2016 ANNUAL REPORT

HEADLAND ARCHAEOLOGY

Text:

Alistair Webb (Regional Manager) / Andy Boucher (Director / Head of Contracting) / Chris Lowe (Director / Head of Consultancy) / David Betts (Financial Director) / Edward Bailey (SHEQ Manager) / Julie Franklin (Publications Manager) / Julie Lochrie (Training Manager) / Jürgen van Wessel (Data & Technical Services Manager)/ Luke Craddock-Bennett (Project Manager) / Mike Kimber (Regional Contracting Manager) / Russel Coleman (Director / Head of Sales) / Sorina Spanou (Communications Manager) / Sam Harrison (Project Manager) / Stephen Carter (Principal Consultant) / Tim Holden (Managing Director)

Design:

Caroline Norrman (Graphics Manager) / Mano Kapazoglou (Illustrator)

CONTENTS

2
PROFILE

3
LETTER FROM THE MANAGING DIRECTOR

4
PARTNERSHIPS ARE BUILT ON TRUST

7
SAFETY, HEALTH, ENVIRONMENT AND QUALITY

11
FINANCIAL REVIEW

13
BUSINESS STRUCTURE

14
ACHIEVEMENTS

15
BUSINESS REVIEW

20
SPOTLIGHT ON POST-EXCAVATION AND PUBLICATIONS

22
ARCHAEOLOGICAL DATA AND INNOVATION FOR 2017

23
2015/16 CASE STUDIES

40
BUILDING CAREERS AND ENABLING INFRASTRUCTURE

40
OUTLOOK FOR 2016/17

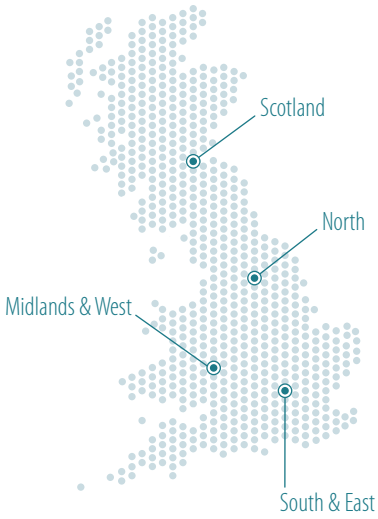
Who are we?

Headland Archaeology was founded in 1996 by four like-minded archaeologists with a strong commitment to commercially-focused client delivery. In a business traditionally dominated by the not-for-profit sector, Headland Archaeology is one of the UK's leading privately-owned providers of heritage services to the development and construction industries. We offer a wide range of consultancy and contracting archaeological services covering the life cycle of a project from design through to construction. Our pragmatic and professional approach has earned us multiple awards and an industry-leading reputation for delivering on time and within budget. This ethos is applied to all projects, whether we are working on a fast-track road or rail project, a multi-phase housing development or quarry, a wind farm in a complex upland or lowland landscape setting.

We are respected within the industry for successfully balancing the cultures of business and heritage, and we lead from the front, encouraging innovation and excellence in all aspects of our work.

Where are we?

Headland supports the development and construction sectors throughout the UK from four offices – Edinburgh, Luton, Hereford and Leeds. Our regional network means that we can offer our clients essential local knowledge, whilst our national coverage means we can offer our clients a consistent product and customer service no matter where their development is in the UK.



Sectors we work in are Renewables, Utilities, Civils & Construction, Extraction, Housing & Commercial Property, Land Management and Transport

TIM HOLDEN
Managing Director, Headland Archaeology (UK) Ltd

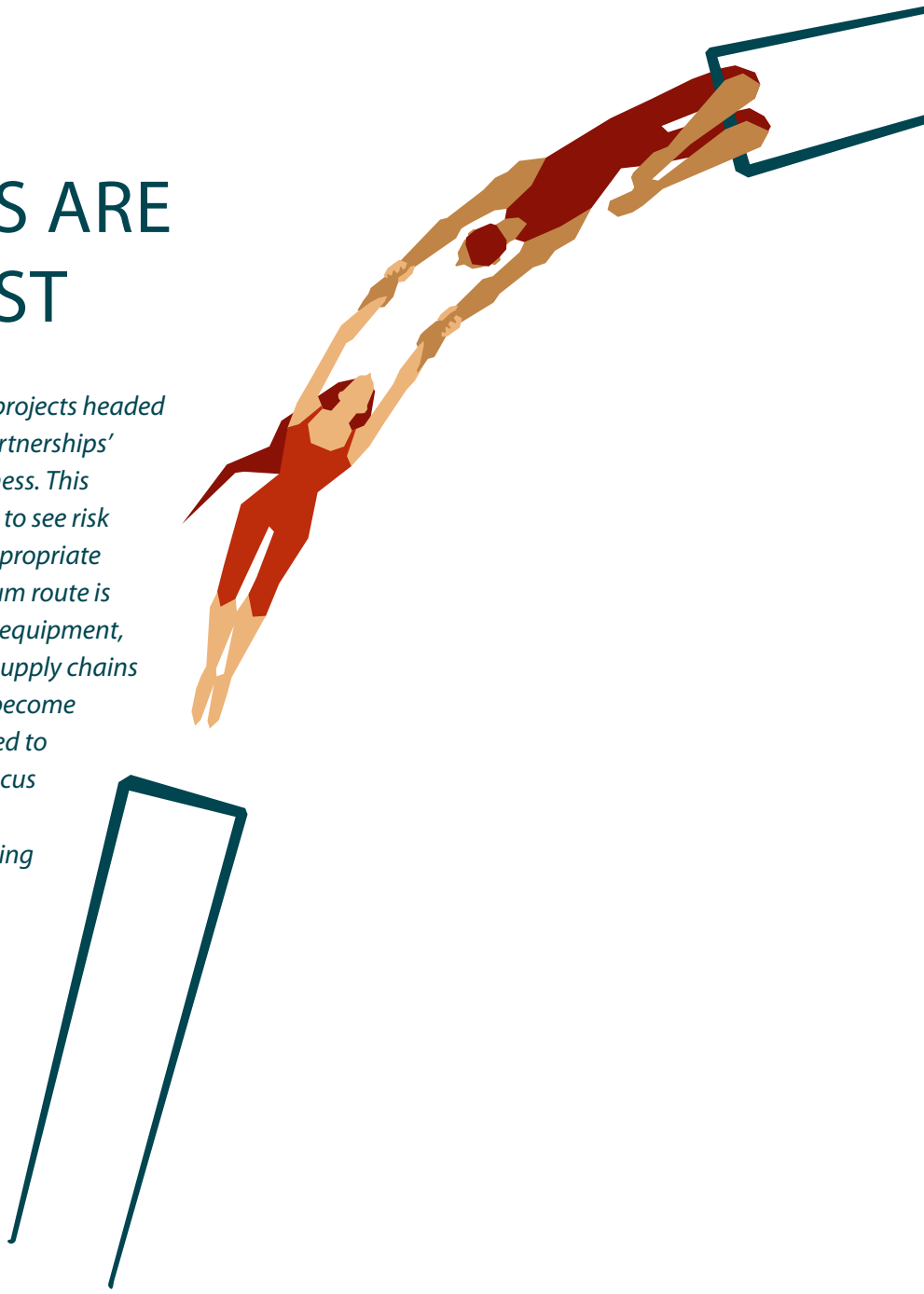
Dear Stakeholder,

Building on the gains made in 2015, as a result of increased housebuilding and projects such as the Aberdeen bypass, we have been looking ahead at the unprecedented programme of planned infrastructure and the archaeological tsunami that will inevitably accompany it. Our track record on projects of this scale means we know exactly what is headed our way, the pitfalls, the priorities and how best to deliver. So at the beginning of the year the board identified proactive preparation as Headland's primary strategic aim. This required a subtle shift from profile-raising to resourcing, systems and partnerships. The whole company has been focusing on ways to improve efficiency and build capacity. We have used the year to develop, implement and refine several areas reliant on new technology that will dramatically improve the quality and speed of data collection in the field. You will see examples of this throughout this report, most notably in the areas of photogrammetry and geophysics. In the office we have also implemented improved project management software and can now, for example, view all time and costs against projects at the touch of a button.

We know how demanding the early phases of major projects can be, both in terms of cash and resource and have built up our financial reserves specifically to cover the cash-hungry phases. Because archaeology is a very manual process, staffing has been one of our most important considerations. Our strategy for this has been three-fold; firstly we have been developing partnership agreements with other archaeological companies; secondly, we have ramped up our internal training procedures with a view to fast-tracking talent through the company and, thirdly, we are developing a much more proactive approach to recruitment and retention. I am particularly pleased that discussions with the Museum of London Archaeology service (MOLA) have resulted in a formalised consortium (MOLA Headland Infrastructure), bringing together up to 500 archaeologists, numerous complementary skills-sets and strength in-depth.

From my perspective, one of the most satisfying things about 2015/16 is that we started off with our plan for the year, and have, as a team, delivered in all areas. Particularly gratifying were the awards of the Thames Tideway, Wylfa and the A14 Improvement schemes, projects that were identified at the beginning of the year as matching our skills-base and that will enable us to build a strong and experienced team in advance of HS2 which is currently thought to be on the cards in the early part of 2017.

PARTNERSHIPS ARE BUILT ON TRUST



In view of the scale of the infrastructure projects headed our way in 2017 the board identified 'Partnerships' as one of the key focal points for the business. This was partly driven by our clients who want to see risk minimised but also to secure resources appropriate to the scale of their projects. The consortium route is one way to deliver the right levels of staff, equipment, expertise and financial security. External supply chains and internal systems are also likely to be become stretched, so it was essential that we looked to the future. We felt that the 'Partnership' focus addressed all of these issues and we have invested considerable effort into the building of real cooperation based on trust and transparency.

At the company level Headland has teamed up with the Museum of London Archaeology service (MOLA), one of the leading and longest standing archaeological organisations in Europe. Together we provide a team of c. 500 staff with complementary experience and expertise in both fieldwork and specialisms. Both companies felt it important to develop seamless systems allowing members of either company to cover any eventuality. Field teams are deliberately mixed to promote cross-company working and recording systems, including survey and IT have been amalgamated, picking the best from each of the parent companies. This, in itself, has been an illuminating process with a considerable investment in time and money. It has been an essential part of building trust and working relationships that are already benefiting clients on projects such as Thames Tideway and the A14 improvement scheme (Cambridge to Huntingdon), the largest archaeological project in Europe for many years.

We are also working hard to develop relationships with other archaeological companies that offer local expertise, as well as suppliers of plant and equipment, IT (Excellimore) and business systems (Union Square). Internally, too, we have been working to ensure that potential siloes between departments and offices are addressed with joined-up business development and intensive training programmes from the coal-face to senior management.

Over the years we have prided ourselves on taking our annual focal points from management concepts to on-the-ground implementation. This is a great example of what we can do as a team with everyone on board and moving in the same direction; with everything now in place, we can look forward with confidence, safe in the knowledge that our people and our systems are ready for whatever the new year may bring, including HS2.

SHEQ

"Safety, Health, Environment and Quality are integral to everything we do. We are committed to a safe working environment for all our staff, sub-contractors and visitors to our sites and our staff are trained to be conscious of health and safety at all times.

A safe workplace is a happy workplace!"

Edward Bailey, SHEQ Manager

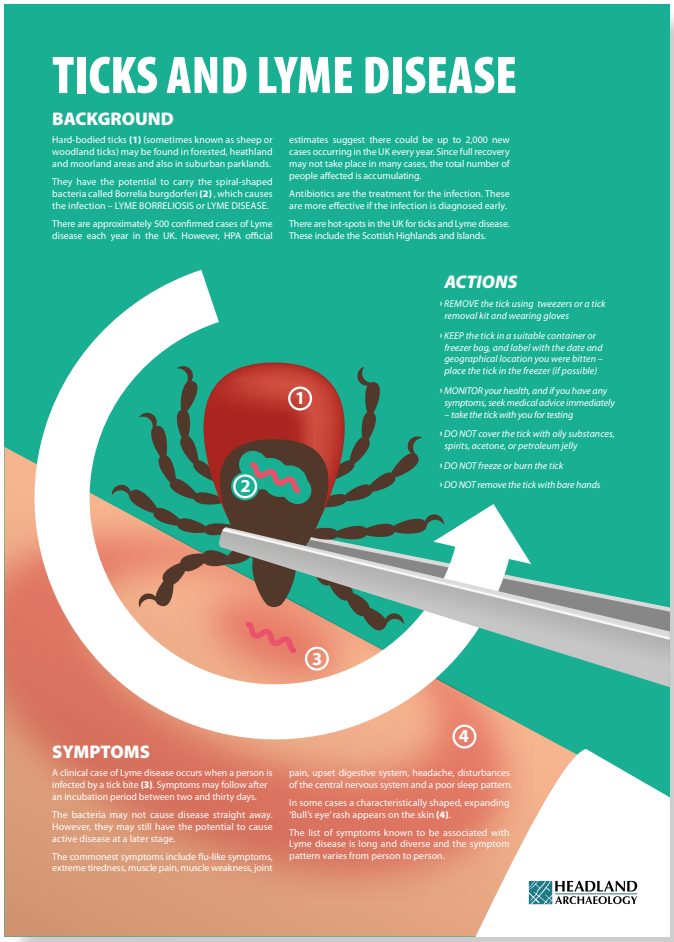
Highlights

2015/16 was a busy year for the Safety, Health, Environment and Quality department, with a focused effort on reviewing and improving our management systems. All this effort was fully rewarded by the company achieving ISO 9001:2008 certification and our best-ever Achilles Verify audit marks.

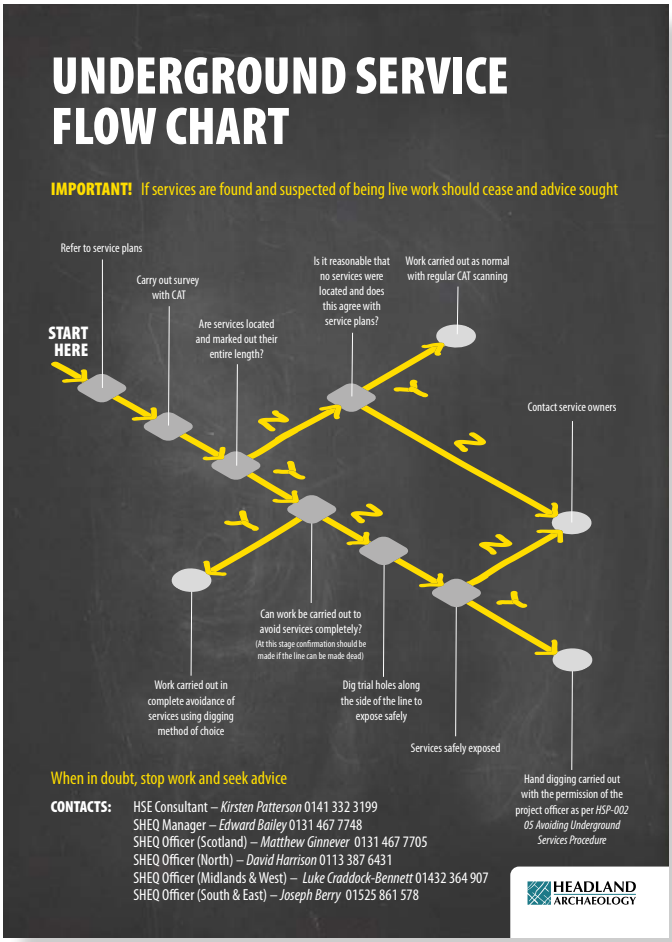
Whilst Archaeology was made exempt from the Construction, Design and Management Regulations 2015 (CDM) at the end of the 2015 financial year, many of our clients were in agreement with us that following the regulations is best practice. As such we undertook the role of Principal Contractor on several occasions. In fact, we undertook the role on more projects this year than in any year under the previous regulations.

Most notable was the excavation of the graveyard at St Peter's church, Blackburn, where we undertook the role as per the 2007 regulations. This was a complicated site with both civils work and the excavation of a graveyard being undertaken simultaneously on a site with limited space. This meant an increased interaction between plant and people. By following CDM requirements we undertook the works in as safe a manner as possible and we completed the job with no lost time, accidents or incidents.

Our commitment to best practice has led us to create an internal procedure that requires all significant projects, or those with specific health and safety issues, to have a formal Safety Plan in place that adheres to the requirements of a construction phase plan under the CDM regulations.



A few examples of the posters that our in-house designers have created together with Edward Bailey (Headland's SHEQ Manager) advising Headland staff on safe work practices

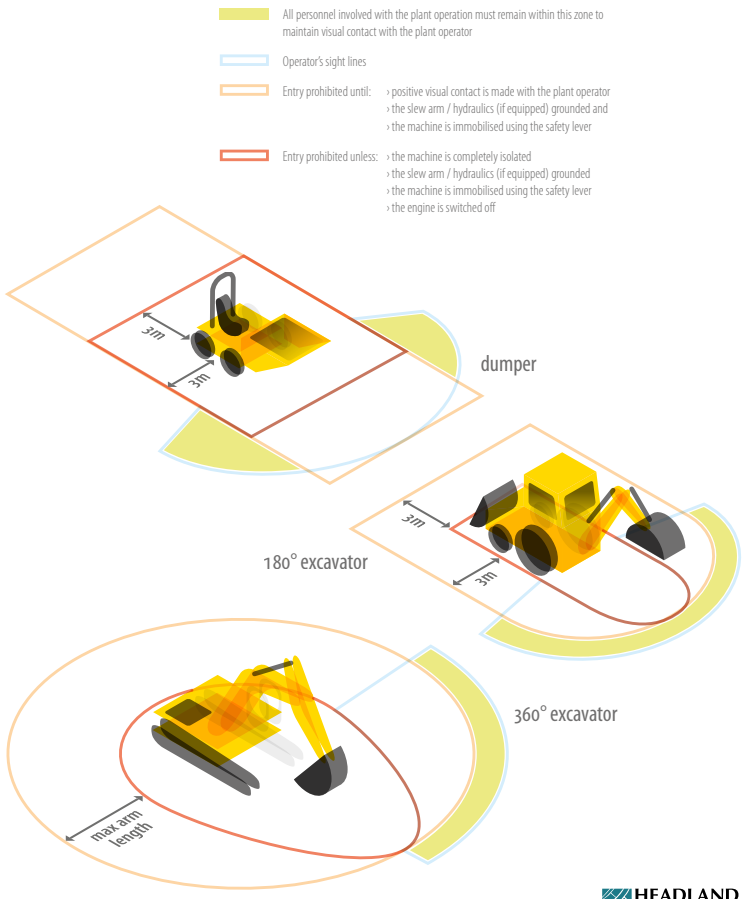


Accidents

Accidents rates remain relatively stable despite an increase in overall hours worked. Consistent with previous years, the majority of accidents were minor manual-handling injuries. We are pleased that no major accidents occurred, although we had one RIDDOR reportable incident. This was the accidental clipping of an unmarked gas main during an evaluation. Investigation established that the incident could have been avoided had company procedures been correctly followed. As a result of this we reviewed and updated our procedures and implemented a training programme comprising both internal and external training designed to prevent a recurrence.

	ACCIDENT REPORTS			RIDDOR						
	injury accidents	near misses	damage only accidents	> 3 day	> 7 day	major injuries	occupational diseases	service apparatus incidents	fatalities	dangerous occurrences
2008	4	0		1		2	0	0	0	0
2009	2	0		1		0	0	0	0	0
2010	0	0		0		0	0	0	0	0
2011	6	0		1		0	0	0	0	0
2012	3	2			0	0	0	0	0	0
2013	4	2	2		0	0	0	0	0	0
2014	6	2	3		1	0	0	0	0	0
2015	7	5	1		0	0	0	0	0	1
2016	7	5	1		0	0	0	0	0	0

PEOPLE-PLANT INTERFACE
SAFE ZONES



	2013	2014	2015	2016
Health & Safety	73.7	78.7	74	91
Environment	54.3	71.9	54	88
Quality	73.9	78.1	86	81

MANAGEMENT SYSTEM

Health and Safety	82.9	84.9	84	87
Environment	67.4	79	100	100
Quality	96.4	89.4	83	83

ON-SITE ASSESSMENT

Training

This year our focus has been to develop and expand our internal training resources, adding new site posters and toolbox talks. We have also continued to expand our external training programme which now requires Project Managers to have IOSH Managing Safely and Project Officers and Supervisors to have banksman training. Additionally, staff are provided with site-specific training such as 4WD training or confined spaces.

Achilles, SMAS, CHAS, ISO 9001

Our continued investment into developing and implementing our Safety, Health, Environment and Quality systems was visibly rewarded this year when we achieved ISO 9001 certification and improved our Achilles UVDB marks to above 80% across the board for the first time. This demonstrates to our clients that we share their vision for SHEQ management systems; a vision that sees all our staff go home safe and healthy at the end of each working day, which limits the environmental impact of our activities and provides the highest possible quality of service.

Moving forward, Headland intends to expand our certification to include RISQS membership in order that we are compliant with the SHEQ requirements of the rail industry. Over the longer term we intend to achieve ISO 14001 and 180001 standards in our environmental and health and safety management systems.

EDWARD BAILEY
SHEQ Manager

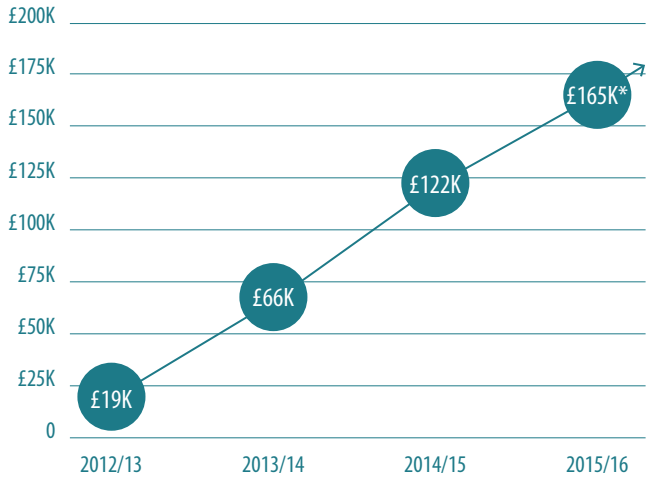
Background

From a financial perspective 2015/16 has been an unusual year for the Group. We started off at a slower pace than previously anticipated with the well-documented slow release of projects during the aftermath of the Scottish referendum. The referendum took place in the latter part of 2014 but the impact of kick-starting the decision-making process to release infrastructure work was felt across the UK. We did experience a rapid pick-up in the start of some substantial infrastructure work, only for the back end of the year to fall away with the equally well-documented slow-down in the starting and release of projects in the lead up to the Brexit referendum. The impact of this also lasted beyond the referendum with another batch of stalled projects suddenly turning into near panic starts towards the end of 2016. Who would have thought that the world of archaeology could be so affected by the impact of modern national and international politics.

That aside, the Group had another successful year of trading, continuing on our joint focus of customer delivery and staff advancement. Turnover edged ahead by 3% over 2015 but our 'bottom line' reduced for a number of positive reasons, all planned for future growth.

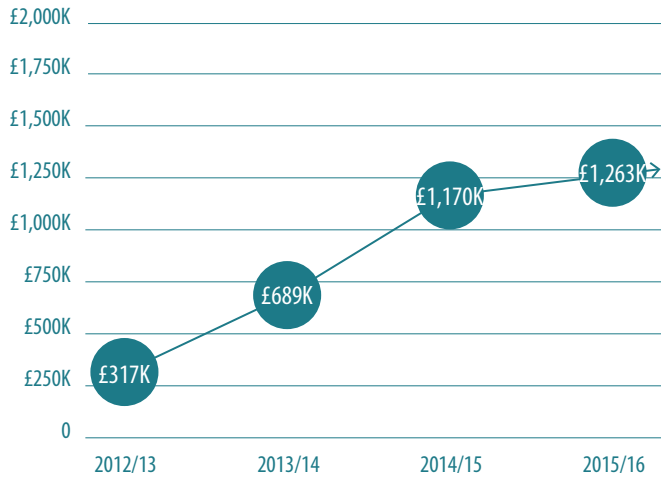
+ The marketplace is now starting to notice our increased speed of delivery in geophysics projects. This comes as a result of spending over £70,000 on an innovative R&D project, funded with the help of our finance partner, Lombard. This resulted in a one-off hit against trading profits.
+ We substantially increased the number of jobs within the company in anticipation of, and to be prepared for, the release of a number of significant infrastructure projects. Staffing numbers increased by 25% and we invested a great deal of time on implementing training and induction procedures to keep us at the forefront of the marketplace. Staff remuneration increased at a level far ahead of most rivals and the economy as a whole, by almost 5%, allowing us to retain and recruit at all levels across the company. Shareholders also received an increased dividend return.
+ We made a commitment to implement our strategic Joint Venture with Museum of London Archaeology (MOLA) to create MOLA Headland Infrastructure, successfully tendering for work on both the Tideway Tunnel project and the A14 Cambridge to Huntingdon improvement scheme.
+ We implemented all of our strategic objectives as detailed overleaf.

Capital expenditure

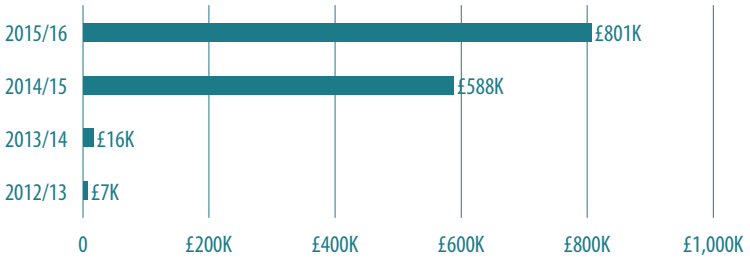


* inclusive of £70K capital spent on Research and Development

Value growth of our business



Retained cash within our business



Current Year

We have carried out the implementation of our strategic objectives for 2015/16.

+ We completed the move to the new headquarters for our Midlands & West branch in Hereford, providing enhanced office and meeting accommodation for staff and clients, together with improved storage and processing facilities for archaeological finds.
+ We have integrated our new geophysical survey unit in our North office and, as mentioned above, invested heavily in innovative geophysics research and development work.
+ We have installed and commissioned our new project management software suite which is already aiding us to better monitor our performance and continue our objective of improving delivery and efficiency. We now have real-time reporting on staff time and costs on projects, allowing us to monitor for problems on projects and take remedial action to identify issues quickly. This is to the benefit of both the company and our clients.

We have continued to build up the financial strength of the business to support our increasing size with:

+ An increase in our investment on capital expenditure, from £122K to £165K
+ An increase in our cash reserves, £588K to £801K
+ An increase in our value growth, £1.17M to £1.26M

The Future

Looking forward to 2016/17 our key objective will be to develop the structure of our partnership with MOLA (MOLA Headland Infrastructure). Both parties have identified that to offer the optimum working solution to our larger infrastructure clients 'bigger can be better' and we have been jointly working on tendering, and winning, substantial infrastructure project work. This allows us to keep a sufficient capacity to service our core smaller clients with the same drive and efficiency as we supply to our larger project clients.

We will continue to invest in our infrastructure, with spend in the year to date topping £100,000 and we will continue to build the value of the business to prepare for the future and the ever-increasing size of infrastructure projects coming through the system.

DAVID BETTS
Financial Director

BUSINESS STRUCTURE

Consultancy

The Consultancy team is focused on identifying and managing potential risk. Dealing with heritage issues early on in the life of a development can save valuable time and cost.

Our aim is to get our clients through the planning process. We advise on current planning legislation, support project and design teams with heritage assessments and negotiate specifications with local and statutory authorities for archaeological work pre- and post-planning. We then advise on likely costs and timescales to help our clients design programmes and budgets. Our consultancy work is of the highest standard in the industry and our track record in defending our work in public inquiries proves this.

Our services include early stage risk appraisals and feasibility studies, masterplanning, heritage statements, desk-based assessments, environmental impact assessments and expert witness.

Contracting

The Contracting team is focused on delivering appropriate archaeological services in advance of construction work on time and on budget.

Our philosophy for contracting services is to provide value for money as heritage can be a significant cost in any development budget. As one of the UK's largest contractors, we offer a full range of non-invasive and invasive surveys and have the scale and resources to get teams onto development sites anywhere in the UK, often at short notice. Our network of regional offices enables us to move resources around the country to meet demand. Our experience as principal contractor on large-scale infrastructure projects means we have a clear understanding of our contractual responsibilities in delivering on time and on budget and to agreed specifications. The importance of creating and maintaining a safe working environment, is also paramount.

Our services include a range of pre- and post-planning determination services such as geophysical survey, fieldwalking, topographic survey, coring and historic building recording, as well as trial-trenching, excavation and watching briefs.

Specialist Services

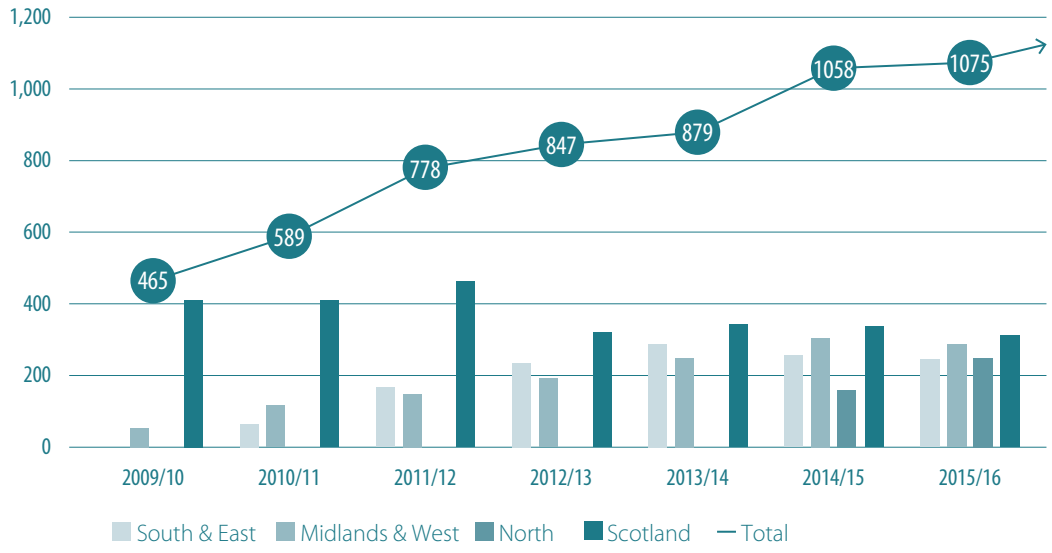
Our Specialist Services team is focused on adding value to our clients' developments through the input of some of the UK's leading heritage specialists.

We employ a full team of in-house specialists to support the work of our Consultancy and Contracting teams, providing a fully integrated service. Their knowledge and experience means our clients can be sure they have met industry best-practice but also that the work we recommend is appropriate to their development.

Site works are only part of potential heritage costs; post-fieldwork analysis and reporting also represent significant cost. Our experts can alert you as to what is a rare and important discovery. Conversely, they will also point out what is routine and commonplace and will recommend dealing with these sites quickly, dispensing with the need for unnecessary and expensive work both in the field and in reporting. Our team of specialists can save you time and money both on and off site.

Our services include geoarchaeology, palaeo-environmental and archaeobotanical studies, photogrammetry, historic building recording, artefact analysis, human and faunal remains, graphics and publication.

Sales



*based on number of sales enquiries

43.5%

£6.47M

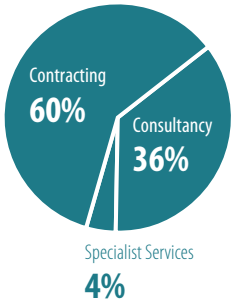
new business value 2015/16

15.2%

£19,098

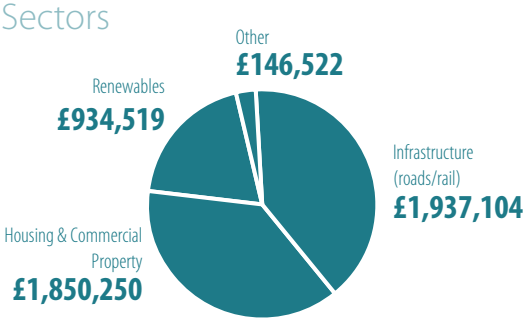
average contract value 2015/16

Services



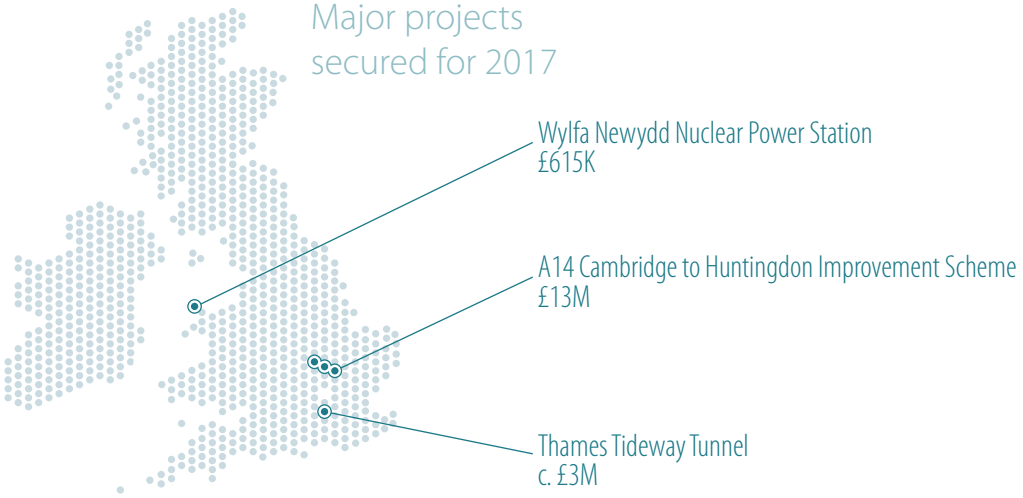
*based on number of projects won

Sectors



*based on turnover

Major projects secured for 2017



Business Development

The market for large infrastructure has been on the horizon for some time and the last 18 months have seen us building on our business relationship with Museum of London Archaeology (MOLA) to create MOLA Headland Infrastructure. This exciting new partnership, which builds on the strengths of both companies, provides clients with the resources and expertise they need to deliver the type of large-scale projects that are coming onto the market. For more information on the consortium visit molaheadland.com

HS2 remains the elephant in the room but we are pleased to see that it is now becoming a reality with contracts due to be let early in 2017. We have worked hard over the last year to market our services and very much hope to become a trusted partner to the successful Tier One Contactors.

We are always looking for ways to be more efficient, partly to allow us to pass on savings to clients but also as a way to protect and improve margins. A good example is our new geophysical survey kit which we designed and assembled in-house. This new system is 100% faster than standard survey kits and we can achieve rates of progress of 10 – 12 ha per day per team against standard 5 – 6 ha with a cart system. This makes us highly competitive as it would be possible, for example, to complete a 100-hectare development site in as little as two weeks. In addition, our system can also be used whilst fields are in crop. It has already proved a big hit with housing developers, and with the Leeds-based geophysics team continually fully booked we are now building more kits and a bigger team.

Away from HS2 and other infrastructure projects, we continued to go out and meet new and existing clients in their offices, at trade shows and breakfast clubs. We also provided speakers at a number of business and planning seminars and conferences.

We are pleased to say we successfully achieved ISO 9001, something we have been working on for the last year. As well as monitoring and improving systems internally by way of audits, it has also made tendering considerably more efficient.

Sales and Marketing

This year saw several large infrastructure projects coming to market; notable tenders included the Blackburn Link Road, the A14 Cambridge to Huntingdon improvement scheme, East Anglia One offshore windfarm grid connection, the Thames Tideway Tunnel, Wylfa Nuclear Power Station in Anglesey, Northstowe new town development in Cambridgeshire and the Lincoln East Bypass among others.

Regionally, our North and South & East offices each received around 23% of the total sales enquiries with Midlands & West on 26% and Scotland on 28%. Looking ahead, we envisage new renewable developments declining but associated infrastructure – on-shore grid connections, for example – continuing. Housing and infrastructure will remain strong for the next few years.

New business secured during the year rose from £4.51M in 2014/15 to £6.47M and average contract values were up from £16,581 to £19,098, reflecting an increase in larger-scale housing developments.

Contracting services increased, accounting for 60% of contracts won, with consultancy down slightly to 36% from 38% and specialist services also down to 4% from 8%. By sector, renewables were up from £811K to £934K, property was up significantly to £1.85M from £1.01M and infrastructure down from £2.58M to £1.94M.

During the second half of the year, we saw a number of major infrastructure projects coming to market and we are pleased to have converted several of them, most notably Wylfa, Thames Tideway Tunnel and the A14 Cambridge to Huntingdon improvement scheme. These projects, some being undertaken as MOLA Headland Infrastructure, will provide a valuable income stream for us over the next few years and some comfort in light of general business anxiety over Brexit.

We took some time this year to refresh our sales and quotation templates, developing them to work in sync with our new business software. As well as restructuring the layout, our new fee proposals have now been refashioned using the same graphic design as the web site and capability statements.

The Annual Statement continues to be popular with new and existing clients like and has become a fixture within our sales and marketing calendar.


HEADLAND
ARCHAEOLOGY

Business Operations

Consultancy

The early removal of the subsidies under the Renewables Obligations Certificate scheme in April 2016, one year earlier than originally planned when the changes were announced in June 2015, meant that 2015/16 was a busy year for the 'wind section' of the Consultancy Team, as projects were fast-tracked to submission or taken through to appeal. Consultancy turnover of just under £430,000 for the year was up 6% on 2014/15.

The Corlic Hill wind farm inquiry (reported in the Case Studies) was brought to a successful conclusion in early June, whilst a few days later, Scottish Borders Council's objection to Windy Edge wind farm was also successfully overturned at appeal. Located near Hermitage Castle, this was always going to be a contentious development but a careful and detailed assessment of how setting contributed to the significance of the asset was able to ensure that the development would have no impact on visitors to this iconic Borders stronghold. And to cap a summer of appeal success, July saw the Public Inquiry at Mynydd y Gwair, near Swansea, approve the plans for a 16-turbine scheme, consented through the Commons Act 2006 – only the second time in Wales that a wind farm development has required consent by this means.

Overall, wind farm appeals work alone saw our consultancy team providing expert witness services at inquiries in Wales, Northern Ireland, Ireland (see Emlagh, in the Case Studies), Highland, Argyll & Bute and Scottish Borders in Scotland, and in Yorkshire, Hampshire and Cornwall in England.

Cultural heritage contributions to the Environmental Statements for over 20 wind farms were prepared during the course of the year. Elsewhere in the renewables sector, the year also saw our consultants contributing to the Environmental Reports for several solar farm developments in North Lanarkshire, Renfrewshire and North Ayrshire.

Desk-based assessment and EIA work on major programmes of work associated with the upgrading of the UK national grid power distribution network also continued. Our consultants were active assessing route amendments on the island of Lewis and in connection with the Western Isles Route between Beauly and Dundonnell. These are projects that we have been involved from the very beginning – in the case of the Western Isles Route, since 2004.

Meanwhile, colleagues in our England offices have provided the archaeology and cultural heritage inputs to the environmental reports for a number of National Grid projects, including steelwork replacement surveys in Nottinghamshire and North Lincolnshire, and major refurbishment surveys for some 100 miles of line in Devon and 120 miles of the line between Lincoln and Stevenage.

Consultancy work for housing and commercial property developments was also a significant element of the team's workload throughout the year, particularly for the consultants in our Midlands & West and South & East offices. Expert witness work was also in demand here in connection with public inquiries for developments in Northampton, Oxford and County Durham.

The Framework (2014 – 16) with RES has worked well and the complimentary feedback at the 2016 review meeting was much appreciated; we currently await news on our submission to RES for the 2017 – 2020 Framework. Other Frameworks with key consultancies have also been established and we look forward to the challenges that the new year brings.

Contracting

Headland Scotland The team based in Edinburgh covers Scotland, Northern Ireland and the north of England. The first half of the year saw us fully booked as we got off to a flying start with the Blackburn Link Road contract and Clyde Wind Farm Extension. The former involved excavating a 19th-century church, demolished in the 1970s, and parts of the surrounding graveyard which went out of use in the mid- to late-19th century. Over a four-month period, we uncovered, recorded and removed around 2,000 burials which were later reinterred elsewhere within the graveyard unaffected by the new road scheme. Amongst the finds was a full set of newly minted coins built into the foundations of the church as part of its dedication ceremony. The analysis of the skeletons will add much to our knowledge of the diet and health of Blackburn's factory workers in the mid-19th century.

At the same time, we found ourselves back at Clyde Wind Farm. This time we were working on the extension to the wind farm, continuing our long-term involvement with the project going back to 2003. Already one of the largest onshore wind farms, the extension takes it to 206 turbines and an installed generating capacity of 512mW.

Mitigation works in advance of cabling and new access roads uncovered more of the platform settlements we investigated in previous seasons.

During the second half of the year we did see some activity in the housing market, carrying out a small but interesting excavation in advance of a housing development in Brechin, Angus. Here, we uncovered some round houses and, more interestingly, a souterrain (an underground storage chamber) accessed from the house itself. We also worked on the first phase of the terrestrial component of the Beatrice offshore wind farm, which comes ashore on the Moray coast and links to a new sub-station some 20km inland.

We have also made significant progress on a range of post-excavation and publication projects, including Aberdeen Western Peripheral Route, Blackburn Link Road and Clyde Wind Farm. Reviewing resources, we brought in a new project manager to increase capacity in advance of a flurry of infrastructure projects as much of the tendering is done by the Scotland team. Given so many of our teams work away from home for long periods, we have also introduced a forum for discussion which allows our staff to contribute to discussions on CPD and other topics.

Headland Midlands & West The property market continues to be the driver for growth in the Midlands & West region, and in particular Gloucestershire. We have also seen a shift in services from site investigations to mitigation excavations as housing developments move from pre-planning through to construction.

This year we also revisited developments we had worked on in earlier phases, most notably Fairford, near Cirencester, where we uncovered Saxon and medieval settlement remains and Commonhead, Swindon where our excavation revealed the remains of a well-preserved medieval building. Other key projects during the year include the Hereford Relief Road.

The largest project of the year was the new nuclear facility at Wylfa, Anglesey for Horizon Nuclear where we investigated roughly 500 trial-trenches. We are currently getting ready for the mitigation phase.

Away from fieldwork, we moved to larger premises on the outskirts of Hereford but retained the old premises which we used to process the human bone assemblage from the Blackburn Link Road project. We also appointed a new Finds and Environmental Supervisor.

We visited a number of schools as part of outreach projects. With resourcing within the industry a major concern ahead of HS2, we attended a number of student career days at universities giving talks and advice.

Headland South & East Here housing developments remained strong, especially in Northamptonshire, Cambridgeshire, Buckinghamshire and Bedfordshire.

One of the few renewables projects to survive was the solar development at Vine Farm, Cambridgeshire. We had undertaken geophysical surveys the previous year and this year we followed up with the grid connection works, as well as excavating in a number of areas of Romano-British settlement.

We completed several housing projects in the region including Cheveley in Cambridgeshire, Allimore Lane, near Alcester in Warwickshire, a gasworks in London and site investigations for a major housing development near Leighton Buzzard. We also returned to Reading Girls' School for excavation on an early prehistoric site after trial trenching the previous year.

Other than housing, we were involved in several small to medium infrastructure projects, including the continuation of the Staffordshire

Area Rail Improvements from last year. We were also delighted to be on the framework for the Eight20 project for Atkins/Thames Water. Our first major contract was the Angelinos Pumping Station in Oxfordshire where we excavated the route for the pipeline.

Locally, we attended a number of business breakfasts and 'Meet the Buyer' events and gave a number of CPD talks on archaeology and development to local companies.

We have also focused on our publication work and we now have a number of articles in preparation or already submitted to journal editors. Now settled into our new premises, we have built up our capacity to process finds and environmental samples and have appointed a new post-excavation assistant.

The second half of the year was very busy for the management team who dealt with a rash of tenders for large infrastructure projects in the south and east of England including East Anglia One, A14, Northstowe and Lincoln East Bypass. We were delighted to be awarded both Thames Tideway Tunnel and the A14 Site Investigations and Mitigation Works, working in partnership with MOLA. Work has started on both schemes.

Headland North, based in Leeds, is our newest regional office and this is its first full year. Our geophysics team is based here and sales enquiries have markedly increased as the office matures and puts down roots, though ironically most of our work is on sites in the Midlands and further south where the larger housing schemes seem to be. The largest surveys we undertook were in Northampton, the Fens, Anglesey, Chichester and Oxford.

This year saw surveys being pre-booked well before harvest time, so much so that the team were booked for months in advance. We had noticed that we were much more successful in winning the larger sites, 50 ha up to 250 ha but were less competitive on the typical 10 – 20 ha site. We have looked at working practices, as well as technology, and we hope to be more competitive on these smaller sites going forward.

For the larger sites, our new survey kit – see Business Development section – has been a real winner and has halved the time it normally takes for a survey, especially attractive for clients waiting months for crops to come off.

In addition to housing the geophysics team. Headland North has also started to build up its own in-house contracting team and we have now completed site investigations and mitigation excavations on a number of wind farms and housing developments in the north of England. We hope to grow this service over the next 12 months.

It's an exciting time to be an archaeologist in the UK. A new scale of infrastructure project brings some serious challenges to our industry, not least in attracting and supporting quality staff, and managing very significant volumes of archaeological information. At Headland Archaeology, we know that constant innovation is the key to overcoming these challenges. This has led to a culture of continual improvement which in turn has helped give us the confidence to routinely implement new ideas at scale.

The Technical Services department supports our fieldwork teams and specialists with the best possible tools for gathering and understanding data and disseminating it to a broad audience. This includes the spatial, descriptive and imagery data that forms the core of our archaeological archives. The department has often been at the forefront of driving innovation, and our work over the past year has been no exception.

Post-excavation and Publications

So what happens after the archaeologists down tools at the end of the excavation? There is little use digging a site unless we can interpret what we have found and disseminate that knowledge to the rest of the world. The post-excavation process involves a wide network of different people: general works staff to interpret the archaeological remains; finds specialists to identify, date and interpret the artefacts; environmental specialists to identify any remains that can provide evidence for past diet, climate and vegetation; osteologists to study any human bones recovered; and illustrators to draw up plans, finds' illustrations and diagrams that help us to understand the site. Headland has a dedicated group of finds and environmental specialists and a graphics team to help with all of these. We also have a wide network of specialist contacts to call on for everything from analysis of insect remains and regional pottery types to documentary research and architectural history. We have a number of project managers with many years' experience steering projects through the course of post-excavation and experienced in-house typesetters who can polish up the finished product, should this be required. The whole process is overseen by Julie Franklin, our Publications Manager who ensures projects stay on track. Publications can take the form of articles within archaeological journals, monographs for the larger sites or popular publications, ie targeted at the general public rather than a more specialist audience. An increasing amount of archaeological publishing is now online as it is cheaper and more easily disseminated. We have collaborated with the Society of Antiquaries of Scotland, Historic Environment Scotland, numerous local and period-specific journals, and have published several books ourselves.

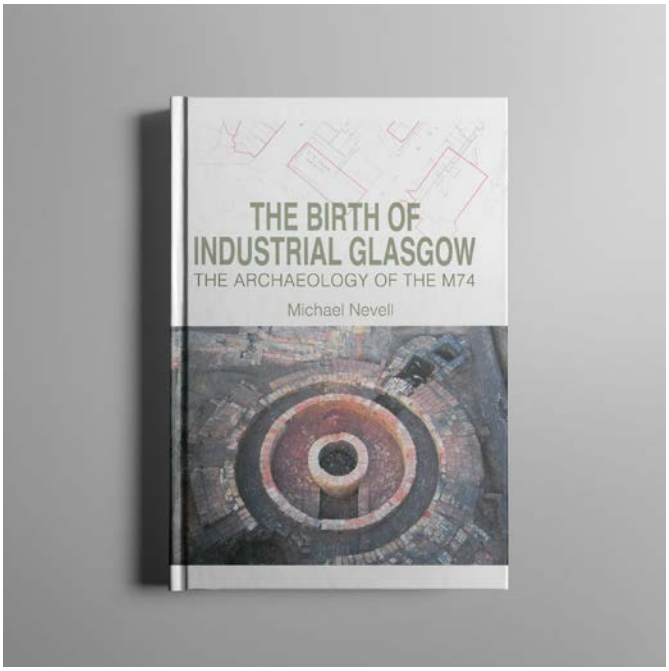
This year has seen the publication of two major linear projects. The first was the M74 excavations in Glasgow, which uncovered remains of a number of 19th-century industrial sites; it was brought out as a full-colour Society of Antiquaries of Scotland monograph to critical acclaim. The second was our excavations on Northern Ireland's A1, which found the remains of Carnmeen ring-fort. Unusually for a ring-fort this site was later re-occupied as a medieval manor house and features evidence for gold-working and other high-status activities. This site was published online by Queens University, Belfast.

A number of other great sites have been submitted to publishers and we are eagerly awaiting their arrival. The best of these include:

- **Kisimul Castle**, a 15th-century castle on its own island just off the coast of Barra
- **Greyfriars Kirkhouse**, with its evidence for the early development of Candlemaker Row in Edinburgh
- **Doune Roman Fort**, Stirlingshire, including the stunning find of a 1st-century AD enamelled horse-harness mount
- **Finnieston Street**, Glasgow, an 18th-century glassworks
- **Fairford**, Gloucestershire, an Iron Age and Saxon site which includes large storage pits reused for human and dog burials
- **University of Bedford's Luton campus** which found the remains of Luton's lost and very short-lived 13th-century castle, including waterlogged remains of medieval shoe leather.

"Post-excavation is the most fascinating part for me. It's a detective story. A mystery to be solved. It's taking all the evidence and working out what it means. What really happened at that site? It brings us as close as we can get to the lives and minds of people long dead, but ultimately not so different from ourselves."

Julie Franklin,
Finds, Publications & Archiving Manager



A plethora of other publications is also currently in progress and we hope of submit them to the publishers in the coming year. Much of our time this year has been taken up with the post-excavation work on the cemetery at St Peter's Church, Blackburn and the various sites discovered during works ahead of the Aberdeen bypass. St Peter's provided the largest 19th-century graveyard assemblage yet excavated in the north of England, while the Aberdeen projects included an important Mesolithic site and the remarkable discovery of one of the most northerly Roman marching camps ever found. Our work at Clyde wind farm has also made possible a fascinating landscape study, comparing sites and environmental data across a wide area of the upper Clyde valley in South Lanarkshire. We are also working on bringing three older but nationally important projects to light: Meadowend Farm, Clackmannanshire with the largest and most important assemblage of Neolithic pottery ever found in Scotland; Culduthel Mains Farm, Inverness with its extensive evidence for Iron Age ironworking with associated metalwork products, including a sword and enamelled brooch; and North Kessock, Black Isle, with its large assemblage of late Bronze Age bronze-casting moulds.

The sheer variety of sites means that post-excavation never gets dull. It's when we put all the pieces together and tell the story of the sites and the people who lived, worked and died there. It's where we see how those sites fit into the broader pattern and where we add to that pattern and create a new and ever further-reaching picture of the human past.

JULIE FRANKLIN
Finds, Publications & Archiving Manager

OPINION

ARCHAEOLOGICAL DATA AND INNOVATION FOR 2017

It's an exciting time to be an archaeologist in the UK. A new scale of infrastructure project brings some serious challenges to our industry, not least in attracting and supporting quality staff, and managing very significant volumes of archaeological information. At Headland Archaeology, we know that constant innovation is the key to overcoming these challenges. This has led to a culture of continual improvement which in turn has helped give us the confidence to routinely implement new ideas at scale.

Jürgen van Wessel, Data & Technical Services Manager

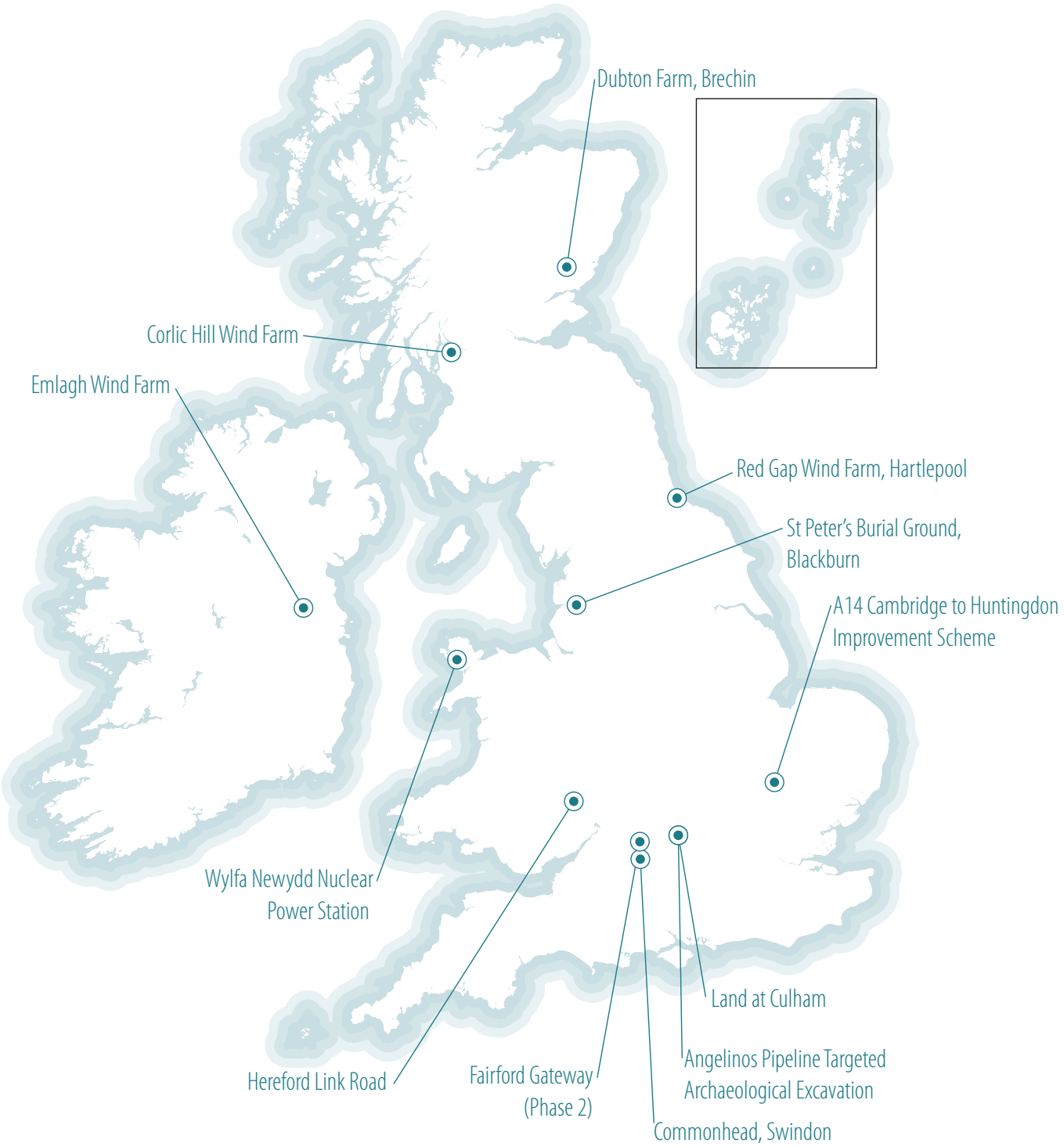
Headland's recent excavations at St Peter's Burial Ground in Blackburn are described elsewhere in this report, and are an exemplar of our willingness to embrace new ideas to the benefit of the project. Our photogrammetry-led approach to surveying burials was built on many years of development led by the Technical Services department, enabling us to roll the system out rapidly to a cemetery of some 2,000 individuals. This is an 'industry-first', and one which has been subsequently demonstrated at several conferences and academic lectures to an enthusiastic response. Other initiatives on this project have included bespoke recording forms, pre-printed labels, a web tool for interrogating burial data, and advanced use of GIS to help re-stratify and visualise the burials. Our confident, innovative approach allowed us to work quickly and avoid the need for limited sample excavation or clearance contractors, and has resulted in a complete, detailed and highly useable archaeological record.

Our confidence stems from a deep and clear understanding of what we are trying to achieve, and an inquisitive approach to new developments in archaeology, technology and other disciplines. This means we choose our development projects carefully and avoid wasting time and effort chasing dead ends or blindly buying the latest equipment without adequate understanding. We are currently concentrating on re-thinking and strengthening our recording systems and our flows of information in preparation for future large-scale work. Although less than glossy, the need for clear thinking and innovation in this area is urgent. As we build strong new teams we must enable people of all levels and types of experience to produce the best possible archaeological record in a consistent and intuitive manner. We also have to make that information available to a wide range of project stakeholders in a manner that is meaningful, useful and inspiring.

And so our confidence is also built on the ability and attitude of our staff. Innovation is valuable for more than improving systems and products. Involvement in developing new ideas is a key motivator for our staff, and it is good for the external perception of the business. Clients can see their projects are being managed using the latest techniques; potential employees are enticed by good systems and the ability to learn new skills.

We work hard to make routine tasks faster and complex ones more intuitive. This results in more attention on what matters: the archaeology itself. We believe firmly in the democratisation of new methods and technologies; the value of a new survey instrument, for example, is multiplied greatly if anyone on a site can use it to good effect. To this end we invest heavily in quality tools and the training and support needed to encourage everyone to learn and take full advantage of them. Our signature born-digital approach to site-planning relies on this skills-rich culture much more than it does on a large fleet of survey equipment.

This democratic approach is something we feel makes the difference between a good team and a great one; an employee and an expert; a list of procedures and a culture. It is a value we are bringing to our partnerships, and one which will distinguish them from the competition. These partnerships offer many opportunities – the chance to learn from the wealth of differing experience, and the chance to build consistent, world-class systems that will scale with the work ahead. We're looking forward to it!


Dubton Farm, Brechin
Corlic Hill Wind Farm
Emlagh Wind Farm
Red Gap Wind Farm, Hartlepool
St Peter's Burial Ground, Blackburn
A14 Cambridge to Huntingdon Improvement Scheme
Wylfa Newydd Nuclear Power Station
Land at Culham
Angelinos Pipeline Targeted Archaeological Excavation
Hereford Link Road
Fairford Gateway (Phase 2)
Commonhead, Swindon

A14 CAMBRIDGE TO HUNTINGDON IMPROVEMENT SCHEME

Location	**Cambridgeshire**
Sector	**Infrastructure (Roads)**
Client	**Highways England**
Consultant	**A14 IDT**
Contract Value	**£13M**
Services	**Geoarchaeology; Earthwork Surveys; Photographic Surveys; Targeted Excavations; Strip, Map and Sample Excavations; Watching Briefs; Public Archaeology and Community Engagement**

The government has committed up to £1.5 billion investment into upgrading the A14 between Cambridge and Huntingdon. The scheme has been subject to a number of surveys, intrusive and non-intrusive, over the years and as a result the archaeological landscape is relatively well-understood. The known archaeology covers all periods from the earliest hunter-gatherers to WWII. The vast majority of the archaeological remains survive as below-ground features with little visible above ground within this largely arable farming landscape.

The scheme includes a new bypass to the south of Huntingdon, carriageway widening on the existing A14 between Swavesey and Girton and improvements to the Cambridge southern bypass. It also includes junction improvements, the widening of the A1 trunk road between Brampton and Alconbury and new local access roads. In addition, the existing A14 between the Ellington and Swavesey junctions is to be de-trunked (ie returned to county road status), the road viaduct over the East Coast Mainline railway at Huntingdon removed and road connections to the existing A14 from within the town amended.

Working to the A14 Integrated Delivery Team, a joint venture of Costain-Skanska, Balfour Beatty and Carillion, MOLA Headland Infrastructure was initially awarded a contract in July 2016 for Phase 1 Site Investigations. This contract required the excavation of 537 trial trenches, with the results being used to refine the archaeological strategy and scope of works for the Mitigation Phase which mitigated impacts on potentially some 800 ha of archaeology. The works were carefully programmed around crops and other land access issues and were completed within 11 weeks, including all reinstatement.

In late September, we were very pleased to have been awarded the Early Works Access Mitigation Works which started in early October working to an overarching Written Scheme of Investigation, and Site Specific WSIs prepared by the Designers, Atkins/CH2M Hill. In a matter of a few weeks, the team size has grown to around 130 staff, with many European archaeologists amongst the workforce. A training programme and a new MOLA Headland recording manual have been specially prepared for the project.

A programme of public engagement is currently in design stage. Several community outreach activities and events are being planned, contributing to the legacy of the project.

All the archaeological works are to be completed by March 2018.

Project Highlights

- 537 trenches
- 800 ha of archaeology
- Approximately 80 archaeological sites
- 130 staff
- Second MOLA Headland Infrastructure contract and successful collaboration

ANGELINOS PIPELINE TARGETED ARCHAEOLOGICAL EXCAVATION

Location	**Oxfordshire**
Sector	**Infrastructure (Water)**
Client	**Skanska, MWP, Balfour Beatty (SMB) for Thames Water**
Consultant	**Atkins**
Contract Value	**£225K**
Services	**Written Scheme of Investigation; Targeted Topsoil Stripping; Mitigation Excavation; Publication**

We were contracted by SMB as part of the Eight2O Consortium led by Thames Water to undertake archaeological investigations in advance of construction works. The rapid integration of the Headland team into the Eight2O structure was key to the success of the project. This was achieved by building a strong relationship with the Skanska management team on the ground and working closely with Atkins Heritage, archaeological consultants to the project.

We were contracted to undertake targeted stripping and excavation in thirteen areas along the 18 mile-long water-scheme. The geophysical survey results from the previous evaluation stage had identified a series of linear features and potential settlement sites that possibly dated back into prehistory. Archaeological remains were found at each of these locations and most were dated in the field to the later Iron Age/ Romano-British period. The archaeological highlight was the excavation of a small section of Akeman Street, the Roman Road that ran between modern St Albans and Cirencester.

The mitigation work was carried out well in advance of the main construction phase, with the programme being successfully designed to avoid serious conflicts in time and resources between the needs of the construction team and the mitigation of impacts on archaeological remains. The fieldwork was completed within the agreed ten week programme. Post-excavation work is underway with publication planned for 2017.

One of the key concepts behind the Eight2O was collaboration. Our engagement with the client and their consultants was partly based on this idea that we were involved in a collaborative process where the success of each partner depended on the support, goodwill and professional understanding of the others. These fine intentions can often shatter when faced with the reality and pressures of a project. In this case the professionalism of, and good communications between, each of the stakeholders ensured the smooth running of the project.

Project Highlights

- 10 week fieldwork programme completed on time and on budget
- 13 archaeological sites excavated
- Interesting archaeological finds that contribute to understanding of Romano-British archaeology of the region
- Positive working relationship between Headland, our client and the consultancy team

DUBTON FARM, BRECHIN

Location	**Angus**
Sector	**Property**
Client	**Scotia Homes (North) Ltd**
Contract Value	**£35K**
Services	**Trial Trench Evaluation; Mitigation Excavation**

Small excavation with a tight two week deadline undertaken in the middle of winter, battling poor conditions and rising ground water. Headland was able to combat all of this through good planning, hard work and problem solving. Exciting archaeology was recovered and no delays incurred.

Headland Archaeology is able to rise to the challenge in all conditions, keeping projects on course through even the coldest and dampest months. During February and March of 2016, site staff contended with heavy rain, sleet, snow, rising ground water and high winds to complete the excavation of a prehistoric settlement discovered on the site of a new housing development on the outskirts of Brechin, Angus.

Commissioned by Scotia Homes in response to a planning condition, Headland excavated and recorded two roundhouses and an associated souterrain over a period of two weeks without any delays despite the inclement conditions. The archaeology was first encountered during a trial trench evaluation (undertaken by CFA Archaeology and completed by Headland) of the development area and was situated close to other known prehistoric settlement activity in neighbouring fields. This led to the targeted excavation of two discrete areas identified from the evaluation.

The results of the excavation proved fascinating, revealing the first example of a souterrain (a type of underground storage passage) found entirely within a roundhouse. In addition to this, an unusual tunnel linked the souterrain to a long ditch, which apparently channelled water into the feature. Radiocarbon dates suggest that the settlement was in existence sometime between the first and third centuries AD. Finds from the site included stone tools and pottery that showed Roman influences, as well as a small amber bead.

Through the use of photogrammetry, Headland's graphics team was able to create a 3D model of the site which can be used to both display the site in an interesting fashion and form the basis of accurate reconstructions.

The site is currently in the process of being written up for publication.

Project Highlights

- Stripping and excavation of 1,250 m^2 and 16 trial trenches
- Tight two week deadline
- Unique archaeological discovery

COMMONHEAD, SWINDON

Location	**Swindon, Wiltshire**
Sector	**Housing**
Client	**Redrow Homes and Persimmon Homes**
Consultant	**Paul Gajos (CgMs/LanPro)**
Contract Value	**£450K to date**
Services	**Mitigation Excavation**

Unexpected discoveries can occur on any site, even when there has been extensive prior investigation. When this happens, and there is a programme or budget effect, it is important to foster good communications and a relationship of trust with the client and the consultant. Managing the excavation of an unexpected discovery means making every effort to agree an appropriate strategy with the archaeological advisor which keeps the client's cost to the minimum necessary to make an appropriate record of the remains.

Headland returned to the major housing development site at Commonhead for a further season of excavation work in late 2015. The area in question had been previously subject to geophysics, trial trenching and earthwork survey, and was known to contain dispersed prehistoric settlement remains and medieval field systems. Towards the end of the site strip, along the edges of the area, were revealed the substantial collapsed remains of three stone buildings containing significant quantities of medieval pottery. Whilst progressing the excavation of the remainder of the site, Headland participated in negotiations with the client, consultant and archaeological advisor to agree an excavation strategy for the buildings. This excavation strategy was implemented in early 2016, and involved careful removal of bulk demolition deposits by mini-digger, hand-excavation of more sensitive archaeological contexts, and drone, camera-pole and ground-based photography which is currently being used to produce a three-dimensional model of each building. These included a large rectangular barn, a stone-built corn dryer, and a complex, multi-celled building with remnants of a paved floor surface. At least two of the structures were roofed with flat stone tiles, finished off with ceramic ridge tiles.

Having completed excavation of the structures, examination of the artefacts indicates a complex of 13th to 14th-century buildings constructed from high-status building materials. Horse-gear was found associated with the multi-celled building, along with a barbed hunting arrowhead. The area in question appears to have belonged to either Lacock or Glastonbury Abbey, and the buildings to have been part of a manorial or grange complex, abandoned around the time of the Black Death. Work on the excavation data continues and is expected to result in a significant publication in due course.

Project Highlights

- 3.7ha of open excavation area
- Significant assemblage of medieval finds including a highly decorated glazed louver
- Evidence for activity on site from the late Bronze Age to the medieval period

ST PETER'S BURIAL GROUND, BLACKBURN

Location	**Lancashire**
Sector	**Infrastructure (Roads)**
Client	**Blackburn with Darwen Council**
Consultant	**Capita**
Contract Value	**£1.5M**
Services	**Mitigation Excavation; Exhumation; Recording of Grave Monuments; Publication**

Cemetery excavations within an urban setting always present various challenges: key issues here concerned logistical and safety challenges emerging from our staff safely working alongside civils contractors and working in excavations typically over 2m deep. Our priority is to ensure that works are undertaken in as safe a manner as possible and this meant forging a strong relationship with the client and our civils contractor. To address the logistical challenges of the site, we developed new ways of recording and refined our existing systems in order to efficiently excavate the cemetery to the highest standard whilst still meeting the client's deadline.

Blackburn with Darwen Council applied for planning permission to create a link road through the burial ground at St Peter's, linking the Orbital Route with the Wainwright Bridge. Headland Archaeology Ltd was appointed Principal Contractor by Capita to undertake excavations of the remaining foundations of St Peter's church, exhume approximately two thousand 19th-century burials within the development area and prepare the site for road construction. Work on site began in June 2015, beginning with the recording of all burial monuments within the burial ground, and moving those within the development area to safe zones. Monitored stripping of the overlying cemetery soil was undertaken by mechanical excavator and the first skeletons were exhumed in July 2015. Simultaneously, the foundations of St Peter's church were exposed, recorded and removed, leading to the discovery of a numismatic time capsule of coins in circulation at the time when the foundation stone was laid in around 1820.

The programme provided an excellent opportunity for Headland to showcase a range of skills on a rare, large-scale cemetery project, such as the management of civils contracts. Innovative recording techniques including photogrammetry were also widely adopted

ST PETER'S BURIAL GROUND, BLACKBURN

in place of hand-drawing, enabling us to produce a 3D model of the burial ground. The project also allowed us to streamline our recording strategy on site through the use of pre-printed labels and pro forma records.

Large-scale osteological analysis of the remains began in January 2016, and was conducted by our in-house osteologists and allowed for specialist research to be conducted on selected samples by universities and institutions throughout the UK. The osteological data have provided an exclusive insight to diseases, trauma and the overall health of the population of Blackburn during the 19th century.

Extensive research and cataloguing have also been undertaken on grave goods, ranging from glass beads to military buckles. Careful curation of depositum plates has revealed names and dates of death for some individuals which has facilitated historical and genealogical research into specific individuals, a rare opportunity in an archaeological project.

All skeletal remains and grave goods were respectfully reburied in July 2016.

Post-excavation work has been completed by our in-house specialists and a publication will be produced in 2017.

Throughout the excavation and post-excavation work, Headland Archaeology has been actively presenting the results of our work to date, through presenting at conferences and visiting institutions. This has enabled us to forge professional relationships within the wider research community and attract new graduates to our evolving company.

Project Highlights

- Discovery of a time capsule from the foundations of the church
- Exhumation of roughly 2,000 burials and detailed osteological analysis of 650 skeletons
- Innovative recording techniques, allowing increased efficiency and accuracy
- Working closely with universities and institutions on further research programmes
- Management of civils on site
- Using census data to discover more about named individuals and present a social history

CORLIC HILL WIND FARM

Location	**Inverclyde**
Sector	**Renewables (Wind farm)**
Client	**Inverclyde Renewables**
Contract Value	**£10K**
Services	**Expert Witness**

In the past decade, on-shore wind energy developments have provided an important proving ground for our understanding of the setting of historic sites and Headland continues to be actively involved with this issue. Disagreement over setting and how it should be understood can create considerable uncertainty and therefore commercial risk for developers. Planning appeals, such as this for the Corlic Hill Wind Farm, provide one forum where disparate views are publicly debated and tested.

Corlic Hill is an eight turbine wind farm development on the hills immediately to the south of Greenock. A planning application in 2013 was refused by Inverclyde Council for seven reasons, including harm to the setting of the Lurg Moor Roman fortlet, a Scheduled Monument. The fortlet, one of the best preserved of its type in Scotland, occupies a commanding site overlooking the Firth of Clyde and functioned as part of the Roman Frontier defences in the 2nd century AD.

Inverclyde Renewables appealed against this decision and the appeal was heard at a public inquiry in December 2015. Historic Environment Scotland, which had objected to the application, decided to play an active part in the appeal and fielded three witnesses. With setting becoming a key issue for the public inquiry, the appellants invited Dr Stephen Carter at Headland to give evidence alongside George Mudie of CFA Archaeology, who had prepared the Environmental Statement for the application.

Mudie and Carter were successful in persuading the Reporter that the wind farm would not adversely affect our ability to appreciate and understand the Roman fortlet, despite being located only 750m to the south. This was because key views in the setting of the fortlet over the Clyde to the north, illustrating its military function, would not be affected. For this and other reasons the appeal was allowed.

Corlic Hill highlights the importance of establishing how the setting of a historic site contributes to the cultural value of that site before considering whether a development in the setting would adversely affect the site. As demonstrated at Corlic Hill, visibility and proximity of a development will rarely prove to be a good guide to its acceptability in the setting of an historic site.

Project Highlights

- Detailed examination of Scottish policy and guidance on 'setting'
- Advice from Historic Environment Scotland tested at public inquiry
- Collaborative working by Headland with other heritage consultants

LAND AT CULHAM

Location	**Oxfordshire**
Sector	**Infrastructure (Mixed Use)**
Client	**CgMs Consulting Ltd**
Contract Value	**£40K**
Services	**Geophysical Survey**

Major geophysical survey which required swift completion before crops became too high to prohibit survey. Headland's recently developed unique multi-sensor magnetometer system allowed the survey of 250 hectares in less than one month.

This project was notable for several reasons: it was Headland's largest geophysical survey undertaken in our first full year of operation; the first significant piece of work for CgMs Consulting and the first survey which clearly demonstrated the advantages of our unique survey equipment and showcased the benefits to our clients.

The site comprised a 250 hectare block of land near Culham in Oxfordshire which was being considered for development by the landowners. The survey was intended to form part of a baseline study being carried out in order to assess the archaeological potential of the site and to identify any potential constraints on development. The archaeological potential of the site was high, being located just off the floodplain of the River Thames on the first river terrace and within a heavily cropmarked landscape.

The survey produced a stunning data set clearly identifying eight separate areas of archaeological activity likely to date from the prehistoric to Romano-British periods, confirming and enhancing the cropmark data. Several barrows, as well as field systems and enclosure complexes with evidence of settlement activity, were identified. The most significant area comprised a 0.75 kilometre linear strip of enclosures and field systems along the edge of the river terrace. The survey was completed ahead of schedule in four weeks with the teams averaging more than 60 hectares per week. The results have clearly identified areas where development is likely to have an impact on the archaeological resource thus enabling the landowners and their archaeological consultants to make informed decisions about which areas may be promoted for development

Project Highlights

- 250 ha site surveyed in a four week period by four surveyors.
- Average of more than 60 hectares surveyed per week
- Eight separate areas of archaeological activity identified

FAIRFORD GATEWAY (PHASE 2)

Location	**Fairford, Gloucestershire**
Sector	**Property**
Client	**Bloor Homes**
Contract Value	**£100K**
Services	**Mitigation Excavation; Publication**

Following the successful excavation of land to the north of Cirencester Road (Fairford Gateway Phase 1) in 2014 and subsequent development of the site, Headland was recalled to undertake excavations immediately to the south of Cirencester Road in advance of Phase 2 of the development.

Headland was engaged to excavate a 2.2 ha area to the south of Cirencester Road on the western outskirts of the village of Fairford. A previous excavation undertaken by Bloor Homes and Headland to the north of the road identified human remains dating from the Neolithic and Iron Age periods along with a number of Anglo-Saxon sunken-floored buildings.

Following the completion of the Phase 1 housing development, geophysical survey and trial trench evaluation were undertaken which confirmed the continuation of archaeological activity to the south of Cirencester Road.

In advance of the archaeological soil strip Headland contracted the removal of the standing oil seed rape crop at short notice in order to facilitate the start of the archaeological works and to ensure that the client's construction programme remained on track.

An iterative approach was agreed by Headland with the local planning authority, whereby the site was divided into three areas of archaeological potential. The first area (of high potential) was stripped of overburden, with the resulting levels of archaeological deposits determining the need (or otherwise) for continuing the excavation into the next area of archaeological potential.

Although a limited number of features of Neolithic and Iron Age date were identified during the excavation of area 1, the most significant archaeological features dated to the Anglo-Saxon period, with a continuation of the low density settlement identified

FAIRFORD GATEWAY (PHASE 2)

to the north. Three sunken-floored buildings were identified. These buildings, which are characteristic of the Early Medieval period, manifest themselves as large sub-rectangular pits cut into the ground with a central line of two or three post-holes which would have supported a thatched roof. Finds including pin beaters, spindle whorls, animal bone and pottery sherds were recovered from the fills of the sunken features; however, perhaps of greatest significance was the presence of a layer of charcoal-rich material spread across the base of one of the features. Within this layer, a group of over 20 fired clay loom weights were identified. The majority of the weights were arranged in an approximate east-west line, closely packed together and standing on edge, preserved in situ where they fell when the building burnt down. A carbonised seed recovered from the charred deposit returned a radiocarbon date in the mid-7th century AD, which correlated with the dates returned from the Saxon structures to the north of the road.

An on-site consideration of the results of the area 1 excavation resulted in only a very limited part of area 2 being opened before it was determined by the local planning authority that no further works would be necessary. The approach focused resources where they were most needed and removed the need for unnecessary excavation – therefore reducing costs, our time on site and accelerating the client's construction programme. Analysis work on the assemblage is now being undertaken with the results of the work due to be published in 2017.

Project Highlights

- Headland contracted non-archaeological works in order to accelerate client's programme
- Iterative approach to excavation, reducing the area that needed to be excavated
- Anglo-Saxon occupation site uncovered
- Headland excavated site for same client immediately to the north, providing continuity of expertise

EMLAGH WIND FARM

Location	**Co. Meath, Ireland**
Sector	**Renewables (Wind farm)**
Client	**North Meath Wind Farm Ltd**
Contract Value	**£5K**
Services	**Expert Witness**

The whole of the UK has experienced a considerable increase in the attention paid to the setting of historic sites and buildings over the past decade, resulting in new planning policies and guidance relating to setting. This may be contrasted with the situation in Ireland where setting has only recently become a live issue. Emlagh Wind Farm in Co. Meath has provided a test case for how setting should be addressed in Ireland in the absence of relevant national guidance.

The Emlagh Wind Farm is a proposal for a major renewable energy development in Co. Meath comprising 46 wind turbines organised in three clusters to the north-east of Kells. The cultural heritage impact assessment for the Environmental Impact Statement was prepared by the Courtney Deery Heritage Consultancy. Their approach to setting was based on guidance issued by English Heritage and ICOMOS, the International Council on Monuments and Sites, which advises UNESCO on World Heritage Sites. ICOMOS guidance was considered to be of particular relevance in this case because the development potentially affected the Brú na Bóinne World Heritage Site as well as two candidate sites, the Hill of Tara and the Early Christian Monastery at Kells.

An application was submitted to An Bord Pleanála in October 2014 and setting emerged as a key concern in responses from consultees. At this stage, Headland was bought in to support Courtney Deery and provide additional advice on setting. Further information was submitted in response to points raised by consultees and Headland's Dr Stephen Carter gave evidence at an Oral Hearing organised by An Bord Pleanála. The Department of Arts, Heritage and the Gaeltacht, and the Heritage Council chose not to appear at the hearing, perhaps indicating that their concerns had been addressed by the submission of further information.

The Inspector's report to the board following the hearing recognised that setting was an important matter for the World Heritage Sites and other nationally important monuments. He recommended that '*if the board considered that the development would give rise to significant negative effects on those sites individually or collectively, then it should refuse the current application, as the principle of the proposed project rests on general policy grounds rather than on an imperative reason for this particular development to be built on this particular site*'. He went on to conclude that there would be no significant adverse effects on setting and this finding contributed to his overall recommendation that permission should be granted for the development.

Ultimately, the board chose not to accept this recommendation and the application was refused in a 4–2 majority decision. The developer is currently promoting a revised application that seeks to address the perceived deficiencies of the Emlagh scheme.

Project Highlights

- Successful application of English and international guidance on setting to a development project in Ireland
- Detailed examination of the impact of development in the setting of a World Heritage Site and two candidate sites
- Collaborative working by Headland with other heritage consultants

HEREFORD LINK ROAD

Location	**Hereford**
Sector	**Infrastructure (Roads)**
Client	**Balfour Beatty Living Places**
Contract Value	**£30K**
Services	**Trial Trench Evaluation; Sample Excavations; Targeted Topsoil Stripping; Mitigation Excavation; Watching Brief**

Infrastructure projects, which require rapid responses and readily available resources, excellent project management skills and a great team spirit, are something Headland strives to build within its business.

Headland has been extensively involved in the redevelopment of the northwest sector of Hereford City, including having produced much of the initial evaluative work across the scheme. Following the construction of the New Market which included a cinema, Waitrose and shopping complex, the next stage was to move traffic around the area and pedestrianise the link between the historic city and new developments to its north. The design of the link road cut through the outskirts of two medieval suburbs: Widemarsh Street and Bye Street (now Commercial Road).

The scheme had the added complexity that sections of it were being developed by different contractors. Headland liaised with all relevant parties to ensure that archaeological discoveries were adequately dealt with, minimising delays.

Amongst the discoveries were the old canal dock walls which were revealed as part of the excavation of SUDS ponds. We also excavated a site on the edge of two Bronze Age peat bogs, providing evidence of the local environment in prehistory. The earlier of these was an Alder Carr and contained whole tree roots as well as tuffa, evidence that the bog was being fed from nearby pure springs. The younger of the two bogs was a sedge marsh.

Some of the best discoveries were found within the Widemarsh suburb. Here substantial stone footings of 12th-century date, cobbled surfaces and other artefacts were uncovered. They were over a metre below the present ground surface and were not expected to be found in the bottom of the broad stream valley associated with the Tan Brook.

Project Highlights

- The discovery of two Bronze Age peat bogs
- Uncovering the canal docks in front of Hereford Station that have been hidden for over a century
- Finding substantial stone buildings of early medieval date on Widemarsh Street

RED GAP WIND FARM, HARTLEPOOL

Location	**Hartlepool**
Sector	**Renewables (Wind farm)**
Client	**Airvolution Energy (RGM)**
Consultant	**Peter Brett Associates**
Contract Value	**£80K**
Services	**Mitigation Excavation; Watching Brief**

Project Highlights

- Approximately 1 hectare area subject to archaeological excavation
- Approximately 3700 metres of access track monitored

Logistical issues and a tight development programme meant that staffing had to be flexible to deal with the unexpected level of archaeological remains, and the consequent expansion of the original scope of works, and to accommodate the intermittent requirements of the archaeological monitoring on this wind farm site.

The programme of archaeological works at Red Gap Wind Farm, west of Hartlepool, was the first large project undertaken by Headland North outside the Yorkshire region, and was carried out in the first quarter of 2016. The work was commissioned by Peter Brett Associates, on behalf of Airvolution Energy, and comprised a strip and record excavation covering one of the wind turbine bases (an area of just under 1 hectare) and monitoring during soil stripping of access tracks.

Geophysical survey had earlier identified a curvilinear anomaly, interpreted as a possible ring ditch (roundhouse), at the location of one of the wind turbines, as well as other anomalies of likely archaeological origin. In order to mitigate damage to the archaeological remains during construction, an archaeological excavation covering the area of the turbine base and an adjoining section of access track was carried out in order to fulfil the terms of the planning condition. The excavation revealed not only the ring ditch identified by the magnetic survey but the remains of another seven probable roundhouses, some with surviving internal pits and post-holes. Artefactual evidence was limited but sherds of pottery were recovered which suggested two phases of settlement activity, dating the site to the early and late Iron Age periods.

Although the results have not added significantly to the corpus of information on the Iron Age in the North-East, a previously unknown site has been added to the archaeological record and the planning condition was successfully discharged without delaying the construction process.

WYLFA NEWYDD NUCLEAR POWER STATION

Location	**Cemaes Bay, Anglesey**
Sector	**Power Generation**
Client	**CBRE Global Workplace Solutions & Horizon Nuclear Power**
Contract Value	**£615K**
Services	**Trial Trench Evaluation**

Headland worked in partnership with CBRE Global Workplace Solutions to undertake a major archaeological evaluation on the proposed site of the Wylfa Newydd Nuclear Power Station. Timeframe for completion of site works and reporting was tight. Strict security protocol and SHEQ procedures were successfully navigated by the Headland team.

As part of the site preparation and clearance phase for the Wylfa Newydd Nuclear Power Station, Headland was contracted to excavate 520 evaluation trenches over the 232 ha site, in addition to undertaking topographic and photogrammetric surveys on rock outcrops within the development area.

At the height of the project, four archaeological teams worked across the project under the guidance of a Senior Archaeologist who also performed the role of Quality Manager.

The project made good use of Headland's growing experience of working in partnership with other market leaders to deliver high quality projects within agreed timeframes. A flexible working approach was necessary to ensure that Headland could respond to the requirements of the client and other stakeholders often at short notice. By building close working relationships with team members from CBRE and Horizon, Headland has been able to successfully deliver the fieldwork element of the project to the satisfaction of the client.

Due to the wide-ranging ecological constraints on the site, a full-time Ecological Clerk of Works was employed by Headland to monitor the works and ensure that they complied with the client's requirements.

Headland demonstrated its ability to perform in an environment where security, safety and quality were paramount, and a close working relationship between the Headland SHEQ team and CBRE ensured that coordinated management plans were produced, which were agreed with the client in advance of the start of fieldwork.

Excavation of a 12% sample of the site across numerous unconnected land parcels, tested our abilities to coordinate plant, transport and staff. As was expected, a number of important archaeological sites, predominantly dating to the prehistoric period, were identified during the project. Preliminary reports were completed within two weeks of the completion of each phase of fieldwork, in order that the client was kept fully informed about potential future risks.

A co-ordinated post-excavation programme is now being undertaken at our Hereford and Edinburgh offices, with final reports due to be issued in February 2017.

Project Highlights

- Headland working in partnership with CBRE to deliver project
- 12% sample of site to reduce future risk
- Significant prehistoric archaeology identified
- Co-ordination of numerous teams sourced from all four offices

BUILDING CAREERS AND ENABLING INFRASTRUCTURE

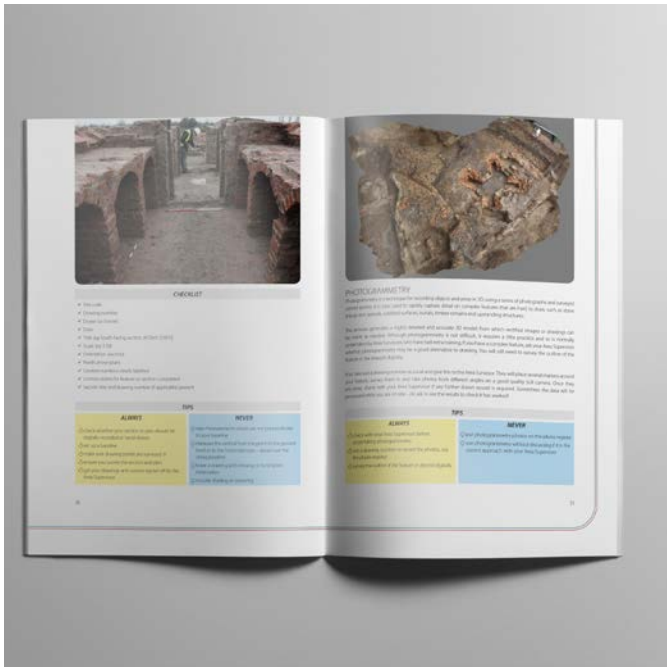
Headland Archaeology has been operating for over 20 years and as one of the UK's leading commercial organisations we would like our skills and knowledge to have a positive effect on the industry. Preparing new archaeologists for successful and rewarding careers has helped both our company and the industry grow and flourish. Despite this, increasing demands from large infrastructure developments have pushed resources across the UK to capacity.

At the start of 2017 the situation facing the Heritage industry is all too clear; we are facing high levels of work without the workforce to match. Last year Historic England released an assessment of 'National Infrastructure Development and Historic Environment Skills and Capacity' which confirmed that the situation is serious. The most affected are skills shortages and gaps in fieldwork but attention was also drawn to significant skills shortages in post-fieldwork analysis.

Early last year, in anticipation of the current situation Headland pro-actively appointed a Training Manager to co-ordinate the provision of training at all levels throughout the company. The post has been successfully held for a year with plans to expand the training team even further. This will ensure that we are using adequately trained trainers and alleviates pressure from the already depleted fieldwork sector.

Many factors have contributed to the situation we currently find the industry in and Headland is not only committed to encouraging people back into the industry but to provide sustainable options for career development. In 2008 the higher education academy produced a report on the role of fieldwork in teaching and learning in archaeology. It established that 57% of graduates were interested in careers in archaeology and the majority wanted more practical fieldwork experience. An undergraduate archaeology degree does not produce a fully-fledged professional archaeologist, rather it prepares graduates to embark on a career within the heritage sector. To encourage graduates into commercial archaeology we have visited several UK universities and delivered presentations on 'understanding the industry', advice for 'career paths'. The lack of entry level jobs must be considered the biggest block to graduates considering a career in commercial archaeology and to this end apprenticeships and trainee level roles are being developed. These roles will develop archaeological skills alongside professional practice and in some instances target established gaps in the industry.

Enabling people to enter the industry helps with the skills shortage we are facing but developing those skills into a long term career requires a



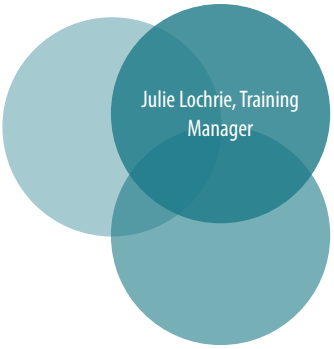
"When I put myself forward for the role I was really driven by the passion people have for the heritage industry. The lack of early career information and ways to gain experience has lost us many of these skilled and passionate people."

Julie Lochrie, Training Manager

commitment to personal development. During the last year we have increased our efforts in identifying and encouraging talented individuals within the company; not only can we aid them in their own professional development but we can ensure that exceptional staff are the ones mentoring and coaching inexperienced staff. We strongly believe that learning and development benefits all and should be engaged with on a daily basis.

With such large projects on the horizon, in some cases already underway, the need to consider project-specific training strategies is where our training team can really excel. Our biggest achievement of the last year was implementing our first training strategy on a large infrastructure project in collaboration with a partner. The design included a focus on preparing staff from the earliest opportunity. We wanted to give confidence by ensuring every member of the team was briefed before even arriving on site. Our introductory package included a series of informal presentations, a Project Specific Recording Manual and a basic toolkit. As the project continues it will benefit from dedicated training staff who will provide on-site training, mentor inexperienced staff, identify talented team members and encourage a culture of learning and development. As every project is unique, this custom-designed approach allows us to deliver what both our clients and our staff need.

The passion archaeologists have for what they do is truly remarkable and moving into the next year we will continue to encourage their passion, develop skills and promote a strong culture of learning and development within the company and the industry.



OUTLOOK FOR 2016/17

Last year the construction industry was anticipating a number of major infrastructure projects for 2016/17. We recognised that Headland's involvement in these could even dwarf the roadbuilding programme of the so-called Celtic Tiger economy of Ireland in the early 2000s where, at one point, we were involved in four concurrent projects in both Ireland and the UK. We know, from first-hand experience, what delivers a successful result and have joined forces with the Museum of London Archaeology service (MOLA) to deliver the scale and expertise needed. The building of partnerships and staff resources through retention, recruitment and training were two of our key focal points for the year and we have done exactly what was needed. The results are there to see on the A14 with over 50 new members of staff (at the time of writing), from all over Europe all using new integrated MOLA Headland field manuals and on terms and conditions that exceed the industry norm.

This coming year will see archaeologists in the UK contributing to major infrastructure contracts across the UK with the HS2 rail link firmly in our sights. The sales team are likely to be very busy during the early part of 2017 but by the time HS2 kicks off next year we, with our partners MOLA, will have developed a large and very able field team with fully tried and tested systems in place. Many of these, such as photogrammetry and web-based databases will continue to improve in terms of accessibility and efficiency, dovetailing into construction industry standards such as BIM. The post-excavation specialists will also be rolling into action, feeding information regularly back to site so that they can refine techniques.

While much of the focus for the year will be on the large infrastructure projects (lovingly known as 'Elephants' within Headland) we cannot take our eyes off the core work. So, the regional managers will be challenged with continuing to develop their local offices and servicing their normal client-base in the construction, aggregates, power and other sectors.

Headland's ability to plan ahead and respond to circumstances were key factors in the way we weathered the recent recession. We are now facing a situation that is equally challenging if we are to take full advantage of the unprecedented levels of work anticipated. 2016 was our 20th anniversary and it has given us time to reflect on what has taken the company from a start-up to one of the leading archaeological companies in the UK. Our culture is undoubtedly at the heart of it; 'can do' and 'business-like' are perhaps two of the corner-stones, underpinned by a clear direction and great team work. It is these attributes that will see us prosper into the future, so here's to the next 20 years!

HEADLAND BOARD OF DIRECTORS

TIM HOLDEN
Managing Director

RUSSEL COLEMAN
Director / Head of Sales

CHRIS LOWE
Director / Head of Consultancy

ANDY BOUCHER
Director / Head of Contracting

DAVID BETTS
Financial Director

HEADLAND
ARCHAEOLOGY

'Putting on a good show since 1996'

follow us on
@HeadlandArch UK

www.headlandarchaeology.com

REGISTERED ORGANISATION CIfA

SOUTH & EAST
LUTON
01525 861 578

MIDLANDS & WEST
HEREFORD
01432 364 901

NORTH
LEEDS
0113 387 6430

SCOTLAND
EDINBURGH
0131 467 7705

www.headlandarchaeology.com