:00	Meet with Professors	EDB 9643
2:00	2:30	Meet with CRC Chairs	EDB 9643
2:30	3:15	Meet with Lecturers, Assistant and Associate Professors	EDB 9643
3:15	3:30	Break	EDB 9638
3:30	4:00	External Review Committee – Discussion Time	EDB 9643
4:00	5:00	Ingrid Stefanovic, Dean, Faculty of Environment	EDB 9643
5:00	5:10	Return to hotel by Car Service – Pick up Strand Hall Parking Lot	

Thursday, March 14, 2019

8:15	9:00	Car service from hotel to SFU Burnaby Campus – Drop off Strand Hall Parking Lot	
9:00	9:30	Dugan O'Neil, Associate, VP Research	EDB 9643
9:30	10:00	Jeff Derksen, Dean, Graduate and Postdoctoral Studies	EDB 9643
10:00	10:15	Break	EDB 9638
10:15	10:45	Meet with Barb Winter, Museum	EDB 9643
10:45	11:15	Meet with Undergraduates (4 representatives)	EDB 9643
11:15	11:45	Meet with Graduate Students (2 PhD, 2 MA)	EDB 9643
12:00	1:15	Lunch Reception	Museum
1:15	2:00	Meet with Graduate Executive Committee Chair and HRM Program Chair	EDB 9643
2:00	2:30	Undergrad Committee Chair	EDB 9643
2:30	2:45	Break	EDB 9638
2:45	3:15	Closing Meeting with George Nicholas	EDB 9643
3:15	4:00	External Review Committee – Discussion Time	EDB 9643
4:00	5:00	Closing meeting with Senior Administrators: Wade Parkhouse, Associate VP Academic (Chair) Peter Keller, VP Academic Glynn Nicholls, Director, Academic Planning Dugan O'Neil, Associate VP Research Jeff Derksen, Dean, GPS Ingrid Stefanovic, Dean, Faculty of Environment ~~Del Desi, Coordinator, UCU~~	Strand Hall, PCR Room 3187
5:00		Return to hotel/airport by car service – pick up at Strand Hall Parking Lot	

EXTERNAL REVIEW – ACTION PLAN

Section 1 – To be completed by the Responsible Unit Person e.g. Chair or Director			
Unit under review Archaeology	**Date of Review Site visit** March 13-14, 2019	**Responsible Unit person** George Nicholas	**Faculty Dean** Naomi Krogman
....	....	....	....

Notes

1. It is **not** expected that every recommendation made by the External Review Committee be covered by this Action Plan. The major thrusts of the Report should be identified and some consolidation of the recommendations may be possible while other recommendations of lesser importance may be excluded.
2. Attach the required plan to assess the success of the *Educational Goals* as a separate document (Senate 2013).

1. PROGRAMMING

1.1 Action/s (description what is going to be done):

1.1.1 Undergraduate Program:

a) Revise undergraduate curriculum emphasizing the following areas of specialization— biological anthropology, archaeological science, CRM/Heritage, and environmental archaeology, and create explicit pathways/roadmaps for each area.

b) Develop a 24-month list of courses to be offered.

c) Ensure that our core courses (ARCH 372, 376Q, 471W) are offered on schedule, even with low enrollments, to avoid cancellations that disrupt student's completion plans.

d) Develop and implement a recruitment strategy—in consultation with Faculty of Environment staff—to increase awareness about and visibility of our program, and to identify potential career prospects.

e) Investigate the potential usefulness and demand for a BSc degree program in the Department of Archaeology.

f) Hire a research assistant to aid in the development of an assessment component for our Educational Goals document.

g) Make better use of the university's Work Study program to give undergraduates experience in museum collections management.

1.1.2 Graduate Program:

a) Include a statement of guaranteed minimum levels of funding for each incoming student in their offer of admission.

b) (i) the department will reserve a minimum of one sessional instructor position for PhD students each year provided this is consistent with the Collective Agreement.

(ii) In courses where TA duties are currently focused on marking exams and assignments, the department will investigate ways to provide teaching assistants with opportunities for greater interaction with undergraduate students.

c) The graduate program chair will collaborate with the graduate student caucus to provide a minimum of four professional development workshops annually.

1.2 Resource implications (if any):
a) Undergraduate Program adjustments are directly related to staffing. Some of the initiatives discussed above will require assistance and resources from the Faculty of Environment around communications and recruitment.

1.3 Expected completion date/s:

1.3.1   Undergraduate Program
a) Curriculum revision completed by Fall 2019 for implementation in Fall 2020.
b) 2-year course schedule completed by Fall 2019.
c) NA
d) New recruitment plan developed by Fall 2019.
e) BSc program development in Environmental Science for an Archaeological Science concentration is underway. Expected implementation is Fall 2020.
f) Hire an RA to assist with Educational Goals Assessment by Spring 2020.
g) Contingent on museum director/faculty members time/willingness to supervise work study students.

1.3.2   Graduate Program
a) New template in place for offers of admission for Fall 2020 cohort.
b) Graduate teaching opportunities in place for Summer 2020.
c) A new pro-seminar program will be implemented in Fall 2019.

2. RESEARCH

3.1 Action/s:

No actions are required here.

3.2 Resource implications (if any):

None

3.3 Expected completion date/s:

NA

3. ADMINISTRATION

3.1 Action/s:

3.1.1 Administrative Staffing

a) Increase the .40 *Advisor* position to full-time, to alleviate pressure on other staff. The full-time position will be more equipped to advise students on a more regular basis, as well as assist with recruiting, communications, curriculum evaluation and revision and course planning/scheduling.

b) Increase the current half-time *Graduate Program Assistant* to a full-time Graduate Coordinator position, which will alleviate burden on the Department Manager regarding graduate program budgeting and awards, scheduling, communication, and address advising issues that graduate students are concerned with. This will also assist with recruiting for and expansion of the professional HRM program for which we currently have no staffing capacity for.

3.1.2 Laboratories Staffing

a) Increase the technician position to full-time, alleviating stress and burn-out by Lab Manager and staff. The full-time position will expand the position's ability to assist with overall laboratory and department safety responsibilities, maintaining and operating specialized equipment and better supporting research laboratories by providing training in equipment operations and research protocols.

b) Collections Curation Assistant and IT Support Position (two half-time or one full-time technical position) to address the hardware, software and network IT issues emphasized in the report and/or to assist in alleviating the pressing need for better care of Department teaching and research collections. Would be willing the share the IT position/portion with other FEnv departments.

c) Engage with the Institute for Forensics Research (IFR) as to funding a half-time Lab Technician to support all labs in the Centre, with costs split by Archaeology and Criminology (FASS).

3.1.3 Museum Staffing
a) Hire a full-time Curator.

3.2 Resource implications (if any):
Departments are not able to create staff positions; we can submit position requests to the Dean. It is challenging to provide any additional staffing resources in the areas of advising or administration, given our financial situation. Given that the museum provides a wide array of services to the university and beyond, there may be options for funding from outside FEnv.

3.3 Expected completion date/s:
Unknown; all contingent on funding.

4. Working Environment

4.1 Action/s:
a) Increase communications and develop fuller relationships between the Department and the Faculty of Environment to assist students, faculty, and staff with some persistent integration issues.

4.2 Resource implications (if any):

4.3 Expected completion date/s:
a) Ongoing, contingent upon time available to Department Manager and other staff.

5. MUSEUM RESOURCES / FACULTY RENEWAL

5.1 Action/s:

   5.1.1. Museum of Archaeology and Ethnology

     a) Obtain a proper museum collections management system.

     b) Develop a Research Associate program to give graduate students experience in the tangible implementation of the principles of the Truth and Reconciliation recommendation through direct work in museum collections management and repatriation

   5.1.2. Faculty Renewal

     a) Identify hiring needs relative to the 3-4 retirements expected in the next 2-4 years.

5.2 Resource implications (if any):

     a) Collections Management systems require new funding

     b) Faculty replacements require authorization from administration.

5.3 Expected completion date/s:

     a) Contingent on funding.

     b) Contingent on funding.

     c) Discussions on faculty renewal will be scheduled for the Fall 2019 semester; a plan will be devised by the end of the Spring 2020. semester.

The above action plan has been considered by the Unit under review and has been discussed and agreed to by the Dean.

Unit Leader (signed)	Date
Name: Title: Chair	June 11, 2019

Section 2 - Dean's comments and endorsement of the Action Plan:

Let me begin by congratulating the Department of Archaeology for its stellar review. The exemplary quality of research, high reputation in delivering innovative and significant teaching programs and the positive student feedback all confirm, as noted by the external reviewers, that this department is a gem in the Faculty of Environment and a model of academic excellence for SFU.
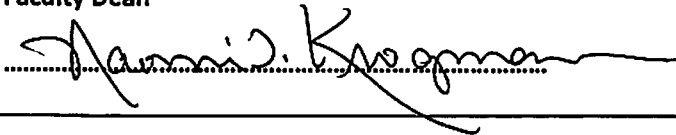
That said, there is always room for improvement. The Department Chair has already provided an extensive action plan, which I fully support. In addition, I note the following:

1. **Review of staff needs:** Some suggestions have been made to increase staffing, thereby addressing needs ranging from advising to IT Services. In close collaboration with the Department, we confirm that the Director of Administration in the Dean's Office will undertake a formal review of current staff responsibilities to determine: (a) whether some reorganization of activities might alleviate the burden and (b) address shortfalls and potential staff burnout. The Dean's Office will endeavour to find a way to resource additional staff, particularly if it is deemed essential to the functioning of the department.

2. **Museum Curatorial assistance:** I agree that the director of the museum requires curatorial assistance. The Faculty of Environment continues to operate with tight financial constraints, so we are challenged to provide the assistance that we know is well deserved here. Given that the museum fulfills SFU's broad SSHRC and BC government requirements, while functioning as a repository of both FENV as well as university-owned collections, we will explore with the Provost, the VP Advancement and the VPR whether some shared funding opportunities can be identified, perhaps through ARC funds or elsewhere. A new museum planning committee has been struck in Archaeology, and we recommend that this committee renews the vision of what this museum could be, its role in the University, and develops a business plan for the museum. This remains a priority for the Dean's office and should be a priority for the university as a whole.

3. **Museum physical infrastructure:** The need for museum upgrades - i.e. installing protective measures, such as adequate environmental control systems - is acknowledged by the Dean's office. We recommend that the Department of Archaeology prepares and submits a renovation proposal to the Capital Planning Steering Committee.

4. **Graduate Instructors:** The Dean's Office agrees that opportunities should be provided to graduate students to instruct courses. We encourage the department to identify ways in which students can obtain this important level of experience while completing their doctoral work.

5. **Recruitment and retention:** We acknowledge the Department's recent document "Addressing Enrollment Concerns: Issues and Opportunities (3.0)." FENV has recently hired a Director of Enrollment and a half time HS recruiter. We will work with Archaeology to develop and implement a recruitment strategy. We would add that retention is also a priority for the Faculty. Our new full-time and additional half-time staff hires within the Dean's office, dedicated to recruitment and retention, will provide additional support to increase enrolments in Archaeology.

Overall, we believe that by addressing the above challenges, we will ensure that the Department of Archaeology is further strengthened and supported by the Dean's Office in the way that is deserving of a unit that receives international accolades and a stellar reputation worldwide.

Faculty Dean	Date
[signature]	Dec 11, 2019

Archaeology Department Response to External Review Report:
Comments and Corrections

by
George Nicholas, Chair
June 2019

The External Review Report confirms that the Department of Archaeology is performing well, resulting in a strong national and international reputation. However, the Report highlights two critical, longstanding needs —additional administrative and laboratory staff, and additional resources for our Museum. This response provides some additional information on these two recommendations, as well as a number of factual corrections.

I. COMMENTS ON STAFFING AND THE MUSEUM

Staffing Needs
Staff and management positions are becoming more complex. With a new emphasis on marketing, communications, recruitment, health and safety, and accountability, increased staffing levels are pivotal to maintaining high-quality teaching and research. The need for additional support for staffing has been emphasized in the past external reviews.

With the expansion of our research and teaching laboratories, our laboratory staff are also increasingly challenged with: maintaining multiple and technologically different labs; renovating or reorganizing old laboratory spaces to suit current needs; keeping up to date with new laboratory protocols and technology; and ensuring the health and safety of all laboratory and field workers. This has left little or no time to provide support for laboratory and field courses, care for and expand research and teaching collections, or to train and mentor work study students or volunteers in a variety of laboratory and field methods. We also note that recommendation 2a in the Report to develop an IT strategy will result in additional work and training for laboratory staff, as would continuing support of the Institute for Forensics Research.

To summarize, we cannot adequately support our graduate and undergraduate teaching programs, nor our outstanding research programs, without additional laboratory staff.

We strongly concur with the recommendations to increase the *Advisor* from .40 to a full-time position, which could then assist in areas such as recruitment, communications, curriculum revision and review, student success, and course scheduling.

There is also a need for an additional staff person in the Museum (see discussion below).

Museum of Archaeology and Ethnology
The need for additional support for the museum has been emphasized in the last four external reviews, but has never been acted upon.

The Museum is a vital component of the Archaeology Department. It is first and foremost a teaching museum. It is also a critical point of articulation with First Nations engagement and

reconciliation, including repatriation (see below), and it provides public outreach through site visits and online resources to BC schools.

The Museum also has an important role supporting research by our faculty in terms of ensuring curation or storage needs that meet professional standards. Research conducted on the collections utilizing the Department's scientific facilities (e.g., XRF, mass spectrometry, ancient DNA, imaging) increases knowledge of First Nations history (and is often requested by First Nations). However, the collections must be organized so that specimens can be found before research begins. Also, more graduate research is being done on museum collections. Support for a comprehensive collections management system and a curator to manage it is thus essential to the Department's teaching and research programs.

Museum and laboratory staff have also taken on responsibility for major projects of repatriation of artifacts and human remains. Repatriation of museum collections to First Nations is an important component of the university's commitment to the recommendations of the Truth and Reconciliation Commission. To cite one example, SFU developed a relationship with the Treaty 8 Tribal Association through the repatriation from the Museum of Archaeology and Ethnology of a large artifact collection in 2015, which in turn facilitates current SSHRC-funded research and community engagement by faculty and graduate students. The museum holds objects and archives from many First Nations. SFU could advance the goals of Truth & Reconciliation by working with other nations in the same way.

The Archaeology Department and Archaeology Laboratory Staff work with First Nations to return ancestral human remains, and the remains of hundreds of individuals have already been returned to their descendant communities. One example of this was the return of over 200 ancestors to the Tsawout First Nation managed by George Nicholas and the Laboratory Manager and Staff– a process that took over 18 months.

Currently the Museum has a single staff member, responsible for collections management, physical facilities, repatriation, displays, education and outreach, liaison with researchers, liaison with instructors, donor relations, and undergraduate work experience. A second staff person is clearly needed.

Finally, it is important to emphasize the role of the Museum as a university resource in that it functions to curate and display university-owned collections; provides university outreach to both local schools and the broader school system through class visits and on-line resources; and, as noted above, is an articulation points for university engagement with First Nations communities. Beyond those services, the Museum fulfills SSHRC and BC Government requirements as a repository for collections derived from archaeological research. Our request for additional resources should thus be considered relative to services provided to the university.

II. CORRECTIONS

Information Technology
The external review report states (in section 3.1.2, Technical Support Staff) that *"We were told that the Faculty of the Environment has one IT support staffer, but that it can take up to a week for a visit to resolve a reported problem."*

This is incorrect as there is no such support staffer. This was likely the result of a misunderstanding or miscommunication during their visit.

Also, "Technical Support Staff" should be "Archaeology Laboratory Staff."

Museum of Archaeology and Ethnology
1. The external review report states (in section 1.2) that *"the Museum emerged as a greatly appreciated skill-generator with direct career employment prospects. A greater degree of research assistantship funding in this connection, for the Museum, would certainly be welcomed by graduate students, and would aid the Museum situation."*

While research assistantship funding would help graduate student RAs, compensating them for work on short-term projects, the Museum desperately needs an additional dedicated long-term staff person who can undertake the larger collections management projects such as the development of a comprehensive collections management system.

2) Two statements in section 3.2.3 Museum require correction:
   a) *"There are about 20,000 historic and recent ethnographic artifacts, mostly donated, and a photographic collection of about 135,000 images and movies that document departmental research, but also include donated images of cultures worldwide."*

Not stated was that there are over 60,000 artifacts for which we are responsible, many of which are of interest to First Nations.

   b) *"In our opinion the Museum is woefully under-resourced. The display area is not fit for the purpose. The humidity varies wildly, and the fire suppression system looks dodgy, so the cream of the collection—objects in wood and other perishable materials—languishes in the storage rooms where the humidity, at least, is controlled."*

Portions of this statement are inaccurate. The fire suppression system was installed recently, and it is the lack of humidity control that is most concerning, because an audit would likely result in the loss of category A designation from the federal government. Therefore, recommendation 5c should be changed from *"c. Installing protective measures, such as sprinkler systems, to prevent catastrophic loss of collections"* to *"c. Installing protective measures, such as adequate environmental control systems, to prevent catastrophic loss of collections"*

SFU Archaeology Department
Assessment Plan for Educational Goals

Prepared by Dennis Sandgathe
Chair, Undergraduate Curriculum Committee

As a requirement of the Archaeology Department's response to our recent External Review, this document presents our Assessment Plan for Educational Goals. It was prepared in consultation with Elizabeth Elle (Associate VP-Learning & Teaching) and Teaching and Learning Centre (TLC) staff

This document sets out our Department-level, Program-level, and Course-level Educational Goals and Learning Outcomes, developed earlier and still in the process of being developed and refined in consultation with TLC staff. An important component we have yet to develop, and one that is becoming required by the university in some capacity, are methods or mechanisms for assessing the efficacy of programs at satisfying Learning Outcomes.

Currently the Teaching and Learning Centre at SFU is in the process of developing a framework and support to aid individual departments in the development of assessment components for their Learning Outcomes. This is expected to be in place within a year or so. Thus, while we are continuing to develop our Learning Outcomes and assessments, there is some expectation that, until a formal process is developed (and some understanding of any potential formal requirements), investing significantly in any specific mechanism(s) may be premature. Thus, we are moving forward somewhat tentatively.

Assessing Course-level Learning Outcomes

Success in achieving our individual course-level goals can be assessed through students' ability to achieve reasonable grades on exams and assignments and through the nature of the feedback instructors and the department get from the course and instructor evaluations filled out by students. With the implementation of online course and instructor evaluations (planned for Fall 2020), there will be some improvement in this data as the department and individual instructors will now have some input in the questions that students are asked to respond to. However, an important aspect of individual courses, especially for lower and mid-level courses, is to prepare students for subsequent courses as they progress through their program. This leads us from course-level to Learning Outcomes at the Program-level, which is perhaps the most important level and the one that we will be focusing the most effort on in our development of assessment mechanisms.

Developing an assessment component for Program-level Learning Outcomes

This is to ask: *how effective are our lower-level courses at preparing students for success in upper-level courses and how effective is our undergraduate program as a whole in providing*

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students with the knowledge and skills we have identified as our primary Learning Outcomes and, furthermore, how well do these Learning Outcomes goals, assuming they are satisfactorily achieved, prepare our alumni for success in their subsequent career paths?

These can be assessed in two ways.

1) In-Progress Assessment

One way of getting a sense of the efficacy of our program in meeting its Learning Outcome goals is simply tracking average final grades in mid- and upper-level courses. However, while this is something we will do, these are probably not especially informative data and on their own will not provide the sort of measure we require to be able to effectively assess program efficacy and address any potential shortcomings.

Some departments include Capstone courses in the programs that are typically designed to polish off and test students' discipline-specific knowledge and skills. As we lack a capstone course component, we require some other method for tracking how effectively we introduce, reinforce, and establish 'expertise' in each of our Program Outcomes such as, *Critical Thinking Skills* or *Technical Skills*. A common approach used by other departments (and likely the most effective one for us as well) is to identify individual courses that were designed to impart one or more specific Learning Outcomes - for example, specific lab courses that develop *Technical Skills* or writing intensive courses that develop *Communication Skills* - and use existing assignments in those courses (or design additional assignments) that provide direct measures of students' success in developing those skills. To be effective, this will require formal curriculum mapping of our specific Learning Outcomes: mapping out in which specific (typically lower-level) courses a Learning Outcome is *introduced*, in which courses that Learning Outcome is *reinforced*, and in which courses *expertise is developed* for that Learning Outcome. Just doing this mapping (something currently underway) will potentially highlight any gaps in the process of presenting and reinforcing individual Learning Outcomes over the course of the undergraduate program and will also indicate those courses best situated for assessing the efficacy of this structure in helping students' develop these Learning Outcomes.

2) Post-Graduation Assessment

Obviously, this can only be measured by following, to some degree, the relative success of our graduates in their subsequent careers, whether this involves continuing in academia or employment with government institutions or in the private sector. Assessing our degree of success in this respect can be achieved by surveying our alumni's subsequent graduate advisors and employers and by surveying our alumni directly. Ultimately, this can allow us to more fully and accurately assess both our program-level success and our success in meeting our department's over-arching philosophy and mission statement. Towards this end, we have already begun collecting data on our alumni as much as accessible in the public domain (and with the recognition that some sensitivity to personal information is warranted). We plan to hire a research assistant devoted to collecting relevant data on our alumni.

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Program Assessment Schedule

We will also implement a schedule for when aspects of Program-level assessments are carried out. While data on all students' progress in their Learning Outcomes development can be collected every semester, it may be more reasonable to analyse these data at longer intervals, perhaps yearly or even every other year. After these data are analysed and the results disseminated to all faculty members, they will be discussed in a faculty meeting or retreat and appropriate responses decided on and implemented.