



FORUM DISPATCH

inform, debate, represent



Newsletter 14
Spring 2014

The newsletter of the Diggers' Forum



Welcome to Issue 14 of the Forum Dispatch, this issue has a bit of a skeletal theme, with an article from Isabelle Heyerdahl-King and Lauren McIntyre on post-excavation techniques -what happens to all those skeletons after you have dug them up, what you can find out about them, and how. We also have an article from Liam Lanigan on teeth, and what they can tell you, and a review of MoLA's osteological monograph 'London's Diseases' and how it could be used on site.

We've also got an article by Paul Everill on University training, how it prepares you for a career in the field, and how Winchester University is trying to change all this –and we have a response by one of his students, Susan Chandler, who suggests the shocking idea that maybe the employers should take responsibility for training their staff. Training and CPD are important issues at the moment and we'll be continuing the theme in the next issue with a follow up article debating whether university degrees were ever a requirement for good archaeologists and whether there should be more space for non-graduates in the profession. Why pay £40K for a 4 year career?

Our final piece is from Helen Harman, who

brings us an insight into how museum archives work and why they are so important. We hope to follow this up with an article on site archives –Do's and Don'ts for on-site, and tips on preparing a site archive that a museum will actually want to receive.

Of course we also have the usual range of articles: the roundup of what DF committee members have been up to, news on our campaigns and the ongoing minima debate.

Work has meant that we haven't yet launched the promised DF blog -hopefully you've all been just as busy- we hope to be able to bring this once we have a bit more time. If you'd like to get involved please get in touch. I'd like to thank Sophie Jennings for her help in producing this issue of the newsletter, it has certainly made a big difference in easing the workload.

And finally, as always, if you would like to send in any photos, news, reviews, articles or opinion pieces we'd be delighted to hear from you.

Chiz Harward, Newsletter Editor



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admin@archaeologists.net

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If you have access to an A3 printer then you can use booklet print:

http://kb2.adobe.com/cps/897/cpsid_89736.html



Diggers' Forum mission statement

The Diggers' Forum (DF) is committed to creating a positive, sustainable and financially viable career for all professional archaeologists at all points in their career. The DF is a Special Interest Group of the Institute for Archaeologists representing all archaeologists working out on site at whatever grade. Membership of the DF is open to all.

The DF was formed in 2004 to represent the views, aspirations and professional requirements of its members, in addition to campaigning for improvements in pay and conditions within the profession.

The views of those new to a career in archaeology, or who are employed at the lower rungs of the job, are under-represented in the industry. It is a key aim of the Diggers' Forum to redress this balance and keep the issues and welfare of its membership at the top of the IfA agenda and publicised to the world beyond.

The Diggers' Forum will serve as a platform to provide up to date news and information to its members, as well as actively encouraging debate and involvement within the DF and the IfA on the developing roles required of field-staff now and in the decades to come.

Join us in the Diggers' Forum and help make a positive difference to our profession: <http://www.archaeologists.net/groups/diggers>



Cotswold Outdoor Discount

Did you know that IfA members can get a 15% discount at Cotswold Outdoors? If you are into the outdoors, or just need some new socks for site then you could start making back your IfA subs whilst shopping for anything from fleeces to sleeping bags, tents to torches.

Quote 'Institute for Archaeologists' at the till and show your IfA membership card. IfA members of the DF should have been sent a discount code by email they can use. If you didn't receive it, let us know. You may need to speak to the manager as staff may not be immediately aware of the discount. The discount code is also valid for phone and online orders.

Please note this discount cannot be used in conjunction with any other offer. If you have any difficulty using this offer please contact the IfA office (and let us know as well!).



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If you would like to contribute to the Diggers' Forum Newsletter, or have a suggestion on a subject we should cover, any dates for the diary and details of events or other news please contact the editor by email:

chiz@urban-archaeology.co.uk

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Join us and make your voice heard!

The Diggers' Forum is the IfA Special Interest Group for field workers, that includes EVERYONE who primarily works at the sharp end of archaeology out on site.

The DF is open to all and represents field archaeologists at all levels -from a student considering professional archaeology to Project Officers running major excavations. The Diggers' Forum

represents YOUR views on a wide variety of matters within and beyond the IfA, we are the second largest SIG within the IfA and the bigger we are the bigger our voice.

If you are a member of the IfA membership of the Diggers' Forum is FREE, for non-members there is a subscription of £10 a year. To join email: groups@archaeologists.net



Bookmarks

Sophie Jennings

Tying in with this issues' theme, below are a range of links associated directly (and somewhat indirectly) with the study of human remains: blogs, professional bodies, guidelines, and T-rex's. All for your online reading pleasure.

BRITISH ASSOCIATION FOR BIOLOGICAL ANTHROPOLOGY AND OSTEOARCHAEOLOGY

Taken from the website: "BABAO promotes the study of biological anthropology for the purpose of understanding humanity from the past to the present". Like the IfA, BABAO promotes ethical standards for the study of human remains in the UK.

<http://www.babao.org.uk/>

'Science and the Dead: A guideline for the destructive sampling of archaeological human remains for scientific analysis'

This guideline published by English Heritage, while not directly relevant to field practice, provides a useful overview for anyone interested in sampling strategies and what can be gleaned from human remains.

http://www.archaeologyuk.org/apabe/Science_and_the_Dead.pdf

These Bones of Mine

A regularly updated blog by a British archaeologist, with a focus primarily on human remains and archaeology, featuring in-depth interviews, commentary on current (archaeological) events and much more. A great place to start if you are interested in finding out more (on almost anything it would appear!) as blog posts feature short bibliographies and there is an extensive list of categories to help you search through the blog's archive.

<http://thesebonesofmine.wordpress.com/>

Bones Don't Lie

Blog on mortuary and bioarchaeology including commentary on both current news as well as the author's research. The blog also features links to a number of other blogs and websites related to the study of human remains.

<http://www.bonesdontlie.com/>

Powered By Osteons

My favourite thing about this blog is the weekly review of the accuracy of the forensic work portrayed in the TV show 'Bones'. The author's interest also include the study of "dead Romans".

<http://www.poweredbyosteons.org/>

Tyrannosauroida Central

This is one to help equip yourself for the next time a (well-intentioned) lay person asks you about dinosaurs: a blog dedicated to the Tyrannosaurus Rex and related dino's. Now you can bore them to tears with details on dinosaur osteology the next time you are accosted at the pub!

<http://tyrannosauroidacentral.blogspot.co.uk>



DF Roundup and news



DF Committee news

Your DF committee has been working hard over the past few months, Sadie, Mary, Sophie and Chiz have all been on IfA council making sure that the wide range of voices include practising site staff. We all feel that the current council has a pretty positive outlook on issues close to our hearts, but it is hard work to turn council's good intentions into solid action.

It would be great to get some more site staff into the council; if you are interested in getting more involved then get in touch with the DF committee or the IfA office and we can answer any questions and give you all the support we can.

Chiz Harward is now on Registration Committee (Organisations) and Sadie Watson is on Professional Development and Practice Committee, which means DF has a voice on both of these important committees. We can't always attend as we all have work, so if anyone can offer to join the committee -particularly the RC(O) committee- we can make sure we can actually have a presence at the meetings.

DF committee members have made sure that the RC(O) minutes are now actually distributed to Council whereas they had previously only gone to members of the committee, IfA Chief Exec and

IfA Chair. This might not seem much of a victory (especially as it was meant to happen already) but it ensures that council members know what is happening on RC(O) committee making the committee more accountable to members.

We have supported publishing an online list of RO inspections so members can see when the process happens and get in touch with the inspection panel; we have also called for list of RC(O) committee members to be put on IfA's website to aid transparency. Currently IfA do not list the members of any advisory committees on the website, and would need to gain the permission of committee members to do this.

Although attempts have been made to diversify all IfA committees (see last newsletter issue), committees remain composed of those who volunteer -at present these are nearly all senior managers which obviously skews the committee perspective. ANY corporate IfA member can stand for a committee role, and IfA and DF really want more junior staff to get involved- if you are interested, get in touch with the DF committee or IfA Office and we can let you know what it involves.

We need you!

DF committee members are at full stretch, and although we hope to gain one new member soon, we really do need more Diggers to join us on committee and give just a couple of hours every month to helping out.

We would also really like to hear from you if you could become a more active member -sending in information on pay levels, keeping an eye open for bad practise and letting us know what is going on.

Current committee members are all working hard to make sure that we can cover the wide range of issues that affect us, but if the DF is to survive we do need more of you to help. Don't leave it to someone else, please get in touch if you would like to talk about what you could do to help your fellow Diggers.

Complaints? Over to you...

DF continue to raise more queries with IfA about advertised jobs; recently these have been from companies, mostly Registered Organisations, that do not appear to be meeting the new minima



over the transitional period immediately before and after the new minima are introduced (1 April 2014). Some of these are apparently due to pending pay awards however given that the IfA has stated that JIS will not carry any sub-minima adverts we feel the wording needs to be tightened up so any confusion is avoided and everyone knows where they stand.

We also want jobs that are advertised over the annual transition period, especially those with wide salary ranges, to clearly state whether or not they will meet the incoming minima. This is a simple change and will be good for everyone; at present several existing employees have contacted DF to say they have no idea if they will get the same higher rate that was advertised for new starters. Transparency and communication are needed here.

We read every advert on the IfA JIS, BAJR and anywhere else we spot them; we raise issues of wording, pay, and conditions with the employers and with the advertising media. Where we don't get resolution we make complaints. Quite often we get things changed BUT if we don't know about a situation we can't act on it. We are not a union, and do not have unlimited time and resources, but we will do what we can and that includes putting in complaints to IfA.

The advertised jobs are one thing, but are existing staff wages going up in line with IfA minima? If you work for an RO and haven't had a wage rise to meet the new minima then GET IN TOUCH. We can't promise that we can magic up a result for you, but we do what we can. If you know of a company paying below minima please let us know and we will do what we can. Even if we can't do anything to stop them, we will at least know that it is happening which will help our advocacy work within the industry.

We are still waiting for a response from IfA staff to our January 2012 [Away work and travel recommendations](#), where we asked that all adverts have links to rates of travel time, accommodation, and subs. We look forward to getting a response soon.

In addition to the above, we have also challenged the distribution by another SIG of a request by an academic for a 'professional' illustrator to work for free on a project as not the type of thing that IfA should be encouraging.

DF have been contacted by Diggers about several problems with sites and with individual problems of potential exploitation. DF provided support and advice and one of the situations has been resolved to the benefit of the member. These issues have not lead to any complaints - there is unfortunately still a fear of repercussions, and a belief that there is no point in taking complaints forward. However, we have noted the companies involved and will continue to keep an eye on things in the future..

Although neither DF or IfA are unions, this is work that DF members are happy to do, but in many cases is the kind of support that a union is better placed and resourced to give.

DF have also received information about alleged irregularities with the placing of archaeological planning conditions in a particular geographical area, DF are investigating in conjunction with another archaeological watchdog.

Reskilling the Diggers

Chiz Harward's 2012 article on deskilling and how to reverse it, is now available on-line on his Scribd page, along with several other articles originally published in the DF newsletter:

<http://www.scribd.com/doc/213529987/Reskillin-g-the-Diggers-handing-over-the-means-of-interpretation>

Training and CPD survey

Progress has sadly stalled on the analysis of the survey, however we have secured some funding from the IfA to take this forward and will shortly be commissioning analysis of the results. We hope to get this out by the end of the summer, however with so few active DF members it's hard to keep everything on program.

DF/Prospect Conference

We are just waiting for the last couple of papers from last year's DF/Prospect One Day Conference in London on pay and training. Once we have all the final papers we will produce an online publication, which will include recommendations on where DF and Prospect should focus activity. We've asked all our speakers to list the five areas where we need to focus to deliver positive change, but also the five areas that are likely to derail progress!



Pay minima, a personal view

Chiz Harward

The current situation with minima is a complex one and a proper understanding of it would entail going back many years; suffice it to say that it has been a rocky road. Since we were formed in 2004, Diggers' Forum have always been there trying to push the minima forward. There are many opponents of minima: those who say that market forces should prevail and that minima are not effective in raising wages anyway, and those that say it is not the job of a professional institute to get involved in the pay of their members -pay that directly affects every archaeological career, usually to its detriment. These voices want minima scrapped completely. I would argue that market forces are not good for archaeology (or most other things) and that a safety net is required. And as a professional institute IfA should be looking at helping its members, especially the most vulnerable, to best equip them for a career in archaeology, not pandering to those who business models are based on low pay and a largely disposable workforce.

We have had new minima since the start of the month, up 4.7% from last year and many archaeologists are seeing wage rises to reflect this. For the first time many site assistants are getting over £17K. It was very pleasing to see the first crop of adverts for increased wages. However since the minima increased on 1 April, we suspect that many who have not received a pay increase may not be paid above the current minima, despite working for ROs.

Information received from site is that some ROs are saying that there are pay awards pending that will take staff wages up to the new minima, for others there appear to be no plans to meet minima, or there is no communication to staff; other organisations say that their parent bodies won't allow wage rises to meet minima -but that the managers argue that they have lovely pensions and actually pay overtime, which somehow compensates for a sub-minima wage.

All in all this is a bad situation and it is a time of uncertainty, the future of minima and BAJR grades is potentially at risk. It's worth briefly looking back at where this all came from:

Legal advice

In 2012 the IfA was 'made aware' (by undisclosed persons) that there was a potential legal issue with setting mandatory minima and that the minima could derail Charter ambitions. This potential problem had been widely known about, yet the timing of the challenge was clearly intended to try and scupper a minima increase.

Legal advice (unpublished) was taken and discussed by council: the result was minima could no longer be a mandatory requirement of the RO scheme. DF and Prospect members made a valiant rearguard action against the wholesale scrapping of minima, and there were some successes: IfA council reiterated their unanimous support for minima, IfA would continue to set minima, and IfA should do everything it could to keep minima as a benchmark to be met or exceeded.

I hoped that the non-compulsory minima –which were voted up by a 5.2% increase could survive. I was buoyed by the promise that IfA would do all they could to keep them as a meaningful benchmark, and hoped that DF and IfA could continue in our efforts to improve pay for archaeologists. It wasn't good news, far from it, but it wasn't as bad as it could have been.

Working Party

So in 2012 the IfA created a diverse working party to look at the whole mess of issues around pay and conditions and to try and sort a route through. The issues went backwards and forwards between the Working Party. IfA's Council and other committees and little progress was made, apart from the clear need for employers and unions to meet and sort it themselves!

RC(O) committee

The council sent the Working Party reports to the RC(O) committee who would have to judge any sub-minima Ros. The RC(O) are tied by the scheme rules and say that all they can do is check that any RO can ensure their work is carried out to the required standards, and that companies can **'attract, retain and develop'** their staff. They say that they do this already as part of the RO inspections (held every three years), and therefore there is nothing additional that needs to be done. Under the rules they cannot simply sanction an RO for paying sub-minima, let



alone throw them out of the scheme now minima are not mandatory.

I would argue that the scheme does allow us to go further and to actively and immediately investigate any RO paying below minima, and that during this audit the employer should be made to clearly demonstrate **why** they aren't meeting minima, what they are doing to meet them in future, and **how** they actually manage to attract, retain and develop staff, and what mitigating factors there are to be able to remain in the RO scheme. Those were the wishes of council after all.

DF also repeatedly called for any ROs paying less than minima to be publicly listed, and this list to be indicated on an up-to-date and publicly accessible website, not just an annual yearbook.

Of course a possible insight into the reluctance of the RC(O) committee to be really pro-active about challenging sub-minima employers to demonstrate they are worthy of the RO scheme can be seen by simply looking at a list of RC(O) members: nearly all members are either 'Responsible Post Holders' –bosses of ROs, or work in senior management roles in ROs. There is one illustrator and two freelancers. More a committee of ROs than an RO auditing committee. Of course this is not the fault of those committee members who have volunteered their time, but it still skews the perspectives of the committee.

DF has tried hard to get systems in place to deal with any cases of sub-minima wages ready for the new minima year -not to try and force through any wish to set minimum wages, but because we all need to know where exactly we stand, and what exactly the RO stamp means and what it is worth. IfA council has said that any RO paying less than minima must inform IfA, and that would trigger an investigation, but we still don't have a framework for dealing with these issues **quickly, effectively and fairly**.

If the RO scheme is to have any value it must be perceived to be a scheme that requires exacting standards and where you can get thrown out if you fail to maintain those standards. It cannot risk becoming a scheme which is perceived as weak and toothless, where the worst that will happen is a mild slap on the wrist and to be told to improve within 12 months.

For me the biggest problem has been the inability of the IfA to act decisively, we have been consistently frustrated by IfA's seeming inability to actually come

to a decision. We repeatedly proposed that IfA research the potential scale of sub-minima salaries, and that we develop a framework that council could discuss and vote on to give clear guidance to the RC(O) committee on how it wanted sub-minima organisations to be judged. It is not of course helped that there are several committees, a working party involving unions, bosses and IfA staff, and IfA council all involved -it can take several months to get a response from another committee- but with such an important and pressing issue we should have cut across the committee diaries and really pushed for a satisfactory conclusion.

Where next?

At the time of writing there is no clear solution, DF are continuing to do all they can to create a fair and equitable way of preserving the minima and of making good council's decisions to keep minima, to increase them above inflation this year, and to make it as hard as possible for ROs to pay sub-minima wages. We have looked at many possible solutions, and in the face of overwhelming inertia we can do no more. Our positive proposals have been sidelined until it is too late to enact them, there have not been votes on issues where we have requested council votes, and there is little more we can do for now.

The threat is real, if those ROs that are not paying minima get their way, then the whole scheme, and potentially BAJR, may collapse. Just at the point when IfA and BAJR rates finally synced, when there simply aren't any significant employers paying below those rates, and when progress on increasing wages finally resumed, we stand on the brink of having the minima safety net pulled from under us. And when we lose minima I fear we will lose a lot else as well in a free-for-all of low pay and low standards

Experienced staff will lose out to those prepared to work for a pittance to get on the ladder that they themselves are pulling down, and experienced staff will leave the profession even earlier than currently. Our ability as a profession to attract, retain and develop new archaeologists will be challenged.

Standards will fall further and methodologies will be dumbed-down so that a new sub-strata of sub-PIfA archaeological labourers can cope with over-simplified archaeology. The employers, with commendable exceptions, have showed themselves incapable of grasping the training nettle, and of really fostering their employees; minima are a very small



part of the solution as a safety net, but in my view they are an essential one.

Another essential step is that IfA need to make an explicit statement that the job of Site Assistant is a PlfA level role (after all, that is how PlfA was originally defined!). If the employer argues the employee is not of PlfA level competence, but they are doing a Site Assistant job, then they must provide structured training for that employee to bring them up to that standard (as they currently are required to for 'trainee' jobs).

This would set a clear benchmark for the acceptable minimum standard of competence in excavation, and help prevent any erosion of standards. It follows of course that all site assistants should therefore be paid at or above the relevant minima. There should be no place for an underclass of 'barrow pushers' on site: either you are a competent archaeologist, or your employer must be training you to become one. Work has started on IfA schemes such as 'Pathway to PlfA' and I hope they make this crucial linkage within these schemes.

I strongly believe that the improvement of pay and conditions for site staff is inextricably linked to the betterment of archaeological practice and standards of work. I believe that the continued situation of low pay and inadequate training and engagement cannot endure without negatively affecting the work we do and the careers we hope for. The current situation is inherently destructive of careers and of archaeology, and there are many archaeologists and employers who are abdicating their professional and moral responsibilities to themselves and each other.

At this moment in time I sincerely feel that we all know what is wrong with the profession, and we know how to fix it. The creation of a sustainable and equitable profession is possible, but that we are choosing to ignore the real issues and would rather let issues slide whilst we focus on shiny baubles like Charter or tokenistic schemes that benefit the few rather than the many.

DF have played within the rules throughout this campaign; we have sought to demonstrate that our arguments are sound, and that the opposing arguments are baseless. We have worked within the only system available and have put forward positive proposals, but personally speaking it is getting tiring. Do I feel like it was worth it? Yes, but only just. The personal, financial and professional cost has been

very high, but is it ever wrong to fight for what you believe in?

Should Diggers' Forum have taken a harder, more vocal or uncooperative line from the start? Maybe, but I feel that despite all the frustrations, working within the IfA has had more positive results for us all than the alternatives, and has allowed us to cut through the opposing arguments and set out our views and arguments on council and beyond. The DF has played a positive role in the whole process, we have defended your corner, but we have tried to move things forward to a better place for us all. We have tried to address all of the accepted truths, sacred cows and elephants in the room which hold us all back; in some cases we have taken them on directly and shown them to be false. **Where we are told 'there's no evidence for that' we have gone out and got the evidence to prove our case.** That has taken a lot of energy and my one regret is that more Diggers have not felt able to share the load.

The small core group of active DF members have achieved much, and in the face of set backs like minima, we have still achieved significant increases – this month's 4.7% increase being a significant step forward. We are not trying to take all the credit, BAJR rates have been a major help, the unions have done what they can, and the current council has been very supportive, but it has been DF who have constantly and doggedly pressed the arguments and shown the need.

DF continues to fight for a better profession: by questioning the accepted views on all sides, it strives to make us look at ourselves and our profession and see how it can be improved. Several years ago we re-wrote the Diggers' Forum mission statement and it still sums up who we are and what we do:

'The Diggers' Forum is committed to creating a positive, sustainable and financially viable career for all professional archaeologists at all points in their career.'

Chiz is on DF Committee, IfA Council, the IfA Working Party on Remuneration, and has just joined the Registered Committee (Organisations); he was previously on the Professional Development and Practice committee.

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IfA salary minima for 2014 -have you got it?

minima paying position. They have committed to this, after IfA Council reiterated its support for minima in principle back in November 2013.

The current minima are:

PIfA £17,094

AlfA £19,911

MIfA £25,738

It's also worth remembering that the current recommended salaries (based on what our colleagues in comparative jobs earn) are: PIfA £19,853-£20,926, AlfA £29,123-£31,561, MIfA £36,552-£40,276. Eye-watering eh? That's what we're aiming for, but we all know what we're up against...

Sadie Watson

Have you had your annual pay increase yet? What, not even an inflationary-linked one? We hear from the streets (ie fields!) that some units are giving out fairly decent deals this year, despite the shaky economic situation, so hope that this means some of us are looking a few % more. Many of the larger units' pay deals are running along lines of previous years, giving out larger % to people on lower pay to begin with, which should mean diggers and other lower paid staff. This may be down to the fact that thanks to your friendly (occasionally stroppy) DF reps on IfA Council the minima were raised by a healthy 4.7% from April 2014.

You may know that a fair few PIfAs were bouncing along the bottom of the old PIfA minima, so this should mean an actual pay rise for many of them! And indeed it does for some. At last! Although, for one unit in particular that shall remain nameless, their generous management have found other ways to reduce their overall package. What a surprise!

If you recognise the good news in this, then we're pleased that finally the tortuous path to rising minima has meant a pay rise for you. If you recognise only the bad, or if you know that your wages do not hit the new 2014 minima (see below), then you should know what to do by now:

- Speak to your line manager, or HR representative,
- If they prove to be less than helpful, then next port of call should be your union rep.
- If you're not a union member (and if not, why not?) then you should contact the DF, letting us know who you work for, and what your current salary level is.

If the situation is confused by issues such as pension contributions, public sector pay freezes, training schemes (with or without training!) and other things designed to make it impossible to work out what you should be paid, then let us know about that too and we will endeavour to sort the wood from the trees.

If we can't sort out the mire we will pass it up to the IfA and they will investigate the issues behind each non-



Sadie has been a field archaeologist for almost 20 years and still prefers to be on site. She works for MOLA as a Project Officer, predominantly on large multi-phase projects, and is writing a PhD on urban archaeological methodologies.

Sadie joined the DF as although terms and conditions for field archaeologists should be a priority for everyone they have been sidelined in the past and without a vocal minority nothing would ever change.

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Chartered Institute for Archaeologists –Panacea or Emperor's new clothes?

Chiz Harward

The IfA has announced that its Petition for Charter has been approved and signed by the head of state. There's still a way to go but it's well past the tipping point. They seem pretty happy about it, but what does Charter actually mean to us? Everyone admits there are lots of questions still to answer, many of which cannot be answered in advance. Will there eventually be Chartered Archaeologists and will all existing Members get 'Grandfather's rights' or will everyone have to sit exams? Will we be able to work if we're not members of ClfA? Are 'Registered Organisations' compatible with a Chartered Institute? Will it mean higher wages? Will it mean higher standards and more enforcement? And will it mean the IfA subs go up?

IfA have put lots of information up on line including a FAQ: <http://www.archaeologists.net/charter> but here Manda Forster from the IfA puts her personal view:

"The whole issue of individual Chartership is clearly at the top of peoples concerns and is something which needs clear discussion with members, Registered Organisations and others in the sector. There is lot of debate which has to happen before anything is set in stone, and I would hope you will all be engaged in those discussions. There is not a fixed plan as yet for what a Chartered Archaeologist may look like - those plans will be the result of discussions not only of the IfA Council and Committees, but also meaningful consultation with members and other stakeholders.

I believe that the process has to be something which is credible, and which stands us archaeologists in good stead when dealing with other Chartered professionals (and other archaeologists): a peer-reviewed process based on proven ability and ethical competence -not simply length of service.

IfA will need to think seriously about how members of all grades, experiences, backgrounds and job titles can get involved in that discussion and debate and I would be interested to know from group members how you think that can be best achieved? So, with

that in mind, I would ask how DF members think Charter will affect the profession.

For me being a member of a Chartered institute means that the archaeological profession should be more widely recognised as such. Research has highlighted that the public not only understands the meaning of Charter but sees it as an endorsement in terms of confidence in professionalism. Public endorsement is vital in ensuring our profession is protected and I think that Charter will make IfA's voice stronger, endorsing the Institute as a representative voice to policy makers. Better policy for archaeology means greater surety for professionals.

Another important impact should be professional parity - we work alongside members of professional institutes every day. Charter means the Institute is more recognisable to employers, clients/commissioners and other professionals as equivalent to Chartered bodies like RICS, RIBA, RTPI and the various engineering professional bodies. IfA members deserve to be recognised as skilled professionals adhering to high technical and ethical standards of practice - if you want to employ a professional, employ one accredited by a Chartered professional institute.

The knock-on effect could be broad-reaching, and could potentially address some of the issues which seem inherent to the profession - from standards through to access to archives, and including employment and career prospects. The impact of becoming a Chartered institute depends on what we as a profession do with it, and one of my jobs at IfA will be making sure that people know enough over the coming months to make the most of it.

So, speaking as both a member and a member of staff, what happens next is really up to us all - including IfA Council and committees, IfA members and organisations. Charter will not automatically improve pay and conditions for archaeologists, but with a much stronger voice to promote the value of the work we do, we have an opportunity to see improvements in remuneration as a result. For me at least, this is a great leap forward for the Institute and an opportunity to make a positive and tangible impact on the profession and, as a result, on professionals.'

Manda is full of positivity, whilst recognising there is much to discuss and decide. For me however, Charter still seems to ask more questions than it answers, and I'm not convinced that it will be 'jam tomorrow' as many of us haven't even got bread and butter today. There are many issues that haven't been answered about what the shape of a Chartered Institute will be (as Manda says), and what this will really mean for us all. It's all very well to say we'll be treated as professionals by others, but when we can't



even treat each other like professionals I'm not so sure of the chances of lasting across-the-board benefit.

Charter can be seen as a sign of maturity in a profession -and is something that will have real ramifications for all of us who work as professional archaeologists. Charter is a key aim in the IfA's current Strategic Plan, approved by membership, and IfA have tried to involve members in discussions about Charter over the last few years. Charter will mean a major restructuring of the IfA with a Board of Directors and an Advisory Council of up to 40 drawn from Special Interest and Area Groups and the wider membership.

These changes will mean a real shift in how the IfA is run and how members and Groups can represent their views. I would consider this to be a good thing, however there is no mention of the Advisory Council on the Charter FAQ page, and I have real concerns about how many members will be able or willing to get involved in the new structures.

For me the crux is that Charter is something that we should have applied for once we had really resolved the pressing problems of pay and careers, training, professionalism, standards and trust. Although IfA have made progress in many of these areas there is still much to do, and I would say that Charter has become something of a panacea -a solution for each of our problems whether they be better pay and meaningful careers, higher standards, professional status or imposing barriers to entry -it has sometimes seemed like 'it will all be better once we're Chartered' yet I haven't seen a single persuasive argument for how issues that affect site staff will improve because of Charter. It is claimed of course that we, the members, will be the catalyst, but if we can't sort ourselves now, why will we suddenly be able and willing to do so in the future just because we are chartered?

To me one of the problems with IfA seems to be that it's always looking to the next project/aim, rather than really resolving the pressing issues of the day. I'd personally like to see the IfA help sort out the current problems, before it starts on further projects. The staff are overstretched (and more staff would mean higher subs), the membership isn't really engaged, and there's massive issues with trust, pay, training and standards. Poor pay and job security really is having a negative impact on too many members' lives and careers. I would argue that we should have concentrated on sorting all these issues out, and only then moved forward to Charter from a position of trust and achievement. Charter would then be rightly deserved, fully supported, and have every chance of being a success from the outset.

To some this will come across as a sceptical, predictable and negative attitude, but I feel it is right to be sceptical, and I feel I have given enough of my time, and helped with enough of the IfA's work, to not be

dismissed out of hand.

Whatever your own views, the IfA should know about them. If a new Chartered Institute is going to be a success, and we are going to create a positive and sustainable profession, then we do all need to get involved and help shape it. IfA/CIfA should be about its members and that means you, so get involved and ask questions, give your views and don't let the discussions be dominated by the usual suspects like me!

There is lots of information on Charter at <http://www.archaeologists.net/charter>

IfA would like DF members to fill out the current survey on Charter and how it affects them:

<https://www.surveymonkey.com/s/charterviews>

Chiz Harward has worked as an archaeologist for over twenty years and currently works as a freelance archaeologist, illustrator and sole trader. He specialises in the excavation of complex urban and rural sites, and the development of excavation and post-excavation methodologies.

Chiz got involved with DF as he wanted to help put the Diggers' side of the argument and push for positive and lasting change in archaeology.

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Manda is currently the Standards Promotion Manager for the IfA, with a background in training archaeologists, researching Viking material culture and managing post excavation projects.

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Diggers' Forum on Facebook

We now have over 300 'Likes' on our Facebook page, which is great, and we do use the page to spread news on our activities beyond the formal membership. You can find the DF Facebook page at:

<http://www.facebook.com/DiggersForum>



DF report on Prospect reps' day

Sadie Watson

The Archaeologists' branch of Prospect held a members' and reps' day at their HQ, in Waterloo in London on 7th February 2014. Naturally the DF were represented, although that's hardly a surprise as most of us double up as union reps! The turn-out was slightly disappointing, and although we are aware that holding meetings in London tends to discourage colleagues from further afield attending such meetings, the offer of paid travel and a whole day on union facility time could perhaps have increased the numbers. However, four of the larger units were represented (MOLA, MOLA Northampton, PCA and Wessex) and we were able to have good wide-ranging discussions with the Prospect staff who came along.

The day began with a round-up of union activities and a reminder of aims and objectives for the year ahead:

- Prospect are proud of their inclusion on the IfA Working Party for Salaries and want to continue their input into this central issue. This is an aim which the DF would clearly support, but we have yet to have a WP meeting this year and it is currently unclear as to how this will continue...
- Prospect are also pleased to have had such a central role in the campaign to retain salary minima last year. As we know this wasn't entirely successful, but without our union colleagues it may have been a very different story (i.e. even worse!) so we are grateful for their support
- A key success for members is Prospect's continuing campaign to instigate an industry-wide pension scheme. This is still under negotiation but will be a significant achievement when it gets going, and will be of benefit to those of us who move around between employers and don't currently have a way of paying into a pension that avoids the problems with auto-enrolment.
- There was some excellent news from a large employer who are currently trialling ways in which they can pay their site staff for travel time. This was one of our main recommendations within our Travel and Away Work Survey, and it is great that after polite pressure

from staff, employers are investigating ways to make this system fairer. More news when we get the results of the trials.

Plans for 2014/15:

- Prospect are keen to extend their remit into employers where they currently are not recognised, and therefore can't negotiate on behalf of the staff. It would be remiss to mention these workplaces by name here, but if you work for a unit (large or small) and would benefit from support with pay, terms and conditions and general employment issues, then please contact the Branch Chair Antony Francis and he will advise on how you can improve things within your workplace : afrancis@mola.org.uk.

Conclusions

As already said, it was a shame that more people couldn't attend the day, it's as much about catching-up with colleagues and having a gossip over (some very nice!) sandwiches as about setting national Branch policy. It is also positive to meet the Prospect team: the legal advisor from prospect Marion Scovell gave a very useful presentation on employment rights, which are being constantly eroded by the coalition government...and we also heard much good news from our national officer Sarah Ward (a force to be reckoned with!) and Louise Staniforth, who can help with recruitment.

On a national level, moves are definitely afoot to increase the level of national pay negotiations (see AGM report), and if Prospect can maintain their connection with the employers' body FAME, then that can only be a good thing. As always – if you don't join the union then you can't have your say on what they do, either on a national or local level, so you know what to do!

There were several important outcomes that should be reported here, adapted from the Secretary's report (with thanks to Chris Clarke)

1. Sarah Ward, Branch Negotiator, to draft a general pay claim that can be adapted by different sections to inform their individual 2014/15 pay claims
2. For Sarah Ward and the Archaeologists Branch Committee to push forward with establishing an industry wide pension scheme
3. All section committees to discuss how they can best provide support to the Branch Committee
4. The Branch Committee and Prospect Officers to organise a bespoke reps training conference in March. Section Committees will regular review the



requirements for training among their reps

5. Both the Branch Committee and Section Committees will review the issue of retention among their membership.

6. The Branch Committee will proceed with a programme of targeted recruitment among non-recognised employers

7. The Branch will send two delegates to the Prospect National Conference. A motion to present to conference will be drafted and circulated for approval

8. The Branch will aim at having a presence at the 2014 IfA Conference, and will seek volunteers to assist



Archaeological Archives: A museum curator's point of view

Helen Harman

As a Museum Curator part of my role deals with the deposition of archaeological archives from the commercial development process. Deposition with a museum (or other repository) is often perceived as the end point of an archaeological investigation and the end to the life of the material associated with it.... I've been asked to write this piece to give an insight into what actually happens to an archive once it comes to the museum and illustrate how it can offer a long legacy in understanding our historic environment, informing current/future archaeological investigations and in the presentation of archaeology to the public.

Why it is important, from a curator's point of view, for archives to be well ordered?

Once an archaeological archive comes through the doors we check it for packaging and order, we have guidelines for those compiling them to follow and we check these against each one. The archive needs to meet our conservation requirements and be packaged in a way to ensure its long term preservation in storage. The archive needs to meet our guidelines for order and marking and is checked to ensure consistency and errors in matching records. This may seem picky but when you are dealing with a large amount of material on a very regular basis with limited human resources/time to dedicate to this part of your workload it is essential to be rigorous.

Reports should match the material and documentary archive, box lists should inform us of what is coming through the doors, specialist reports and the documentary archive should all be ordered in a way that allows them to be processed easily. The better the order, the faster the speed of processing and the greater depth of museum records for all of the material contained within it.



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Small archaeological site archive

Each site will be numerically broken down from its core museum number issued to the archive by the museum after contact with the investigating body/unit. It is separated into numeric categories that will reference the material contained within. The material archive is broken down into material type and then by period and context with a digital record for each component created. The documentary archive is broken down so that all reports are separated and all context sheets, images, plans and drawings are all separately documented and a digital record for each created.

So why bother? Why not just lump it all together and say that we have it?

Well it is easier to extract and find information when the archive has been separately documented. Often when an enquiry relating to an archaeological archive comes in it is for a specific part of the archive. Such as do you have the report? Can I look at the glass and the glass specialist report?

More often than not a specific research question might involve a range of archaeological archives and therefore the above museum archiving process



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Documentary and material archive in store



becomes even more important. For instance, 'How many site archives from central Sheffield have medieval pottery contained within them?'

The following questions will show just a few ways in which the archives are used and the type of information that needs to be drawn from them...

So how are archaeological archives re-used?

•Displays

Used in a classical form drawing on site images, plans, drawings and literature to inform labels that accompany artefactual material from sites or to illustrate single finds. One display has been completed in the past year and a further 3 are at various stages of development. Plans for a major gallery redesign using the information from archaeological archives is also currently being worked on.

•Workshops

Museums develop many workshops for diverse audiences related to archaeological themes and topic and collection care. The museum has held 3 free workshops over the past year.

•Talks

Images and documents accompany talks given as part of formal and informal sessions to a wide variety of ages and learning abilities. Over 10 free talks relating to the archaeology collection with information drawn from the archives have taken place.

•Tours

Tours of the archives using case studies, sites and objects are given to interested parties, university students and other professionals. These can both highlight a theme, topic or period and always create discussion on the wider issues surrounding the collection of archaeology and the creation of archaeological archives. Over 12 tours of the archaeology collection have taken place over the past year.

•Handling sessions and events

Objects are selected by theme, topic or period and are presented to the public with the information drawn from the documentary archive and from other reference sources. This offers a multi-layered approach to ensure the best personal experience with the archaeology collection. Over 10 handling sessions and events have taken place over the past year.

•Answer enquiries

From academic research questions through to interested societies and individuals, material from archaeological archives are often used to inform

research and understanding of a site or geographical area. Over 150 enquiries relating to the archaeology collection have been answered in the past year. This does not including those relating to archive deposition which number over 200 or those requiring collection access with staff supervision which number 40 visits and over 172 hours of staff time.



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Anglo-Saxon metalwork in store used as part of post-doctoral research enquiry

Are archives re-visited?

With the recent potential redevelopment of Sheffield Castle the C20th archives held by the Museum relating to Sheffield Castle were re-visited. The investigation covered a re-visit of the documentary archive with specific reference to the photographs, slides, plans, drawings, levels. It involved tracing the development on the site from the 1650s to begin to understand the underground layout of potential remains and areas of likely heavy modern disturbance to further advance the understanding of what lies beneath and to inform a targeted strategy for evaluation prior to further development.

Another example of re-visiting artefactual and documentary material relates to a recent Palaeolithic and Mesolithic mapping project. A project created a basic first stage appraisal of all paper records relating to holdings of this type of material to inform the Historic Environment Record and create an up-to-date map of current known sites relating to this time period and to inform any future development and/or research framework and strategies.

These are just two of fifteen projects that have required a re-visit of the primary documentary and material archives held in store in the past year!

Are archaeological archives ever re-interpreted?

Yes they are, but not as often as we would like. All too often the cost and time involved in re-investigating



known sites requiring further work is overshadowed by re-visiting the more well-known 'popular' archives. Museums are stretched just like everyone else which is why it is necessary to get tough with research questions arising from commercial and non-commercial excavations. If these are presented with an archive then museums can search for funding for further research, add to research agendas or highlight the need for further research in an area and work with local education institutions, societies and community groups to create research projects.

Prehistoric mapping of flint material from the Don Valley

One recent PHD Student has re-visited the flint assemblages from field walking carried out around the local area. This work has enabled a better understanding of what has been found and a refined map of find spots. Some of the material that was originally categorised as debitage has now been re-interpreted as worked flint material. This story would never have been told and this work never carried out if it wasn't for this research involving a revisit and re-interpretation of the archaeological archives.

Updating catalogue of pygmy vessels



Shelf of Pigmy Vessels

Over the past year one student has revisited stores across Northern England to update a catalogue and reappraise pygmy vessels in line with current thinking. We all find catalogues a useful tool in identification but many were created years ago and new discoveries and identifications have yet to be added.

Unfortunately due to time and resource constraints this type of work is often limited to the academic field who choose to take it on as research projects. Without this type of work our most accessible tools for identification are not always up to date. Could this lead to misidentification and misinterpretation? Has it?

Why is it important to re-interpret archaeological archives?

Alongside the more modern archaeological archives we often hold historic information relating to chance finds and investigations from the C18th onwards. Where an archaeological archive in today's modern terms wasn't created but a small piece may have turned up in a journal or we may have the associated drawings or correspondence relating to a specific object or site.

In recent years an example of an excavation taking place on the information of a down the line reference in reports to a shrunken medieval village comes to mind. On excavation it was discovered that it wasn't a Medieval shrunken village, interesting as it informs the wider historic environment record but one that wouldn't have come to light if the historic reference hadn't been tested.

One enquirer was looking for a piece mentioned in historic references and though the museum did not hold this piece it did hold the records that enabled the enquirer to trace its current location.

So perhaps in the future you will need to come and ask a question of the historic records a museum holds or to pose a question to the more modern archaeological archives. Maybe you will want to use the information you have found as part of taught sessions, archaeology days, to inform your work, research project or investigation? One thing is for certain if you do contact me and you want to come and visit you will soon appreciate the benefits of consulting a correctly stored, well organised archaeological archive and realise how trying to use a poorly ordered, badly documented or incomplete archive adds time, cost and a huge amount of unnecessary stress to your search...

Helen Harman is the Curator of Archaeology for Museums Sheffield and Secretary of the IfA Archaeological Archive Special Interest Group

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Post-excavation analysis of human skeletal remains

Isabelle Heyerdahl-King
and Dr Lauren McIntyre
(with thanks to Tom Booth)

Introduction

When human skeletal remains have been safely transported to a laboratory, cleaned, inventoried and transferred to appropriate storage containers, post-excavational analysis can commence. Often, skeletal assemblages are subjected to a preliminary assessment by the osteologist, who will quickly examine the material (at a rate of approximately 20 skeletons a day) in order to establish the research potential of the assemblage.

In view of this, it is necessary to understand that not all skeletal assemblages will undergo full and rigorous osteological analysis. The level of analysis given to an assemblage will depend on the potential of the assemblage, as well as other factors such as the pre-agreed post-excavation strategy and any imposed reburial conditions. Reburial will take place at the end of a two-year period unless there a strong case can be made for the value of continued research.

In the majority of cases the analysis is limited to macroscopic techniques, that is to say to information that can be ascertained with the naked eye (or perhaps a hand-lens), simple laboratory such as an osteometric board and calipers, and readily available reference material about demographic attributes.

Macroscopic analyses being complete the remains are then stored and may form part of a reference, teaching or museum collection. Where individual remains are considered to be sufficiently important either because they are those of a known individual or because they may hold answers to specific questions about disease, ancestry or migration, the analysis may progress to incorporate microscopic techniques. These are generally more expensive to conduct and may be destructive in nature. This article considers macroscopic analysis in **Section 1** and microscopic techniques in **Section 2**.

Section 1: Macroscopic analysis of human skeletal remains

Initial lab-based assessment

Individual skeletal remains are dry cleaned by brushing, and an inventory is made recording the completeness and general state of preservation of the remains. Whilst awaiting more detailed macroscopic analysis the remains will be given a unique identifying number, written unobtrusively onto each element to ensure that there is no possibility of remains becoming co-mingled. The bones are then individually wrapped in acid-free tissue paper and stored in rigid cardboard boxes which allow for the circulation of air.

Estimation of age at death: immature remains

In immature individuals the **epiphyseal fusion** and **dental development** methods are used to estimate age at death. While the skeleton is still developing, growth in bones takes place between the shaft (diaphysis) and end (epiphysis). Fusion between the shaft and end of the bone takes place at different ages for different bones. Intervals between fusion events are quite large so again the age estimation will be given as a range.

The development and appearance of deciduous (milk) and permanent teeth give an indication of age but the timing of tooth eruption is very variable amongst individuals.

In foetal and neonatal remains age estimation is accurate to within a week of gestation or age and continues to be accurate to within a week or two up until the age of around 18 months. From that point on the margin of error increases as environmental influences may overtake developmental ones.

Estimation of age at death: adult remains

Degenerative changes in the skeleton begin in early adulthood when the development of the bones is complete. These changes can be used cumulatively to estimate age at death. There are four commonly used methods for estimating the age at death of adult remains, all of them non-metric (relying on characteristics rather than measurements). These are:

- the **cranial suture** fusion method. The bones which make up the skull fuse together as a person ages, at a rate which can be quantified.
- changes in the **pubic symphysis**. The surfaces where the two halves of the pelvis



meet at the front of the body change in appearance and texture with age.

- ossification at the **sternal rib ends**. Where the ribs articulate with the sternum (breastbone) flexible cartilage gradually becomes more rigid and bony with age.
- changes in the **auricular surfaces**. The surfaces where the sacrum and the two halves of the pelvis meet at the base of the spine change in appearance and texture with age.
- **dental attrition** can also be used to estimate age, with the proviso that coarseness of diet and carbohydrate content has a significant impact on the rate at which the occlusal (chewing) surface of the teeth is worn down.

All of these methods use a scoring system based on macroscopic changes which can be recorded and then converted to an age-range using reference materials produced by the authors of the method in question. The cranial suture fusion method is not sex-specific but the other three methods have separate scoring system for males and females.

It is considered good practice, and the result is a more reliable age estimate, if multiple methods can be employed. Sometimes damage or absence of the parts of the skeleton needed to apply these methods means that the best that can be achieved is a large possible age range. Typically the age ranges suggested by any one method will be greater than 10 years, and are generally considered increasingly unreliable the older the individual.

Sex estimation

There are areas of the human skeleton which vary considerable between males and females, and can be used to determine biological sex. The majority of diagnostic characteristics are on the pelvis and skull, though the size and robusticity of bones such as the humerus (upper arm) and femur (thigh) are also informative. There are two non-metric methods which if possible are used together, and diagrams or photographs are used for reference.

- scoring **traits of the skull**. Around 25 traits are scored on a scale from 1 - most feminine - to 5 - most masculine. Some traits, such as the extent to which a supraorbital (brow) ridge is present, or the general squareness of the jaw, are considered more diagnostic than others.
- Scoring **traits of the pelvis**. A similar number

of traits can be scored on the pelvis, on a similar scale. Again some traits, such as the shape of the pelvic inlet and sciatic notch are considered more reliably diagnostic than others.

Ideally both the skull and pelvis are used to estimate biological sex. Where only one element is available the pelvis is generally recognised as a more reliable indicator. It is important to remember that the expression of biological sex is very variable, and although the scoring scales allow for a large degree of difference caution must be exercised when attributing biological sex, especially in the mid-range of the scale which is generally classified as 'indeterminate'.

There are also a variety of metric methods of sex estimation which include:

- **Cranial analysis by computer programmes** such as CranID and Fordisc which use a combination of 29 standardised cranial measurements to determine sex. Both programmes offer the additional possibility of matching the individual to a database of potential geographical populations based on skull shape.
- It is also possible to take measurements of the long bones, particularly the humerus and femur, to make a **prediction of size as a proxy for sex**.

N.B. it is important to remember that it is not possible to attribute biological sex to the remains of individuals who have not undergone puberty.

Stature estimation

There are a variety of methods available for the calculation of living stature from skeletal remains. These vary from adding the height of every skeletal element that contributes to height to methods which calculate living stature from a combination of bones or even a single bone such as the femur. 'Look up' tables are then used to convert the measurements to stature.

Where every element is present the total additional method (with allowance for soft tissue in life) is likely to be the most accurate. Methods using fewer bones vary in accuracy depending on the integrity and number of bones available.

The formulae for conversion of bone measurements to stature tend to be based on reference collections



which represent a particular geographical population and must therefore be adjusted when dealing with individuals from a population which is generally shorter or taller than the reference population.

Other less reliable methods have been developed which claim to estimate living stature from metatarsal, clavicle or even finger phalanx length.

Skeletal and dental pathology

There is a wealth of information about health, diet, lifestyle and disease which can be gleaned from a macroscopic study of dental and skeletal pathologies. Changes in bone structure and texture, the presence of lesions, additional or inadequate bone growth, developmental deformities and musculo-skeletal markers (the sites where muscles attach to bone) can all be variously interpreted to shed light on the life and health of the individual. This is a vast area of study which is outside the scope of this article. Two useful reference works are listed in the bibliography.

Section 2: Microscopic analysis of human skeletal remains

Radiocarbon dating

Radiocarbon dating is now pretty much regarded as an archaeological staple, being used to date a wide range of organic materials. Improved measurement techniques and statistical methodology in the last 20 years have led to an increase in date precision while also reducing the amount of organic material needed in to secure a date.

Human bone is one of the more complex materials to date using this technique. Carbon is extracted from the organic components of the bone, chiefly the protein collagen. However, post-mortem degradation of the bone or environmental contamination can have a detrimental effect, and may render material unsuitable for radiocarbon dating. Until recently, burnt bone was completely unsuitable for radiocarbon dating, as the burning process removes all organic carbon. Furthermore, the diet of the individual to be sampled may have an adverse effect on the dating result. For example, consumption of marine fish can skew observed dates and make samples appear older than they actually are. Fortunately, techniques are available that can be used to correct for this bias.

A thorough breakdown of the science behind

radiocarbon dating is available in English Heritage's publication [*Science and the Dead*](#), available for free on their website.

Ideally, the archaeologists on site should be aware that samples of material may be taken from specific contexts for radiocarbon dating, so measures can be taken to ensure that samples reach the laboratory in optimum condition and also to reduce the risk of sample contamination (e.g. cigarette ash, string, paper, cardboard and glue may all act as contaminants). Different laboratories may have different preferences for how the samples are received, e.g. wet/waterlogged or dry. Effective communication between staff on site and in the laboratory is therefore crucial to obtaining a meaningful result via the radiocarbon dating technique.

Stable Isotope Analysis

Stable isotope analysis measures the ratios of given elements present in bone. We can use these ratios to make inferences about the life of the person that the bone sample came from. Different isotopes are contained within bone collagen (e.g. carbon and nitrogen) and bone apatite (the mineral part of the bone and also tooth enamel - this contains strontium and oxygen isotopes).

Tooth enamel is being used increasingly in isotope analysis, as it is less susceptible to contamination and diagenesis than bone. Furthermore, we can also deduce a person's age when certain parts of the tooth enamel were formed, meaning that we can find out the approximate age an individual was when the isotopes being measured were uptaken.

Isotopes are measured using mass spectrometry, which separates out the different isotopes of an element on the basis of their mass-to-charge ratio in order to measure their abundance. Where isotopes occur in low levels, accelerator mass spectrometry can be used (AMS). The stable isotope technique is best utilised in the study of an assemblage rather than the individual, and of course, should be used to address specific questions posed in the research design.

Carbon and nitrogen isotope ratios can be measured to make inferences about ancient diet. Ratios of carbon and nitrogen are different in different types of food. These isotopes are taken up by the body when food is absorbed during digestion, with ratio differences therefore being passed on to the



consumer. Therefore, dietary composition can be inferred from the observed pattern of isotope ratios. Examples of studies effectively utilising dietary isotope analysis include Müldner and Richards' (2005) reconstruction of late medieval diet and Jay and Richards' (2006) study of Iron Age diet at Wetwang Slack.

Strontium and oxygen isotope ratios can be measured to make inferences about ancient patterns of migration. Strontium isotope ratios vary according to different types of rock – these are taken up by plants and animals, which in turn are consumed by humans. Therefore, human strontium isotope ratios differ according to the local geology in the location where a person spent their childhood (as the mineral component of the bone, is not continually renewed, isotope ratios from here are only a reflection of the environment resided in during growth to the point of maturation, i.e. childhood). Oxygen ratios vary in drinking water, as a result of factors such as altitude and distance from the coast. Therefore, the geographical location that a person resided in during childhood can be ascertained, which can then be compared to their burial location in order to determine whether the individual is local or non-local.

Examples of studies charting childhood origin and reconstructing migration include the Chenery *et al.* (2010) study of mobility in Roman Gloucester and the Müldner *et al.* (2011) investigation of a group of decapitation burials from Roman York.

Ancient DNA

Ancient DNA analysis can be used to determine the sex of an individual (useful when sex cannot be determined macroscopically), to confirm genetic relationships, and also to identify and study infectious disease. DNA molecules are found in bone collagen; unfortunately, ancient DNA does not survive well in archaeological bone, so techniques (e.g. polymerase chain reaction analysis) must be utilised to amplify the remaining quantities before they can be studied. Poor survival rates do mean that many ancient DNA studies fail to produce results. Once again, cremated bone is unsuitable for ancient DNA analysis as the collagen does not survive the burning process.

Recent successful studies of ancient DNA include a study of tuberculosis in an Egyptian mummy, and the sequencing of the Neanderthal genome. A more thorough breakdown of the science behind ancient DNA can be found in Mays *et al.* (2013: 11-12).

Thin Section Analysis

Thin section analysis is used to examine bone micro-structure. Not only is this technique extremely useful, but it is able to utilise very small fragments of bone that may otherwise be deemed useless and/or undiagnostic.

Bone microstructures can be viewed within sections of any thickness, but under a certain point they become more fragile, so they need to be thick enough to retain their integrity. The characteristics of a variety of features that make up the bone structure can then be observed, in order to determine information such as the age and biological sex of the individual. Where there is uncertainty regarding species, thin-section analysis can be used to distinguish between human and non-human bone (although difficulty may arise when involving non-human species that are close to human, such as apes). Diseases can also be identified via this method, for example where abnormal or rapid bone formation occurs.

Bio-erosion can also be studied via thin section analysis, and can give us information that can help in the reconstruction of funerary treatment of the body. It is caused by tunnelling microorganisms that exploit the bones proteins. Common forms of bio-erosion are produced by the body's internal bacteria that are responsible for putrefaction. This kind of bio-erosion can inform on the way that a body decomposed, which may tell us something about how it was treated after death.

Other types of bio-erosion are caused by external microorganisms (e.g. from the burial environment) and may be informative regarding changing environmental conditions experienced by the bone. An example of a study utilising this technique is the Parker Pearson *et al.* (2005) investigation of evidence for mummification in Bronze Age Britain. More information about bio-erosion can be found in Hollund *et al.* (2012).



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Lauren recently completed her PhD, and joined Elmet Archaeological Services. She also co-runs the human osteology short courses at Oxford Brookes University.

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Places can be booked on Isabelle and Lauren's next human osteology short course at Oxford Brookes University at <http://heritage.brookes.ac.uk/short-courses/human-osteology/>.

For information on future human osteology workshops and projects Lauren can be contacted via email at l.mcintyre@elmetarchaeology.co.uk.

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Teeth Wisdom: What can teeth tell us about people of the past?

Liam Lanigan

When I first began studying osteology and bioarchaeology, I had an aversion to teeth. Like many others on my courses, I found them complicated, enigmatic, and ultimately contemptible. However, as I got increasingly involved with the field, I realised teeth can tell researchers many things about an individual, a skeletal assemblage, and even about entire cultures.

In most archaeological instances, only human hard tissues, such as bone, teeth, and ossified or calcified material, are likely to be preserved. Teeth are unique in that they are the only hard tissue type that interacts with the outside world during life, which makes them great for studying diet, one of my primary areas of interest. However, teeth can also shed light on many other factors about the life of an individual, and by studying many individuals: a population.

The initial study of dental anatomy; and thus dental anthropology, arose in earnest in the 19th century and was concerned with the morphology of the crowns and roots of human dentition, their variations, and ultimately their evolutionary origins. Subsequent studies have proven that the shape and size of teeth and their variations are inheritable, and that genetics plays a role in the dominance and expression of these traits.

So called 'normal variants' in human teeth include shovel-shaped incisors, that are typical of Asian and Native American populations, whereas Carabelli's cusps are common in European populations – but by no means are either traits exclusive. A rare trait, such as the 'Uzo-Aztec premolar,' is seen only in Native Americans, and is specific to particular groups. Three rooted lower molars is another rare variant, and are associated with Inuit, First Nations, and other northern Asiatic groups. This extra third root may have initially had a functional advantage and was propagated for. These normal, but specific variations, in human teeth are valuable for the tracing of past population movements. They can relate to shared ancestry, concepts like founder effect, and other modes of genetic diversification.



A seventh cusp (black arrow) in a medieval Icelander. A rare variant in most populations, including Europeans, but common in some Sub-Saharan African groups

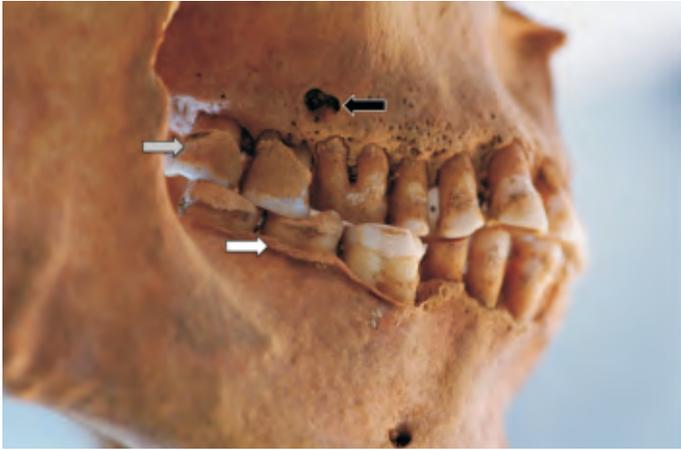
Deliberate modification of teeth can be also be population or geographically specific. This involves practices or rites including ablation (deliberate removal), notching or filing, purposeful staining, and/or inseting materials such as bronze into teeth. These modifications are seen to be attractive or status fulfilling within their communities, and are often connected to coming-of-age rituals. Research currently being conducted by a colleague of mine is looking at dental modification styles from the human remains of slaves to help postulate possible geographic origins of victims of the Tran-Atlantic slave trade. Intentional dental modifications are not dissimilar to contemporary cultural 'rituals' of orthodontics, teeth whitening, and even the new trend of 'tooth tattoos'.

Other accidental or incidental trauma of teeth can be the result of parafunction – that is use in a non-masticatory function. Teeth can serve as a useful 'third hand': 'seamstress notches' from holding pins, carpenters clutching nails, and pipe facets (especially from clay pipes), are common among past and even contemporary populations. In the past, many tasks utilised the dentition to manipulate and process materials like fibres, textiles, skins, and even for micro-flaking lithic tools. The use of toothpicks is also seen in archaeological material from certain time periods. Parafunctional use can be extremely enlightening with regards to past occupations or activities, and in the case of individuals can provide additional 'osteobiographical' information!

The dentition is one of the most accurate ways to calculate age of death in juvenile skeletal remains. This is based on the normal expected eruption sequencing of our deciduous ('milk') teeth and the subsequent eruption of our permanent dentitions. Ageing adults; by contrast, can be done by scoring



the progression of dental wear of the permanent teeth. Although scoring based on standard methods is a fairly simple exercise, the causality of dental wear is multi-factorial, complicated, and often population specific. However, this method remains about as reliable as many other standard ordinal methods, especially when preservation is poor.



Heavy dental wear with dental calculus (grey arrow), a periapical lesion (black arrow), and periodontal disease (white arrow) in a medieval Icelander.

Dental wear is a highly complex area of clinical dental research and rather more so archaeologically. There are three main types of wear, plus abfraction. In terms of physical wear: abrasion is caused by food and introduced detritus, and attrition is due to the sheering forces caused by the opposing teeth. Chemical wear, known as dental erosion, can be caused either extrinsically by food or occupational acids entering the mouth, or intrinsically by gastrointestinal acids introduced by [GERD](#) and regurgitation. Each factor has some diagnostic features, but rarely do they occur in isolation. This complex interplay can greatly affect the longevity and survivability of the dental tissues. Both macroscopic and microscopic inspection of teeth can help determine information about the diet.

Along with subsistence and culturally determined information, the dentition can also tell archaeologists about health and oral hygiene in the past. Examination of dental caries (cavities), periodontal disease, periapical lesions ('abscesses'), and odontogenic cysts and tumours, all inform us about health and pathology in populations. Certain subsistence strategies, especially during the rise of agricultural and in the Post Medieval period, introduced more refined and starchy food as staples, leading to higher rates of dental caries. Other dietary factors and poor hygiene lead to heavy dental calculus (tartar) formation. Following in the steps of isotopic analysis, dental calculus is likely the next major advance in diet and dental research. Dental calculus has the ability to mineralise and therefore

encapsulate material entering the oral cavity during life. It can therefore preserve plant microfossils, fibres, fish scales, feathers – and as new researching is proving, ancient proteins and DNA, including that of oral pathogens like bacteria. The future of dental studies in archaeology looks bright!

Human remains are not an infrequent find during excavation in the UK, and sometimes they can be unexpected! I'd like to provide a few tips and suggestions for dealing with human remains and teeth.

When excavating skeletons, wooden and plastic tools, and brushes, are best. The minimal excavation of the teeth in the field is usually preferable, as it prevents accidental loss, damage, and removal of dental calculus. Ideally, everything should be sieved; however, in commercial archaeology this is not always done. Therefore, when lifting the skull, it is prudent to bag the underlying soil in the same bag in case teeth or other fragments have fallen out during cleaning.

Sampling is always best done in the field, with fresh gloves and sterile sample containers! During excavation, packing, and storing, exposure to extremes (i.e. sun and temperature) are best avoided, but obviously not always possible due to the vagaries of field work.

Further information about excavation, processing, and curation of human remains can be found through the IfA, The British Association for Biological Anthropology and Osteoarchaeology (BABAO), and English Heritage.

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Liam Lanigan did his BSc Honours in Archaeology at the University of Saskatchewan, and his MSc in Skeletal and Dental Bioarchaeology at University College London. This summer will be his seventh year working in Iceland, and he has also dug in the UK and in Canada.
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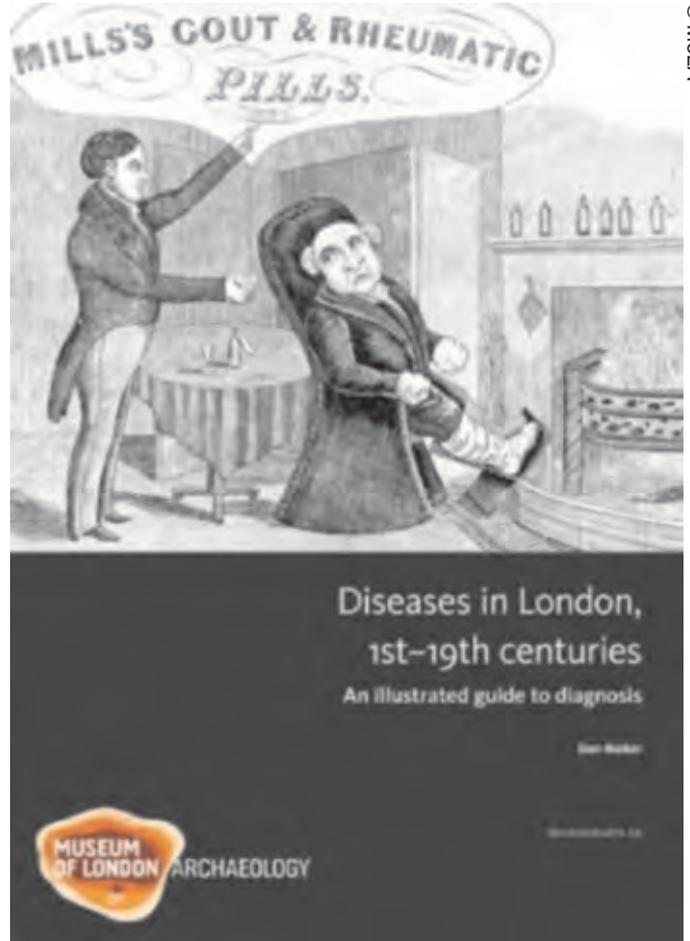
Review article: Disease in London, 1st-19th centuries, an illustrated guide to diagnosis

Chiz Harward

Development within London over recent years has seen a massive increase in the numbers of archaeologically excavated burial sites compared to even twenty years ago. First and foremost amongst these was the medieval cemetery at St Mary Spital ('Spitalfields') –clocking in at over 10,500 burials, but there have also been numerous smaller excavations of Roman to 19th century date. These include formal Roman cemeteries and informal burials, medieval and post-medieval churchyards, overflow burial sites, hospital cemeteries and church crypts as well as individual informal burials.

Excavation has ranged from full 'set-piece' archaeological excavation, through sample excavation working alongside graveyard clearance teams, to watching briefs and bone recovery, working in conditions ranging from the relatively relaxed to the downright dangerous or claustrophobic. The scale and range of sites must be unparalleled in any other British city and represents a massive dataset for ongoing research into the bio-archaeology of the capital.

Individual cemeteries and burials have generally been published in the local journal -LAMAS- or in MoLA(S) Studies Series and Monographs; *Disease in London* attempts to cross these site boundaries by cataloguing the osteological evidence for pathological disease and injury on human remains excavated on 25 published and unpublished sites excavated between 1984 and 2006 by Museum of London archaeologists.



The book is a field-guide to past disease and injury and will prove an invaluable reference guide for osteologists far beyond London. Essentially it is a straightforward gazetteer of trauma and pathology: after a brief introduction and explanation of its format the book launches straight into the meat of the book which is divided into sections such as *Trauma*, *Metabolic diseases* and *Teeth*. Each section has a brief introductory text that sets out the background and scope of the section, followed by individual subsections that span the range of pathologies that may be present: from leprosy to projectile injuries, osteoporosis to septic arthritis.

This book can certainly be described as 'lavishly illustrated' with nearly 450 figures including over 400 excellent colour photographs and radiographs of pathologies. Most examples have a useful skeleton diagram (showing the excavated bones, the location of the pathological lesions, and of the illustrated lesions), and text with age, sex, site code/context number, and period, with a technical text describing the relevant pathology and its diagnosis. Context information is provided to link to the archive, however the examples are treated as individual pathologies and are not set in their site or period context. This is a book of disease examples, rather than of people, and



there is limited discussion of how each disease or injury would have affected the individual and their quality of life; the sometimes awkwardly posed questions 'how would he/she have walked' or 'did that hurt a lot' are not answered.

This is very much a catalogue, there is little in the way of wider discussion and none of the 'thematic' chapters that are found in many other MoLA monographs. It would be very good to know more about the patterns of disease and injury over time, the rates and severity of incidence, and the effect on quality of life, but that is beyond the stated scope of this book. A volume of such articles would be an excellent companion to this volume.

At £28 the price is not high for such a well illustrated monograph, and means that the volume is affordable as a 'site copy' for every reasonably-sized cemetery excavation. It is produced in hardback and whether it will stand up to prolonged on-site reference is a moot point, but as a reference tool it will be invaluable for osteologists –the Bumper MoLA Book of Disease- and will find a welcome place in most cemetery site huts, especially given the continuing interest in osteology amongst many field archaeologists.

Cemetery excavations provide a positive opportunity for Diggers to discuss their work with specialists, and for specialists to pass on their knowledge and engage the excavators in their specialism. Most cemetery excavations of any size will have an on-site osteologist, and this book should be useful both for their specific job and their wider role in the professional development of all the team. This book can easily act as formal reference guide and informal teaching aid –each excavated pathology can be assessed with the excavator and the possible diagnoses looked up and discussed. How about 'Disease of the Week' as a Friday Tool box Talk? Having done all the hard work on the illustrations and text it would be fantastic if MoLA could take this one stage further and produce a series of illustrated sheets/powerpoint slides on each disease using these examples (Trauma Top Trumps anyone?) that could be used on-site or in the lecture room as teaching aids.

One final thought: something that this book brings home very clearly is that there are a myriad of pathologies that may be present on a skeleton anywhere from the toes to the skull. These are often delicate and can be easily overlooked; careful excavation with appropriate tools is essential if we are

not to destroy this potential evidence during hurried excavation.

Walker, D. 2012 *Disease in London, 1st–19th centuries: an illustrated guide to diagnosis*, MoLA Monograph 56

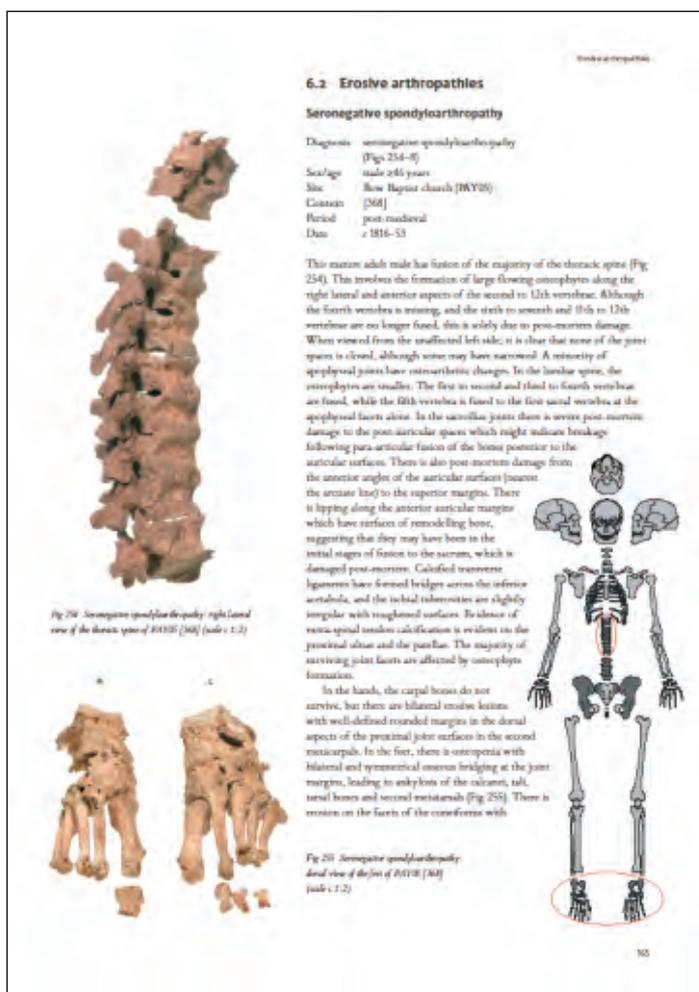
Hardback 287pp, 446 black and white and colour illustrations

Price: £28

ISBN 978-1-907586-10-1

Chiz Harward has worked on London excavations for over 15 years, working on numerous cemetery excavations ranging from Roman to post-medieval, and supervising at both the Roman and medieval Spitalfields cemeteries, and the Roman Upper Walbrook cemetery excavations.

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A Digger's Guide To becoming a PlfA

Sophie Jennings

Upgrading to corporate membership is a demonstration of your competency to both your peers and the wider public. Archaeology has, in common with disparate professions like engineers, accountants, nurses, doctors, architects, surveyors, paramedics and many more, a code of

conduct to demonstrate professional capabilities. But how do you know that you have what it takes to make the grade?

A good place to start is with your CV as the application form is set out in a similar format, requiring you to list your previous work and university experiences and qualifications. Another good place to begin is by reading through both the applications guide and the application form itself (see the Links section below)!

The statement of competence on which your application is assessed is structured around a competency matrix including four key skill areas: Knowledge, Autonomy, Coping with Complexity, and Perception of Context. As the application form is

Skills	PlfA Application Guidelines	University Experience
Knowledge	Good working knowledge of key aspects relevant to area of historic environment practice and competence in its application	Developed knowledge of a specific archaeological technique(s), period(s), object or site type(s)? Studied history of archaeological theory and practice?
Autonomy	Some responsibility for achieving tasks using own judgement and autonomy, whilst working under general supervision. Collaboration with others is expected	Juggling your study/work/life balance at university is a feat in itself. Involvement in extra-curricular activities such as societies or research digs may serve as useful examples here.
Coping with complexity	Appreciates complex situations within the role held an able to achieve partial resolution alone. Some activities are complex and non-routine.	Writing a thesis, whether as part of your undergraduate or masters, is a complex piece of work. From choosing your topic, to undertaking extensive research, choosing and justifying the methodology, and presenting your results.
Perception of context	Sees actions are a series of steps and recognises the importance of each role in the team.	Undertaking a large research project you need to understand how your work fits into the wider research already undertaken within the topic.



designed for everyone interested in joining the IfA, from diggers to archivists to finds specialists, the wording is generalised and non-specific. So, to assist with your application the table given here is Digger-specific giving examples from both study and work relating to each of the four skill sets.

In addition to your statement, you are required to supply two references. Of course it goes without saying that you want to make sure that these people know you well and have worked with you in commercial work environments - think Supervisors, senior colleagues or Project Managers. Just make sure they know what is required as at PlfA grade your references are important to your application in lieu of any supporting paperwork.

Applicants guide:

<http://www.archaeologists.net/sites/default/files/node-files/1013-Applicant%27s-Guide-V6.pdf>

Information page for joining:

<http://www.archaeologists.net/join/individual>

Sophie Jennings has five years experience working in both Australia and the UK, mixing it up between field and office based roles. Professionally, she loves stone tools; non-professionally, she loves knitting socks.

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Commercial Experience

As a digger this refers to your technical skills on site: can you define and excavate deposits and features? Can you draw plans, sections and elevations? Can you complete context sheets, strat and plan matrixes?

As a digger in a commercial setting you are required to work with a degree of autonomy every day - turning up on time, working to the schedule, following health & safety procedures. Likewise, most sites require you to work and collaborate with others - whether its sharing the one hoe on site between 5 people, or working as a team of 3 to excavate an area 5m².

Think about situations where you could include examples of how you have gone about this above and beyond the basic job description. Informal supervision of colleagues; Matrixes, anyone? While completing the strat matrix on your context sheet is part of the job description, understanding that your matrix is only a small part of a much larger and potentially complicated sequence is a demonstration of your ability to appreciate complexity in the workplace.

Likewise, on site understanding that your features and deposits may not confine themselves just to your work area and that collaboration with others is required again shows your awareness of the bigger picture. While you may not need to understand how the whole site fits together, but you do need to understand your role in the greater scheme.

Examples of complex situations that you may have undertaken could include watching briefs; report writing; compilation of the site matrix. Even working on a site where there is no discernible archaeology, signing onto the WSI/Method statement means that you are agreeing that you understand how your actions on site contribute to the health and safety of both yourself and your colleagues/those around you. Working on a site with other contractors; a site that involved a large degree of public interaction; community digs - all situations where you are demonstrating your awareness of your role within the larger picture of the dig, the companies role etc



Teaching and training for archaeologists: old problems, new solutions

Paul Everill



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Training for professional life: Winchester students digging in Georgia

As long as I can remember there has been a begrudging acceptance that university and commercial archaeology were very different beasts, and that three years of the former would not, even could not, prepare you for a career in the field. And yet, on the flip side, were those in commercial practice who felt that graduates were being produced who felt they had a right to call themselves archaeologists, but who had none of the skills that might enable them to drop straight into a developer-led environment.

Presenting on the subject at the IfA conference in Oxford in 2012, admittedly not in the Diggers' Forum session, I found myself confronted by an even more depressing phenomenon. Senior academics and unit managers queued up to tell me that I was wrong, that actually archaeology was the same discipline in universities and commercial practice, and that everything was fine. Undergraduates learnt all the skills they needed, and new entrants to the profession were routinely employing graduate-level research-focused skills. So it's all okay. Except it's not. That's an utter fiction. It just took me a bit of time to pick myself up from that mauling to realise that I was right to still be concerned about this issue.

There are a number of very good reasons why this divide will never be completely bridged. First of all, can a university hope to fully prepare a student for commercial practice? No university department in the country, no matter how well funded, could replicate a commercial working environment on a training dig. And even if they could, one month's digging does not a digger make. I've lost track of the number of student CVs I've seen where they describe three years' experience, when what they really mean is three months' digging over a three year period. I always suggest they rephrase, rather than antagonistically blunder into a sector where a few months here or there can make a real difference to a growing resume of genuine experience.

A handful of universities operate with commercial partners to offer fieldwork experience, but these are rarely, if ever, under commercial conditions. Of course the prospect of a commercial project staffed by free, untrained labour undermines the very principles of professional practice, particularly painful when so many experienced archaeologists have faced real or threatened redundancy. But it's the commercial conditions that, for many graduates, are the real skills gaps.

I still remember my own sense of unease and inexperience when first exposed to the pace, noise, and winter weather(!) on a road scheme when all my prior experience had been on gentle, rural, summer research projects. Universities simply can't replicate that, and neither can a 'boot camp' style approach - 'experience commercial archaeology and add to your CV' (but without the over-arching fear that your contract won't be extended, and that six month lease on that shared house you optimistically signed up to will leave you out of pocket).

No. At the risk of sounding theatrical, you really have to experience commercial archaeology, and you do have to learn on the job because you simply can't be fully prepared for it by any other medium than "doing it". And as for the idea that graduates are going straight into graduate-level research roles in commercial archaeology, well, I doubt the DF membership need that fantasy debunking.

The exceptions might be specialist finds work or, more likely, consultancy, and I was informed by an enthusiastic advocate of consultancy at the same IfA conference (after a few beers) that recent graduates are sometimes cherry-picked for a lucrative career in that sector. Quite how they can be expected to provide advice with such minimal experience is beyond me, and underscores in my own mind the problems with the current market-led model with regard to the management of a threatened resource.



That issue aside, commercial units do need to accept that they have a responsibility to turn the raw materials that universities send them into professional archaeologists. No other profession, and let's optimistically include ourselves alongside medicine, law, and architecture, expects a graduate to be a fully formed practitioner. There's simply too much to be learned through the process of actually doing the job in a pressured, on-site environment and anyone who suggests otherwise is grossly undervaluing the very real skills of excavation and recording. This only leads to the "[Fill of Pit](#)" phenomenon that Chiz Harward has described in relation to poor recording standards on excavations.

So, there's the counter argument from some employers: University degree programmes spend too long dealing with abstract research problems, and not enough time teaching practical skills. Of course, they are largely correct, though an understanding of the archaeology of Britain is surely necessary in those working here, regardless of whether it is skills or theory-led?

Crucially, a student studying for a degree in archaeology is getting the same education regardless of whether they want to ultimately become a research-active academic, or a commercial Project Officer or, as in most cases, have no interest in a career in archaeology at all. In the late 1980s careers information on archaeology suggested that only 8% of graduates **would** find work in archaeology. Today, my own observations suggest that only 10-15% of graduates **want** to find work in archaeology. So it is unsurprising that talk amongst university managers is about 'transferable skills' such as essay writing and presentation skills, which are bankable regardless of the destination of the graduate. We would be letting down the 85% by not delivering on those, but are we letting down the 15% by allowing the majority to dictate curricula?

Sadly Higher Education, in its current form, is now even more a victim of market forces and the 'bums on seats' approach is impossible to resist if university departments are to remain viable. However, archaeologists still need to be able to write useful context sheets and reports, and produce convincing arguments, and they need the skills to present those arguments to clients. Diggers without those skills will not climb very far up the 'muddy pole'. But equally it is clear that a significant percentage of archaeology named degrees are not delivering very much by way of an archaeological education.

So how does the prospective student - who has identified a desire to pursue a career in the single largest sector employing archaeology graduates, namely developer-led archaeology - go about finding the right course? With difficulty, frankly.



© Dave Webb

The mundane reality?

One way would be to find degree programmes which include "Practice" in the title, but they are few and far between, and marketing materials are never going to be a completely reliable indicator of content or relevance. At Winchester we have taken the unusual step, in the context of the HE sector, of becoming an IfA Registered Organisation and are currently, at the time of writing, the only university department to be on the list of ROs. For us it was a step short of course accreditation, which the IfA doesn't currently offer though we have looked into it. It also set out our clear commitment to practical teaching, which we had already demonstrated as the first department in the country to establish an "Archaeological Practice" degree. However, for most university departments teaching archaeology, particularly those who trade on research profile, RO status and demonstrable commitment to vocational teaching/ training is an irrelevance.

Alternatives to a degree?

It is probably unsurprising that, in recent years, alternatives to Higher Education as the route for prospective archaeologists have been sought. The IfA's much vaunted NVQ is one, but although I initially supported this development I strongly suspect that it will never win over employers, for the simple fact that it seeks to assess ability through on-the-job learning. The reality is that once a graduate has found employment, their abilities (and employability) are measured by their CV and developing experience in the sector.

Shortly after I started at Winchester in 2008, when I still felt sure the NVQ was the way forward, I looked into getting us registered as an NVQ assessment



centre. It soon became apparent that local employers were disinterested, and without an obvious partner I could not build a case internally for the spending of several thousand pounds on registration and assessment training for a hypothetical stream of archaeologists from local units that might never materialise. The HE-only alternative - that a student achieves a Level 3 NVQ through a period of placement during their degree - seemed to run contrary to the principles being put forward in support of the qualification (ie that an NVQ provided a quality assurance of experience, but could be earned part-time by those just starting out).

Other alternatives, such as the re-emergence of the HND or the apprenticeship-style learning of the 1980s MSC, both of which are still very well thought of as training mechanisms, would in my view engender a two-tier profession with a professional ceiling for those without degrees. Consequently I have returned to the view that university departments need to do more, but they are the right place for that training to occur.

Archaeological Practice Degree

Since taking on the role of Programme Leader for our undergraduate courses in September, colleagues and I have pushed forward a new four year variant of our well-established 'Archaeological Practice' degree. This variant will incorporate a placement year, giving the student valuable industry experience, and also a range of additional skills which can be applied on their dissertation. A portfolio listing their placements and roles will be signed off by the Placement coordinator, taking advice from the hosts that the work was undertaken satisfactorily, and this will provide a form of light Quality Assurance to prospective employers on graduation.

It would be disingenuous of me to claim that we are the first to offer a significant industry-placement element when Bradford have had a very successful placement year for 25 years, but in combination with our RO status we feel that this is setting our stall out as being serious about vocational training and employer-engagement.

In the current, competitive and market-led world of HE it might come as a surprise to read that I hope other universities will also grasp this nettle and accept that they need to do more. Employers (though a number are already very well engaged in this process) also need to recognise that universities simply cannot produce a finished article, and they need to take responsibility for the final polish.

Perhaps the biggest battle, however, is overcoming the issues on site. It's all too easy for diggers/supervisors to forget their own inadequacies when they first started - and many exude a sense that they

emerged, fully formed as an experienced professional, from an egg on a mountain top. Indeed there is a tendency among some site staff to act like they know it all, simply because they haven't yet realised how much they still need to learn, and to sneer at the inexperienced newcomer with a confidence in their own abilities that frankly is unjustified. Like any profession, skills continue to improve through application and it is equally true that some practitioners, given exactly the same opportunities, are simply more gifted, or more open to learning and self-improvement than others.

Limited openings for genuine career advancement can create unpleasant working environments, defined by competition and self-promotion, that do not foster an atmosphere of mutual support and skills development. It's also difficult, when the job pays so poorly, to suggest that site staff take on a training/mentoring role, but that is what needs to happen in order for the "training triangle" to be completed. I was lucky to have several very supportive, engaging and encouraging (and patient) supervisors when I first started in commercial archaeology. They recognised my potential to be a good digger, but they also recognised the need for a bit of final polishing.

Universities can tweak curricula, and units can engage with CPD, but there is also a culture of impatience with 'incomers' on sites that also needs to be addressed, and I would urge units to identify mentors and trainers amongst their team who can help with this transition. For every grumpy old lag who snarls and snaps at the new pups, there are a host of experienced site staff with a real interest in (and skill for) training who would make great mentors, and in so doing could be adding to their own CPD.

While some of us attempt to tackle the issue of university teaching, and units start to make progress on continuing training, Diggers' Forum can add the third point of the "training triangle" by starting to address the problems on site, and pushing for units to identify mentors from amongst their experienced staff. The issue is not, and perhaps has never been, whether universities or units are responsible for training archaeologists. The issue is how we can better work together to achieve that target, and Diggers' Forum will hopefully play a crucial role in taking this forward.

Further Reading:

Everill, P. 2012 *The Invisible Diggers: A study of commercial archaeology in the UK* (2nd Edition). Oxford, Oxbow books.

(Available as a free eBook:

<http://www.oxbowbooks.com/oxbow/catalog/product/view/id/39377/s/the-invisible-diggers/>)

Everill, P. and Nicholls, R. 2011. *Archaeological*



Fieldwork Training: Provision and Assessment in Higher Education. University of Winchester and the Higher Education Academy
(Available as a PDF:
http://www.heacademy.ac.uk/assets/hca/documents/archaeology/Arch_Fwork_Training_Report_Everill_and_Nicholls.pdf)

Dr Paul Everill is undergraduate Programme Leader at University of Winchester. Paul worked as a commercial archaeologist across the UK before carrying out doctoral research focusing on the motivations, experiences and perceptions of field archaeologists working in the UK commercial sector.

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DF asked Digger and former Winchester Student Susan Chandler for her thoughts on Paul's article:

As a fairly recent graduate of the Archaeological Practice programme at Winchester University and former student of Paul's who moved from graduation straight into a job with a commercial unit, I find Paul's article a very interesting read. In the past two years since leaving university I have worked for Archaeology South East, firstly on a rolling temporary contract and now on a permanent staff basis.

I agree that the conditions and even the attitudes of commercial archaeology cannot be replicated on a university excavation and feel that utilising placements within units is incredibly important—indeed the chance of a placement alongside the amount of “on site” work at Winchester was a key reason I chose to study there.

My work placement at Archaeology South East was a month period that let me “dip my toes” into the world of commercial archaeology, gaining not only valuable experience but also contacts in the field that formed the basis of my final year project (dissertation). The fact that Winchester is looking to extend this programme to a sandwich style course is interesting and something that units should definitely look towards getting involved with. This will hopefully not only help bridge the gap between research archaeology and commercial but will help units prepare a stock of diggers ready for work in the “real world” or give students a chance to realise that perhaps it really isn't for them (as this is just important!).

Paul raises a number of fair points, particularly regarding how little training is given to graduates when they enter their first jobs in the commercial world. It seems to me from talking to more experienced members of the profession that no two units follow exactly the same methodology (although t



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they are mostly based on the MOLA guides) but everyone—graduate or old hand are expected to know what's what without being told. How can a graduate, excited but a bit intimidated by the prospects of hitting some “real” digging know what to do? Realistically it seems that the fault here is not with the graduate or the university but with the Unit. The proposed year-long placement will give the chance to gain this training before “hitting the real world” as well as giving units a chance to expand their staff training and experience in general, perhaps via the “mentorship” mentioned, making it mutually beneficial. I feel that Winchester may well be setting out the path that other universities will wish to follow in the future.

Susan Chandler:

‘I grew up in West Sussex on a farm where I would collect “treasures” (bits of china, interesting rocks) from the fields. After leaving college and working as a dental nurse for two years, I realised I wanted to do something combining my love of discovering things and being outdoors -Archaeology. Studying Archaeological Practice at Winchester led to my gaining a position at Archaeology South East’.
sooz.chandler@gmail.com

The Archaeological Practice degree was established in 1999 and remains the cornerstone of the vocational teaching offered at the University of Winchester. The Department currently offers a number of BA and BSc courses. A new four year variant on the BSc Archaeological Practice degree is currently going through validation and will include an industry placement year.

<http://www.winchester.ac.uk/Studyhere/Pages/bsc-hons-archaeological-practice-4-years.aspx>



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