

Institute of Archaeologists  
of Ireland

Developing a Learning Framework for the  
Archaeology Profession

Training Needs in Irish Archaeology

**Report on Training Needs Analysis carried out by  
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*On behalf of  
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## 0.0 Executive Summary

- A significant proportion of IAI members responded to a questionnaire on training needs.

### Previous Experience and Training

- Respondents have received a greater amount of technical, archaeological training in the past than they have received training in generic, professional skills.
- Overwhelmingly, individuals have not been trained in the generic professional skills that are needed for their current working roles. Many archaeological skills have also been acquired *ad hoc*.

### Opportunities for Training and CPD support

- There are insufficient opportunities for training in all archaeological skills.
- Training in generic skills is more widely available, but often not in archaeologically relevant forms.
- Particularly high levels of demand exist for future training in generic skills and non-fieldwork archaeological skills.
- Employers are generally very supportive of training, although greater financial support is sought.

### Training Delivery

- Formal training courses are preferred as a delivery mechanism, with high numbers of non-Leinster respondents also welcoming distance learning.
- Lack of time and lack of opportunities are seen as the major obstacles to training.
- A role for IAI in training provision would be welcomed.
- ‘Licence eligible’ status should not be the end goal of all archaeological personal development.
- There should be improved provision of training for report writing and preparation of materials for publication at all stages of the archaeologist’s career development
- Non-fieldwork analytical and research skills should be emphasised in initial training.
- Fieldwork skills with mid-range responsibility are required at career-entry level.
- Managerial skills are required to be delivered through continuing professional development.
- As an initial step in developing a framework of continuing professional development for archaeologists, IAI should link with possible course providers to develop vocationally relevant training packages aimed at addressing these immediate skills gaps.
- An integrated framework of continuing professional development covering the initial (undergraduate), induction (post-graduate) and in-service stages should be developed and introduced in planned phases over the coming years.

## **1.0 Introduction**

This report of a training needs analysis contributes to the *Institute of Archaeologists of Ireland's* development of a structured, accredited Continuing Professional Development programme for its members.

The report details and analyses the responses to a questionnaire on Training Needs in Irish Archaeology which members of the IAI were invited to complete. All IAI members were informed by mail that the questionnaire was downloadable from the IAI website, for respondents to complete electronically and return to Options Consulting.

The methodology of the training needs analysis is presented in Appendix I, with the full questionnaire presented as Appendix II.

This work builds upon that presented in the reports to the IAI and the Heritage Council by CHL Consulting Co. Ltd in 2002 (CHL 2002a, 2002b).

### **1.1 Responses**

A total of 51 usable responses were received from IAI members. While this may appear a relatively low number, representing approximately 18% of the total IAI membership, it is a very acceptable sample size to use as the basis of future planning. Such a level of response can be considered to be acceptable for postal questionnaires (Haralambos & Holborn 1990, 729) and typical for an email survey (Schonlau et al 2002, 21).

As the respondents to the questionnaire were ultimately self-selecting, the responses will (as in all such surveys) particularly reflect the views of those holding stronger views on the subject in question. This does not devalue the survey in any way; the views of those who consider training to be an important issue will be particularly useful in the future development of the learning framework.

## 2.0 Background

The questionnaire asked respondents a series of background questions about their location in Ireland, and their working roles and employment sectors.

### 2.1 Workplace

Respondents were asked **Where in Ireland is your primary workplace?**

71%	<b>Leinster</b>
12%	<b>Munster</b>
8%	<b>Connacht</b>
8%	<b>Northern Ireland</b>
2%	<b>Ulster (within Republic of Ireland)</b>

Table 1: Workplace

The figures presented here show an even more exaggerated bias towards Leinster than those presented in the *Profile of the Archaeological Profession and Educational Resources in Ireland* (CHL 2002b). In that survey it was recognised that archaeologists cluster around the cities with university departments of archaeology, with one third of respondents in the survey working in Dublin. In the current analysis, these figures may have affected respondents' experience of the availability of training and preferred methods of delivery (see 4.7 and 4.1 below).

### 2.2 Work Role and Sector

Respondents were asked to identify **Which of the following do you consider to be the service that best matches your primary working role?** and **Which of the following do you consider to be the service that best matches your primary working role?**

	employment sector						total
	commercial organisation	local government	national government department	university	other	none given	
working role							
<b>educational and academic services</b>	0%	0%	2%	12%	2%	2%	18%
<b>field investigation and research</b>	47%	4%	0%	0%	6%	0%	57%
<b>historic environment advice</b>	8%	0%	8%	0%	2%	0%	18%
<b>museum and visitor / user services</b>	0%	0%	2%	0%	2%	0%	4%
<b>none given</b>	4%	0%	0%	0%	0%	0%	4%
<b>total</b>	59%	4%	12%	12%	12%	2%	

Table 2: Working role and employment sector

These figures show that the views of individuals working in the commercial sector carrying out field investigation and research dominate the responses. The figures match very closely those presented, using differing vocabulary, in the *Profile of the Archaeological Profession and Educational Resources in Ireland* (CHL 2002b). As examples, 46.8% of archaeologists were identified in the CHL survey as working in

‘Contracting / Consulting’, with 47% of respondents in the current analysis working in commercial field investigation and research; 14.8% worked in universities in 2002, 12% in this project. This gives confidence that the dataset collected can be considered to be from a relatively accurate cross-section of the working population of archaeologists.

However, the dominance of responses from the commercial fieldwork sector is so extensive that, given the relatively small dataset, analysing particular training or skills issues by role or sector would not be valid.

Several respondents commented that they were self-employed; each of these respondents checked ‘other’ rather than ‘commercial organisation’ as their employment sector. These individuals represent 10% of the total responses, making this a significant sub-sector which may have particular training needs.

### 3.0 Skills Issues

The core of the questionnaire asked respondents about skills, particularly those in which they had been previously trained, those that they needed in their current working roles and those in which they felt they would seek training in the future.

Throughout, respondents were queried on their attitudes to or experiences of consistent sets of technical, archaeological skills and generic, professional skills.

In comments made, a small number of respondents stressed that they are seeking to enhance their academic knowledge of particular subjects, rather than seeking skill-specific training. Competency in skills will always require relevant underpinning knowledge; as an example, to be competent in archaeological landscape characterisation requires not only the appropriate vocational performance, but also knowledge of landscape types and landscape theory. Throughout, this survey considers vocational application and intellectual knowledge to be inseparable parts of the requirements to demonstrate competency in a particular skill, with a focus on workplace requirements.

#### 3.1 Previous Experience and Training

Respondents were asked **In the past, which of the following skills, both technically archaeological and generically professional, have you received training in?** They could check as many skills as they considered to apply.

In terms of archaeological skills, the majority of respondents have been previously trained in a number of fieldwork skills (contributing to or directing fieldwork investigations). The single archaeological skill the highest number of respondents had been previously trained in is desk-based research. Overall, a relatively high number of respondents report that they have received archaeological skills-training in the past.

63%	<b>desk-based research</b>
61%	<b>contributing to intrusive investigations (eg assessment, excavation)</b>
51%	<b>directing intrusive investigations (eg assessment, excavation)</b>
51%	<b>contributing to other non-intrusive field investigations (eg landscape or buildings survey)</b>
51%	<b>post-excavation analysis</b>
45%	<b>contributing to non-intrusive field investigations (geophysical survey)</b>
37%	<b>directing other non-intrusive field investigations (eg landscape or buildings survey)</b>
37%	<b>archaeological monitoring</b>
35%	<b>preparation of archaeological material for publication</b>
33%	<b>artefact or ecofact research</b>
27%	<b>archaeological resource management</b>
25%	<b>archaeological landscape characterisation</b>
20%	<b>directing non-intrusive field investigations (geophysical survey)</b>
16%	<b>other archaeological skills (please comment below)</b>
10%	<b>conservation of artefacts or ecofacts</b>

Table 3: Previous archaeological experience and training

Comments received on this question included a series of remarks making it clear that several individuals had gained their skills through ‘hands-on’ workplace experience.

Specific ‘other archaeological skills’ identified (that could not be considered to be part of the set of skills outlined in the questionnaire) included the “*management of Environmental Impact Assessments (with the preparation of EI Statement materials)*” and knowledge of the “*details of geo-technical procedures and construction/engineering*”.

Regarding generic professional skills, the overall level of reporting of skills-training is lower than for the technical skills. Project management is the only skill that a majority of respondents have been previously trained in.

55%	<b>project management</b>
47%	<b>communication skills</b>
45%	<b>information technology</b>
45%	<b>report writing</b>
39%	<b>education / training</b> ( <i>including lecturing</i> )
33%	<b>data analysis</b>
33%	<b>people management</b>
31%	<b>languages</b>
29%	<b>business skills / marketing / sales</b>
27%	<b>resource management</b>
25%	<b>customer service</b>
12%	<b>event management</b>
12%	<b>information management</b>
12%	<b>media skills</b>
4%	<b>other generic skills</b> ( <i>please comment below</i> )

Table 4: Previous archaeological experience and training

‘Other generic skills’ identified by respondents included “*Safety training eg. Safe Pass, First Aid course*” and “*Organisational strategy, change management, creativity, knowledge management*”. As with the archaeological skills, several respondents indicated that their skills in these areas were learned informally, rather than through structured training.

### 3.2 Skills Needed for Current Role

Respondents were also asked “**Which of the following skills do you need to carry out your current work role? Please check all that apply**”.

90%	<b>desk-based research</b>
75%	<b>preparation of archaeological material for publication</b>
71%	<b>post-excavation analysis</b>
63%	<b>archaeological landscape characterisation</b>
63%	<b>directing intrusive investigations</b> ( <i>eg assessment, excavation</i> )
59%	<b>archaeological resource management</b>
59%	<b>contributing to intrusive investigations</b> ( <i>eg assessment, excavation</i> )
57%	<b>artefact or ecofact research</b>
53%	<b>archaeological monitoring</b>
51%	<b>directing other non-intrusive field investigations</b> ( <i>eg landscape or buildings survey</i> )
47%	<b>contributing to other non-intrusive field investigations</b> ( <i>eg landscape or buildings survey</i> )
31%	<b>contributing to non-intrusive field investigations</b> ( <i>geophysical survey</i> )
22%	<b>other archaeological skills</b> ( <i>please comment below</i> )
20%	<b>directing non-intrusive field investigations</b> ( <i>geophysical survey</i> )
12%	<b>conservation of artefacts or ecofacts</b>

Table 5: Archaeological skills needed for current role

Archaeologically, the skills that the highest numbers of respondents identified as being essential parts of their current work are primarily non-fieldwork analytical and research skills. The skills needed to undertake fieldwork are relatively less important (although still crucial).

There is a clear mismatch between the levels of previous training and the skills needed – hence suggesting that in many cases, archaeological skills have been learned *ad hoc*, or on the job. Table 6, below, presents the percentage of those individuals who state that they need a particular skill for their current role that have also previously received training in that skill. The most extreme mismatch is in conservation, where only 17% of those who use that skill reported that they had been

trained in it. In the best-prepared areas, only roughly two-thirds of individuals needing contributory fieldwork skills felt that they had been previously trained in these skills.

69%	<b>contributing to non-intrusive field investigations</b> ( <i>geophysical survey</i> )
67%	<b>contributing to intrusive investigations</b> ( <i>eg assessment, excavation</i> )
63%	<b>desk-based research</b>
63%	<b>contributing to other non-intrusive field investigations</b> ( <i>eg landscape/bdgs survey</i> )
59%	<b>directing intrusive investigations</b> ( <i>eg assessment, excavation</i> )
58%	<b>post-excavation analysis</b>
50%	<b>directing other non-intrusive field investigations</b> ( <i>eg landscape or buildings survey</i> )
44%	<b>archaeological monitoring</b>
41%	<b>artefact or ecofact research</b>
40%	<b>directing non-intrusive field investigations</b> ( <i>geophysical survey</i> )
39%	<b>preparation of archaeological material for publication</b>
36%	<b>other archaeological skills</b> ( <i>please comment below</i> )
33%	<b>archaeological resource management</b>
31%	<b>archaeological landscape characterisation</b>
17%	<b>conservation of artefacts or ecofacts</b>

Table 6: Previous training in archaeological skills needed for current role

One respondent made the critical comment that “*I work in ecofact analysis and am concerned at the recent increase in people working in this area without the relevant skills necessary for analysis. Workers in ecofact analysis need to produce post-graduate dissertations in their SPECIFIC research areas and also complete apprenticeships. A general post-graduate qualification in environmental archaeology is not enough*”.

In terms of generic skills needed, there are many communicative and managerial skills that are required by the majority of archaeologists to carry out their daily work. Respondents identified the following skills as falling under ‘other generic skills’ – “*Procurement; Health and Safety management; Financial management*” and “*financial skills*”.

88%	<b>communication skills</b>
88%	<b>report writing</b>
76%	<b>project management</b>
75%	<b>people management</b>
67%	<b>customer service</b>
63%	<b>data analysis</b>
59%	<b>education / training</b> ( <i>including lecturing</i> )
57%	<b>resource management</b>
49%	<b>information technology</b>
47%	<b>business skills / marketing / sales</b>
33%	<b>media skills</b>
22%	<b>event management</b>
22%	<b>information management</b>
8%	<b>languages</b>
8%	<b>other generic skills</b> ( <i>please comment below</i> )

Table 7: Generic skills needed for current role

Matching generic skills needed to previous experience and training shows an even greater degree of mismatch than occurs with archaeological skills, to the degree that it is the norm for skills to be used without the benefit of previous training.

64%	<b>information technology</b>
54%	<b>project management</b>
50%	<b>education / training (including lecturing)</b>
46%	<b>business skills / marketing / sales</b>
44%	<b>communication skills</b>
44%	<b>report writing</b>
39%	<b>people management</b>
34%	<b>data analysis</b>
32%	<b>customer service</b>
31%	<b>resource management</b>
27%	<b>event management</b>
25%	<b>languages</b>
20%	<b>information management</b>
18%	<b>media skills</b>
0%	<b>other generic skills (please comment below)</b>

Table 8: Previous training in generic skills needed for current role

Throughout, the majority of these skills appear to have been acquired by informal means. Informal learning is by no means a bad thing, but it is difficult to establish quality assurance of skills learned in this way.

### 3.3 Future Training

With past experience and current requirements established, the desire for future training was also investigated. Here, respondents were asked “**In which skills would you like to seek training in the future? Please check all that apply**”.

Generally, the level of archaeological skills identified as training priorities was relatively low, but clearly being influenced by current working needs, as non-fieldwork management and research skills were recognised as priorities for more people than fieldwork skills. Potentially significant are the recognition of artefact or ecofact research and the conservation of artefacts and ecofacts as being skills prioritised by more individuals than fieldwork skills, particularly given the relatively low numbers of individuals who had been previously trained in these skills.

51%	<b>archaeological landscape characterisation</b>
37%	<b>archaeological resource management</b>
31%	<b>preparation of archaeological material for publication</b>
29%	<b>post-excavation analysis</b>
27%	<b>artefact or ecofact research</b>
25%	<b>conservation of artefacts or ecofacts</b>
22%	<b>directing other non-intrusive field investigations (eg landscape or buildings survey)</b>
20%	<b>contributing to other non-intrusive field investigations (eg landscape or buildings survey)</b>
16%	<b>directing intrusive investigations (eg assessment, excavation)</b>
14%	<b>contributing to intrusive investigations (eg assessment, excavation)</b>
14%	<b>archaeological monitoring</b>
14%	<b>desk-based research</b>
10%	<b>directing non-intrusive field investigations (geophysical survey)</b>
10%	<b>contributing to non-intrusive field investigations (geophysical survey)</b>
10%	<b>other archaeological skills (please comment below)</b>

Table 9: Future training sought in archaeological skills

Comparing the desire for future training in specific skills with the need for those particular skills in respondents’ current working roles identifies whether the training is sought in developing new skills or whether it is sought as maintenance and updating of current skills.

Table 10 below presents the analysed results by each archaeological skill, identifying what percentage of individuals seeking training in a particular skill have recognised

that skill as one they use in their current role (and hence are seeking training to maintain or update their existing skill [**upd**]). This is set against those individuals who are seeking training but have not identified this as a skill needed for their current working role. They are assumed to be seeking to acquire this as a new addition to their personal skill-set (**new**).

<b>upd</b>	<b>new</b>	
95%	5%	<b>archaeological resource management</b>
86%	14%	<b>desk-based research</b>
80%	20%	<b>post-excavation analysis</b>
77%	23%	<b>archaeological landscape characterisation</b>
71%	29%	<b>contributing to intrusive investigations</b> ( <i>eg assessment, excavation</i> )
70%	30%	<b>contributing to other non-intrusive field investigations</b> ( <i>eg landscape/bdgs survey</i> )
63%	38%	<b>directing intrusive investigations</b> ( <i>eg assessment, excavation</i> )
63%	38%	<b>preparation of archaeological material for publication</b>
60%	40%	<b>other archaeological skills</b> ( <i>please comment below</i> )
57%	43%	<b>artefact or ecofact research</b>
55%	45%	<b>directing other non-intrusive field investigations</b> ( <i>eg landscape or buildings survey</i> )
43%	57%	<b>archaeological monitoring</b>
23%	77%	<b>conservation of artefacts or ecofacts</b>
20%	80%	<b>directing non-intrusive field investigations</b> ( <i>geophysical survey</i> )
20%	80%	<b>contributing to non-intrusive field investigations</b> ( <i>geophysical survey</i> )

Table 10: Archaeological training as skill update or new skill

This table shows that, in general, archaeological skills training is being sought to maintain or update skills that are needed for current work, whether these skills have been learned formally or informally. However, it is notable that the two skills relating to geophysical survey are the two that are being relatively most highly sought by individuals who do not currently need that skill in their working role, and so are seeking to expand their abilities.

Across the generic skills, there was an overall higher level of desire for future training presented than for the technical skills, fairly evenly spread but with IT and project management the two particular skills identified by the highest numbers of respondents. Regarding the ‘other’ generic skills, one respondent identified “*Health and Safety*” as a future priority.

47%	<b>information technology</b>
41%	<b>project management</b>
37%	<b>business skills / marketing / sales</b>
37%	<b>people management</b>
37%	<b>resource management</b>
35%	<b>communication skills</b>
33%	<b>media skills</b>
29%	<b>data analysis</b>
27%	<b>information management</b>
24%	<b>report writing</b>
22%	<b>education / training</b> ( <i>including lecturing</i> )
16%	<b>customer service</b>
16%	<b>languages</b>
12%	<b>event management</b>
4%	<b>other generic skills</b> ( <i>please comment below</i> )

Table 11: Future training sought in generic skills

Using the same methodology set out above and used to calculate the figures presented in table 10, the generic skills sought were analysed in the same way. In every area apart from languages, the skills are being sought are already being used at work by at least 50% of respondents, with up to 90% of those identifying project management as a training priority.

<b>upd</b>	<b>new</b>	
90%	10%	<b>project management</b>
89%	11%	<b>communication skills</b>
88%	13%	<b>customer service</b>
84%	16%	<b>people management</b>
83%	17%	<b>report writing</b>
79%	21%	<b>resource management</b>
74%	26%	<b>business skills / marketing / sales</b>
71%	29%	<b>information management</b>
64%	36%	<b>education / training (including lecturing)</b>
60%	40%	<b>data analysis</b>
54%	46%	<b>information technology</b>
53%	47%	<b>media skills</b>
50%	50%	<b>event management</b>
50%	50%	<b>other generic skills (please comment below)</b>
13%	88%	<b>languages</b>

Table 12: Archaeological training as skill update or new skill

For both archaeological and generic skills, the nature, transfer mechanisms and presentation of training materials for skills updating or new skills delivery will be different. In general, courses aimed at delivering new skills might be presented as “An Introduction to ... [skill]”, while those aimed at updating particular skills might be presented as “Advanced .... [skill]”.

## 4.0 Training Issues

Following on from the identification of skills obtained, required and sought, the questionnaire further explored issues relating to the delivery of skills–training. This suite of questions also prompted the most comments from the respondents.

### 4.1 Training Delivery

Respondents were asked **By which methods do you prefer to be trained? Please check all that apply.** Formal training, whether delivered in- or off-job is clearly popular, with external training courses identified as a preferred method by an overwhelming majority of respondents.

78%	<b>formal off-job training (eg external training courses)</b>
47%	<b>formal in-job training (eg in-house training courses)</b>
31%	<b>informal in-job training (eg mentoring)</b>
29%	<b>distance learning</b>
29%	<b>informal off-job training (eg supported individual research and learning)</b>
2%	<b>other (please comment below)</b>

Table 13: Training delivery

Distance learning is more popular with respondents based outside Leinster, with a total of 40% of these respondents identifying it as a preferred method of delivery (compared to 25% of respondents based in Leinster, giving 29% overall).

### 4.2 Reasons for Seeking Training

The questionnaire also asked **What are your reasons for seeking to maintain and enhance your present skills, or for seeking to acquire new skills? Please check all that apply.**

94%	<b>professional development</b>
76%	<b>personal development</b>
35%	<b>external career development (job prospects)</b>
16%	<b>internal career development (internal promotion)</b>
2%	<b>other (please comment below)</b>

Table 14: Training reasons

Clearly, respondents see training as a professional responsibility, with a near-universal response in reporting professional development as a reason for seeking training. It is also significant that personal development is also seen as a far more important reason for training than specific career development objectives.

### 4.3 Employer Commitment

The questionnaire asked about the commitment of individuals' employers to their training. **Does your employer demonstrate a formal commitment to your training?**

71%	<b>yes</b>
14%	<b>no</b>
16%	<b>don't know</b>

Table 15: Employer commitment to training

Overall, the results of this question are very positive and encouraging. Training should always been seen as a partnership activity, between employer and employee – and with the potential for other partners to be involved, such as training providers and the professional institute.

The figures presented might appear less positive than they could have been, but all of the respondents who identified themselves as self-employed checked either ‘no’ or ‘don’t know’. This may have identified that self-employed archaeologists have a difficulty in recognising training needs as a legitimate and necessary business expense.

#### 4.4 Training Providers

Respondents were asked both **Who is currently the main provider of your training?** and **Who would you like to be the main provider of your training in the future?**

Slightly more respondents report that they are effectively their own current training provider than reported that their employer fulfils this role, but by far the largest proportion of respondents indicate that in the future they would like to see their employer being the main training provider. While 47% of respondents provide their own training at present, less than one in six of those individuals want to maintain this responsibility in the future. A significant number (18%) of respondents would like to see IAI become the main future provider of their training.

		future provider				
		employer	self	IAI	other	don't know
current provider	total	47%	10%	18%	14%	12%
employer	45%	27%	0%	8%	4%	6%
self	47%	16%	8%	10%	8%	6%
IAI	0%	0%	0%	0%	0%	0%
other	6%	4%	0%	0%	2%	0%
don't know	2%	0%	2%	0%	0%	0%

Table 16: Main training providers, current and future

Many respondents made relevant comments to these questions. These generally fall into three themes – the first being that of encouraging self-directed and self-empowering training:

*“This applies to some formal training also; I have also taken the time to acquire some skills personally without any formal company backing”*

*“I have no objection to providing for my own CPD”*

*“while I welcome the training offered by my employer, I believe self-training is very important”*

The second recurring theme is the IAI’s potential to become involved

(advocating IAI involvement in the future) *“In conjunction with individual employers to broaden the skill base throughout the archaeological community”*

*“If IAI decided to develop courses, employers would have to commit to allowing staff to attend training, preferably provide financial support also, but at least allow people to do courses without affecting their holiday entitlements”*

*“IAI Potentially through my employer, or existing 3rd level institutions in conjunction with IAI”*

*“Universities, colleges, societies as well as the IAI will need to provide training opportunities, otherwise most training of Irish Archaeologists will take place outside the country”*

*“Though the University can provide some training in some areas it would be useful for the IAI to pool the resources available to the archaeological community and provide its own courses to recognised professional standards – perhaps in association with various Universities, Institutions and Commercial companies.”*

comment was also received that

*“I would love to see the universities engage in CPD for archaeologists. It is a big gap at the moment.”*

The third recurrent theme reflects on the answers to the employer commitment question (4.3 above). This was exemplified by:

*“This depends on type of training undertaken but there should be a commitment from employers to facilitate employee training (e.g. training may require time off from work) and in some cases to contribute towards funding/provide funding. Pro-active employer involvement in employee training is far less prevalent in the private sector where the short-term costs for further training (funding, time off work) are more important than the potential long-term benefits to both employer and employee. In addition, job-description can be far narrower in the private sector (e.g. licensed director directs excavation, testing and monitoring; EIS archaeologist undertakes EIA etc). In this environment it may be more difficult to undertake further training with employer support.”*

and the issue is made stark by the respondent who wrote

*“I work for a commercial company which, unfortunately, does not see this as relevant”*

#### 4.5 Training Funders

Following directly from the questions about training provision, respondents were asked **who currently primarily finances your training?** and **who do you think should finance your training?**

The majority of respondents (59%) indicate that their employer currently funds their training, although higher percentage (69%) feel that their employer should be funding this. A majority of those who currently fund their own training would like to see this responsibility passing to their employer.

		future funder				
		employer	self	IAI	other	don't know
current funder	total	69%	14%	0%	6%	12%
employer	59%	51%	0%	0%	4%	4%
self	37%	16%	14%	0%	0%	8%
IAI	0%	0%	0%	0%	0%	0%
other	4%	2%	0%	0%	2%	0%
don't know	0%	0%	0%	0%	0%	0%

Table 17: Training funders, current and future

Of the comments received on this issue, one issue dominated. A number of respondents clearly feel that it is important that responsibility should be shared between the individual and the employer.

(funded by employer) *“With contribution from self depending on nature of training. One must be involved in pursuing own needs”*

*“If the training is specifically archaeological or work related I think that funding should be split between myself and my employer.”*

(funded by employer) *“and self”*

*“I think employers should contribute to and facilitate training of staff, but that the individual also has responsibility to self train”*

*“employers will need some commitment from employees in return for this investment”*

*“combination of self supported by employer”*

(funded by employer) *“but I think the individual has a role to play as well, depending on training”*

(funded by employer) *“and self if necessary”*

One respondent, who felt that their training should be funded by ‘other’, makes a case for IAI contributions to training funding.

*“I think there should be some form of financial support from employers, even by way of not affecting holiday entitlements. Also, IAI, if sufficient funding was available in the future, could provide small nominal funds which people could apply for e.g. Quaternary Research Association has small fund for members to attend courses, do fieldwork, attend conferences etc, Ecological Society has the same. Some form of ‘membership fund’. If courses are directly related to employment and not just for personal development then employers have to see the benefit in funding such courses.”*

## 4.6 Obstacles to Training

In terms of accessing and advancing training, respondents were asked **What obstacles to furthering your training have you encountered?**

An overwhelming majority responded that the lack of time was an obstacle to training, while a slight majority also reported the lack of opportunities as a problem. The need for previous qualifications or training was generally not perceived as an obstacle, and, perhaps surprisingly, neither was cost. However, of those reporting that they are currently self-funding their training, a higher percentage (37%) report cost as an obstacle they have encountered.

80%	<b>lack of time</b>
51%	<b>lack of opportunities</b>
29%	<b>cost</b>
24%	<b>lack of resources</b>
18%	<b>lack of management support</b>
10%	<b>other</b> (please comment below)
8%	<b>lack of previous required qualifications</b>
6%	<b>lack of previous required training</b>

Table 18: Training funders, current and future

Regarding time pressures, respondents commented that:

*“Time is always at a premium and sometimes the training the company organises seems like a luxury but I am always glad that I did it- sometimes it is difficult to make a judgement call on what you need training in until you do it”*

*"I've very little spare time on my hands. even for questionnaires!"* (this respondent kindly provided a great deal of extremely valuable comment in addition to fully completing this questionnaire, and so their contribution is particularly valued)

*"1) Time is a big issue for most people, particularly if a course is quite long and involves writing up projects, it can be hard to find the time."*

One respondent offers an explanatory opinion on these views, however.

*"The 'fire-fighting' nature of growth [in the] commercial sector in particular may have led to a perception that there was no time for training."*

The lack of availability of courses or of information on any courses was also commented upon.

*"Lack of relevant recognised training courses available"*

*"Lack of information/awareness in particular"*

*"difficulty in getting information"*

*"courses not available in Ireland or only in Dublin"*

*"lack of specific courses available either by distance or specific enough to grab my attention."*

*"2) there is a distinct lack of courses designed specifically for archaeologists once they are in employment and most post-graduate qualifications are not well set up for part-time commitment."*

*"inability to identify the training course that would suit my perceived needs"*

One specific comment was received on the cost of courses

*"3) Cost is a big factor, again depending on the length of time a course is for. Also, occasionally excellent relevant intensive short courses (say one or two weeks) are offered in institutions in Britain but the combined cost of the courses and travel is prohibitive."*

Two respondents commented on failings of employer support.

*"Though the company supplies training there is no consultation with staff as to the nature and extent of the training supplied"*

*"Lack of interest from company which employs me a hindrance"*

However, *contra* these arguments, one respondent noted, as an issue:

*"lack of buy-in from staff!! (professional conceit?)"*

Overall, these figures and comments certainly appear to suggest that accessible training, presented in a time-efficient way, would be welcomed as a significant improvement upon the current situation.

## 4.7 Training Availability

The final training related question asked about the availability of training, in both the technical, archaeological skills and the generic, professional skills. **Do you think there are sufficient training opportunities for each of the following skills in your area of Ireland?**

20%	<b>directing intrusive investigations (eg assessment, excavation)</b>
20%	<b>contributing to intrusive investigations (eg assessment, excavation)</b>
20%	<b>post-excavation analysis</b>
20%	<b>desk-based research</b>
18%	<b>archaeological landscape characterisation</b>
14%	<b>directing other non-intrusive field investigations (eg landscape or buildings survey)</b>
14%	<b>contributing to non-intrusive field investigations (geophysical survey)</b>
14%	<b>contributing to other non-intrusive field investigations (eg landscape or buildings survey)</b>
14%	<b>preparation of archaeological material for publication</b>
12%	<b>archaeological monitoring</b>
12%	<b>artefact or ecofact research</b>
10%	<b>archaeological resource management</b>
10%	<b>directing non-intrusive field investigations (geophysical survey)</b>
10%	<b>conservation of artefacts or ecofacts</b>
4%	<b>other archaeological skills (please comment below)</b>

Table 19: Archaeological training availability

In terms of archaeological skills, the responses are crashingly negative. No more than a fifth of respondents considered that there are sufficient training opportunities for any particular archaeological skill. Comments received on this particular question were often extensive and almost universally negative. People do not feel that there are enough training opportunities available to them.

*“Basically no”*

*“Courses especially designed for training in specialist analysis (e.g. osteology, zooarchaeology, archaeological biochemistry) are still largely absent within Ireland”*

*“Few of the above. The universities are good at training graduates in general knowledge of Irish archaeology, eg. sequence of bronze age axe types, and how to critically use this information. This is not a criticism, this is what are what I call 'in at the deep end/no hand held training' e.g. in terms of monitoring or post-excavation analysis. This was a feature of the Celtic Tiger in a lot of disciplines, not just archaeology.”*

*“I am not aware of any training in these competences other than at the University undergraduate and post-graduate level.”*

*“I am not very aware of the differing levels of archaeological training available and I'm only 10 years out of university”*

*“I am unaware of any practical or effective training courses”*

*“I do not think that there are sufficient training opportunities for any of the above. Training is mainly limited to informal on-the-job training given by more experienced personnel”*

*“I don't know, haven't had to research it but would guess that there are not sufficient opportunities for all of these skills”*

*“I know of no training courses for most of these.”*

*“I'm not aware of any of these opportunities, apart from elements of university degree courses. In the case of such things as archaeological monitoring, the best training is to tag along with someone and learn from them.”*

*“no there are not. Most archaeologists are self taught through practical experience in all of the above. These subjects should be covered at third level along with the pure academic stuff.”*

*”no to all areas”*

*“No to all of them!”*

*“No to all of these!”*

*“No to all”*

*“no training in any”*

*“No, other than through the traditional university routes, which are considerable time commitments”*

*“None of the above”*

*“there is scope for expansion in opportunities in all of these skills”*

Overall, it is felt that more opportunities exist for training in the generic, professional skills (although no particular skill-specific training was identified by more than 50% of respondents as being readily available), but comment was received that while training in these skills may be available, they are rarely available in an archaeologically-specific manner.

*“However, most of these courses are not specifically relevant to archaeological profession.”*

*“I think there are sufficient training opportunities for all of the above but not in an archaeological environment.”*

*“I’m sure there are improvement course available, but not any that are geared towards archaeologists”*

*“These skills need to apply directly to archaeology”*

*“These types of course are more easily accessible, but in the context of the archaeological profession, tailored courses would be useful”*

*“Yes but none specifically tailored to the archaeological industry”*

Some respondents commented on availability in the Dublin area, but implying that they might not be available elsewhere in Ireland.

*“Yes there should be in Dublin area”*

*“yes in Dublin”*

45%	<b>business skills / marketing / sales</b>
41%	<b>communication skills</b>
41%	<b>information technology</b>
41%	<b>languages</b>
37%	<b>customer service</b>
31%	<b>education / training (including lecturing)</b>
31%	<b>people management</b>
31%	<b>project management</b>
27%	<b>data analysis</b>
27%	<b>media skills</b>
25%	<b>report writing</b>
25%	<b>resource management</b>
22%	<b>information management</b>
16%	<b>event management</b>
4%	<b>other generic skills (please comment below)</b>

Table 20: Generic training availability

## 5.0 Professional Training Needs

The final part of the questionnaire sought the opinions of the respondents on training as a strategic, sector-wide issue, rather than just on the personal level as the previous questions had enquired.

**Considering the overall training needs of the profession as a whole, which of the list of skills should be included in the three stages of professional training: [A] initial (tertiary education), [B] induction (entry to professional practice) and [C] in-service (Continuing Professional Development)?**

### 5.1 Initial Training

84%	<b>desk-based research</b>
76%	<b>archaeological landscape characterisation</b>
73%	<b>artefact or ecofact research</b>
71%	<b>contributing to non-intrusive field investigations (geophysical survey)</b>
71%	<b>contributing to other non-intrusive field investigations (eg landscape or buildings survey)</b>
67%	<b>contributing to intrusive investigations (eg assessment, excavation)</b>
53%	<b>post-excavation analysis</b>
53%	<b>conservation of artefacts or ecofacts</b>
49%	<b>archaeological resource management</b>
43%	<b>preparation of archaeological material for publication</b>
31%	<b>directing non-intrusive field investigations (geophysical survey)</b>
31%	<b>directing other non-intrusive field investigations (eg landscape or buildings survey)</b>
27%	<b>directing intrusive investigations (eg assessment, excavation)</b>
27%	<b>archaeological monitoring</b>
10%	<b>other archaeological skills (please comment below)</b>

Table 21: Initial archaeological training needs

Respondents enthusiastically endorse the skills of contributing to fieldwork projects as being competences that should be acquired through tertiary education. It is also very significant that the non-fieldwork analytical and research skills are also prioritised here – these are exactly the skills that were identified as being necessary parts of many individual respondents’ work, which were often the skills that the respondents had not been previously trained in.

The generic skills that are considered to be most important at the initial level focus on analysis, in terms of using data and the writing of reports, along with IT. It is perhaps surprising that languages are seen as being so important, given their relatively low priority in most current working roles. Managerial skills are identified by significant numbers (but not majorities) of respondents as being important at this level.

78%	<b>report writing</b>
73%	<b>information technology</b>
71%	<b>data analysis</b>
55%	<b>languages</b>
51%	<b>communication skills</b>
43%	<b>education / training (including lecturing)</b>
43%	<b>information management</b>
33%	<b>project management</b>
33%	<b>resource management</b>
24%	<b>people management</b>
20%	<b>media skills</b>
14%	<b>business skills / marketing / sales</b>
14%	<b>customer service</b>
8%	<b>event management</b>
4%	<b>other generic skills (please comment below)</b>

Table 22: Initial generic training needs

## 5.2 Induction Training

At the point of professional entry, the archaeological skills that are identified as being considered most important are generally those with some level of responsibility, but not ultimate responsibility for a project. Archaeological monitoring is often a skill with exactly this level of responsibility. Overall, each of the three separate skills of contributing to fieldwork projects are reported as being of greater importance at this stage than the skills involved in directing projects. The post-excavation skills of analysis and preparation of material for publication are also recognised by the majority of respondents as being important at this stage.

71%	<b>archaeological monitoring</b>
65%	<b>post-excavation analysis</b>
53%	<b>preparation of archaeological material for publication</b>
49%	<b>contributing to intrusive investigations (eg assessment, excavation)</b>
47%	<b>directing intrusive investigations (eg assessment, excavation)</b>
45%	<b>contributing to other non-intrusive field investigations (eg landscape or buildings survey)</b>
43%	<b>contributing to non-intrusive field investigations (geophysical survey)</b>
41%	<b>conservation of artefacts or ecofacts</b>
41%	<b>desk-based research</b>
39%	<b>directing non-intrusive field investigations (geophysical survey)</b>
39%	<b>artefact or ecofact research</b>
37%	<b>directing other non-intrusive field investigations (eg landscape or buildings survey)</b>
35%	<b>archaeological resource management</b>
16%	<b>archaeological landscape characterisation</b>
8%	<b>other archaeological skills (please comment below)</b>

Table 23: Induction archaeological training needs

The generic skills needed at this level can be considered to be evenly spread in terms of importance, with the full range of managerial and communicative skills being recognised by significant numbers of respondents as being significant.

51%	<b>resource management</b>
47%	<b>communication skills</b>
47%	<b>report writing</b>
43%	<b>customer service</b>
41%	<b>education / training (including lecturing)</b>
41%	<b>project management</b>
39%	<b>information management</b>
39%	<b>people management</b>
33%	<b>business skills / marketing / sales</b>
33%	<b>information technology</b>
31%	<b>data analysis</b>
27%	<b>media skills</b>
16%	<b>event management</b>
12%	<b>languages</b>
2%	<b>other generic skills (please comment below)</b>

Table 24: Induction generic training needs

## 5.3 CPD Training

Respondents consider that the most important archaeological skills for in-service continuing professional development training are the preparation of the material produced from fieldwork projects for publication, together with the skills needed for the running (directing) of fieldwork projects. A majority of respondents also see other analytical and research skills as being important, including those relating to arte- and ecofacts.

Fieldwork skills that carry a lesser level of responsibility are considered to be less important training priorities at this point in individuals' careers.

69%	<b>preparation of archaeological material for publication</b>
65%	<b>directing other non-intrusive field investigations (eg landscape or buildings survey)</b>
61%	<b>directing intrusive investigations (eg assessment, excavation)</b>
59%	<b>directing non-intrusive field investigations (geophysical survey)</b>
55%	<b>archaeological resource management</b>
53%	<b>post-excavation analysis</b>
53%	<b>conservation of artefacts or ecofacts</b>
53%	<b>artefact or ecofact research</b>
49%	<b>desk-based research</b>
39%	<b>archaeological landscape characterisation</b>
37%	<b>archaeological monitoring</b>
27%	<b>contributing to intrusive investigations (eg assessment, excavation)</b>
27%	<b>contributing to other non-intrusive field investigations (eg landscape or buildings survey)</b>
25%	<b>contributing to non-intrusive field investigations (geophysical survey)</b>
8%	<b>other archaeological skills (please comment below)</b>

Table 24: CPD archaeological training needs

The level of response for generic professional skills training as a profession-wide need again exceeds the levels of technical skills identified as priorities. Significantly, the skills of people management and project management were both identified by three-quarters of respondents as being important for in-service CPD training, while every other specific professional skill listed (with the exception of languages) was endorsed by over 40% of respondents as being significant.

75%	<b>people management</b>
75%	<b>project management</b>
71%	<b>business skills / marketing / sales</b>
65%	<b>media skills</b>
63%	<b>event management</b>
63%	<b>resource management</b>
57%	<b>customer service</b>
49%	<b>data analysis</b>
49%	<b>report writing</b>
47%	<b>communication skills</b>
47%	<b>information management</b>
43%	<b>education / training (including lecturing)</b>
43%	<b>information technology</b>
29%	<b>languages</b>
2%	<b>other generic skills (please comment below)</b>

Table 25: CPD generic training needs

## **6.0 Excavation Licencing**

Intrusive archaeological fieldwork can only be undertaken under licence from the Department of Arts, Heritage, Gaeltacht and the Islands. “This legal requirement has been in place since 1930 and is used as a control to secure, amongst other desiderata, best practice and professional standards in the carrying out of excavations. In more recent times most monitoring work is also required to be undertaken under licence” (Byrne 2000, 573).

Before archaeologists are granted their first licence, their experience and knowledge have to be assessed by an interview panel.

To date, the existence of the excavation licencing system has possibly created a false end goal for archaeological training in Ireland. Some archaeologists have identified achieving licence eligible status as the ultimate target for their professional development, and when that has been achieved see no further need to develop, maintain or update skills. Once licence eligible status has been achieved, the licencing system then regulates at the front-end only (on the basis of method statements submitted with the application) rather than on the basis of the ongoing skills of the licence holder.

The vocational skills identified in the requirements set out by the Department of Arts, Heritage, Gaeltacht and the Islands have all been included in the analysis undertaken in this project.

*Assessment of the competence of interviewees.*

*The panel will assess the competency of interviewees with regard to the following headings:*

- (i) knowledge of Irish archaeology (including material culture);*
- (ii) knowledge and experience of relevant archaeological excavation and survey techniques;*
- (iii) knowledge and recognition of archaeological objects;*
- (iv) knowledge of experience of appropriate responses to problems of storage and conservation of archaeological objects uncovered in the course of excavation;*
- (v) knowledge and experience of post-excavation analysis;*
- (vi) knowledge, experience and skills in the preparation of archaeological material for publication*
- (vii) knowledge of relevant legislation*

Department of Arts, Heritage, Gaeltacht and the Islands 2002, 11.

Gaining licence eligible status should not be the end goal of any archaeologist. Once archaeologists have demonstrated their skills and knowledge to achieve this status, they need to maintain these skills by keeping them up-to-date through focussed continuing professional development.

## 7.0 Conclusions and Recommendations

This report is one element of the overall IAI project to develop a structured, accredited Continuing Professional Development programme for its members. This is built upon the findings of CHL 2002b, *Profile of the Archaeological Profession and Education Resources in Ireland*, which identified that

- current education and training of archaeologists is more academic than vocational
- there is poor supply of courses to meet professional development needs
- there is a lack of support for CPD, especially investment by employers.

This report has explored these three issues in greater depth. In doing so, it has identified that there is a high level of demand for generic, professional skills and non-fieldwork-based archaeological skills, with insufficient supply of training delivery to meet that demand. This mismatch between training supply and demand has led to the emergence of skills gaps across the profession.

The principal findings of this report are:

### Previous Experience and Training

- Respondents have received a greater amount of technical, archaeological training in the past than they have received training in generic, professional skills.
- Overwhelmingly, individuals have not been trained in the generic professional skills that were needed for their current working roles. Many archaeological skills have also been acquired *ad hoc*.

### Opportunities for Training and CPD support

- There are insufficient opportunities for training in all archaeological skills.
- Training in generic skills is more widely available, but often not in archaeologically relevant forms.
- Particularly high levels of demand exist for future training in generic skills and non-fieldwork archaeological skills.
- Employers are generally very supportive of training, although greater financial support is sought.

### Training Delivery

- Formal training courses are preferred as a delivery mechanism, with high numbers of non-Leinster respondents also welcoming distance learning.
- Lack of time and lack of opportunities are seen as the major obstacles to training.
- A role for IAI in training provision would be welcomed.

It is recommended that IAI utilises this research to take forward the education and training programme.

As an initial stage in advancing this agenda, IAI should seek to consult with higher education providers to explore the development of learning programmes in response to the needs identified.

It is suggested that report writing and preparation of materials for publication represent one area that could be developed across all stages of the programme. In

addition, three initial priority areas, that might be considered for the development of training programmes are:

1. Initial training in non-fieldwork analytical and research skills.
2. Induction training in fieldwork skills with mid-range responsibility.
3. CPD training in managerial skills

All of these training programmes should be delivered (at least in part) by suitably experienced archaeological practitioners. Following the development of these programmes, and using them as pathfinding/pilot exercises, IAI should undertake further development in partnership with suitable providers.

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## **Appendix I Methodology**

The aim of this project has been

- to undertake a refined and focussed assessment and analysis of training needs in Irish archaeology, being able to identify detailed requirements within the different sub-sectors of archaeology in Ireland, in order to form a baseline for the development of solutions for identified issues.

The project has been undertaken on behalf of *Options Consulting* by the *Institute of Field Archaeologists* (IFA), basing the methodology on that used in Archaeology Labour Market Intelligence: Profiling the Profession 2002-03 (Aitchison & Edwards 2003), amended as appropriate to address the specific issues facing archaeological practice in Ireland.

The project has been undertaken by the leader of the team that carried out the abovementioned research, Kenneth Aitchison (IFA Head of Training and Standards).

This has aimed to expressly link training needs to skills used in archaeological practice, building on those recognised in *Profile of the Archaeological Profession and Educational Resources in Ireland* (CHL 2002) and incorporating detail previously developed in the (UK) National Occupational Standards for Archaeological Practice (Carter & Robertson 2002).

Across a relatively small profession, a high level of response is necessary to provide reliable data to work from. An online questionnaire form was developed which will give respondents the opportunity to complete their responses electronically.

The questionnaire was placed on the IAI website for download, and IAI members were invited to download, complete and return the questionnaire. The questionnaire combined the use of check-boxes and free-text sections.