

A Vision for Training and Career Development in Archaeology

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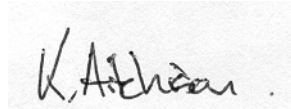
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Executive Summary

Findings

Entry routes to professional archaeology are limited and career progression is difficult. The sector lacks diversity and pay is poor.

Demand for structured and appropriate training is high across the archaeological profession and the avocational sector, and this demand is likely to increase in the short- and medium-term as external drivers, including the White Paper on Heritage Protection, the Leitch Report on Skills and governmental housing policy will all contribute to the growth and development of the sector.

The development of National Occupational Standards and a National Vocational Qualification in Archaeological Practice are extremely valuable developments, but their use and accessibility need to be strongly supported in order for them to fully realise their potential.

Recommendations

This report presents a vision of the future of training and career development in archaeology, which is

for archaeology to be a meritocratic discipline that is open to all, with archaeologists able to gain qualifications that demonstrate their expert skills, competence and knowledge and whose capabilities and achievements can be appropriately valued and rewarded.

A series of aims are presented as the underpinning objectives behind the vision, relating to skills, qualifications and the development of a meritocratic profession.

These aims are supported by a series of recommendations for the Archaeology Training Forum:

- to promote the Forum's achievements;
- to work closely with Creative and Cultural Skills, the Sector Skills Council;
- to support the NVQ in Archaeological Practice;
- to use the National Occupational Standards in Archaeological Practice;
- to support learners at work and workers in learning;
- to embed Apprenticeships; and
- to support the avocational sector.

1 Introduction

In archaeology, unlike most other professions, there is no overall skills mix that is 'typical' (Carter & Robertson 2002b). There is no common or core group of competencies that we could say is essential for everyone entering the profession. Archaeologists working in different parts of the sector have very different roles and often perform only a few activities in common. Grasping this has been an important step forward in envisioning solutions that can encompass the whole discipline within a shared framework for archaeological practice (ATF 2003).

This broad range of skills required by the archaeological profession means that the training requirements needed to maintain and develop a thriving profession are extremely diverse.

This short report is both a strategic assessment of the current provision of training for the profession which also presents a vision and recommendations for the short- to medium-term future of training and career development in archaeology.

2 Background

The rapid expansion of professional archaeology [since the mid-1980s] has led to a widespread training deficit, as it has occurred without due consideration for the vocational development of the practitioners involved (Bishop, Collis & Hinton 1999).

In the late 1990s, a number of factors were militating against the successful provision of training in archaeology: an underdeveloped professional career structure, a lack of formal training, inadequate documentation of the skills required to practice in a given role, insufficient value being placed on training and insufficient resources being afforded to it (Aitchison 2002).

The archaeological sector has engaged with and responded to these issues through the agency of the Archaeology Training Forum (ATF), *a UK-wide delegate body which represents organisations which have an interest in the issues of training and career development within archaeology. It was constituted in 1998 to review the present provision of training in archaeology and to co-ordinate future strategies to meet the discipline's training needs* (<http://www.britarch.ac.uk/training/atf.html>) (see Appendix I below for a full list of ATF members).

The actions of the ATF to date have been guided firstly by a preliminary review of training in archaeology (Chitty 1999) and then by forward plans which covered the periods 2004-2006 and 2006-2008 (Chitty 2003, Heyworth & Aitchison 2007). These plans have essentially described specific activities as actions and identified which organisations would be responsible for taking these actions forward.

The primary source of data on archaeological employment and training used in this document is Archaeology Labour Market Intelligence: Profiling the Profession 2002-03 (Aitchison & Edwards 2003), the results of an extensive sector wide survey. This repeated a 1997-98 survey (Aitchison 1999), and it is to be repeated in 2007-08 and in the future through an ongoing five year repetition cycle. That report is the primary source of data used in this document.

Detailed discussion of particular issues is, in many cases, taken from an unpublished report to Creative and Cultural Skills Workforce Issues in Archaeology and Historic Building Conservation (Aitchison 2006a) and on occasion parts of that report are reproduced verbatim.

2.1 Working in Archaeology

Aitchison & Edwards (2003) estimated the number of individuals working in archaeology to be a total of approximately 5700 people in paid archaeological employment across the UK. These individuals are distributed across the public, private, university and NGO sectors, fulfilling a variety of working roles.

Of the estimated total of 5712 professional archaeologists working in the UK, 2826 work for organisations that provide field investigation and research services (49%), 1758 work for organisations that provide historic environment advice and information services (31%), 469 work for organisations that provide museum and visitor/user services (8%) and 659 work for organisations providing educational and academic research services (12%).

In terms of the employing organisations' structural bases, an estimated 881 people work for organisations that are linked to central government (15%), an estimated 1248 people work within local government (22%), 891 work within universities (16%), 2358 work in the commercial sector (41%) and 334 work for other organisations that do not fall within these categories (6%) (Aitchison & Edwards 2003, xii).

This professional workforce is complemented by approximately 425 volunteers at any given point of time.

This is an extremely diverse sector both in terms of organisational and individual roles and responsibilities. It is also dominated by microbusinesses: 72% of archaeological workplaces have 10 or fewer employees, and only 4% have 50 or more (Aitchison & Edwards 2003, 15).

2.1.1 Entry Routes

While a relatively small profession, professional archaeology has been growing rapidly since the early 1990s and future growth is anticipated (Aitchison & Edwards 2003, 29).

Currently, entry routes are very limited and competition for posts is intense. 90% of professional archaeologists are graduates, and 97% of those aged in their 20s are (Aitchison & Edwards 2003, 37). A degree has become an informal but *de facto* entry requirement.

In comparison with a workforce of 5,700 in 2002-03, a total of 13,455 students were enrolled on archaeology degree courses in 2004-05 (Ramsden 2006).

With such a current oversupply of graduates pursuing a limited number of vacancies, non-graduates have little chance of gaining entry-level jobs as there is has been absence of any

other competence- or knowledge-based criteria being available to employers when assessing applications from candidates.

Foundation Degrees (3.2.1 below) and the NVQ in Archaeological Practice (3.3 below) may in the future provide alternative entry routes.

Increasing numbers of individuals are undertaking taught post-graduate courses before or soon after entering the labour market in order to enhance their employability.

Volunteer opportunities declined significantly between 1997-98 and 2002-03 (Aitchison & Edwards 2003, 31), following changing work-practices in both the commercial and public sectors. Since the late 1960s – early 1970s, when the bulk of archaeological work was undertaken on a voluntary basis, voluntary opportunities have declined with the professionalisation of the discipline. Outdated careers advice information and guidance continues to promote volunteering as a route in to the profession; this is effectively no longer a representative entry route.

2.1.2 Career Progression

Early career employment in archaeology can be intermittent and short-term, leading to individuals working for a series of employers on short contracts, sometimes with intervening periods of unemployment.

Within private sector archaeology, there are few well-defined career progression routes. Career progression routes are better defined within the public sector, but it is also difficult for individuals to move horizontally within the profession, from one area to another. Lack of career progression opportunities leads to stagnation and loss of staff; a considerable number of people leave archaeology in their mid-20s, when they find their progression a few years after entering the workforce to have not matched their expectations. This loss of people also represents a loss of investment, as all of the training they have received is lost (to the profession) as they have generally only been replaced by inexperienced new graduates.

2.1.3 Diversity

36% of professional archaeologists are female, 64% male. Before ages 30-39, the gender proportions are equally balanced, with the numbers of women working in archaeology reducing from that point on. It is unknown whether this represents women leaving the profession at this

stage in their careers, or whether the numbers of women working in archaeology has started to increase but that this has yet to work its way up the age ranges (Aitchison & Edwards 2003, 22).

Archaeology is not ethnically diverse. 99.3% of working archaeologists are white (Aitchison & Edwards 2003, 25); Benjamin (2003) found that 2.03% of archaeology undergraduate students were of black or Asian origin.

Archaeology has also had very limited participation by disabled individuals. The proportion of working archaeologists who are disabled (as defined under Disability and Discrimination Act 1995) is only 0.34% (Aitchison & Edwards 2003, 25), and in the past (across higher education) the prime focus for disabled students has been on participation and learner support, rather than employability (Aitchison & Giles 2006, 7). Embleton *et al* (2006) have now produced guidance on increasing awareness of disability issues in archaeology and improving the integration of disability in fieldwork teaching.

2.1.4 Pay and Conditions

Pay has a significant impact on issues around recruitment, retention and motivation of people working within archaeology, and on individuals' capacity to invest in their own training.

In 2002-03, the average salary for archaeologists was £19,161, which compared poorly with a national average for full-time workers in all occupations of £24,498 (Aitchison & Edwards 2003, 39).

The Institute of Field Archaeologists publishes annual minimum salary guidelines, based on the membership grades of that Institute and linked to points on the local government spinal pay column. Any advertiser appearing to breach these minima will be investigated and on occasion challenged by the Institute, but the organisation does not have any binding mandate over non-members.

An annual review of jobs advertised in archaeology is published by the IFA (Institute of Field Archaeologists); the most recently available figures, for 2005 (Drummond-Murray 2006), show that 210 jobs were advertised, with salary data available for 127 of these, giving an average salary of £18,158. However, it is worth noting that very few junior fieldworker jobs were advertised. These are normally filled by speculative application to employers. Average advertised salaries have risen by 16% over the three years since the 2002 review (Drummond-Murray 2003).

Low pay has the potential to have particularly negative impact on entry to the profession once variable top-up university fees begin to influence graduates' choice of careers and would-be students' decisions about which degrees to enrol upon (Aitchison & Lewis 2004).

2.2 Avocational archaeology

In addition to those who make their livings from working in archaeology, the discipline is unusual in that it attracts a massive level of public interest that goes far beyond the numbers of people studying the subject or working in the profession (Aitchison 2006b, 4).

For many people, this can be an active interest, with a long history of individuals seeking to become involved with archaeological projects in their free time. *The roots of archaeology lie in a long and honourable tradition of amateur work dating back several hundred years and it remains an area where those for whom archaeology remains a hobby, can still make important contributions to the development of the subject at local, regional or national level* (Farley 2003, 1).

To work to professional standards does not equate to being paid to carry out that work, and competence is not generated simply by receiving remuneration; to be professional.

Therefore people contributing to archaeological in an avocational context can also have skills development and training needs; the ATF Forward Plan 2006-08 proposed scoping *a study for the voluntary sector, its training requirements and potential mechanisms for more structured training delivery through existing organisations, with trials of practical training offered through existing channels* (Heyworth & Aitchison 2007, 15); this work has not yet been undertaken.

2.3 National Occupational Standards

The National Occupational Standards (NOS) in Archaeological Practice are benchmarks of performance, setting out what skilled practitioners need to be able to do in order to demonstrate their competence in undertaking particular tasks in the archaeological workplace. These skills encompass both technical, archaeological skills and the other, generic, workplace skills that are needed by archaeologists in their work.

They were prepared in 2002 (Carter & Robertson 2002a) and formally accepted by QCA (Qualifications and Curriculum Authority), SQA (Scottish Qualifications Authority) and ACCAC (now part of Welsh Assembly Government Department of Education and Skills) in 2003. They have been restructured (although their content has not been changed) by CCSkills in 2006, in

consultation with IFA and the ATF, to form Areas of Competence (AOC), creating a common architecture for NOS in Archaeological Practice and Cultural Heritage. This has also allowed for the creation of Joint AOC between the two areas, reducing duplication in the process.

The NOS have subsequently become the bedrock of all training initiatives developed by the ATF.

The sector in general is still uncertain about the application of the NOS and their relevance and usefulness, although the standards are being used by forward-looking employers to redefine job descriptions and organisational structures (Heyworth & Aitchison 2007, 2).

A joint CHNTO/IFA project, funded by SSDA with EH, supported pilot applications of the NOS with three employers in different contexts to illustrate that the NOS offer a simple, yet powerful and comprehensive tool which can support the efficient achievement of individual and organisational goals. Case studies and support materials are published on the IFA website (<http://www.archaeologists.net/modules/icontent/index.php?page=41>). The case studies confirmed that the NOS framework is both fit for purpose in a range of specific applications and brings collateral benefits in promoting a stronger awareness of individual and organisational training needs (*ibid.*).

The NOS are accessible via <http://www.torc.org.uk/nos/nosmap.asp> or <http://www.archaeologystandards.com>.

2.4 Continuing Professional Development

CPD (Continuing Professional Development) is the process by which individual professionals develop and maintain their skills throughout their working lives.

Both IFA and the Institute of Historic Building Conservation (IHBC) have policies that require members to undertake and self-monitor their own Continuing Professional Development. Both require members to undertake 50 hours of relevant professional development over a rolling two-year period. This is compulsory for IHBC members, but obligatory (in the sense of a professional obligation, rather than a compulsion with penalties for non-compliance) for IFA members. This is not actively policed and is not well-understood by the professional association's membership. IFA is presently considering moving towards a compulsory scheme.

As these policies are input-based (judged by the amount of time committed) rather than output-based (judged by the learning achievements of the individual member) they can be seen as inflexible, mechanistic approaches to learning that are based on the quantity, rather than the quality, of the learning experiences that individuals undertake.

In 2002-03, 89% of organisations reported (Aitchison & Edwards 2003, 58) that they encouraged individual members of staff to engage in Continuing Professional Development (which at that time contrasted with only 44% of individual archaeologists who responded to a different survey who considered that there were sufficient opportunities for formal CPD provided by their workplace [Aitchison 2003]).

Requirements by professional associations for their members and by employers for their employees to maintain or update professional skills are, and will be in the future, a major driving force for the provision and delivery of skills-based training.

3 Training Demand and Supply

Collis & Hinton (1998) proposed the development of a training strategy that was based upon the potential needs of archaeologists at three key stages in their careers - basic training, entry level and progressive training - and this model has remained one of the bases for all subsequent discussion and work.

Basic training can be seen as the introductory training in a wide range of skills and knowledge which are applied to interpreting and understanding the physical remains of human life in the past, while entry level training delivers the skills that an individual needs to launch their career as an archaeologist. Progressive training enables established practitioners to keep their current skills up to date or to gain the new skills, experience and knowledge they need to progress to a higher grade, to undertake new responsibilities or to work in a new area of responsibility or competence.

Policy and practice that identifies demand for and supports the supply of training at all of these levels is critical in developing and maintaining a skilled profession.

3.1 Training Demand

There is an ongoing level of disconnect between the expectations of archaeological employers, employees, training providers and students of archaeology in terms of the objectives of training and its outcomes.

While many employers believe that current undergraduate and postgraduate degree courses fall short of preparing graduates to work in archaeology and that students not only lack practical field experience and technical expertise, but also the conceptual, analytical and interpretative skills required by employers, archaeology lecturers generally believe that the curriculum should deliver knowledge about the past and how it has been interpreted, within a sound theoretical and methodological framework, grounded in practical experience where possible. Whilst only a small proportion of archaeology students will continue in archaeology as employees or research students, all students at least expect their degree to enhance their generic employment prospects, individuals working in archaeology want their working abilities and knowledge to be updated and supported through training experiences that are ideally funded by their employers or external agencies (after Aitchison & Giles 2006, 2).

In 2002-03 the majority (56%) of archaeological organisations employed new entrants to the profession (Aitchison & Edwards 2003, 57). However, it is clear that further training is generally required at the entry level, with 74% of organisations responding that new entrants have to receive ‘considerable’ or ‘very considerable’ amounts of training, as 53% of new entrants to the profession are considered to be ‘poorly’ or ‘very poorly’ equipped with skills.

Two-thirds (67%) of respondents felt that the courses available at that time matched the requirements of the profession ‘poorly’ or ‘very poorly’, and only 1% felt that available courses met professional requirements ‘very well’. Whether these responses were based upon a comparison of vocational needs within the workplace and the academic orientation of available courses cannot be identified from these returns.

There is clearly a considerable demand from individuals and employers for entry-level training, and it is perceived that currently available courses do not meet the requirements for this training.

There is also a level of demand for training from avocational archaeologists, particularly for training in technical skills (see Technical Skills, 3.1.2 below).

3.1.1 Academic Knowledge

Demand for archaeological academic knowledge is most obviously apparent on an individual, rather than an organisational, basis. This demand can be as part of a person’s initial exposure to archaeology or as a lifelong learning experience. Alternatively, academic knowledge can be sought as progressive training, as part of the maintenance or updating of an experienced practitioner’s awareness of issues or developments.

3.1.2 Technical Skills

Organisations employing archaeologists were asked by Aitchison & Edwards (2003, 56) to identify which technical, archaeological skills were their priorities for staff training.

	<i>Skills gap identified</i>	<i>Responses</i>
<i>Desk-based research</i>	40%	66
<i>Archaeological landscape characterisation</i>	40%	65
<i>Artefact or ecofact research</i>	30%	49
<i>Conducting [direct] intrusive investigations [evaluation, excavation]</i>	25%	41
<i>Conducting [direct] other non-intrusive field investigations</i>	22%	36
<i>Contributing to other non-intrusive field investigations</i>	19%	31
<i>Contributing to intrusive investigations [evaluation, excavation]</i>	18%	29
<i>Contributing to non-intrusive field investigations [geophysical survey]</i>	16%	27

<i>Conservation of artefacts or ecofacts</i>	15%	24
<i>Conducting [direct] non-intrusive field investigations [geophysical survey]</i>	9%	15
<i>Other</i>	24%	39

(Aitchison & Edwards 2003, table 77).

Training for conducting investigations was a higher priority than for contributing to those investigations, with the exception of conducting geophysical survey. Less than one in five organisations considered training for contribution to any of the three categories of field investigation to be a priority. This could suggest that, overall rather than in specific organisations, enhancing junior staff's fieldwork skills is relatively unimportant to archaeological organisations; alternatively, it may be that respondents failed to include informal training such as mentoring in their responses to these questions (Aitchison & Edwards 2003, 56-57).

There is also demand from the avocational sector for access to training in technical skills.

On the broader front there was a general feeling that where courses were being provided by, eg continuing education departments, they were targeted at traditional audiences (see above) and did not effectively reach out into the community to provide basic-level training in archaeological skills, for which there is clearly a considerable demand. (Farley 2003, 3.2)

There is also clearly an unmet demand for general-training courses in basic field techniques, for instance on topographical and geophysical survey. (ibid., 6.6)

3.1.3 Generic Skills

Aitchison & Edwards (2003, 55) identified which non-archaeologically specific areas archaeological employers considered to be priorities for skills training. Of these skills gaps, information technology (74% of respondents) and project management (54%) were the most commonly identified non-archaeological training priorities.

	<i>Skills gap identified</i>	<i>Responses</i>
<i>Information technology</i>	74%	143
<i>Project management</i>	54%	104
<i>People management</i>	25%	49
<i>Education/training</i>	24%	47
<i>Business skills</i>	21%	40
<i>Marketing/sales</i>	19%	36
<i>Leadership</i>	16%	32
<i>Advocacy/influencing others</i>	14%	27
<i>Customer care</i>	13%	25
<i>Non-English language</i>	4%	7
<i>Other</i>	5%	10

(Aitchison & Edwards 2003, table 76).

Creative and Cultural Skills (CCSkills 2006a, 7) consider that, across the whole Cultural Heritage sector (of which archaeology is part), *Lack of skills and experience are the key cause of recruitment difficulties in the sector* and that the key skill gaps/shortages in the sector are in the broad areas of **Leadership, Management, Specialist Skills, Visitor/Customer Services** and **Education and Interpretation**.

Individual practitioners are more likely to identify technical skills as personal priorities for development than generic, transferable skills.

3.2 Training Provision

In terms of the ways that training can be provided, respondents to Aitchison & Edwards (2003, 59) were asked if they used any of the following methods of accessing training:

- formal off-job training (eg external courses);
- formal in-job training (eg in-house training courses);
- informal off-job training (eg supported individual research and learning); and
- informal in-job training (eg mentoring).

For each of these methods, a majority of employers responded that they and their employees used that technique. So archaeology can be seen as very flexible in terms of the ways that it seeks training provision; there is also a variety of agencies delivering that training, from both the established sources of higher, further and continuing education and from alternative providers, functioning both within and outside the workplace.

3.2.1 Higher Education Providers

The principal deliverers of teaching and training in archaeological academic knowledge are higher education institutions.

Archaeology has been taught as a distinct subject in UK HE institutions since the early years of the twentieth century ... Few incoming students have had the opportunity to undertake formal courses in archaeology. The educational background of incoming students is extremely varied: this diversity, embracing a range of subjects across the humanities and sciences all with some relevance to archaeology, provides a very stimulating environment for staff and students and is one of the strengths of archaeology programmes. (QAA 2007, 1.7)

In 2006 there were 38 Higher Education Institutions delivering undergraduate degrees in archaeology in the UK, and 27 HEIs delivering postgraduate degrees in archaeology (CCSkills 2006b, 250-260).

Undergraduate degrees will typically deliver academic knowledge about human life in the past, a range of generic, transferable skills related to research and independent working, and a limited range of archaeologically specific technical skills. The content of courses varies considerably.

Particular degree programmes will be located at different points within a triangle drawn between the complementary archaeologies of the humanities, sciences and professional practice. A department teaching single and combined honours degrees will probably position the programmes it offers at different locations within the tri-polar range. The triangle stresses the contexts, the interdisciplinarity, and the overarching practice which departments seek to instil in students. The combination of practice, the commitment to primary data, and the focus on object and landscape-centred learning, provide the means to identify the extent of the discipline (QAA 2007, 2.18).

Taught postgraduate courses (Masters level) will often – but not always – focus on particular aspects of life in the past or of archaeological practice. Such courses can deliver much more detailed technical skills.

In addition to academic undergraduate and postgraduate degrees, in 2006-07 one provider – Bournemouth University – was delivering Foundation degrees in archaeology (Aitchison & Giles 2006, 7). Foundation degrees are two-year courses, deliberately designed with employer engagement to provide students with skills-rich experiences.

The employability of graduates is increasingly important to higher education institutions; the QAA benchmark statement for archaeology sets out that:

The broad-based nature of the subject and of the skills it gives graduates provide a strong grounding for a wide range of career paths: the archaeology graduate is extremely well equipped with transferable skills from the mix of humanities and science training, engagement with theory and practice, and individual and team-based learning, together with the intellectual curiosity to continue learning, and the skills to benefit from challenging work environments (QAA 2007, 1.9).

The Higher Education Academy' Subject Centre for History, Classics and Archaeology is currently funding work to link taught courses to the National Occupational Standards, in order to help course providers demonstrate how closely their course content links to the requirements of the workplace. This also has the potential to link the delivery of taught,

academic courses to that of the National Vocational Qualification in Archaeological Practice (see 3.3 below), so potentially allowing students to gain two complementary qualifications from the single learning experience.

A small number of short (one-day, two-day or week-long) technical, skills-based courses are also delivered through university archaeology departments and departments of continuing education. These formal, off-job learning experiences are often marketed towards practitioners as contributing towards their Continuing Professional Development. In addition to these courses, a great number of weekly (evening) courses are delivered by university continuing education or lifelong learning departments. Such courses are almost universally focussed on academic knowledge rather than skills.

3.2.2 Other Providers

The Training Online Resource Centre website (www.torc.org.uk) listed 1751 (June 2007) organisations and groups involved in archaeology in the UK; not all of these are providers of archaeological training opportunities.

Creative and Cultural Skills' analysis of the LearnDirect database of 900,000 UK lifelong learning courses considered that there are 328 providers of courses in archaeology, delivering a total of 2598 different courses (although it is noted that there might be a level of double counting inadvertently included in these figures) (CCSkills 2006b, 240).

The overwhelming majority of these courses are knowledge-based and do not aim to deliver skills or competences.

Many learned societies, specialist associations and professional associations such as the Institute of Field Archaeologists run annual conferences (delivering and updating knowledge); some of the IFA's special interest groups also deliver targeted skills-based day courses.

As well as funding and facilitating training (see 4.3.1 below), some of the National Heritage Agencies are also able to deliver skills-based training directly.

Some practical fieldwork training is delivered through training excavations run outside the university sector, and there is also a small amount of archaeologically-specific training that is supplied by private sector providers.

3.2.3 Workplace Learning

There are two principal means by which learning can be delivered in the workplace; through mentoring, or through apprenticeships.

Mentoring is a system whereby a more experienced employee works with a new or less experienced colleague, sharing their knowledge or expertise and offering support. This is not normally done as part of a line-management relationship, but as something supplementary to the performance-review process.

Establishing a [coach-] mentoring scheme in a work place has the potential advantage of offering a one-to-one contact for support of a new or newly promoted employee. This contact can offer all-important insight, assistance and information about a company policy, in-house practise, a method or a process, as well as direct training or training guidance. Literature reviewed from other sectors indicates that coach-mentoring embraces an empowering outlook on personal and professional development, that it looks beyond training, to consider it a process of creative opportunity for employees and employers alike (Stephenson 2004, 7-8).

Both the mentor and the mentee need to be appropriately prepared for taking on these roles in a working relationship; not every experienced archaeologist has the appropriate skills needed to become a good and effective mentor. Stephenson (2004) sets out a structured framework for implementing coach-mentoring in a fieldwork context.

Apprenticeships place a learner in the workplace, where they have a structured experience of learning skills on-the-job.

A system of apprenticeships was identified as the preferred method for archaeological specialists to pass on their skills (Aitchison 2000); specialists are often working alone or with minimal support, and so find it difficult to invest in the training of other staff. Supported apprenticeships may be the best means for this expertise to be passed on to new specialists.

Presently, IFA is running a scheme (funded by HLF and English Heritage) whereby an apprentice's salary is paid in return for a host organisation providing a structured learning work-placement of six months to one year. The apprentice's work plan is built around the NOS in Archaeological Practice (see 2.3 above) and learning experiences can produce evidence that can be used towards the National Vocational Qualification in Archaeological Practice (see 3.3 below) (Geary 2006).

This scheme is proving to be extremely successful, both with individual apprentices and with their host organisations. By training these people, the sector as a whole is benefiting as capacity is being built.

In the near future, Creative and Cultural Skills will launch a Creative Apprenticeships scheme, which will formally link workplace learning to a relevant NVQ (such as that in Archaeological Practice) together with a suite of transferable skills designed to further enhance the apprentices' employability, which will be delivered through FE providers (Hutton 2005).

3.3 National Vocational Qualification in Archaeological Practice

National Vocational Qualifications (NVQs) are vocational qualifications developed from National Occupational Standards (see 2.3 above), units of competence based on typical job responsibilities within an industry. They differ from traditional qualifications in that there are no formal entry requirements, learners are assessed primarily 'on-the-job' rather than by examinations, they take previous experience and learning into account, can be undertaken at the learner's own pace and can be gained in a variety of ways.

The NVQ in Archaeological Practice has been developed as a practice qualification by the Archaeology Training Forum and was launched in April 2007. It is currently offered at Levels 3 and 4, with Level 5 still under development (for details of the Levels on the National Qualifications Framework and a comparison with Higher Education awards on The Framework for Higher Education Qualifications, see Appendix II below). The awarding body for the qualification is Education Development International (EDI) who oversee a network of assessment centres offering the qualification (nb: by agreement with the Scottish Qualifications Authority, there will be no separate SVQ in Scotland – the NVQ will be accepted across the entire UK).

The Qualification in Archaeological Practice consists of compulsory core units (covering research, health and safety and personal development) and a range of options for the candidate to choose from. Assessment takes place mainly in the workplace; prior learning can be accredited through submission of work completed prior to registration and there is no upper time limit for completion (Geary 2007a).

Each candidate is allocated an assessor who will guide them through the process of gathering evidence in support of the qualification. Assessors must be occupationally competent in the areas they are assessing – this means they will have worked in the area they are assessing for at least two years within the last five. Assessors must have, or be working towards, the 'A1' assessors' qualification. This qualification is offered by EDI and numerous other awarding bodies and is assessed in the same way as an NVQ, whereby the assessor is assessed as they work with their own NVQ candidates. All the assessment work of trainee assessors is checked and overseen by the awarding body (Geary 2007b).

There is a high level of enthusiasm for these qualifications, both from individual practitioners and from employers. 66% of employers said they would give 'considerable' or 'very considerable' support to staff in working towards vocational qualifications (Aitchison & Edwards 2003, 59). It will also create opportunities for the avocational sector: *For amateur archaeologists, it will enable the accreditation of skills against exactly the same framework as those working in archaeology* (Heyworth 2007a, 64-65).

3.3.1 Assessment Centres

To undertake the NVQ, candidates must register with an assessment centre. Because the Qualification is based on National Occupational Standards and all assessment centres follow the same assessment strategy, the 'value' of the qualification will not vary from centre to centre. Although there are no formal entry requirements, candidates must be undertaking archaeological work either on a paid or a voluntary basis in order to be able to gather appropriate evidence (Geary 2007b).

Presently, the only body registered as an Assessment Centre for the NVQ in Archaeological Practice is the Institute of Field Archaeologists, who are using an innovative online evidence collection and assessment system. Other bodies have expressed an interest in also becoming assessment centres.

4 Foresight

Examining potential future changes and the likelihood and extent of any impact upon archaeological training issues.

The potential changes that are looked at are in the areas of:

- the organisation, scope and size of the subsectors within professional archaeology;
- key political developments; and
- funding sources and their viability.

4.1 Professional Archaeological Practice

Professional archaeological practice has changed considerably over the past twenty years, and almost inconceivably over the past forty years. Future changes in the scope of operations and sizes of subsectors within archaeology must be anticipated and they are critical to any future planning to meet the profession's training requirements.

4.1.1 Commercial Organisations

Archaeological fieldwork and research in the UK is currently a largely commercialised practice, with work primarily generated and mediated through the planning control system.

Governments have recognised archaeological remains as environmental assets and policy towards managing threats to this resource has established the framework within which archaeological practice has developed.

The principal threat to the resource is land use change through development, primarily for housing and infrastructure. This has meant that commercial archaeology has become very closely linked – even dependent upon – the construction industry throughout the economic cycle.

Government policy means that the amount of archaeological work being undertaken by commercial archaeological organisations is likely to increase in the medium-term future. Firstly, under the Sustainable Communities Plan of 2003, the government has identified two principal routes through it aims to actively support new housing development. The first is through the Housing Market Renewal Programme, which aims to replace housing stock which *does not meet modern aspirations* (HM Treasury & ODPM 2005, 36). This work is underway and

is being implemented through the demolition and replacement of some housing, particularly in the north of England and the midlands.

In terms of impact on archaeological practice, this brownfield redevelopment is leading to a significant amount of archaeological work, as much of the housing stock being demolished dates from the late 19th century and is often in areas of wider early modern / industrial archaeological significance.

Secondly, there is a governmental intention of *focusing growth in four areas in the wider South East (Thames Gateway, London-Stansted-Cambridge corridor, Ashford, and Milton Keynes-South Midlands)* (HM Treasury & ODPM 2005, 40), with the objective of building 200,000 new homes over and above previous development plan intentions. 80% of this work will be in the Thames Gateway. This work has yet to begin on the ground, but has potential to lead to potentially huge amounts of archaeological work as new sites are identified and exploited for housing.

This considerable increase in the levels of development and renewal will directly lead to an increased workload for many commercial organizations, with an indirect knock-on effect being felt across much of the country. An increased workload is very likely to lead to an enlarged workforce, with commensurately increased training requirements.

Also important are the private sector consultants, providing historic environment advice. This may be the fastest growing subsector within archaeology, which means there is and will be an increasing demand for the technical, non-fieldwork related skills that individuals need to practice in this subsector.

4.1.2 Local Authorities

The provision of historic environment advisory services supporting planning authorities in England and Wales is likely to become a statutory requirement upon those authorities following the publication of the White Paper on Heritage Protection (see 4.2.1 below). With the additional responsibilities that local authorities will then have to take on, local government services are likely to expand (in terms of staff numbers) in the short- to medium-term. With increased numbers of people working in the subsector, and with new responsibilities, this will lead to a considerable increase in training requirements.

The current situation in Scotland is unlikely to change significantly.

4.1.3 National Heritage Agencies

Across the UK, national heritage agencies are likely to be entering a period of consolidation and contraction as responsibilities continue to be transferred to local planning authorities (in England and Wales following publication of the White Paper on Heritage Protection – see 4.1.2 above and 4.2.1 below) and to the private sector.

In Scotland, the minority government of the Scottish National Party has made a manifesto commitment to merge the Royal Commission on the Ancient and Historic Monuments of Scotland into Historic Scotland (SNP 2007). This commitment carries an implicit intention to reduce of staffing levels.

Training priorities for the national heritage agencies are likely to focus on supporting staff through periods of change rather than on training new entrants to the subsector.

4.1.4 Higher, Further and Continuing Education

As the number of students studying archaeology within tertiary education has nearly quadrupled since 1995-96 (Ramsden 2006), there has been an associated increase in the numbers of staff teaching these students.

Whether the recent rate of growth of student numbers will continue, and whether this is sustainable cannot be predicted. One factor that might mitigate against further high levels of increase in student numbers may be the impact of fees upon would-be students, particularly as archaeology as a profession is poorly paid (Aitchison & Lewis 2004).

With an increased curriculum focus upon employability, there will be training needs for tertiary education staff to gain the technical and transferable generic skills that they will then be able to pass on to their students.

4.1.5 Voluntary Sector

The voluntary sector is the smallest of the subsectors within archaeological practice. There are no obvious factors that are likely to lead to a change in the size or structure of this subsector, or hence to its training needs.

4.2 Political Developments

A series of recent and forthcoming political developments have the potential to influence the application and implementation of any agenda in archaeological training.

4.2.1 White Paper: Heritage Protection for the 21st Century

Heritage Protection for the 21st Century (DCMS / WAG 2007) is the White Paper published in March 2007 which sets out the Government and Welsh Assembly's proposed policy for the historic environment.

The Paper makes ten references to training, which can normally be paraphrased along the lines of: *English Heritage will implement a new programme of training, support and capacity building for English local authorities and local heritage organisation.* (DCMS / WAG 2007, 9, 30, 49).

Perhaps the most significant paragraph is page 32, paragraph 15, where this is specified as:

15. To help achieve this, we will implement a stepchange in the advice and support provided to local authorities by building on the current HELM programme. English Heritage, working with the professional bodies, will roll out new training to all local authority historic environment staff and Historic Environment Champion, and to most other non-heritage staff with an interest in the historic environment, and most elected members. New training will also be made available to wider organisations, including amenity societies, regional bodies, and other agencies to enable them to contribute fully to the new system.

This suggests that governmental departments should be prepared to engage with external bodies in the development of the training agenda for the historic environment.

The Archaeology Training Forum's positive response to the Paper (Heyworth 2007b) made it clear that the members of the Forum welcomed the intention to improve training supply and

particularly welcome the statement on page 31 of the White Paper (section 1.4, point 7) which says that "[the Government] will improve the training, capacity building and support available to authorities and the voluntary sector". This accords very much with our own vision for the development of training needs to upskill both the professional and voluntary sectors.

And the ATF also emphasised the benefits of a sectoral approach to these issues:

Delivery of training should be a sector-wide partnership, rather than by a single body, drawing on the skills and experience of partners within the professional bodies, academic institutions, and others.

The Institute of Field Archaeologists' response also welcomed the Paper's inclusive approach, while making it clear that:

... it is the professional institutes that are best placed to identify, design and facilitate supply of professional training and development packages, though they will need increased investment to be able to achieve this on the scale required (Hinton 2007a).

IHBC's response (incorporating views from the Royal Town Planning Institute, the Royal Institution of Chartered Surveyors and the IHBC) was less enthusiastic; these institutions *called upon the government to make significant investment in training, professional standards and processes across the entire professional landscape of the historic environment is required (RTPI/RICS/IHBC 2007, 11).*

The statement that *English Heritage will implement a new programme of training, support and capacity building is warmly welcomed in principle by [RTPI, RICS & IHBC], but is inadequate to assure us that adequate capacity and sufficient skilled staff will be available to deliver the White Paper objectives. It would have been both helpful and more credible for this consultation to have included proposals specifically addressing current skills shortages and the additional skills needs arising from the White Paper (RTPI/RICS/IHBC 2007, 24).*

The implementation of the White Paper and will undoubtedly have a major impact upon training requirements, leading to increased requirements to learn new skills and procedures. This will primarily impact upon the staff advising planning authorities but will also affect all other professionals working with the historic environment. The White Paper implies, but does not make explicit, that new funding will be made available for this additional training load; it is also unclear whether it is expected that all of this training is expected to be delivered directly by the national heritage agencies or whether they will take on a role facilitating that delivery.

4.2.2 The Leitch Review

Prosperity for all in the global economy - world class skills (Leitch 2006) was commissioned by the Department for Education and Skills to identify the UK's optimal skills mix in 2020 to maximise economic growth, productivity and social justice.

The resulting report considers the increasing importance of skills to the UK economy as it competes in the global economy, how the demand for skills at different levels including those at

the graduate level is expected to change by 2020, and the means by which the required skill mix, including an increased proportion of adults holding a degree, can be achieved. The roles of higher education, government, employers, and of individuals and how they interact are considered.

Key recommendations for the archaeological sector from this report are:

- Only vocational qualifications approved by Sector Skills Councils should be allowed to receive public funding, so ensuring more support for economically valuable skills.
- Funding for adult vocational skills training should come from *Train to Gain* (discussed under 4.3.6 below) and *Learner Accounts* (discussed under 4.3.4 below) by 2010.
- *Train to Gain* should be extended to include more apprenticeships and improved communication between employers and universities.
- Responsibility for improving skills must be shared between employers, individuals and the government. This means that the government must improve their efforts, including increasing investment in skills, and employers and individuals should contribute most where they derive the greatest private returns.

The outcomes of the Leith Review will undoubtedly impact upon archaeological training, as an increased responsibility upon employers (and individual practitioners) will be supported by increased funding for vocational skill development. This is currently only available to Level 2, but will in due course support training to Level 3.

4.2.3 Regulation and Accreditation

IFA and IHBC have been discussing the fuller integration of the two Institutes (Hinton 2007b, Friedman & Williams 2007). One of the drivers behind these discussions has been that of accreditation, and *the idea that users of professional services (whether the users are individual clients, government departments or private companies, and whether those professionals are archaeologists, conservationists, lawyers or management consultants) should insist on those professionals being accredited in some way* (Friedman & Williams 2007, 50).

If archaeology (either alone or as part of a wider grouping of historic environment professions) were to achieve the status whereby accreditation were necessary in order to be able to practice, the requirement upon individuals to demonstrate and maintain competence would lead to a significant increase in the requirements of training in terms of content, quality and availability.

4.3 Funding Sources

Funding for archaeological training has historically come from a wide variety of sources. Below, different sources are examined for their potential to continue to be or to become funding mechanisms for archaeological training.

4.3.1 National Heritage Agencies

English Heritage (EH) has progressively moved from being a significant funder of archaeological practice through grant-aid to becoming an organisation focussed on providing advice and expertise to the government on the management of the historic environment of England.

It continues to financially support archaeological practice (and training) through two funding streams, the Historic Environment Enabling Programme (HEEP) and the Aggregates Levy Sustainability Fund (ALSF).

In total, the English Heritage budget for externally commissioned, contracted or delivered research in 2005/06 was £7.45m (English Heritage 2005). From this, it is estimated that EH supports archaeology with grants of around £5m per annum (Jowell 2005). This is primarily through HEEP and this is unlikely to increase in the future; it is anticipated that HEEP will become a standstill budget, depreciating over time.

English Heritage has been one of the distributors of the Aggregates Levy Sustainability Fund, distributing £3.0m in 2004/05, £4.5m in 2005/06 and £4.5m in 2006/07, much of which has been spent on archaeological practice. As of 11 June 2007, EH distributed ALSF funds were fully distributed (<http://www.english-heritage.org.uk/server/show/nav.1315>) and it is not yet known whether the ALSF will continue beyond 2007/08 or, if so, what its priorities will be.

The other National Heritage Agencies use different policies and mechanisms to decide on funding distribution, but these are not likely to lead to considerable increases in the amounts of funding available.

4.3.2 Heritage Lottery Fund

Since its establishment in 1995, the Heritage Lottery Fund has distributed a considerable amount of money to archaeology. In terms of supporting training, any application to the HLF

for a grant of £1million or more must be supported by a training plan as part of the application; such plans can also be provided in support of smaller applications (HLF nd).

The HLF supported archaeological projects with a total of £90m from 1994-95 to 2004-05 (HLF 2006), an average of £8m per annum. This funding source was anticipated to remain at a steady level to 2015 (DCMS 2006), but it was announced in March 2007 that the HLF will lose a total of 13% of its budget over each of the coming four years as funds are being vired to support the London 2012 Olympics. This is likely to be an ongoing issue, and so the total amount of funding available from the HLF is likely to continue to decrease over the short to medium term.

4.3.3 Sector Skills Councils

Sector Skills Councils are bodies that have been created to reduce skills gaps and shortages, improve productivity, business and public service performance, increase opportunities to boost the skills and productivity of everyone in a particular sector's workforce and to improve learning supply including apprenticeships, higher education and National Occupational Standards (NOS) for specific sectors of the UK workforce (<http://www.ssda.org.uk/ssda/default.aspx?page=2>).

The Sector Skills Council which includes archaeology within its remit is *Creative and Cultural Skills*.

Sector Skills Councils are essentially facilitating, advocational and benchmarking agencies; their role is not to fund training development or delivery.

However, the Leitch review (4.2.2 above) has recommended that *only vocational qualifications approved by Sector Skills Councils should be allowed to receive public funding*, and so maintaining Creative and Cultural Skills' engagement with the archaeological training agenda is of critical importance.

4.3.4 Individuals

It is entirely reasonable to expect individual practitioners to invest in their own training, as they are the primary beneficiaries in terms of their own employability and hence earning power.

As effectively all new entrants to the sector are graduates, they (or their parents or other sponsors) have already made a very considerable investment in their own training.

However, given the low level of earnings within the archaeological profession, it can often be very difficult for individual archaeologists to make significant investments in training post-graduation, especially those that are then repaying student loans.

When an employer requires an individual employee to undertake particular training, it would be expected that the employer will fully fund that training. However, if an individual is seeking training that will help their own professional development but that is not something that the employer needs them to do, it might be reasonable for the individual to contribute financially towards that training.

One means to finance this could be through Career Development Loans, an initiative that makes a loan available through an arrangement between the Learning and Skills Council (LSC) and three high street banks. An individual learner can borrow between £300 and £8,000 to fund up to two years of learning (or up to three years if the course includes one year of relevant practical work experience). The LSC pays the interest on the loan while the individual is in learning and for up to one month after they have stopped training. The individual then repays the loan to the bank over an agreed period at a fixed rate of interest (<http://www.direct.gov.uk/cdl>).

Another new initiative that will make funds directly available to individuals (as grants rather than as loans) for structured training is *Learner Accounts*, which will be delivered through the Learning and Skills Council in England. This will be a source of funding that will support individuals (aged over 19) by subsidising courses at Level 3 (including NVQs).

From September 2007, a trial of Learner Accounts will be launched in the South East of England and the East Midlands. Once Individuals have signed up for a course they will receive a written statement confirming the cost of the course and the amount that the state and individual or employer will be expected to pay for it (LSC 2007).

Creative and Cultural Skills are intending to introduce a scheme of Creative Learning Accounts, a scheme which *aims to help individuals - particularly those from more non-traditional backgrounds - better access skills and support in future* (<http://www.ccskills.org.uk/work/index.asp>).

4.3.5 Employers

Archaeological organisations have a strong commitment to training as a principle. 93% of organisations responded Aitchison and Edwards 2003 that they identified training needs for individuals and for the organisation as a whole. 78% of organisations responded that they had

a training budget, and 73% identified that the training budget was under their own control (Aitchison & Edwards 2003, 53).

Employers should continue to retain control over their own training budgets, and should aim to use these to develop, motivate and retain staff. These budgets should be matched to structured organisational training plans, based upon audits of the skills that the organisation has or wishes to develop. Train to Gain (4.3.6 below) is a mechanism by which employers may be able to access financial support for staff training.

Employers must also recognise that, as well as spending money, committing staff time to train and to be trained is crucial to staff development.

One potential route for employers to invest in staff development and training in the future may be through the funding of apprenticeships, such as those that are presently being supported by English Heritage and the Heritage Lottery Fund (see 3.2.3 above). If appropriately structured around NOS and the NVQ, such apprenticeships will also have potential to be financially supported by regional LSCs.

4.3.6 Train to Gain

Train to Gain is a service from the Learning and Skills Council which aims to financially support employers (in England) in getting training for their employees. This is arranged through a Skills Brokerage system, via the appropriate LSC region.

Presently (June 2007), as gaining skills for a first full Level 2 qualification are the priority for the Government, Train to Gain will fund access to qualifications at this level. This does not mean this will be the only level of qualification supported, especially if the employer agrees to invest as well (so taking any subsidy even further) (LSC 2006).

Employers with fewer than 50 full-time employees are eligible for a contribution to wage costs for employees to achieve their first full level 2 and/or approved Skills for Life qualifications. Employers will be offered two levels of contribution; £5 per hour or actual hourly wage costs for actual time that a learner has been released from their working duties (*ibid.*).

With 90% of working archaeologists being graduates, and so already holding level 3 or 4 qualifications, this is not immediately beneficial for archaeological employers; but the skills brokers will advise employers on *funded programmes, including for Apprenticeships and Advanced Apprenticeships, NVQ Level 3 and above, such as higher education* (*ibid.*). Trials in two regions (North West England and the West Midlands) have given the Brokers *a budget to make a contribution towards the cost of Level 3 training delivered in the workplace with the*

proviso that this 'contribution should be at least matched by the employer (TUC 2006). If this trial is successful (it end in April 2008), it is anticipated that this funding will then be made available across England.

4.3.7 The European Union

Archaeological organisations in the UK have been able to access a certain amount of funding from the European Union that has been used to finance archaeological training.

Historically, this has principally been obtained through two routes – the first was through the European Social Fund (ESF), and specifically in those areas that qualified for objective 1 funding. With the expansions of the Union in 2004 and 2007, there are no longer any regions of the UK which qualify for this funding.

The second route is through the different components of the European Union's *Lifelong Learning Programme* (<http://www.lifelonglearningprogramme.org.uk/>), which now brings together the four funding programmes of Comenius, Erasmus, Leonardo da Vinci and Gruntvig. Application to this funding source is complex and competitive, but it does present opportunities for individuals, employers and training organisations. A review of European funding sources has been produced by the IFA (Stephenson 2001).

5 Vision, Aims and Recommendations

The Vision: for archaeology to be a meritocratic discipline that is open to all, with archaeologists able to gain qualifications that demonstrate their expert skills, competence and knowledge and whose capabilities and achievements can be appropriately valued and rewarded.

The Aims: the underpinning objectives behind the vision

Skills. A skilled discipline and profession is one that can confidently carry out the responsibilities of the work with which it is charged. If archaeologists can maintain, improve and update their skills, they can then demonstrate the competence of themselves as individual practitioners, their employers and the sector as a whole.

Qualifications. With the overwhelming majority of archaeologists being graduates, the sector needs to be able to ensure that the qualifications held by its workforce have real currency both within and outside the sector. The introduction of the NVQ will not be an immediate panacea, but by using it to link high-level qualifications to high-level skills, the first big step towards asserting archaeologists' professional competence can be achieved. This in turn strengthens the argument for the sector gaining professional respect and rewards.

Meritocracy. By limiting the entry paths to a career in archaeology, the profession has become socially exclusive and so has limited its own chances to attract the best people. By limiting entry, archaeology cannot be as successful as it might be. The archaeological profession has to find ways to make itself attractive to entrants from all parts of society and then to allow alternative pathways for entry to the profession. When archaeology can achieve this, matched up to the professional qualifications grounded in professional skills, it will be able to ensure that everyone is able to realise their full potential and that it is the best people in the sector who are then the ones who are able to achieve the most.

The Recommendations: the mechanisms to achieve these aims and so to deliver the vision

Promote the ATF's achievements. The Archaeology Training Forum has achieved a great deal in the decade since its establishment, but many within professional archaeology remain unaware of these achievements or their importance. The Forum must both disseminate the results of its successes and ensure that they become embedded within archaeological practice.

Work closely with the Sector Skills Council. Creative and Cultural Skills has not engaged well with archaeology or the ATF and *vice versa*, and this may have contributed to archaeology being seen as a relatively unimportant subsector within the SSC's remit. Some subsectoral bodies, such as the Museums Association and the Design Council, have been able to work well inside CCSkills and so their subsectors' voices have become very influential. Archaeology lacks this degree of high-level influence, and without it runs the risk of being sidelined at the time when the recommendations of the Leitch report, including the powerful roles of the Sector Skills Councils, will begin to become established within policy.

For some years, even before the establishment of the sector skills councils, ATF has acted almost as a shadow SSC, successfully developing policy and National Occupational Standards, endorsing courses and making recommendations to funding agencies on the distribution of resources. ATF should not look to give up these roles, as the Forum is truly representative of the key bodies within archaeology. But the Forum must now seek to actively re-engage with Creative and Cultural Skills to ensure that critical opportunities for the development and support of archaeology as a profession are not missed.

Support the NVQ. The development and launch of the NVQ in Archaeological Practice, following on from the development of the NOS, may prove to be the ATF's greatest achievement. The Qualification will provide the benchmark of competence which the profession has always lacked, and it may open up the profession to people who might not choose to follow the traditional graduate entry route.

But without active and ongoing promotion that lets archaeologists, their employers and aspirants who are seeking careers in the profession fully understand the Qualification, or without wholehearted support for training deliverers, assessment centres and candidates, the Qualification is at risk of failure before it has become fully embedded in the profession. The promotion of the qualification and the demonstration of support for it are crucial.

Use the National Occupational Standards. Nearly five years after their introduction, many parts of the archaeological profession remain largely unaware of existence of the National Occupational Standards in Archaeological Practice, let alone their wide range of potential uses.

The three case studies undertaken in 2004 were very successful, but outside the organisations where those case studies were developed there has been minimal take-up of those studies' outcomes. The profession needs many more exemplars of how the NOS can be used, and the best place to start will be with those specialist sub-sectors of the profession that have been most uncertain about the use and application of the NOS. This uncertainty has stemmed from a lack of awareness of how the Standards really can be applied in their areas – and so they need to be assisted in working through real ways that the NOS can help them. The Forum should

seek to establish an ongoing programme that develops workplace demonstrations of the application of the Standards.

The second way that the Forum can encourage the use of the NOS is through supporting training deliverers in designing courses that can provide learners with outcomes that match NOS requirements – and then by only offering endorsement to courses that can show that they do this. The NOS are the descriptors of what archaeologists do in the workplace – and so only courses that match to the Standards can be assured to be training people in real workplace skills.

There is also potential for the development of micro-qualifications that can be achieved through the production of evidence that matches particular NOS, and that these can then be used as building blocks towards the accomplishment of a full NVQ award. Training providers should be encouraged in exploring the application of such qualifications.

Support learners at work and workers in learning. For archaeology to develop and maintain its professional profile, individual archaeologists must maintain their competences and the only way that this can both be done and be demonstrated to have been done is through the mechanism of Continuing Professional Development.

The ATF should continue to develop support for individuals and employers in using CPD, through working with member bodies to develop guidelines for auditing skills, both on an individual and organisational basis and for producing training plans based upon those audits - and then ensuring that there are sufficient opportunities for those plans to be put into action.

ATF should also be ensuring that it is able to provide advice on training opportunities and on the financial support that might be available to individual learners and to organisations seeking to access those training opportunities through the extensive development of TORC as its information portal.

Embed Apprenticeships. The introduction of the HLF / EPPIC model for Apprenticeships within archaeology is already having a significant impact, as individual participants, employers and sectoral bodies are greatly appreciating the value of structured workplace learning being delivered to early-career practitioners.

At a stroke, this is overcoming employers' negative feelings about new entrants, while enormously enhancing the employability of participant. Already, employers and would-be apprentices are keenly competing to be able to participate, and this is boosting the sector as a whole by giving enthusiastic and committed individuals the skills and knowledge that they need to launch their careers. This is then leading to the retention of these people and their energy and enthusiasm within the profession.

The present funders of this scheme cannot guarantee its long-term continuation, and so alternative sources of sustainability funding will have to be identified. By linking the Apprenticeships to the NVQ will, in the near future, offer the potential for financial support to be secured from the LSC, but this in itself might not be enough. The ATF needs to work with employers to ensure that Apprenticeships become an accepted and embedded part of archaeology's working landscape.

Support the avocational sector. With the rise of professional archaeological practice, avocational archaeologists may feel that they have become an unwanted interference in the work of the paid practitioners. But the involvement and interest of these people is crucial for the maintenance of the level of public and political support that the sector enjoys and this enthusiasm should be valued and nurtured.

Furthermore, considerable amounts of fieldwork have been undertaken by avocational archaeologists, and many of these people are already skilled practitioners who have the potential to develop their skills further. They should be supported in developing those skills and to use the mechanisms that the ATF has developed – the NOS and the NVQ – to demonstrate that lack of remuneration does not necessarily lead to lack of competence. However, like in the professional sector, this should not be done on an ad-hoc basis, and the first step should be a comprehensive evaluation of the training needs of the avocational sector.

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Appendix I ATF Members

Members of the Archaeology Training Forum include the Association of Local Government Archaeological Officers UK (ALGAO), the Council for British Archaeology (CBA), English Heritage (EH), the Environment & Heritage Service in Northern Ireland (EHSNI), Historic Scotland (HS), the Institute of Conservation (ICON), the Institute of Field Archaeologists (IFA), the Institute of Historic Building Conservation (IHBC), the Nautical Archaeology Society (NAS), the Royal Commissions on the Ancient & Historical Monuments in Wales and Scotland (RCAHMW & RCAHMS), the Society for Museum Archaeologists (SMA), the Standing Committee of Archaeology in Continuing Education (SCACE), the Standing Conference of Archaeological Unit Mangers (SCAUM), and the Subject Committee for Archaeology (SCFA).

Other related organisations also regularly attend the ATF meetings, including the Creative & Cultural Skills (the Sector Skills Council for the Creative & Cultural industries), Higher Education Academy Subject Centre for History, Classics & Archaeology, and the Prospect Trade Union.

Appendix II The National Qualifications Framework and the Framework for Higher Education Qualifications

National Qualifications Framework (NQF)		Framework for Higher Education Qualifications (FHEQ)
Previous levels(Examples)	Current levels(Examples)	Levels (Examples)
Level 5 Level 5 NVQ in Construction Level 5 Diploma in Translation	Level 8 Specialist awards Level 7 Level 7 Diploma in Translation	D (doctoral) Doctorates M (masters) Masters degrees, postgraduate certificates and diplomas
LEVEL 4 Level 4 National Diploma in Professional Production Skills Level 4 BTEC Higher National Diploma in 3D Design Level 4 Certificate in Early Years Practice	Level 6 Level 6 National Diploma in Professional Production Skills Level 5 Level 5 BTEC Higher National Diploma in 3D Design Level 4 Level 4 Certificate in Early Years Practice	H (honours) Bachelor degrees, graduate certificates and diplomas I (intermediate) Diplomas of higher education and further education, foundation degrees and higher national diplomas C (certificate) Certificates of higher education
Level 3 Level 3 Certificate in Small Animal Care Level 3 NVQ in Aeronautical Engineering A levels		
Level 2 Level 2 Diploma for Beauty Specialists Level 2 NVQ in Agricultural Crop Production GCSEs Grades A*-C		
Level 1 Level 1 Certificate in Motor Vehicle Studies Level 1 NVQ in Bakery GCSEs Grades D-G		
Entry level Entry Level Certificate in Adult Literacy		

*Revised levels are not currently being implemented for NVQs and a small number of related qualifications. For current information please refer to *NDAQ*.

The Framework for Higher Education Qualifications (FHEQ), for England, Wales and Northern Ireland, was published by the Quality Assurance Agency (QAA) in January 2001.

Taken from http://www.qca.org.uk/493_15772.html