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Success Strategies for a Career in Archaeology

Claire Smith, Department of Archaeology, Flinders University,
GPO Box 2100, Adelaide, SA 5001, Australia
E-mail: claire.smith@flinders.edu.au

Jillian Garvey, Department of Archaeology, La Trobe University, Bundoora,
VIC, Australia
E-mail: J.Garvey@latrobe.edu.au

Heather Burke, Department of Archaeology, Flinders University,
GPO Box 2100, Adelaide, SA 5001, Australia
E-mail: heather.burke@flinders.edu.au

Ines Domingo Sanz, ICREA/Department of Prehistory, Ancient History and
Archaeology, University of Barcelona, Montealegre, 6-8, 08001 Barcelona, Spain
E-mail: ines.domingo@ub.edu

ABSTRACT

This article offers career advice for students and early career practitioners in archaeology. It presents new data from a global survey on success strategies for careers in archaeology. The topics covered include fieldwork and laboratory experience, volunteering, publication, peer reviews, referees, conferences, international exposure, and grant writing. Of particular note is the relative value that archaeologists place on publication outputs that will nurture a career versus those that have long-term value for the discipline. This speaks to long- and short-term strategies in career building. By making explicit values and practices that are normalized by dominant groups and revealing structuring principles that underlie success in archaeology, this article fills a gap in research on the impact of colonialism on the employment of minority groups in archaeology.

Résumé: Cet article propose des conseils de carrière aux étudiants et aux professionnels en archéologie en début de carrière. Il présente de nouveaux résultats d'une enquête mondiale sur les stratégies de réussite pour les carrières en archéologie. Les sujets abordés comprennent le travail sur le terrain et l'expérience de laboratoire, le bénévolat, les publications, l'examen par les pairs, les personnes recommandées, les conférences, la visibilité internationale et la rédaction de demandes de subvention.Il convient de souligner l'importance relative accordée par les archéologues à la production de publications qui développeront une carrière par rapport à

celles qui auront une valeur à long terme pour la discipline. Cela illustre bien les stratégies à court et à long termes pour le développement des carrières. En expliquant clairement les valeurs et les pratiques qui sont normalisées par les groupes dominants et en révélant les principes structurants qui sous-tendent la réussite en archéologie, cet article comble une lacune dans la recherche sur les conséquences du colonialisme sur l'emploi des groupes minoritaires en archéologie.

Resumen: Este artículo presenta nuevos datos a partir de una encuesta global sobre estrategias de éxito para desarrollar una carrera en arqueología y ofrece diversos consejos a estudiantes y profesionales que inician su carrera en esta disciplina. Entre los temas que se discuten encontramos el trabajo de campo y la experiencia de laboratorio, el voluntariado, las publicaciones, las revisiones por pares, la selección de personas de referencia, las conferencias, la proyección internacional y la solicitud de subvenciones. De los temas tratados cabe destacar el valor relativo que los arqueólogos otorgan a los resultados que nutrirán su carrera de forma inmediata frente a aquellos que tienen valor a largo plazo para la disciplina. Esto nos permite hablar de estrategias a corto y largo plazo en el desarrollo de la carrera. Al hacer explícitos algunos de los valores y prácticas que son normalizado por los grupos dominantes, este artículo revela algunos de los principios estructurales que subyacen en el éxito dentro de la arqueología. Con este artículo se llena un vacío en la investigación que aborda el impacto del colonialismo en el empleo de los grupos minoritarios en la arqueología.

Introduction

This paper offers advice for students and early career practitioners who wish to pursue a career in archaeology. It includes new data from a global survey on success strategies for students. This survey provides new information on how various strategies are valued by people in different parts of the world. The topics covered include volunteering, fieldwork and laboratory experience, selecting appropriate referees, how and where to

publish, tackling peer review, conference attendance, and grant writing. While there is a great deal of thoughtful literature regarding colonialism and archaeology (eg., Atalay et al. 2014; Gnecco and Ayala 2011; Nicholas 2010; Panich 2013; Smith and Wobst 2005), no one has directly addressed the impact of colonialism on the employment of minority groups in archaeology. This article fills this gap through making explicit values and practices that are normalized by dominant groups.

Students who wish to succeed in archaeology need to understand the value systems and political dimensions of the environments in which they aim to find employment. This is particularly true if they aim to re-center archaeology in terms of their own values and if those held by people in their proposed working environments are not immediately congruent. Once people are employed, they are in a position to challenge local power geometries, make structural changes within their institution, and assist in creating a more equitable archaeological world. The legacies of colonialism inform employment and business practices throughout the world (Parreñas 2001; Pocock 2014; Wilkinson et al. 2014). However, there is little consideration of the impact of colonialism on the employment of minority groups in archaeology. While there is an established literature on the impact of gender on employment (Balme and Beck 1995; Sorensøn 2005; Smith and Burke 2006) and extensive consideration of decolonising archaeological theory and practice (Smith and Wobst 2005; Gnecco and Ayala 2011; Lynch and Alberti 2010; Panich 2013; Atalay et al. 2014), there is a research gap in regards to how the legacies of colonialism inhibit the employment of minority groups in archaeology. A notable exception to this is the volume by Nicholas (2010), *Being and Becoming Indigenous Archaeologists*, which provides first person accounts of the challenges faced by Indigenous archaeologists. We would argue that the low numbers of Indigenous academics globally are partly due to social and political barriers that fail to provide appropriate academic rewards to Indigenous scholars, especially in terms of their community and family commitments. Comparable barriers are also likely to contribute to the low numbers of African American archaeologists noted by Franklin (1997). However, some success in addressing subtle institutional racism has been achieved by Indigenous academics reframing the criteria for employment and promotion, as outlined by Rigney and Worby (2005). This approach could be used as a model for other minority groups.

A successful career in the academy requires long-term planning, a commitment to research, and the ability to communicate effectively about all facets of the profession with a wide variety of people. It also involves learning to prosper within a particular disciplinary environment. However, disciplinary environments vary internationally, nationally, and locally. Their

values are informed by gender, class, ethnicity, race, even religion. These values are normalized by those who are established within the dominant system, but they can be a revelation for those who are not, especially if they come from a different cultural background. With this in mind, this paper offers practical advice for students who wish to pursue a career in archaeology. While it focuses primarily on the skills and track record that students need to aspire to Masters, Doctoral, and Postdoctoral levels, it also offers insights for students in all stages of their career. We begin by defining some of the core qualities of archaeology as an activity—although these apply to many other disciplines as well—and then extend this to the particular contexts in which students can learn and develop these qualities. Rather than focus on the processes of learning particular technical skills, we outline the bigger picture of success as a mosaic of personal and professional opportunities. Although some opportunities are generally available, such as with funding rounds, many will be personal and unique: 'the path to exceptional performance in most disciplines seems to be a fortuitous mix of talent, hard work, leveraged opportunities and serendipity' (Hunter and Kuh 1987:460).

The Social Nature of Archaeology

Every person you come in contact with during work should leave with the impression you are a professional. Contemporary archaeology requires certain commitments from its practitioners: it is fundamentally a very social discipline, as befits one that studies the past lives of human beings, both in terms of its professional base and the role that it plays in contemporary society. Professionally, archaeologists can operate in quite small circles—whether within a country, a specialist area or a geographic region. This means that your ability to work with others, and the perceptions they have of you, can directly influence your career. More widely, archaeology is always practiced in the context of contemporary cultural and legislative frameworks about what heritage is and how it is valued. This means that your social interactions with the general public, with government agents, with landowners, developers, traditional owners, or other specialists—who may or may not be sympathetic to the idea of archaeology in the first place—can also influence your success. Academic careers—traditionally disparaged as operating in isolation—have become less secure and more demanding over the past three decades. A move from the valuation of knowledge as something that is relatively independent of practical uses (ie., 'pure' or 'blue sky' research), to a heavier emphasis on industry relationships ('applied' knowledge) and the social role of the academy (Anderson 2001), means that archaeologists in all spheres rarely work independently. For all of us, the core qualities of being a successful archaeologist are

highly social ones and are very closely related: teamwork, collaboration, and networking.

The Survey

The survey that informs the discussions in this paper was conducted in July and August 2015. It comprised 228 responses from people from the following countries: Argentina, Australia, Belgium, Botswana, Brazil, Canada, China, Colombia, Iran, Italy, Japan, Jordan, Kenya, Mauritius, Mexico, New Zealand, Nigeria, Norway, Palestine, Poland, Portugal, Qatar, Republic of Ireland, Romania, Russia, Spain, Tanzania, Thailand, Trinidad and Tobago, the Ukraine, the United Kingdom, and the United States. The largest group of respondents were aged between 35 and 44 (30.4%), followed by people aged 25–34 years (23.79%), 45–54 (16.74%), 55–64 (14.1%), 18–24 (6.61%), 65–74 (7.05%), and 75 years of age or older (1.32%), with one person not responding to the question. Female respondents comprised 57.59% and males 42.41%, a significant difference in terms of the mentoring that women are expected to do within an archaeological career (see Smith and Burke 2006). The majority of respondents were employed, either full-time (64.60%), or part-time (15.49%). The remainder were not in current employment (17.25%), were retired (2.21%), disabled (0.44%), or did not provide this information (0.88%). The largest group of respondents was academic staff (32.44%), followed by post-graduate students (18.22%), consulting or commercial archaeologists (8%), undergraduate students (7.56%), government staff (5.78%), and museum staff (4.44%). While the proportion of people who identified their employment as being in the category of 'other' was high (23.56%), the alternate designations were all archaeological (eg., heritage consultant, PhD student, senior archaeologist) (Table 1).

Figure 1 shows the response to a question which asked respondents to rank a list of skills according to their importance to making a career in archaeology: volunteering, leadership, publications, grant funding, networking, international exposure, conferences, field experience, laboratory experience, teamwork, and mentoring. The most identified critical skill was field experience (29.33%), followed by publications (17.78%), networking (14.67%), volunteering (9.33%), grant funding (6.22%), mentoring (7.21%), leadership (7.11%), teamwork (6.22%), laboratory experience (0.89%), conferences (0.89%), and international exposure (0.44%).

In terms of individual contexts in which individuals operate, the data are revealing when analyzed in terms of the respondent's country of residence (Table 2). While this needs to be assessed carefully due to the small sample size for certain countries[1], the data in Table 2*** suggest that, while field experience is considered to be the most valuable skill for a career in

Table 1 Respondents' rankings of skills and experience in terms of their importance for establishing a career in archaeology

	1st priority	2nd priority	3rd priority
Conferences (%)	0.89	1.33	5.78
Field experience (%)	29.33	27.56	13.78
Grant funding (%)	6.22	11.56	12.44
International exposure (%)	0.44	1.33	5.33
Laboratory experience (%)	0.89	9.78	14.22
Leadership (%)	7.11	4.44	8.44
Mentoring (%)	7.21	3.60	2.25
Networking (%)	14.67	11.11	8.44
Publications (%)	17.78	14.22	10.22
Teamwork (%)	6.22	8.89	9.78
Volunteering (%)	9.33	6.22	9.33
	100	100	100

1 = most important. 11 = least important (S = 225)

archaeology in most countries, it is less important than networking in Germany, laboratory experience in India, and publications in South America. These differences highlight the importance of young scholars matching their career strategies to the situation in their own part of the world.

Perceptions of the relative importance of skills to making a career in archaeology varied according to the respondent's country of residence.

Field Experience

The survey highlighted the importance of field experience in pursuing a career in archaeology. This can be obtained through volunteering, discussed below, and through field schools, which we focus on in this section. While field experience is critical to establishing an archaeological career, fieldwork is expensive and it is not normally anticipated that young scholars will have directed large field projects. In addressing considerations regarding the tenure and promotion of classical archaeologists in colleges and universities in the United States, the Archaeological Institute of America (2013:2–3), for example, states that 'an expectation that younger scholars must direct large field projects outside the US prior to tenure may not be realistic, and can exert undue pressure on candidates.'

Field Schools

Field schools can provide the opportunity to acquire the professional skills you need to practice as an archaeologist. Several professional bodies, such
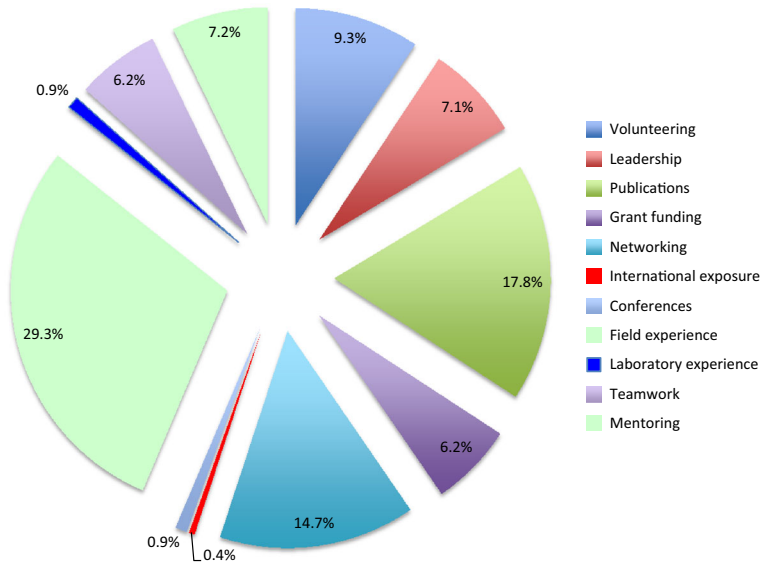
Figure 1. Perceptions of the most important skills for establishing a career in archaeology

as the Australian Association of Consulting Archaeologists Inc (AACAI), the Register of Professional Archaeologists (RPA) in the USA, and the Institute for Field Archaeologists (IFA) in Britain, have defined the skills they consider essential for professional archaeologists (Perry 2004).

As Mytum (2012:9) points out, field schools are different in different parts of the world. These are due not only to each field school being embedded in a unique local context, but also because they originate from, and are taught within, different regional traditions. As Baxter's (2009) study highlights, field schools in North America are considered to be a rite of passage during which students who plan to be archaeologists discover what excavation involves and begin to identify as archaeologists. In the United Kingdom and Ireland there is a tradition of members of the general public and school children being actively involved in archaeology and sometimes even commercial archaeological companies and units accept volunteers. A number of senior archaeologists today can trace their first experience to the field schools in which they participated as children (see, for example, Megaw 2012). In Australia, field schools are available through universities. They are developed for students, but non-students can usually enroll as paying short-course participants, or apply to attend as volunteers (Table 3).

Table 2 Respondents' rankings of skills and experience in terms of their importance for establishing a career in archaeology, according to the respondent's country of residence

	Argentina, Brazil and Colombia (S = 9)	Australia (S = 54)	Canada (S = 8)	Germany (S = 11)	India (S = 6)	Japan (S = 5)	Nigeria (S = 6)	Spain (S = 9)	UK (S = 14)	USA (S = 47)
Volunteering (%)	0.00	18.52	0.00	11.11	0.00	0.00	0.00	11.11	7.14	6.38
Leadership (%)	11.11	5.56	0.00	5.56	0.00	0.00	0.00	22.22	0.00	6.38
Publications (%)	44.44	11.11	25.00	11.11	0.00	20.00	16.67	22.22	7.14	25.53
Grant funding (%)	11.11	3.70	12.50	5.56	0.00	0.00	0.00	11.11	28.57	2.13
Networking (%)	0.00	22.22	12.50	61.11	0.00	20.00	0.00	11.11	7.14	6.38
International exposure (%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Conferences (%)	0.00	0.00	0.00	5.56	0.00	0.00	0.00	0.00	0.00	0.00
Field experience (%)	11.11	29.63	37.50	0.00	83.33	40.00	66.67	11.11	50.00	29.79
Laboratory experience (%)	0.00	0.00	0.00	0.00	0.00	20.00	0.00	0.00	0.00	0.00
Teamwork (%)	22.22	5.56	12.50	0.00	0.00	0.00	0.00	0.00	0.00	8.51
Mentoring (%)	0.00	3.77	0.00	0.00	16.67	0.00	16.67	11.11	0.00	14.89
Total	100	100	100	100	100	100	100	100	100	100

1 = most important. 10 = least important

Table 3 Respondents' ranking of publication types in terms of their importance for a) establishing a career in archaeology; and b) their importance to the discipline, assessed according to the age division of 35 years

	Most important for career building			Most important for the discipline long-term		
	Under 35 years (S = 66)	35 years and over (S = 157)	All (S = 223)	Under 35 years (S = 66)	35 years and over (S = 157)	All (S = 223)
Book chapters (%)	1.49	1.91	1.79	7.58	2.60	4.09
Exhibition catalogs (%)	4.48	0.64	1.79	3.03	0.65	1.36
Handbooks (%)	4.48	3.18	3.57	9.09	5.84	6.82
Conference proceedings (%)	0.00	3.18	2.23	0.00	1.95	1.36
Book reviews (%)	1.49	0.00	0.45	0.00	0.00	0.00
Journal articles (%)	62.69	56.05	58.04	36.36	31.17	32.73
Public opinion articles (%)	0.00	0.64	0.45	0.00	1.30	0.91
Publications for the general public (%)	1.49	1.27	1.34	13.64	10.39	11.36
Edited books (%)	1.49	2.55	2.23	4.55	3.90	4.09
Authored books (%)	22.39	30.57	28.13	25.76	42.21	37.27
	100	100	100	100	100	100

Figure 2. Students and staff of an ethnoarchaeology field school with members of the local Aboriginal community, Northern Territory, Australia

Field schools are a wonderful way of obtaining your first experience as an archaeologist. Field schools can be a safe environment for learning about how to work with Indigenous people and community members (Figure 2), how to organize and budget fieldwork or how to catalog artifacts, undertake basic surveying or experience excavation. Though it may seem trite, the most common organizational feature of modern scientific research is teamwork—the 'cooperation and co-ordination of people toward a common purpose or outcome in research' (Fox and Mohaptra 2007:544). In the field fundamental teamwork skills will include contributions to all aspects of the project (as in the lab, you cannot expect always to be doing the most interesting things), from something as simple as washing up your own plates and cups, collecting firewood, or cleaning up the camp, to packing and unpacking gear from the trailer, moving your tent to the outer reaches of the camp if you snore or taking a walk when someone is irritating you.

Field schools can also allow you to develop your area of specialization. For example, in Africa, you may be able to participate in field schools that focus on human evolution, such as the Olduvai Gorge Field School in Tanzania, or you could interact with different aspects of the Roman Empire through field schools in Greece, Turkey, Egypt, Italy, or Spain. Websites that advertise field schools include the Council for British Archaeology

(2014), the American Anthropological Association (2014), and ShovelBums (2014), which publishes an annual *Comprehensive Guide to Archaeology and Anthropology Field Schools.*

Field schools have grown steadily in popularity over recent years and you need to ensure you will be learning a range of practical skills. The best field schools have lectures associated with them and are not just looking for paying volunteers to finance their fieldwork. It is also a good idea to find out from your university before you commit whether the interstate or overseas field school can be accredited toward your degree in some way.

Networking

More than most professions, archaeology is about people. While your research focus may be people in the past, careers are made through your interactions with people in the present. Moreover, social and political action does not occur in a social vacuum. It requires a deep understanding of the contexts within which you are operating.

Networking means relationship building. This is one of the most important skills in any academic portfolio. Networking can help you to establish and develop new ideas, new insights, and new data. It can garner up-to-date information and provide you with different perspectives and pre-critiques of your work. Networking can help you to get to know people who can help you with your career, including your current and future research projects, your job prospects, or just your own view of yourself as an academic, researcher, or practitioner. By increasing your visibility, networking can make it easier to find a job or a colleague from whom you need specialist advice. It can help you to attract the right mentors and provide you with referrals for commercial opportunities or consultancies. Furthermore, the best mentoring is a two-way process: think about what you can give back to your mentor as part of the relationship.

Networking also can be thought of in terms of the 'key spaces' in which people acquire and develop the social, technical, and knowledge skills of archaeology. In addition to the fundamental qualities we have discussed above, being a successful archaeologist requires practical skills that can be gleaned in a variety of situations. This practical skill set will complement and enhance the knowledge and social aspects of the discipline.

Publishing

Publishing is the key way in which you establish and consolidate your reputation as a scholar. Research into what makes some scholars more prolific

than others (Hunter and Kuh 1987; Fox and Mohapatra 2007) suggests that high levels of publication activity (by no means the only indicator of a good scholar, but increasingly one of the most easily measurable) are associated with

- The completion of a doctorate at an early age;
- Being a member of a department with less intensive teaching loads;
- Being a member of a collaborative department (that is, having a network of productive colleagues);
- Early collaboration with mentors;
- Experience as a research assistant; and
- Active involvement in professional associations.

There are, of course, also many individual traits that cannot be generalized: 'In the final analysis, prolific publishing records are produced by individuals with enough ability to be credible, enough creativity to be interesting, and enough persistence to be extraordinarily successful' (Hunter and Kuth 1987:460).

Table 3 records responses to the instructions: a) rank the following publications in terms of their importance for establishing a career in archaeology; and b) rank the following publications in terms of their long-term importance for the discipline of archaeology. One of the most interesting results is the difference in the value that respondents gave authored books and journals when assessed in terms of career building vis a vis importance for the discipline. In terms of establishing a career, journals were ranked as the most essential form of publication (58.04%), followed by authored books (28.13%), with all other categories being assessed at below 4%. However, the patterning changed when the value of publications was assessed in terms of their long-term importance to the discipline of archaeology. Through this lens, authored books were considered most important (37.25%), closely followed by journal articles (32.73%). There was a large gap between these and publications for the general public (11.36%), handbooks (6.82%), edited books (4.09%), book chapters (4.09%), and other categories at less than 2%. When considered in relation to the age of the respondent (Table 3), the patterning shows a greater priority placed on authored books by respondents aged 35 years or older. In terms of their importance for establishing a career in archaeology, respondents under 35 years of age gave highest priority to journal articles (63.64%) followed by authored books (22.73%), with other categories ranked at less than 5%. Respondents over 35 years gave a slightly lower ranking for journal articles (54.61%) and a higher ranking for authored books (31.48%), with all other categories ranked under 4%. In terms of the long-term importance of publication types to the discipline, there was a slight difference in terms of the

age group of respondents. Respondents over 35 years of age prioritized authored books (42.95%), followed by journal articles (30.97%), publications for the general public (10.07%), and handbooks (6.04%). Respondents under 35 years of age prioritized journal articles (36.92%) and authored books (26.15%), followed by publications for the general public (13.85%) and handbooks (9.23%).

The results raise a serious point of concern for archaeology as a discipline—that short-term career building strategies in terms of publications will be to the detriment of long-term value to the discipline. These results reflect the current pressure on scholars to publish in journals with a high impact factor (a measure reflecting the average number of citations for recent articles published in that specific journal). The requirement to publish in such journals as an evaluation of the quality of scholarly production comes from the sciences, where the immediate impact of a publication is of great importance. However, in the humanities the most valuable research results for the discipline and the advancement of knowledge cannot always be encapsulated in a single journal article, or series of articles. For example, the discovery of a new archaeological site and a detailed study of its industries and chronological sequence may be of great significance to the discipline and may require an authored or edited book to collate all the information into one place. This explains why the majority of respondents consider that, in archaeology, an authored book has more value in the long-term than a journal paper. However, at the same time they recognize that a journal paper is more important in terms of the demands of evaluation committees. Therefore, it is advisable to find a balance in your resumé between the two types of publication to ensure your presence in the short, medium and long term.

In most systems, publications count toward getting a PhD scholarship, so publishing articles can make you a more competitive candidate. This can be especially important if your Honours degree was not quite high enough to be sure of getting a scholarship, but also establishes an early track record for productivity. As an emerging scholar you should publish in many forms: reviews, short reports, research articles, and book chapters. Grow your confidence to publish by producing some short publications like book reviews, conference reviews, or short reports. Weigh up the relative values of different publication venues. You need to think about the value of book chapters versus journal articles, and of four or five journal articles versus an authored book. Editing books or special editions of journals have both costs and benefits. The costs revolve around the time spent editing someone else's work versus the alternative of developing your own material. However, being the editor of a volume with good papers means that you will be cited regularly and this helps you develop a professional profile. It also shows your ability to network with other researchers in the

Figure 3. The publication process, by Nick D Kim, scienceandink.com

same field or area of expertise, and will enrich your view on the selected topic by adding different perspectives on a common subject matter.

It is important to match the article and the journal. Each journal has a particular remit that is outlined on the journal's web site and your paper needs to fit within that. There is as little point in submitting a paper on social archaeology to the *Journal of Archaeological Science* as there is in submitting an article on hard science to the *Journal of Social Archaeology*. If you think your work matches the needs of a particular journal contact the editor or a member of the editorial board and ask if they would be interested in your article. Also, it is critical to submit your article using the journal's reference style. In addition, it is a good idea to make sure that your review of recent work in the area includes recent work that has been published in that journal.

Publication does not have to be confined to ideas that worked, as indicated in Figure 3. If your paper is accepted subject to revision make the necessary changes and re-submit. A revised paper has a much higher rate of acceptance than a paper that is submitted for the first time. For *Australian Archaeology*, for example, 92% of resubmitted papers are accepted for publication (Burke and Wallis 2013:iii) because they have passed through a multiple review and feedback process. Even though it is often difficult to deal with the detailed critiques of editors and reviewers, many of them will have put a lot of effort into thinking about your argument, so

acting on their feedback can only make it into a better paper. Naturally, the paper is unlikely to be accepted if you do not address the critiques.

In terms of book publication, you should always write to a contract, rather than preparing a book and trying to place it. The latter can take years as you move from one potential publisher to the next, and may still end up unpublished. This is where networking may help you again—where do your mentors or colleagues publish and are any of them willing to introduce you to a publisher? Depending on the nature of the publication house, it is wise to contact the publisher, or series editor, in advance to ask if they would be interested in a book on a particular subject. They rarely respond well to 'cold proposals,' so it would be sensible to see whether there are any extant series in areas that involve your research so that you can tailor your proposal. If the publisher or editor has an interest in your area, they will send you the publisher's guidelines. Submit your book proposal according to these guidelines.

Whether you are writing a book, a book chapter, or a journal article it is important that you submit on time and with perfect attention to the detail of the particular journal's or publishing house's style (including referencing). This will help you to establish a reputation for quality and reliability. Also, printing presses are booked for particular publications and rescheduling can be costly and time-consuming. If you want to publish on an unusual topic and require help but do not know whom to approach, then ask your colleagues or mentors to suggest someone who could possibly help develop it for publication. This can be especially important when you are a junior researcher and trying to develop your own independent career.

While the analysis presented in this paper has focussed on publication in traditional print media, it is important to recognize the increasing importance of digital publishing and open access. We advise you to read the American Anthropological Association Executive Board's Statement on Electronic Publishing:

> Radical changes in the publishing landscape are reshaping writing careers in anthropology. To adapt to these changes, the AAA advocates both flexibility and an unwavering commitment to high standards of quality (AAA 2011:1).

Furthermore, it is important to document both tangible and intangible outputs from your work. As the American Anthropological Association guidelines for evaluating scholarship in terms of academic promotion and tenure state:

> Scholarship in the realm of practicing, applied, and public interest anthropology often produces a unique combination of tangible and intangible

products. Intangible scholarship must also have tangible documentation in a candidate's curriculum vitae and promotion and tenure dossier. The application of such intangible products to tenure and promotion considerations should be documented by the faculty member through accounting of the trajectories of such projects; letters of evaluation from community partners that specify possible positive impact upon the community; constructive relationships with the community; advancement of new initiatives; and letters of evaluation by other anthropologists who have worked on similar kinds of initiatives. Identifying appropriate external peer reviewers who are knowledgeable about the nature of practicing, applied, public interest, and engaged anthropology is crucial to the evaluation of impact of such scholarship (AAA 2011:2–3).

When publishing, you should have a mentor with a graduate degree and publishing experience to read and comment on your paper before submitting. Generally, you should wait until you are in your graduate training to do this, as the skills of reading and writing scholarly literature to fit into the field are not developed until this time. Publishing before you have a subtle understanding of these dynamics can make you a stand-out in a bad way.

Peer Reviews

Much of your scholarly work will be subject to peer review. Your grant applications will be peer reviewed. Your conference abstracts will be peer reviewed. As captured in Figure 4, peer review can feel like running a gauntlet of people whose aim is to stop you from publishing your ideas. However, this apprehension can be a good thing. The fear of peer review can motivate you to do better work, in much the same way that the psychology of an exam will motivate you to study. Moreover, peer review is an opportunity to improve your publication—and it is far better to get the criticisms before you publish, rather than after.

Most publication venues (especially journals, but also book publishers) and some funding systems will allow you to respond to the comments of reviewers. The overall tone of your response should be reasonable, not defensive or aggressive. A response is your opportunity to point out errors of fact or possible misinterpretation of your text, rather than to attack the reviewers and should always be done in a moderate or neutral tone. It is reasonable to point to differing theoretical approaches that are taken by the reviewer and yourself, but it is foolish to criticize the reviewer for their opinions. The people who have chosen the reviewer have done so because that person is an expert, so a criticism of them is also a criticism of the
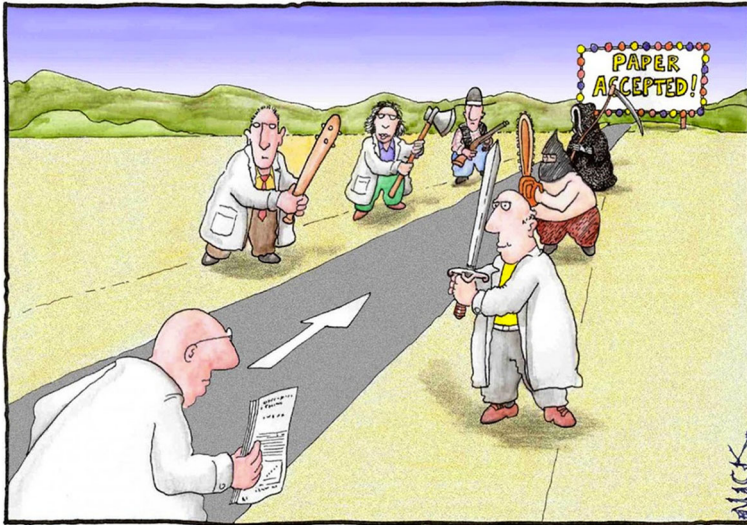
Most scientists regarded the new streamlined peer-review process
as "quite an improvement."

Figure 4. The peer review process, by Nick D Kim, scienceandink.com

person who chose them, and who may well be making the final decision
on your work.

The process of peer review can take considerable time, as it calls upon
other scholars to schedule the review into their own work schedules. It can
take from as little as 3 months for an unproblematic paper (not many fall
into this category), to 2 months to 1 year, sometimes longer, for an article
to move through the stages of submission, peer review, and revision to
acceptance and print. This means that building a publication profile takes
time—if you need to do it to help you get a scholarship then you will need
to start submitting articles well in advance of the scholarship date.

There are movements toward changing the peer review system to match
the capacities of a contemporary interconnected world. In 2012, Elsevier
(2012) launched a peer review challenge in which they sought ideas for
improving the system. One idea that came forward was to develop a system
of peer review badges that recognize the number of reviews that an indi-
vidual has undertaken (Gosling 2012). Such a system could be useful to
early career researchers, as it would recognize the effort they put into peer
reviews. Elsewhere, Rosindell and Pearse (2012) propose a new system for
peer review in which submitted manuscripts are made immediately avail-
able online and commissioned and/or voluntary reviews appear online
shortly afterward. In this vision peer review is a public process, open to

public scrutiny. While transparency is a good thing, such a system could also make the peer review process open to dispute and therefore even more lengthy. Our point here is that the peer review system is here to stay, whatever form it takes, so success means you need to be able to work with it, rather than against it.

Volunteering

Volunteering is an important way for students to obtain some of the basic skills that are needed to be an archaeologist, and to get 'real-life' experience that can help to determine if archaeology is really the best career choice. The main places where students can seek volunteering experience are with museums, universities or other types of field schools, consulting companies and, occasionally, with university academics on specialist research projects. In addition, Non-Government and Non-for Profit Organizations such as the National Trust, local historical societies, and organizations that run historic properties and conservation groups, often need volunteers.

People can acquire distinct skills from different volunteering opportunities. For example, if you are volunteering as a guide for an historic house, you are acquiring the skill of communicating archaeological and historic information to the general public. If you are volunteering as a research assistant in a laboratory you are obtaining the skills of detailed observation, identification, and recording of a specific artifact type or types, as well as related skills, such as database management, time management, and research. If you are undertaking volunteer fieldwork with a commercial organization you are acquiring experience in practical fieldwork and/or excavation and basic artifact classification, as well as (sometimes) the inner workings of project management or public outreach.

Commercial Versus Research Volunteering

There are various industries that you can volunteer in, and it is important to experience a variety of situations so that you can determine the future employment that best suits your interests. Both commercial archaeology consultancies and research-based institutions (such as universities) have their advantages and disadvantages. Volunteering for commercial enterprises enables you to 'test-drive' different companies (and vice versa), and provides the best opportunity to see what it is like to work within the cultural heritage management industry, which ultimately operates under strict deadlines and particular sorts of pressure (relating, for example, to the continuous search for new work [the tendering process], or the

complexities of negotiation with Traditional Owners, landowners, clients, government, and others). Alternatively, volunteering on a research project could provide you with a new set of skills. Ideally, you will be learning directly from the leading experts in that particular time period and region, and will be exposed to current archaeological methodologies.

Field Work Versus Lab Work Volunteering

During your studies, it is a good idea to gain experience in both fieldwork and laboratory analysis. Fieldwork is where you gain the opportunity to learn skills, including survey and excavation. However, lab work is also a necessity as an archaeologist. It is in the lab that most data analysis occurs. While spending a seemingly endless number of days sorting through very small sieve fraction residues might not be glamorous, all of these contribute to the overall archaeological interpretation of a site and will be essential to the completion of the project. The key quality to lab work is persistence—many students volunteer to help out in a lab, but few come back after the first 2 weeks. Lab work is repetitive and requires you to stick at a task until the job is finished. If you work in a consulting context you will be required to process the results of all your fieldwork fully anyway and your timelines will be much less elastic, so learning persistence as a volunteer will stand you in good stead later. Essential skills that lab analysis can teach you include artifact identification and recording, drawing, and photography.

Local Versus Interstate Versus International Volunteering

Where possible, it is advisable to try a range of different volunteer localities. For example, Australian States and Territories all have different cultural heritage legislation, and, while this can be confusing, it is a good opportunity to enhance your local knowledge. Similarly, where possible and if you can afford it, volunteer overseas. There are many opportunities to volunteer internationally. In addition, many field schools accept paying participants or volunteers who are charged a fee for accommodation and food. For an international experience, along with airfares, travel insurance, and transfers, volunteering can be quite expensive, although the benefits will usually outweigh the costs. You will experience another culture, learn how foreign archaeologists work, understand a completely different legislative and cultural context for valuing archaeology and artifacts, and meet fellow students from potentially many countries; such an experience may even prompt you to decide to pursue a career in a different archaeological area than the one in which you were originally interested. Before investing

money in volunteering overseas, it is a good idea to find out what other students thought of the experience and whether or not it is suitable for your needs.

However, having presented a positive case for volunteering, it would be remiss not to offer a word of caution. The potential for unpaid labor can reproduce existing economic and ethnic inequalities. Some issues arising from volunteering, such as predatory unpaid internships, have been discussed on the Twitter hashtag, "#freearchaeology." You should be certain to think long term about how the opportunities for skills-building you accept as a volunteer will serve your career overall. Moreover, it is not necessary to learn all your skills via volunteering. You should attend a field school and take lab courses, and choose volunteering opportunities carefully to supplement those you cannot obtain in a traditional academic setting.

Grant Funding

Your ability to secure employment as an academic will depend in part on your grant-getting abilities. Funding involves a reciprocal relationship: you want funding for your project and the funding body has a mission to give funding. This is the basis for a perfect relationship! The trick is to turn this potential for a perfect relationship into an actual relationship (which may well have some flaws or points of tension, of course).

The relationship starts when you first seek funding. When seeking support, especially from a foundation or industry partner, one of the first steps is to match the project to an appropriate funding source. You need to make certain that your project can fill the criteria of the funding organization. The next step is to contact the organization and identify the point person for your specific grant. Try to make an appointment to see them to discuss your project, assessment criteria, the average size of grants, and so forth. If you can not get to see the people, try phoning them. The main purpose here is to make them aware of your project and to ensure that you tailor your application to meet their funding requirements and follow their application procedures. In addition, this is an opportunity for you to identify any problems they may have with your project and to address these in your application. Beyond this, you should be listening to see how you can shape your project so it fits more neatly with their aims. The closer the fit between your project and the organization's mission, the more likely you are to obtain funding. The establishment of a relationship is integral to this process—hopefully, a long-term and productive relationship. Like successful personal relationships, successful funding relationships are based on good communication, and the desire to further the needs and

objectives of the partner, not just your own. Two-way communication is fundamental. Your funders should keep you informed about their requirements, especially if there are any changes that might affect you. Likewise, you need to keep them informed about your project, and communicate both your successes and the problems you have encountered. Some funding agencies value candid feedback on their programs, but we do not recommend this unless you are responding to a specific request. Your reporting, of course, is the main way in which you nurture your funding relationships, so you should be vigilant in this.

Like other organizations, funding agencies need to be able to demonstrate the value of the work they fund. You can help them by writing a clear application that includes a dissemination plan and also by assisting them to advance their agendas to fund specific types of projects, but also by giving them public recognition. The success of funding institutions is dependent on the extent to which their grantees achieve results that are congruent with their mission statement. From the point of view of a relationship, it is not unreasonable to think of your application less as a plea for funding than as a chance for the funding agency to support your project to help them achieve their own objectives.

Thinking locally. Look for funding from your university, state historical societies, state government programs, or community groups. Think not only in terms of cash but also in terms of in-kind support. Local councils, interest groups, and schools can be willing to donate goods and volunteers to assist with fieldwork. A good example is a local school and council who helped hire a backhoe to move overburden for an excavation. In return, the researcher allowed the school to visit the site and also gave a talk at a weekly assembly.

To be successful you will also have to think nationally. National research funding programs include the National Science Foundation in the USA, the Australian Research Council, and the Social Sciences and Humanities Research Council in Canada, or the Ministry of Economy and competitiveness in Spain. Think also in terms of federal programs aimed at promoting cultural heritage. Potential funders here include the Wenner-Gren Foundation (2014), the National Geographic Society (2014), the Getty Foundation (2014), and the European Union (European Commission 2014). Often countries have reciprocal agreements and these can be a source of project funding. The most notable example here is the Fulbright program (Bureau of Educational and Cultural Affairs 2014), which operates in 78 countries. Groups such as Earthwatch (2014) have an interest in archaeological and cultural projects and can help organize groups of volunteers to help with surveys and excavations. However, in return you have to be prepared to 'entertain' volunteers with after-hours talks and slideshows.

While it is legitimate to approach more than one funding source, you should never 'double-dip.' (i.e. submit the same application to two different bodies at

the same time). Instead, can apply for funding from different bodies for different aspects of a project. For example, you might seek funding for excavations from one source, radiocarbon dates from another, and an interpretative exhibition from yet another. If you do this it is important that you cross-reference each of your applications. Use funding for a pilot project to establish the basis for a funding application for a larger project. Take the time to re-write a great application to make it greater—and more likely to get funded.

Not all assessors will be specialists in your field. Ask the grant officer or read the description of the grant for information about who reviewers will be, and write to that audience. Often, you will need to write for a general reader. One way to test whether your application is clear is to have a non-archaeologist read it. If they cannot understand what you are doing you should rework the application until it is clear.

In writing your application, do not be overly critical of previous researchers in your area. No matter how innovative your research might be remember that you are building on the work of others. No one can do everything—and no one can do everything right. Also, the people you are criticizing, or their supporters, may become reviewers of your application. Moreover, it is important that you take the budget seriously. The budget is one way an assessor can determine how thoroughly you have thought out the project. Budget items need to match the budget justifications, line by line. A sloppy budget indicates a sloppy or rushed application and implies that this is the attitude you adopt in your research.

Mentoring

Mentoring was assessed by 6% of respondents as the most important skill for pursuing a career in archaeology. Given the other categories, this was a relatively high figure. In our view, mentoring is an essential facet of career building. Your first points of contact in term of obtaining mentors are your supervisors and teachers. Good mentors play a crucial role in career development and have been linked to higher levels of research and publication activity, a positive attitude to knowledge production, and the acquisition of particular research interests and skills (Hunter and Kuh 1987). A first step to finding a good mentor (or more than one if you are lucky) would be to identify a senior colleague or colleagues whose research interests you. Then you need to get noticed by them: this may be as simple as volunteering for a project they are running, or offering to help them with their research in some other way. Of course, you will need to impress them once you have gotten their notice by performing well and consistently, and encouraging a positive opinion of your work and abilities.

A good mentor and the networks they can connect you to will help to get your ideas into disciplinary discussions and may make you someone who is identified in terms of job or research prospects. Once you have established a reputation (no matter how small or modest), networking is the mechanism that will enable you to leverage that into other opportunities. It is about reaching beyond direct contact with the people you know so that these contacts become supporters who recommend you when the opportunity comes. It can open doors to people you would not be able to reach on your own, and it can open those doors a little wider, although they will not stay open for ever. A related approach is to consciously follow a role model. Identify someone who is in the position that you would like to achieve and analyze their curriculum vitae in terms of the steps they took at various stages of their career. If you do this with several people you will quickly come to understand the stages of an archaeological career—and be able to place yourself within that overall trajectory.

One word of warning in terms of networking is that it works both ways—it is not just an opportunity for you to leverage your own chances, but also an opportunity for you to give back to the people who helped you. For example, you always need to be conscious that, if your mentor recommends you for a job, a project or a grant, then you are representing them as much as yourself, so you need to reinforce their faith in you. For example, if a field opportunity is made available to you through a colleague, you need to make that recommendation work for the person who has taken you on. Ideally, the person to whom you have been referred will go back to your referrer and thank them for sending you to them. If they go back to that person with a complaint about your behavior, however, you may have lost an advocate. When you become an established researcher you may be able to help your former mentors in several ways, for example, by collaborating with them on projects or publications, or by inviting them to speak at conferences or other events.

Choosing Referees

If you can, ask your mentor to be a referee. A referee is someone who can give an informed opinion on your work. A good referee will vouch for your research abilities or your behavior in the workplace. The fundamental criteria for choosing a referee are reputation in the discipline; standing in the particular situation; knowing and valuing your work; and willing give you a good reference. Some references will be verbal and some will be written.

A good referee will have a high reputation in the field. Their opinion needs to count. Your referee needs to have specific disciplinary knowledge

and to be recognized for this knowledge. Sometimes, your referee may have a relationship with someone on the panel. This can work to your advantage if that relationship is good, but it may work against you if that relationship is antagonistic. The referee needs to know and value your work. They need to have taught you or worked with you, so they can describe how efficient and reliable you are, how you respond well to direction but are also self-motivated and your many other fine attributes.

Once you have identified the referee that you want, you need to contact them and ask for their permission to give their contact details to potential employers, or to write a reference for a particular situation. You need to be certain that your referee will write the reference. Not all referees respond to requests for written references, and if they do not, this reflects badly on you, as it indicates that they do not value you and your work highly. You can control this to some extent by reminding the referee a few days before the reference is due. One way to approach this is by asking if they need additional information or if you can assist in any way. Sometimes it will help a referee if you write a first draft, outlining when you met and the situations in which you have worked together.

It is a good idea to identify three to four potential referees, including national and international colleagues if possible. It is advisable to list your most recent supervisor, as their omission may seem a little strange. If you do not have a good working relationship with them, then a fellow archaeologist from the same university or company may be an adequate replacement.

Leadership

Around 6% of respondents assessed leadership as the most important skill in pursuing a career in archaeology. Leadership is defined by the Oxford Dictionaries (2015) as 'the action of leading a group of people or an organization.' Leadership styles vary according to culture, age, and gender. For leaders to be effective, their style needs to marry well with the people for whom they are providing leadership. If you are going to develop into a leader you need to be conscious of the contingencies of the particular context in which you are operating. These vary in different parts of the world, sometimes quite dramatically—leadership is enacted with a set of cultural rules. Major theories and models of leadership as they pertain to either gender or culture are reviewed by Ayman and Korabik (2010), who contend that the focus of leadership studies have been on

> the similarities, rather than the differences, among the situations faced by men and women leaders and leaders from various cultures and ethnic

backgrounds. Taking this stance, however, fails to acknowledge that additional factors related to the labyrinth (eg., stereotypes and schemas, ingroup–outgroup dynamics, role expectations, power and status differentials, and differential attributions made about and rewards given for similar behavior) can have an important impact on many aspects of leadership (Ayman and Korabik 2010:157).

All of these factors need to be taken into account if you are going to develop as a leader. Practical ways to develop your leadership potential include

- becoming actively involved in professional associations,
- taking a leadership role in a student organization,
- establishing your own student association,
- establishing a student publication,
- convening a conference or symposium.

Student groups can be part of mainstream archaeological associations. Examples of this include the Student Association for Archaeological Science, the Nautical Archaeology Students Association, the Students Association at University of Nigeria and the Student Committee of the World Archaeological Congress. In addition, universities may have archaeological societies run by students. These include the Archaeological Students Association Club at Boise State University in the USA, Chacmool at the University of Calgary in Canada and MAE-USP, and the Students' Council of the Museum of Archaeology and Etnology at the University of São Paulo in Brazil, who organize a highly successful bi-annual conference (Figure 5).

In Australia, the Flinders Archaeological Society has been a forum for developing leaders through its organization of the National Archaeology Conference in 2014 (see papers in this issue by Arthure, Iwahashi and Donnelly) and through the publication of the refereed journal, *Dig IT* (Figure 6). As Ralph et al. (2013:8–9) point out, student organizations can assist in social and personal, as well as professional, growth.

Our final point in this section is that leadership is a collaborative enterprise. The most effective leaders are those who inspire and support others to achieve their own goals within a shared vision. Effective leaders are part of effective teams.

Figure 5. Student's Council Members at the 3rd Conference of the Archaeological Museum at the University of São Paulo—Brazil (2013). Photo by Ader Gotardo, courtesy Tiago Attorre

Teamwork

Unlike disciplines such as anthropology and history, archaeology is almost always undertaken as part of a team. It is important that team members get on, especially if the work is being undertaken in a remote region, but also for the success of the project, regardless of where it is located. Teamwork also is important in terms of political change. Good teamwork is not necessarily being the most outspoken person on the team or the fastest worker on the job. The most useful team member is someone who sees when a job needs to be done and does it without having to be asked, does not ignore the small, ordinary, repetitive tasks in favor of the larger, more varied or exciting ones, persists at a task until it is completed to the best of their ability, asks for help when they need it, but can also work independently without having to be monitored and is genuinely interested in all parts of the process. If this describes you then test yourself on a field school, but monitor your behavior and reactions to various pressures, and the reactions of others to you—most people think they behave like this routinely, but in fact very few do. Knowing yourself well enough to be honest about your capacities, strengths, and weaknesses is the first step to becoming a good team member.

Just as good teamwork is essential to being a successful archaeologist, collaboration can be an excellent way of broadening your skills-set, widen-
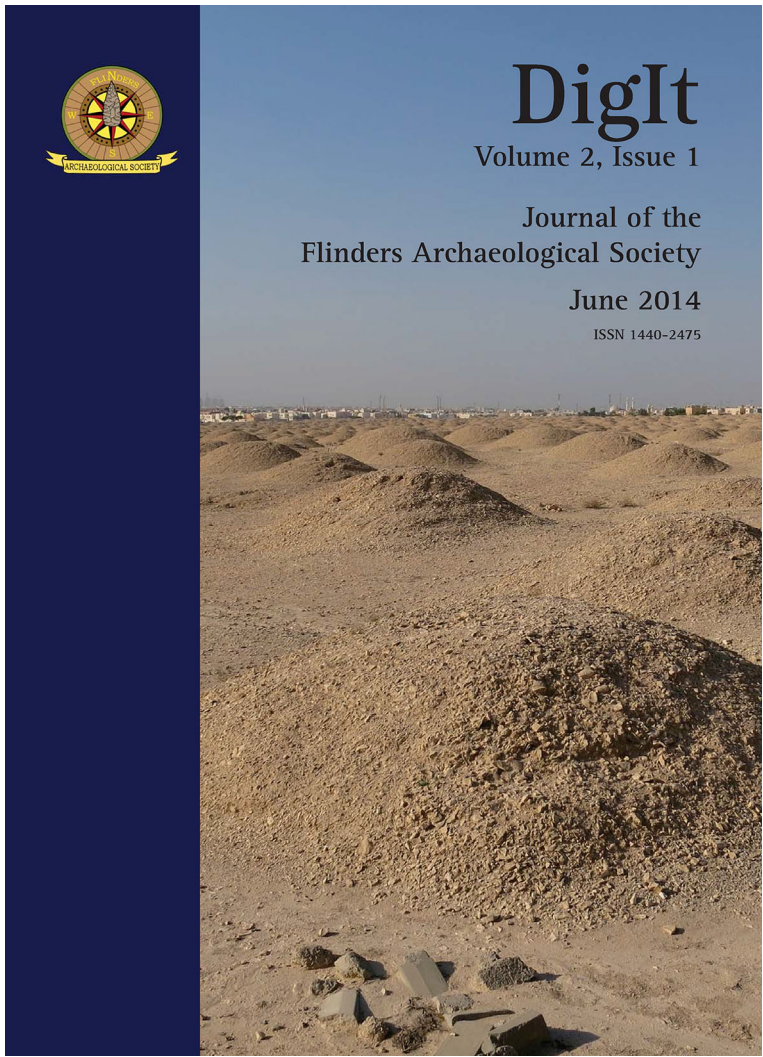
Figure 6. Cover of *Dig It*, the refereed student publication of the Flinders Archaeological Society

ing your network of peers, strengthening a project, or engendering change. As opposed to teamwork, which is usually defined as cooperation between people of equal and unequal rank, eg., professionals, students at various year levels, and community members, collaboration involves networking with your direct peers. Collaboration is often identified with high levels of productivity, because it involves pooling ideas, skills, energy, and time in

research (Fox and Mohapatra 2007:545). At the university level, collaboration with other researchers inside your own department, but especially with researchers *outside* of your university, has been found to correlate very positively with productivity, particularly high levels of publication outputs (Fox and Mohapatra 2007:562). The key to successful collaboration is being part of a network of productive colleagues in an environment that rewards research activity and provides opportunities for it, as well as fostering team research generally (Hunter and Kuh 1987; Fox and Mohapatra 2007).

Smart collaborations can add specialist skills and expertise or valuable research strengths. They can garner additional funding or in-kind support, lead the way to new publication options or provide new opportunities to develop your ideas. Smart collaborations will increase your publication output, not only in terms of producing more data but also because co-authors can push you to finish a paper that might otherwise stay in draft stage for years. Research also suggests that co-authored papers fare better in the publication process than sole-authored ones (Fox and Mohapatra 2007). Remember, however, that you do not have to accept all offers to collaborate. You can be selective about what projects you want to focus on and researchers with whom you wish to affiliate.

It is important that the basis for the collaboration is established from the beginning. It is especially important that you are clear about intellectual property. Normally, all parties will bring intellectual property to the collaboration while new intellectual property will be generated. It is important to be clear about what can be shared and what needs to stay with the individual. If you are co-writing a paper you should establish the order of authors at the beginning, so that it reflects your shared expectations of the relative percentage each author will contribute. Author order should only be in alphabetical order if the work is equally shared. If you are publishing a book with other people, you should establish how the royalties for the book should be distributed at the time the contract is drafted. Normally, they would be distributed according to the amount of work each person has undertaken. However, when the project is finished everyone knows how much work they have done, but they are not fully aware of how much work has been done by others. As an archaeological publisher (Mitch Allen, pers. comm. 2014) once told one of us, if a book has three authors and you ask each of them for their relative contribution to the book, the chances are that each author will say that they have contributed 60% to the final product. Jointly working out your expectations at the beginning of the project and clarifying them in writing can save much potential misunderstanding and angst later.

International Exposure

While only one respondent felt that international exposure is critical to making a career in archaeology, our view is that it is increasingly important to be international in your outlook and to obtain international exposure for your work. This can be done through publications, networking, conference participation, and international field schools or volunteering.

In the long-term, however, internationalization has its own challenges, particularly in terms of different access to resources and cultures of employment. In a paper on using internationalization to develop a world-class research environment in Mexico, López Varela (in press) states:

> Having recognized the advantages of an international dimension of education, its emphasis on creativity, flexibility, and collaboration with an international network of scholars (Aufderheide 2011), it is difficult to return to a working culture that arguably was not trained for internationality and arguably is not ready to accept new research fronts. (López Varela in press)

Conferences

While conferences were not identified by any respondents as critical to making a career in archaeology, they are critical to other aspects of career building, such as networking, publications, mentoring, leadership, and international exposure. Conferences serve three principal purposes for emerging scholars. Firstly, they are an opportunity for you to get your work known by others in your discipline. Secondly, they allow you to see presentations by others and to ask them about their work, improving your own in the process. Thirdly, they are a great opportunity to network.

One question that will arise will be whether you should concentrate on national or international conferences. Sometimes there will be funding for you to attend one or the other and you will have to choose. While each is important, they also have specific value that you will have to assess in terms of your own situation and aspirations.

National conferences are important for developing your reputation at a national level and for networking within your own country. The great value (and sometimes the most unnerving aspect) of national conferences is that the people who attend are best placed to critique your work, since they work in the same region. This can be daunting. However, it can also sharpen your edge and make you especially prepared for any criticisms, and may set your paper closer to publication standard. Remember, it is also highly likely that the people attending local and national conferences

will be the same people who review your future papers and grant applications, so make a good impression.

International conferences will extend your global networks, allow you to present to a much wider and diverse audience, and develop an international network. However, these can often be daunting for different reasons, particularly when they are in a country you have not been to before. If possible, try and arrive early to recover. Become familiar with the conference venue, and attend as many talks as you can, to see what and how other people are presenting. Some conferences have special student sessions, designed specifically for early career researchers.

There are different traditions for giving conference papers in different parts of the world. In North America, papers are predominately read aloud from a written text. If you are following this format you need to make an effort to add in spontaneous comment where you can and to be sure not to read monotonously. In other parts of the world, it is more normal to speak through a power point presentation. In this case, you need to make sure that you have sufficient facts in your presentation to support your argument. Visual presentations are enhanced by images but pretty pictures are no substitute for data.

People often ask if they should present an oral paper or poster. Ideally, both are the best answer. An oral paper allows you to speak directly to the audience for 10–15 min. However, many international conferences have very large number of attendees and there may be several sessions happening at once. This means that only few people may attend your paper. Poster sessions usually run for an hour or two, and often the posters are displayed for the entire conference, or at least a day. This means that you can potentially reach a far wider audience. Therefore, it is best to try and present both.

During the poster session, make sure you are present at your poster, and be ready to answer any questions. It is also becoming more common for people to provide smaller versions of their poster for others to keep. While this may seem like a good idea, if you have not yet published your results then it could compromise your project. It is best to provide business cards for people to take so that they can contact you at a later date if they have any additional questions. In addition, it is a good idea to leave a piece of paper and pen with your poster so people can write down their name and contact details if they would like further information or a copy of the research when it is published. This is especially important if your poster is up for a day or the entire conference.

Academic, Commercial, Government, and Museum

We wanted to identify the specific skill sets that people felt were necessary for different types of employment in archaeology. Accordingly, a qualitative question in the survey asked respondents to list one or more skills that are important to becoming a successful archaeologist in the four principal employment sectors in archaeology. For academic positions, the responses included 'recognising links,' publications, collegiality, dedication, collaboration, community engagement, field experience, laboratory experience, grant funding, teaching experience, research experience, professional writing style, capacity to integrate information in new ways, analytical thinking, organizational skills, teamwork, ability to write for different audiences, mentoring, speaking English, age, gender, conference attendance and presentations, international exposure, mentoring, talent, expert, networking, writing skills, public speaking, time management, lecturing, budgets, leadership, communication, teamwork, innovative research, curiosity, willingness to learn, willingness to work with others, laboratory experience, attending a recognized institution with top-tier scholars, empathy, understanding cultural values, familiarity with scope of archaeological and heritage in theory and practice, wide-ranging research ability, reading papers in English, French, and German, being able to read source materials in various national languages and being lucky. Pertinent insights are indicated in the comments 'working closely with government, consulting, and museum archaeologists—where a lot of the best new data is' and, partly in jest, we suspect, 'sleeping fewer than four hours a night.'

For government positions, the responses included knowledge of legislation and guidance, knowledge of loopholes in legislation and guidance, understanding how government works, strong field skills to be able to monitor fieldwork and anticipate logistical requirements, being up-to-date with academic research agendas, making good relationships with local government, work capacity, teamwork, leadership, mentoring, grant writing and submission, writing, practical management skills, interpersonal skills, field experience, applied experience, laboratory experience, policy development and implementation, teamwork, facilitating, negotiation/conflict resolution, ethical standards, consensus building, mentoring, training in four-field anthropology, internship, being a veteran, knowledge of national and international cultural resources legislation, administration, interpreting legislation, and a clear understanding of Government Acts and policies especially when it comes to heritage management and Indigenous issues. Pertinent insights are indicated in the comments 'well connected' and 'speaking bureaucrat and how to fill out paperwork properly.'

For consulting and commercial positions, the responses included being familiar with national occupational standards, collaborate with government advisers, liaise closely with relevant academic experts, best practice, professionalism, engagement, business practice, teamwork, legal or regulatory experience, grant writing, leadership, field experience, laboratory experience, networking, work capacity, a good understanding of cultural heritage, self-starter, applied experience, deadlines, age, gender, budgeting, networking, project management, multi-tasking, meeting deadlines, consultation, communication, cultural awareness, research, skills in remote sensing and other archaeological technology, practical training in archaeological field methods, specialized analytical training (faunal analysis, GIS), teamwork, personality and effort, excavation and post-excavation (field experience), and business skills. Pertinent insights are indicated in the comments 'living with undercutting', 'willingness to go where the money is' and 'not developed in Mexico'.

For museum positions, the responses included museum international collaboration, community outreach, skills in working with children/teaching, best practice, professional expertise, public presentations, webcasts, conservation experience, laboratory experience, field experience, grant funding, publications, passing exams, volunteering, work capacity, international exposure, ability to communicate, curating skills, artifact identification, speaking English, age, gender, conferences, curation training, networking, collections management, ability to interact with people, grant writing, interpretation, strong organizational skills, curiosity, patience, observational skills, technical knowledge of objects, knowledge of museology and heritage theory, publication, outreach, design skills, ethical awareness, public tendering, archival and library skills, community/public engagement, and opportunities to gain museum experience. Pertinent insights are indicated in the comments 'videoing exhibitions for public that cannot physically visit museum' and [develop the] 'huge potential to interact directly with [the] public and influence opinion—eg., in UK, history of the world in 100 objects radio series.'

Discussion

Starting a career in archaeology, whether along an academic or commercial trajectory, can seem daunting. However, there are many opportunities available to help you expand your skills-set, specialist knowledge, and peer network. The core task, however, in learning how to be a successful archaeologist, is to take a good look at yourself—your needs and skills and your limits and anxieties—and work out how you can maximize your advantages and work at your disadvantages. It will also help if you develop your

understanding of the working environment around you. If you want to be a successful academic, for example, but do not find yourself in a collaborative or cosmopolitan department, think about finding another position, or becoming involved in projects with colleagues in other departments. Women face particular challenges: they are often discomfited by the prospect of marketing themselves and also tend to exercise more caution and attention to detail in their publications; as a result, they publish more slowly (Fox and Mohapatra 2007:561).

This paper has focussed on practical strategies for achieving employment in archaeology. By making explicit values and practices that are normalized by dominant groups, this paper addresses the impact of colonialism on the employment of minority groups in archaeology. While there will be regionally specific strategies for different parts of the world that we have not identified, the actions we suggest here are generally applicable. Our advice is to understand the context within which you will be working, identify the skills you need and acquire them, develop your networks, and to try everything that is available. You need to develop complementary knowledge and skills and to keep increasing your knowledge to advance your career, whether that means staying current with skills and technology and their various uses, or keeping up-to-date on the literature. Take any opportunity—seminars, conferences, short courses, workshops, independent reading. Think locally, nationally, and internationally. When you are employed, you can play your part in creating a more equitable world.

Finally, we note the need to acquire more sophisticated theoretical and analytical tools to understand the barriers and enablers to archaeological employment by minority groups. There is a need for case studies and global comparisons in which gender, ethnicity, sexuality, and other aspects of identity are theorized as relational, and as spatially and temporally contextual. As Goldin (2014) has argued for gendered contexts in high-income countries, tackling inequality in employment may need major changes in the way the labor market is structured. In archaeology, targeted studies are required to provide the nuanced data that can be used to underpin equality of opportunity in archaeological employment.

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Note

1. We have amalgamated the data from Argentina, Brazil, and Colombia in order to develop a more robust sample for South America. There are differences between these countries, but it is difficult to determine how secure these are, due to the sample size.

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