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Health and Safety for NZ Archaeologists in a Post-Covid-19 World

Simon H. Bickler (*Bickler Consultants Ltd.*)

Jennifer Low (*Clough & Associates Ltd.*)

Introduction

As we emerge from lockdown, it seemed timely to bring up the issue of Health and Safety as the largely ignored part of archaeology in New Zealand. Debate over “professionalism” for New Zealand archaeologists focuses on questions regarding the setup of a professional organisation, research objectives, or measures of quality standards (see O’Keeffe 2020 most recently), but neglects those areas of professionalism that are not overtly connected to heritage places and things. It is important to emphasise (see Bickler 2018) that there is much more to the archaeological profession than sites, artefacts and publications. The health and safety of archaeologists is perhaps the most important of these neglected aspects.

Until recently, archaeologists have been relatively relaxed about health and safety. With the growing number of excavations and the increased engagement of archaeology in land development projects, this attitude is no longer feasible in a professional environment. Early images of archaeologists working on excavations in New Zealand illustrate a diverse approach to health and safety, with many photos showing archaeologists in casual clothing, especially during summer beach excavations, and the occasional image of archaeologists wearing formal clothing where a suit and tie projects a more scientific professional demeanour.

There are no recorded statistics related to injuries on archaeological projects but anecdotally, minor cuts, sprains and bruises are commonplace during fieldwork. In addition, many archaeologists complain about long-term issues such as back and joint pain, wrist injuries and arthritis. Even more difficult to assess are the “near-miss” injuries that archaeologists have had during project work. Stories about close brushes with diggers, encounters with angry landowners, animals, and electric fences, and getting lost in the native bush are told, usually after a drink at conferences and pubs.

Health and Safety at Work Act (2015)

The Health and Safety at Work Act 2015 (HSWA) came into effect in 2016 and sets out the principles, duties and rights relating to health and safety in the workplace in New Zealand. There are dedicated resources for workers and employers at the workplace.govt.nz website.

Awareness of legislative health and safety obligations is essential for all archaeologists whether they are working in heritage management, on research excavations or as volunteers. Responsibility for health and safety rests not just with the archaeologists who undertake work, but also with the clients and contractors who employ or work alongside the archaeologists. Legislation in New Zealand imposes statutory responsibility on employers, companies and contractors working on a job to ensure that safe workplaces are provided. There are serious penalties for failing to meet those requirements.

Organisations must have a policy to conduct business without risk to all persons directly or indirectly associated with their projects. Health and safety are required to be of at least equal in importance to productivity, efficiency, and cost. Company policies should be implemented and articulated to all staff with regular updates regarding the importance of Health and Safety in undertaking work. This is described in the HSWA as an organisation’s “primary duty of care” (WorkSafe 2017).

The policies implemented by companies focus on ensuring that Health and Safety becomes everyone’s responsibility. Projects run with a “safety” culture are much more successful but rely on making sure that everybody works together to keep everybody safe. These policies incorporate a strategy of Risk Management. Risk management means that everybody is involved in identifying, assessing, eliminating, and mitigating risks and that this is done continuously throughout the project. Policies are implemented through safety inductions, project meetings and other formal and informal processes that allow all parties to communicate what is going on with a project and to discuss the health and safety risks.

Archaeologists may feel peripheral to the main construction work being undertaken and may not behave in ways that are predictable from the perspective of construction works. Communication is therefore crucial to survival. Getting buy-in to the archaeological work from the other project workers can ensure greater care being taken in managing the archaeology, and the archaeologists. Archaeologists working on projects, whether paid or unpaid, are now expected to comply with workplace policies and laws relating to drugs and alcohol. Failure to

comply can put the archaeologist, their employer and client in legal jeopardy. While there may be few occasions where archaeologists oversee managing major equipment, they are often working on construction sites where such equipment is operational.

Construction companies have been increasing their use of drug testing, particularly on infrastructure projects. Archaeologists can be subject to that testing as a condition of their employment and failure can lead to removal from a project, a ban from working on future projects, dismissal, and potentially other insurance and legal consequences.

Although there may be little direct legal obligation connecting HNZPT Authorities and Resource Consent conditions to the safety of archaeologists, these bureaucracies do have a role in setting appropriate expectations. Archaeologists should not feel pressured to put themselves in unsafe conditions, such as the bottom of wells, near cliff faces on unstable ground, or entering unsafe structures to fulfil archaeological requirements.

Staying Safe

Tools and Health

One area that is often overlooked in archaeology is the use of various tools. It is essential that archaeologists are properly equipped. Commercial environments where earthworks are being undertaken almost always have (or should have) proper Health and Safety requirements. The essentials include Personal Protection Equipment (PPE), water, sun protection, first aid kit, and proper hand tools.

PPE includes appropriate clothing and shoes. This usually means trousers and long-sleeve shirts. The days of shorts, bare feet or jandals are no longer viable in a professional and safety conscious work environment. Suitable clothing for the weather conditions is fundamental. High visibility clothing especially in urban environments with machinery, vehicles, and other hazards, as well as in areas of bush or dense vegetation is usually compulsory on most projects and advised even during field survey. Good boots are vital, with steel caps required on construction sites.

Eye protection, a construction-grade hard hat and good gloves are typical equipment required. Where hard hats are not required, appropriate hats for the weather conditions should be worn. Separate hearing protection may also be necessary. Other more specialist gear such as disposable overalls and dust masks

may be needed when appropriate. A good spade and a proper archaeological trowel are essential.

Survey

When surveying, it is preferable that most work is done with other archaeologists. This is to ensure that if an incident occurs there is somebody to assist. In urban environments, this is usually less of a problem but in all circumstances, archaeologists should ensure that someone is aware of their plans. If the area is one where there is no mobile phone coverage, they need to ensure that someone is aware that archaeologists are working is imperative.

Contact with the occupier or somebody with knowledge of the property is always desirable as they can identify possible hazards that might be present. Hazards routinely encountered are electric fences, stock, vehicles, vegetation, wells, and sinkholes. Care is required.

Excavations

Archaeologists on project sites are responsible for ensuring that they do not cause or encourage bad practices that might lead to an incident or put other workers in either physical danger or liable for damages. This is a personal responsibility, as well as a professional obligation to colleagues, fellow workers, and employers. It includes ensuring that correct gear is worn.

However appealing it may be to achieve archaeological objectives, failure to adhere to safety rules from clients is not acceptable. If a client or client representative feels that the situation is unsafe for the archaeologist(s) then that is the opinion that matters in the first instance. Consent and Authority requirements do not over-ride requirements associated with managing workplace health and safety. Usually, if the archaeology is necessary then a technical and safe solution can be found, but this needs to be negotiated between the relevant stakeholders.

Health and Safety aspects do influence what is acceptable regarding archaeological investigation. For instance, trenches cannot be more than 1.5m deep unless there is some form of mitigation. Along with excavation limits, using ladders, scaffolding, drones, and digging equipment all require appropriate care and attention. Archaeologists must comply with the requirements relating to open excavation (Worksafe 2016) usually associated with construction projects. Additional information is available at worksafe.govt.nz.

Buildings and Other Features

Old buildings, other standing structures, and those more modern structures which have been subjected to structural damage or decay can be extremely dangerous. Archaeologists undertaking assessments or investigations of old or compromised structures (as our Cantabrian colleagues can attest) must ensure that there are no likely dangers from structural collapse, unsafe high areas with no barrier protection, fractured material, and unsafe utilities. Sub-surface structures such as caves, mines, drainage, and wells are also extremely dangerous and should not be investigated without all safety plans being implemented. This may involve ensuring that trained assistance is available.

Any work in structures that may be dangerous should be undertaken only if the dangers to archaeologists can be avoided or sufficiently mitigated to guarantee safety.

In the Office and Laboratory

Archaeologists are most vulnerable in the field, but most spend considerable time in the office or laboratory. As mentioned earlier, health and safety issues exist and there are resources available online to assist in minimising effects from working in offices. Activities such as artefact analysis, often involving fragmented glass, metal shards and even dirt, may all be sources of injury. Chemicals and equipment are used, and all must be handled safely. These are all aspects that should be considered when minimising risk. Larger formalised laboratories must have safety policies and archaeologists working there must be familiar with these and comply with them.

Strategies for Minimising Risk

Some simple strategies should be employed during archaeological projects:

- Before starting works, the supervising archaeologist should hold a meeting with the archaeologists to ensure the health and safety requirements of the project are clearly understood;
- Regular safety updates should be undertaken during the project;
- Regular communication regarding the archaeological work and any project work, such as demolition or construction, must be maintained;
- Concerns regarding potential risks should be communicated, avoided and mitigated as soon as they are identified.

It is also important to recognise that Health and Safety requirements require extensive documentation regarding all aspects of work undertaken. This includes a variety of forms including logs, sign-off sheets, hazard assessments and reviews which must be constantly maintained. If an incident occurs, that documentation forms a major part of any WorkSafe investigation and if absent or of poor quality then consequences are much worse for the organisation. Different workplaces have different frameworks, with their own methodologies and jargon, so archaeologists must be familiar with the principles, at least, of the requirements and ensure they are fulfilled. Professional resources are available for individual archaeologists or organisations to bring them into legal compliance. Certification programmes provide formal health and safety training for archaeologists.

The setup, implementation and ongoing use of safety documentation can be time-consuming especially on larger projects or where there are significant hazards. These need to be factored into both the daily routines of archaeological work and the costs to the project.

Physical and Mental Health

Physical and mental health is not often discussed by archaeologists who traditionally have a relatively rugged self-image. Fieldwork can be quite demanding and maintaining fitness, particularly when the exertion is intermittent between periods doing office or laboratory work, is important.

Mental health is also important and should not be disregarded. The demands on archaeologists can relate to the multi-faceted nature of the discipline, professional demands, social and cultural demands, and the confrontational parts of the statutory process. Most archaeologists do work alone or in small groups, so isolation can be an issue.

Verbal abuse while undertaking fieldwork, and personal and professional criticism during the statutory processes can take a toll. As with any form of physical abuse, trauma or engagement, mental issues should be identified, and appropriately managed by organisations that employ archaeologists. For independent consultants, the options are more limited and make social and professional networks even more important to maintain.

Archaeologists represent the population and are not immune to pressures that can affect their lives and professions. Given the small numbers, it is worth noting that collegiality is important in supporting colleagues.

There is no literature regarding discrimination or sexual harassment in CRM archaeology and most information is anecdotal and insufficient to draw firm conclusions. Archaeologists working in organisations such as TLAs and HNZPT are supported by the organisations' policies and processes. Outside those organisations, most archaeologists work either in small firms, partnerships or independently, and no information is systematically gathered on those groups. This does not preclude discrimination based on ethnicity, gender, or sexual orientation nor harassment involving archaeologists, but there is no easy measure of it.

The bullying of archaeologists who are perceived to be obstructing projects can be an issue (see Bickler 2018: 282ff). It can be difficult to manage bullying and the involvement of colleagues and relevant TLAs and HNZPT staff can help to facilitate solutions.

Mitigating Illness and Disease

As the Covid-19 pandemic has emphasised, there is a need for hand hygiene, physical distancing, and proper management of personnel on projects to ensure safety. Excavating and lab work can be a dirty business and as well as disease, food poisoning and infection have always required proper behaviours to be managed.

Summary

There remains an element of adventure relating to archaeological investigation and it would be a shame to lose the volunteer involvement on projects. Many archaeologists gained their first experience as children or teenagers on excavations. However, unless this can be done safely it is not acceptable for non-professionals to be put in danger, and importantly clients must not be put in a position where they may be liable for safety breaches. This means that every archaeologist or volunteer working on the site must be properly equipped and cared for. The role of Māori tikanga on New Zealand projects can operate as a mechanism for improving both physical and mental health outcomes for archaeologists on projects (see Bickler 2018:376ff).

The current health crisis has served to highlight the importance of health and safety for archaeologists working in New Zealand. This paper identifies the main elements relating to health and safety and is taken from more detailed discussion in Bickler (2018:243ff). Organisations should ensure that they always work hard to look after their staff and to comply with the latest legal requirements. As the

recent survey of archaeologists' qualifications and wages has highlighted (Jorgensen 2020), archaeology is a multi-million dollar industry (see Bickler 2018:303) and much of it relates to the investment in the people who work in heritage management and are responsible for the curation of the places and the stories of the past. It is a highly valuable and limited resource deserving of proper care.

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