



Views

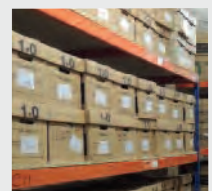
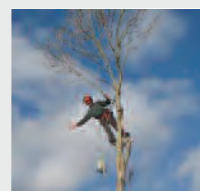
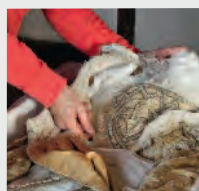


Capacity and Conservation

**National
Trust**

Issue 50

Autumn 2013



Views

True genius resides in the capacity for evaluation of uncertain, hazardous and conflicting information.

Sir Winston Churchill (1874–1965)

A state without some means of change is without the means of its conservation

Edmund Burke (British statesman and philosopher, 1729–97)

Capacity and Conservation

Issue 50 Autumn 2013

Editorial information

Views is compiled and edited by Jacky Ferneyhough. Credit and thanks are due to Anthony Lambert for his efficient proofreading.

All queries associated with **Views** should be emailed to views@nationaltrust.org.uk

The opinions expressed by the authors are not necessarily those of the National Trust.

This publication may be freely copied for the Trust's internal purposes but, if directly quoted, acknowledgement of source should be given. Permission must be sought from the Editor before reproducing articles in external publications.

Distribution

The distribution of **Views** to National Trust properties and offices is now centrally managed. If you need to change the quantity you receive or to raise any queries, please email views@nationaltrust.org.uk

Views is also available on the Trust's intranet at <http://intranet/views> and on the internet: www.nationaltrust.org.uk/views

Guidelines for Contributors

Views is intended as a free exchange of ideas, experiences and practices. Comments and contributions are welcomed at any time from the **Views** readership. However, if a contributor's opinion differs widely from policies and practices endorsed by the National Trust, we may wish to discuss with the contributor the best way to represent their view, whilst also giving space for the Trust's approach to be stated in the same or a future edition. Articles containing what could be interpreted as negative references to a named or identifiable individual within the Trust, their work or opinions, will be cleared with that person before publication.

Please email articles to views@nationaltrust.org.uk

- **Length:** Shorter, punchy pieces are easier to digest than long, complex ones, especially if you want non-specialists to read the article as well as the converted. The maximum length recommended is 1,200 words. Please use sub-headings to divide articles into manageable chunks. Corrections will be made, as necessary, to grammar and punctuation. Edited articles will be shown to you; if you disagree with the editing, please say so immediately as silence will be assumed to be agreement (ie we won't chase if we're happy with the edited version).
- **Illustrations:** These will be reproduced in black and white. We can use almost any medium but prefer high-resolution (minimum 300 dpi) jpps. We are trying to improve and increase the pictorial content and would prefer to receive an illustration with each article if possible. Please include a caption with each illustration and provide us with the name of the photographer or artist so that they may be credited.
- **Deadlines:** Please meet the deadlines given. For the next issue of **Views** these will be announced via Red email and other internal communications. There is no guarantee that articles or changes received after a deadline will be included.

Permission will be sought from contributors if the Trust wishes to reproduce their article in any format (printed or electronic) for an external audience.

For an information sheet on writing for **Views**, please email views@nationaltrust.org.uk

Front cover: Repaired stone horse, Beningbrough Hall. © Susan Amaku
Small images from left: Young visitors enjoying space at Croome Court.
© National Trust/Amy Forster; conservation of Ellen Terry costume
© National Trust; Forester pollarding ash, Watendlath. © National Trust/Maurice Pankhurst; An infinity of filing. © National Trust

Printed on 100% recycled paper
© 2013 National Trust. Registered charity no. 205846
Designed by Blacker Limited (6486)
Printed managed by Park Lane Press

Editorial



Our theme of capacity and conservation has prompted 30 articles which address this subject from a variety of directions. One of the reasons we chose this theme is the questions raised by the growth model that the National Trust has adopted. For every one million National Trust members, there are approximately five million extra visits to our pay-for-entry properties, and who knows how many extra visits to our countryside properties. We must ask ourselves what impact all these additional visits may have on conservation and enjoyment of the properties.

The articles in the first section describe some very constructive ways of understanding these impacts and mitigating them. The use of the Conservation for Access toolkit in the article 'Fine-tuning the balance: narrative, visitor flow and conservation' is a case study

that can be applied throughout the Trust to ways in which we can steer visitors through, around and, in some cases, away from the more sensitive parts of properties.

In the second section, there are a number of case studies describing how we can build skills for tackling building conservation and schemes to cope with some of the less welcome outputs from increased visitor numbers, including an unexpectedly fascinating article on the reed-bed sewage system at Bodiam Castle!

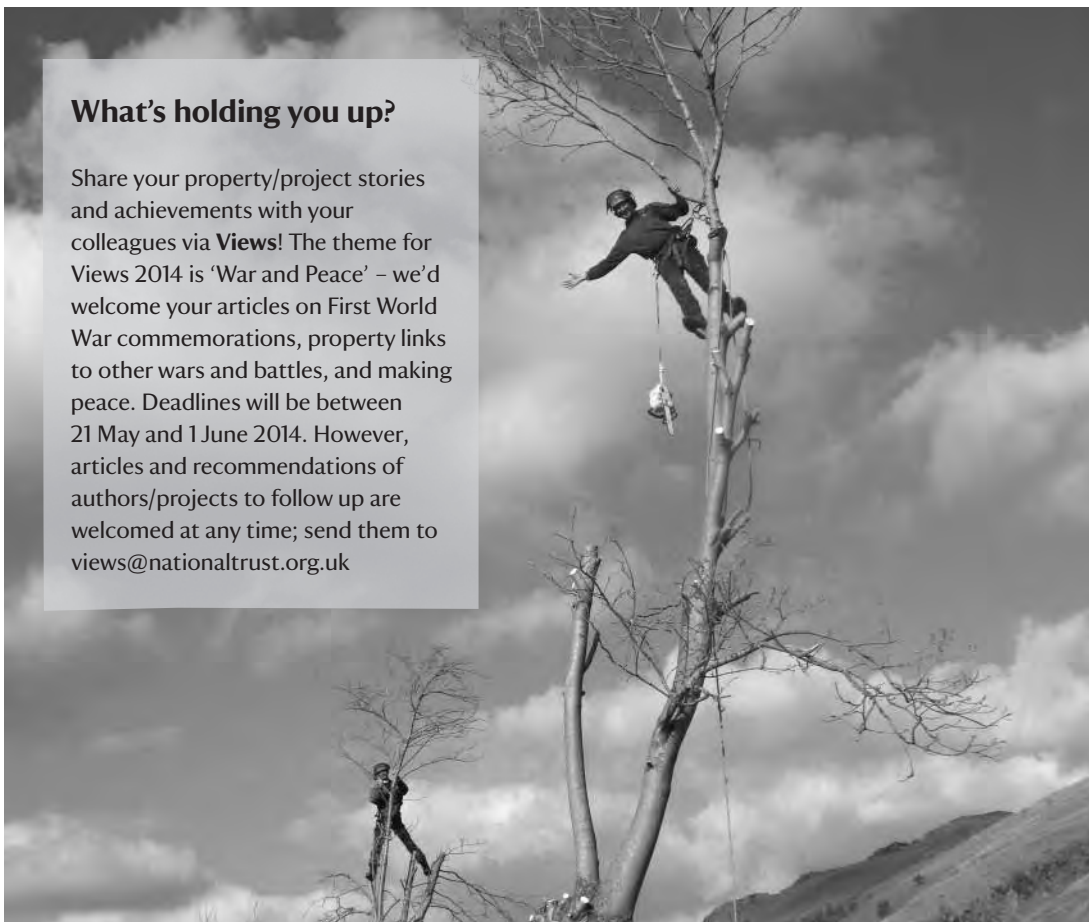
Our activities in the international conservation arena are highlighted in a number of articles, including the report on Karen Dickin's sabbatical spent with the National Trust of Zimbabwe (NTZ). Reading Karen's account of the pitifully tiny resources of the NTZ should make us even more appreciative of the scale of our own Trust and the resources on which we can draw.

It is wonderful to welcome back Jo Burgon to **Views** in the second year of his very well-earned retirement. He continues with his interest in access to the outdoors, and in his article on 'Keeping access ticking over' he reflects on how things have changed during his years in the conservation world. Look out for the travel bursaries that Jo has helped to fund and consider applying for one in 2014. As always, our thanks go to Jacky Ferneyhough for all that she has done to produce another issue packed full of stories from across the Trust. Enjoy reading this year's issue and look out for our request for articles for the 2014 issue which will mark the centenary of the outbreak of the First World War.

Sarah Staniforth
Museums and Collections Director

What's holding you up?

Share your property/project stories and achievements with your colleagues via **Views**! The theme for Views 2014 is 'War and Peace' – we'd welcome your articles on First World War commemorations, property links to other wars and battles, and making peace. Deadlines will be between 21 May and 1 June 2014. However, articles and recommendations of authors/projects to follow up are welcomed at any time; send them to views@nationaltrust.org.uk



Contents



- 6 Capacity, conservation and the safety of visitors**
Mark Daniels, Adviser on Visitor and Occupational Safety
- 9 Fine-tuning the balance: narrative, visitor flow and conservation**
Katy Lithgow, Head Conservator; Helen Lloyd, Preventive Conservation Adviser (Housekeeping) and National Specialist Consultancy Manager; and Matthew Tyler-Jones, Visitor Experience Consultant
- 13 For ever endeavour**
Rachel Hunt, House and Collections Manager
- 15 Capacity, access and conservation in an empty house**
Amy Forster, House and Visitor Services Manager
- 17 Home improvements: a fresh look at Standen**
Ben Dale, House Manager, and Victoria Witty, House Steward
- 20 Anticipatory History – making sense of change**
Phil Dyke, Coast and Marine Adviser
- 22 Building capacity for conservation**
Rory Cullen, Head of Building
- 25 Caring for Holnicote’s historic buildings: a matrix for decision-making**
James Clapperton, Building Surveyor; Andrew Lawes, Rural Surveyor; Rachael Pavey, Rural Surveyor; Stephen Ponder, Curator; and Christopher Turner, Building Surveyor
- 28 Extending our work – and the glory – of Beningbrough Hall**
John Mooney, Building Surveyor
- 31 Home-grown masterpiece: the wooden art of Speckled Wood**
Catherine James, Visitor Experience Manager
- 33 Building refurbishment on a National Nature Reserve**
Graham Lubbock, Coastal Ranger
- 35 ‘Heaven helps those who help themselves’: the technical protection of buildings**
Paul Holden, House and Collections Manager
- 38 The power of effluent recirculation: advances in reed-bed sewage treatment**
Chris Weedon, Watercourse Systems Ltd



Bringing out the best

- 39 Entering the world of gardens conservation
Emma McNamara, Freelance Gardens Consultant
- 40 Paradise lost ... found in Zimbabwe
Karen Dickin, People Project Manager
- 42 The pollards of Borrowdale
Maurice Pankhurst, Woodland Ranger
- 44 Increasing conservation value:
the Bay Ness Pond Project
Mark Bradley, Coast and Countryside Manager
- 45 Scythes as a conservation tool
Andrew Marsh, Ranger
- 46 Cold comfort
Susannah Mayor, House Steward
- 48 I want to be an ambidextrous octopus:
the complexities of carriage cleaning
Katy Dainton, Carriage Museum Steward, and Paula Martin,
House and Collections Manager



Inviting involvement

- 51 Keeping access ticking over
Jo Burgon, Freelance Outdoors Consultant
- 52 Rangers at work, otters at rest, people at play
Gwen Potter, Head Ranger
- 54 Getting down to doggy business
Sarah Stevens, Ranger
- 55 Youth volunteering in Purbeck
Phil Stuckey, Area Ranger
- 57 Me, Myself and Nature
Laurel Chalk, Community Engagement Officer
- 59 Good from woods?
Jade Bartlett, Researcher



Knowledge sharing

- 61 Lost in the archives?
Sophie Houlton, Archives and Records Adviser
- 62 To store or not to store, that is the question
Adrian Woodhall, Ecological and Environmental Consultant
- 64 Virtual attractions
Rowann Goldsmith, Collections Engagement Officer
- 68 A multi-channel approach to Chinese wallpaper
Emile de Bruijn, Registrar (Collections and Grants)

Theory and reality



Capacity, conservation and the safety of visitors

Mark Daniels, Adviser on Visitor and Occupational Safety

The number of visitors, whether to a historic property, an individual room within it, a garden or an upland or coastal footpath, clearly has an impact both on the visitor experience and the practicalities of conservation. But how, if at all, do visitor numbers and the capacity of the property to absorb them affect the safety of visitors? And how should an organisation or owner manage visitor safety when faced with many different objectives around visitor enjoyment, income generation and competitiveness? This article puts forward some ideas and thoughts based on extensive experience rather than scientific research.

What safety requirements affect capacity/numbers?

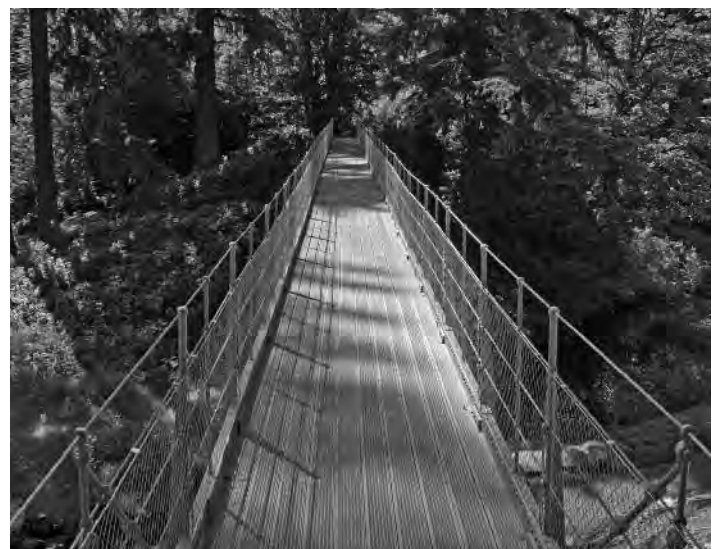
Any strategy to increase visitor numbers to maximise revenue brings properties closer to both a perceived and actual maximum capacity. In terms of fire safety within buildings, these capacities may have limits set by internal advisers or fire authorities, based on legal requirements. Evacuation and emergency procedures required for both fire and security need to take account of increased visitor numbers and the ability of staff and volunteers to monitor and manage visitor behaviour effectively.



Carrick-a-Rede rope bridge, Northern Ireland © Mark Daniels 2009

Bridges, platforms and other structures will usually have safe working loads established to ensure their safety. The Trust learnt this as long ago as 1992 when it was prosecuted after a makeshift bridge over a dyke on a fenland property collapsed when a heavy vehicle crossed it. In New Zealand in 1995, a scenic viewing platform at Cave

Creek in Paparoa National Park on the West Coast collapsed: 14 people were killed. The disaster was blamed on bad workmanship, the lack of engineering input into a design that was neither followed nor checked, inadequate warning signs on capacity and the lack of any maintenance and inspection schedule.



The Iron Bridge at Cragside, before and after restoration. © Mark Daniels 2008 and © National Trust Images/Simon Fraser



The water terraces at Blenheim Palace. Can you spot the drop in the first? The second image shows the drop from the other side. © Mark Daniels 2013

The Trust has rebuilt or refurbished historic bridges (for example, at Carrick-a-Rede and Cragside) to ensure their suitability for a use much greater than was ever envisaged by their original designers and builders. Cave Creek has served as a salutary lesson and has contributed to better engineering of visitor infrastructure. At Carrick-a-Rede, capacity limits have been set to take account of the structure itself and its setting.

How high visitor numbers affect visitor safety

Operating at or close to capacity may obscure visitors' perception of the hazards. Hazards which are normally obvious may be hidden by sheer numbers of people; an unprotected drop, such as from a castle or city wall walk or a garden terrace, which would seem to be an obvious hazard, may become more significant when the number of visitors (particularly if they are passing each other or congregating) hides the width of the path or the presence of the edge.

Warning signs and safety information may be physically obscured by groups of people, while crowds may also distract other visitors from taking in important safety information. It becomes harder for staff and volunteers to deliver safety information at the point of entry when there are large crowds and queues. Managers may have to devise better ways of imparting information at busy sites.

The sheer weight of people can have a physical impact on built structures and the countryside, leading, for instance, to greater wear and tear on paths, stiles, bridges and boardwalks. Even the polishing of rocks through visitor pressure can make some popular walking locations more

hazardous. Monitoring regimes and maintenance programmes need to reflect this increased usage.

Management intervention versus visitor self-reliance

Many large organisations now follow the guiding principles established by the Visitor Safety in the Countryside Group (www.vscg.co.uk). One of the principles states that it is important to strike a balance between visitor self-reliance and management intervention. The general premise is that, the less developed the environment, the greater should be visitors' self-reliance, knowledge and understanding, and with it their

personal responsibility. At the same time, less management action is required and/or fewer physical safety measures are needed.

It is reasonable to expect higher levels of user self-reliance on land where no recreational facilities have been specifically provided but public access is allowed. For example, paths created by informal use in such areas will not necessarily be to the standard that visitors might reasonably expect to be maintained on a formal recreation site. The exception to this is in upland areas, where stone-pitched paths have been created (eg in the Lake District) or stretches of stone flags from old mills have been laid (eg in the Dark Peak) to combat the erosion created by increased visitor numbers.



Stone-pitched path, Pike O'Blisco, Langdale, Lake District. © Mark Daniels 2011

Following this principle, high visitor numbers and the developed nature of the site make it more likely that physical protective measures will be expected and needed, which in turn has implications for conservation of buildings and structures and the aesthetic qualities of the landscape. Visitor safety management becomes a complex issue where high visitor numbers are combined with rugged terrain, as at the Giant's Causeway or at the prehistoric fort of Dun Aonghasa (shown below) on the Aran Islands. It isn't necessarily desirable or practical to have modern barriers or signage at iconic sites such as these, and visitors have to take on some responsibility for their own safety at such hazardous locations.

Encouraging changes in visitor behaviour in relation to safety

Managers have to find ways of making visitors aware of their personal responsibilities at coastal, countryside and historic sites. Many visitors are likely to assume (incorrectly) that because a site is heavily visited, it will be 'safe' and largely free from risks. Hence, information needs to be provided to visitors, not only at the point of entry but before arrival, eg on a website or in printed information and members' handbooks. This helps to prepare visitors in advance for the physical characteristics and hazards of the site, and enables them to make decisions appropriate to their own circumstances and

limitations vis-à-vis the level of risk they are prepared to accept.

The challenge for managers is to ensure visitors have sufficient information to help them assess risks and make sensible decisions as a result. Often, visitors appear to ignore safety information. Mountain rescue teams, coastguard services and beach lifeguards are kept busy extricating ill-prepared people from dangerous situations. Possibly people assume in the prevailing safety climate that warning signs and information are provided to protect landowners from liability rather than to provide genuine warning of potentially nasty surprises.

At heavily visited sites, do visitors assume that there are more safety precautions in place? People may be led by current attitudes to safety and typical media coverage into assuming that there will be safety provisions that are, in practice, unrealistic and unachievable. Does visitor behaviour change in any way simply as a result of higher concentrations of people in the same place – do people then have a greater propensity to take risks? Or perhaps the opposite is true – that when there are fewer people around, visitors cannot rely so much on others and tend to be more cautious in their actions. Managers at properties may have their own views, and there is certainly scope for more research in this area.

About the author

Mark Daniels is the former Head of Health and Safety for the National Trust and now advises organisations on visitor and occupational safety at coast, countryside, parks, gardens and historic buildings. Mark can be emailed on markdaniels-touchofgrey@o2.co.uk or contacted via www.visitorsafety-touchofgrey.co.uk

From 1 November 2013, Mark's email is markdaniels@visitorsafety-touchofgrey.co.uk



Two views of the prehistoric fort at Dun Aonghasa on the Aran Islands, in the care of the Office of Public Works. © Mark Daniels 2011

Fine-tuning the balance: narrative, visitor flow and conservation

Katy Lithgow, Head Conservator; Helen Lloyd, Preventive Conservation Adviser (Housekeeping) and National Specialist Consultancy Manager (London & South East); and Matthew Tyler-Jones, Visitor Experience Consultant (London & South East)

Introduction

As the Trust pursues its strategy of growth, seeking more visitors through longer opening, we need to become more imaginative in how we tell the stories of our places and in how we safeguard them. In recent years, the Conservation for Access (C4A) toolkit¹ has been helping property/general managers to make effective decisions about access and conservation. Here we consider how C4A data at The Wyne, Hampshire, could have informed decisions about use of space during the process of Visitor Experience Design, and how that is now influencing development of the C4A toolkit.

Visitor Experience Design (VED)

In the past, we made improvements to visitor facilities without necessarily considering their effect on visitor experience of the

whole property. Incremental changes in presentation and management that address one issue at a time can, cumulatively, result in a negative impact on the 'spirit of place'. VED is the Trust's most recent approach to planning intellectual as well as physical access in a more holistic way. The intention is to create a 'vision' for the place lasting ten or more years, where potential changes are mapped on all spaces across the site to understand their interaction. When an opportunity to make an intervention arises – for example, the availability of funding or the end of a tenancy – the vision informs consequent decisions on access.

VED aims to consider all aspects of the visitor journey at the same time. The process starts with a deep understanding of the theme and spirit of each place and a detailed analysis of the audience. It takes an integrated approach, using techniques from both interpretive planning and commercial master-planning, to combine

presentation, conservation management, visitor flow and interpretation and explore their inter-relationships.

C4A toolkit

The C4A toolkit is in three parts:

- An initial flowchart 'decision tree' helps property/general managers to assess whether enough data exists to determine whether their property has sufficient conservation resources (staff and equipment) to sustain a given pattern of opening.
- Spreadsheets gather missing data consistently and establish objectively the resources necessary to maintain conservation standards and mitigate impacts of access on housekeeping and gardening.



The Wyne from across the lake in 1755, by Johann Heinrich Muntz (1727–98). This is both the traditional and proposed future approach to The Wyne.
© National Trust Images/Derrick E. Witty.



The servants' – and currently the visitors' – entrance, hidden behind the bush, on the side of the house. © National Trust Images/Robert Morris

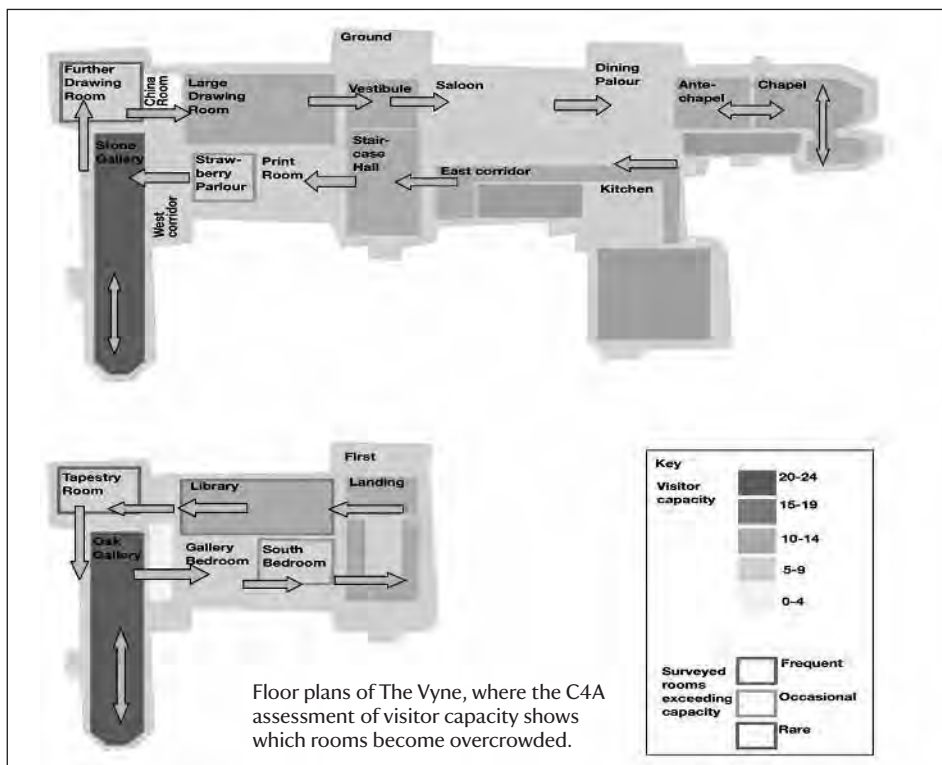
- A report draws the data together for collaborative discussion by a multi-disciplinary team (curator, conservator, gardens adviser, financial and marketing consultants and property staff), prompting them to agree a strategy for future growth, based on a cost model where income from greater access is partially reinvested in associated preventive and remedial conservation measures.

Since the introduction of the first C4A toolkit in 2005, over 150 reports have been completed by properties proposing to change or increase their access arrangements.

Visitor behaviour revealed in C4A data

Property staff and conservators already collect data useful for VED, including visitor capacity, dwell time and flow in houses and

gardens. The C4A toolkit assesses the desirable visitor capacity of each space and the total capacity of a house or garden at a moment in time. It also monitors dwell time in individual spaces and the average length of stay in a house or garden. Using the data for total capacity and average length of visit, property staff can calculate a rate of entry to the property which delivers an enjoyable experience for visitors, without causing overcrowding or risks to conservation. This information also enables property teams to plan the capacity of other facilities (car-parks, lavatories, restaurants) and consider opportunities for developing attractions on the wider estate which might relieve pressure on the house and garden and/or generate more revenue.



Audience development at The Vyne

The significance of The Vyne encompasses notions of past grandeur, antiquity, high taste, outstanding talent, romanticism, simplicity and domesticity, all arising from its history as a medieval monastery, a Tudor mansion for courtiers and statesmen, influential development of the Gothic style through John Chute's friendship with Horace Walpole and his Committee of Taste and, latterly, as a family home. The spirit of each era has been honoured by every successive generation and is still discernible, albeit in fragments.

The market potential around The Vyne is almost seven million people (based on the

population living within 60-minutes' drive time, and domestic and international holiday-makers). In 2011 there were 115,000 paying visitors to the property, about 1.5 per cent of the market. The Trust might expect a property on this scale to attract 1.75 per cent of its market potential (a really successful site of a similar size might draw 2.5 per cent), equivalent at The Vyne to another 60,000 visitors per year. In conservation terms, however, the house is currently operating close to capacity, so the challenge is how to create a visitor experience which can accommodate and realise this potential.

Visitor impacts on conservation

Higher visitor numbers increase the rate of cumulative wear to floors and vulnerable decorative surfaces close to the visitor route. At pinch-points, overcrowding leads to accidental damage in houses and in gardens, where path edges are trampled and patches of wear occur around seasonally flowering plants ('admiration points'). Dust research² has shown that daily deposition indoors is proportional to total visitors, so cleaning frequency should respond to the rate of dust coverage, but avoid repetitive cleaning and abrasion of fragile surfaces such as textiles and gilding.³ The study of visitor capacity and flow in houses and gardens can encourage

better management of dwell time in individual spaces and, by reducing overcrowding and risks of over-cleaning, help to prevent or mitigate damage.

At The Vyne, visitor capacity is estimated to be 223 people in the house at any one time, which takes into account the physical impact of people on collections and interiors, visitor enjoyment and the ability of a room guide to monitor a room's security. The average length of a visit to the house is 50 minutes, suggesting that daily capacity over five hours could be as great as 1,338 people. However, assessments of visitor flow indicate that not only are smaller rooms frequently overcrowded, such as the South Bedroom and Strawberry Parlour, but also larger ones with dense displays, for example the Tapestry Room and Oak Gallery. Overcrowding occurs throughout opening hours (11am to 4pm), even on quieter weekdays, causing damage to scagliola and gilt tables in the Oak Gallery, where visitor traffic also causes vibration and cracks in the Stone Gallery ceiling below.

Data for capacity, dwell time and flow between rooms suggest ways to control visitor flow:

- placing out of reach objects and surfaces vulnerable to abrasion;
- using timed tickets to regulate entry to the house; and/or

- equipping room guides to communicate directly with colleagues along the visitor route, for example, to regulate entry to crowded rooms.

Such controls, if imposed without reference to the story which the visitor route is trying to tell, could impair enjoyment of, and emotional engagement with, the spirit of place. The toolkit also identifies a need for increased spend on remedial and preventive conservation measures, including floor coverings, to counter the effects of a larger number of visitors.

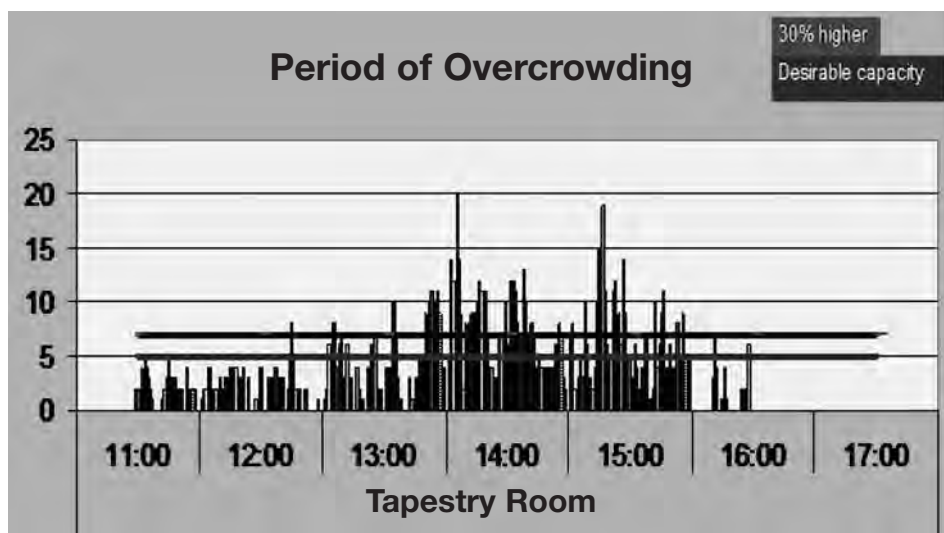
Managing visitor flow without VED

In the absence of systematic planning recommended by VED, piecemeal decisions to solve immediate problems of visitor management resulted in visitors entering The Vyne through the servants' entrance, thus missing views of its impressive north and south façades, and preventing any enjoyment of the gardens. This route poured all our visitors, as soon as they arrived, into the most fragile part of the property: the house.

Although the servants' entrance has the advantage of being robust and step-free, it cannot offer today's visitors the welcome enjoyed by historic visitors, nor does it tell



The Oak Gallery at The Vyne © National Trust Images/Andreas von Einsiedel



Visitor flow graph generated by a C4A worksheet. The extent of overcrowding is indicated by peaks above two thresholds: the lower sustainable capacity threshold is desirable both for visitor enjoyment and conservation; the higher capacity applies to public holidays, when demand exceeds capacity, but turning visitors away would be unpopular.

an impressive 'below stairs' story, and thus it fails to celebrate the spirit of place. The historic approach to the house would give visitors opportunities to disperse, enjoy the woods, watch birds in the wetland reserve or to picnic while admiring views of the house across the lake.

The challenge of mapping story to space

Like many writers on the art of story-telling, Vogler⁴ makes it clear that engaging stories are constructed around a sequence of exciting peaks of 'crisis', interspersed with troughs of quieter reflection. That he writes for film and about screenwriting is surprisingly appropriate for heritage sites because, at many properties, visitors spend no more time engaging with the site than they would watching a film.

Whereas the story in a film is revealed in exactly the sequence that the director intended, a property's story is rarely singular nor possible to map to a route, especially where visiting is free-flow. Interpretation techniques may help – surveys show that guided tours can create deep emotional engagement with the story and thus a more enjoyable visit. However, our principal challenge is to map the story of the place to individual spaces so that, even where visitors cannot follow the story in chronological order, they will still experience the 'wow' moments separated by more reflective spaces. C4A data can help with mapping those spaces.

At The Wyne, layers of interpretation have accumulated, making the story confusing and reducing emotional engagement with the house. VED provides an opportunity to

revisit the story through a single main theme of 'Lose yourself in a little legend', which distils the spirit of place for visitors. Taking a cue from Rand,⁵ we have drawn from the theme three primary stories of interest to different audience segments:

- 'Did that **really** happen here?' – exploring connections with Henry VIII, Jane Austen, the Second World War and *Lord of the Rings*, to act as an introduction for all visitors.
- 'The Courtier, the Connoisseur and the Country Squire' – the development of the house and collection through three contrasting lives, for *Curious Minds* and *Live Life to the Full* visitors.
- 'Treasure, hidden in plain sight' – the playful surprises, wonders of nature and creative treasures which the whole estate offers, to encourage non-core as well as core audiences.

Using C4A data, these stories can be mapped to the spaces at The Wyne, synchronising the emotional peaks of the story with the 'wow' spaces of greatest sensory stimulation, interspersed with spaces for reflection, thus ensuring that visitors will not spend time in the most fragile or cramped rooms. C4A data also encourages thought about interpretation methods. For example, time-consuming interactive media are not located on busy thoroughfares or at pinch-points but instead positioned in larger spaces off the main visitor route. C4A data demonstrates that we can relieve pressure by increasing the attraction of rooms either side of the Tapestry Room, and encouraging visitors to disperse more widely in the Oak Gallery by putting displays at the far end of this long room.

Conclusion

By combining C4A data with a VED approach, we can respond to the needs of changing audiences, develop our business, increase our income and maintain the condition of our properties to sustain their future. By taking a multidisciplinary approach, and calibrating our story-telling to the physical sensitivity of individual spaces, we can unfold the narrative in ways which avoid damaging the fabric of the place. Rather than trying to tell all stories everywhere on a property, we can focus on telling complex stories which require prolonged dwell time in robust rooms adjacent to spectacular spaces. We can prepare visitors for sensitive spaces by telling them their story in advance or providing opportunities for reflection on what they have just seen. By focusing on a shared goal – how to manoeuvre visitors safely and enjoyably through space – two potentially conflicting objectives, conservation and access, can be successfully integrated to create a sustainable outcome.

Acknowledgements

This article could not have been written without the help of the London & South East consultancy team, property staff and volunteers at The Wyne, and external consultants VisionXS, Allyson Rae and Madelaine Abey-Koch (facilitator of the C4A process at The Wyne in 2008). In 2013 the original paper will be published online by ICOM DEMHIST, the international committee for historic house museums.

References

1. Conservation for Access toolkit: http://intranet/intranet/cns-conservation_for_access.htm
2. Lloyd, H., Lithgow, K., Brimblecombe, P., Yoon, Y.H., Frame, K. and Knight, B., 'The effects of visitor activity on dust in historic collections', *The Conservator* 26(1), (Institute of Conservation, 2003), pp.72–84.
3. National Trust, *Manual of Housekeeping*, especially Lloyd, H., Chapter 59, 'Opening historic houses' (National Trust, 2011), pp.671–85.
4. Vogler, C., *The Writer's Journey: Mythic Structure for Writers*, 3rd edn. (Studio City: Michael Weise Productions, 2007).
5. Rand, J., 'Building on your ideas' in Bicknell, S., and Farmelo, G. (eds), *Museum Visitor Studies in the 90s* (London: Science Museum, 1993) pp.145–9.

For ever endeavour

Rachel Hunt, House and Collections Manager, Cotehele, Cornwall

Early last year, there was a meeting in Cotehele's late fifteenth-century chapel to revisit the issue of conservation and access to the badly eroded tiled floor of the nave. Our dilemma rested on whether to accept that the tiles had already suffered irreversible and terminal deterioration and therefore to allow visitors to walk on them, or to close the nave with the aim of preserving the bald substrate for ever, for everyone.

The latter, of course, was the safe option, and considerably more comfortable than risking being remembered by successive generations of custodians as the eleventh agent of deterioration.¹ Far fetched? Perhaps a little, but have you ever cursed your predecessors for a decision that was probably made in good faith, with the best knowledge available at the time?

Capacity

Between about 1995 and 2012, the sixteenth-century tiled floor of the nave in Cotehele Chapel was roped off, out of bounds. When the house was open, visitors shuffled around the chancel, the only space available, funnelling to the gap in the centre of the rood screen to lean over the rope and peer beyond. Those waiting to look jostled impatiently for their turn. The memorials to the donor family lay out of sight and visitors who wished to see the medieval clock (still in working order) or the early Tudor altar frontal, both of international importance, were asked to make an out-of-hours appointment.

The reason for this restriction was the deteriorating floor surface. Around three sides of the nave, beneath the fixed wooden pews, two rows of green and yellow glazed tiles can be seen. Although darkened and dulled by age, they hint of how striking the whole floor would once have been. The rest of the floor is striking for a different reason. Although the original tiles remain *in situ*, their glazed surface has been lost, exposing the terracotta substrate. What would once have been an impressive green and yellow chequered floor is now a mass of crumbling brick dust ranging in colour from Tango orange to Germolene pink. A few tiles – the only stable ones – have a shiny, dark reddish appearance; these were treated with a waxy substance long before the National Trust took over in 1947.

For ten years I had been asking myself the questions, what are we protecting and where do we go from here? Leave the nave closed off forever or open up, taking whatever action is possible to slow deterioration whilst accepting that care and conservation are no match for ageing and attrition?

Various access solutions had been tried before my time, including duckboards and carpet, but without success. The floor coverings caused abrasion or a microclimate or both. In a spirit of collaboration and open-mindedness, I wanted the area to be

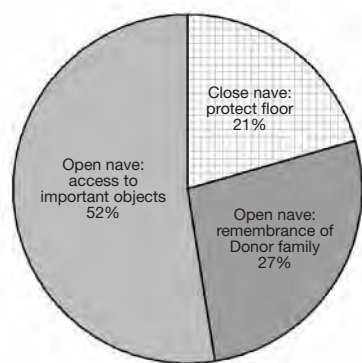
reopened. I thought that the arguments for access to the two internationally important objects and memorials of the donor family were more persuasive than the argument for protecting a floor that was already destroyed. It was my considered opinion that there were a lot of very old tiled floors in churches and other historic houses that were far more worthy of preservation than ours; anyway, the tiles under the pews, the only ones worthy of preservation, would remain safe if we were to open this area of the Chapel. What were we waiting for?



The narrow gap in the rood screen through which visitors can see the Chapel.
© National Trust Images/John Hammond

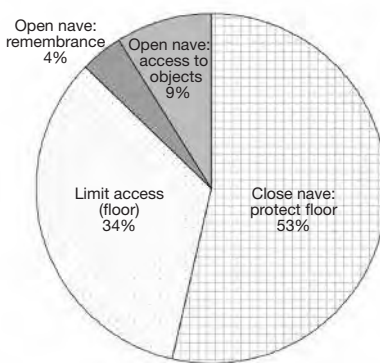
Should we allow access to the nave?

2012 – 1,458 participants



Chapel floor visitor opinion poll 2012

2013 – 518 participants (pre-6 June)



Chapel floor visitor opinion poll 2013

Conservation?

With this in mind, I added the Chapel floor to Cotehele's fundraising wish-list with a tentative estimate of £5,000. This money, I hoped, would pay for tests to determine a suitably discreet and reversible consolidant and for its application. Soon after, in autumn 2011, a generous gift of £5,000 was received from Jean and Geoffrey West of Melbourne, Australia, for this cause. Something, now, had to happen.

In 2012 a number of trial surface treatments were carried out by Cliveden Stone Conservation Workshop. When the house opened, we also opened the nave to monitor the durability of the trial surface treatments and to gauge the level of erosion caused by visitor footfall. Weekly sweepings were collected, bagged and stored. A single tile from near the corner of the nave was removed for further analysis. We – I – accepted that this tile might be destroyed in the process. At the time, on the evidence available, ie that the floor was old but not outstanding or particularly rare, it seemed the right thing to do, for the greater good of public access.

By autumn 2012, the Cliveden Workshop believed that one of the solutions trialled would provide the floor with a good level of protection, and would be reversible. With visitor footfall, it would wear down and probably need reapplication every one or two years. We were ready to proceed pending a final opinion from a specialist archaeologist, John Allan. A visit by John was subsequently organised by the Trust's archaeologist, Jim Parry, and conservator, Marilyn Dunn.

John's visit changed everything. The tiles, it turns out, are from Normandy, not north Devon as had previously been thought. In its heyday, the floor would have been very high status. And its importance lies in that it is the only known complete survival of a Normandy pavement of this date and type,

where the original chequer pattern can still be appreciated.

Who would have expected that our worn and multi-shaded tiles would have such significance, even in their powdery state? It's fortunate that we called on John's expertise, but I wish I'd done so before I gave away that one tile. I had been fully prepared to give it and all its neighbours 'sacrificial' status, let everyone walk on them and accept an accelerated rate of deterioration. As it is, the access issue remains unresolved: it is back to the drawing board.

Co-operation

Such conservation dilemmas are part of communicating with our visitors the work we do. We have a relatively new event at Cotehele which was devised to promote conservation when we moved to seven-day opening in the summer holidays. The event is called CSI (Conservation Scene Investigation) Fridays. It has been a great success and is now part of the annual summer holiday programme.

The aim of the event is quite simple. Our visitors (mainly families) learn to identify and understand the effects of five agents of deterioration: wear and tear, dust, relative humidity, pests and light. Initially there is a 20-minute talk during which the audience is introduced to the agents. Examples of damage caused by each are passed around, and the audience is encouraged to participate and interact. Where possible, familiar 'home' examples are used. For instance, think of an external door made of wood. What happens when it's been raining for days? Answer: it gets stuck. Wood absorbs water, it swells. When it dries, it shrinks and splits. What happens to a picture you've painted at school when it's displayed near a window? It fades. What happens if you vigorously vacuum a carpet every day? It gets threadbare. What if you never vacuum it? Pests, dust, dirt – everyone knows the answers already.

After the introduction, the visitors – or Trainee SOCOs (Scene of Conservation Officers) – enter the house to search for evidence left by the agents of deterioration. Armed with a route-map and a certificate, they enter via the hall where they stamp, stomp and brush their shoes on a white sheet to liberate the dust and dirt that they would otherwise be traipsing through the house. In the rooms that follow, it is their job to find which agent has been the main cause of damage to the object indicated with hazard warning tape. To add to the challenge, the rooms are blacked out, as they are when the house is closed, and their quest is conducted by torchlight. When they have identified the offending agent of deterioration, a volunteer SOCO gives them a corresponding sticker for their certificate. A full set of stickers on departure means that their certificate will be signed and endorsed with a 'PASSED' stamp, before going on their way and hopefully applying their new detective skills to future visits to Trust houses.

The evidence we have collected is that participants of all ages learn a lot. They chat to us and each other about what they've learned and how their perceptions have changed by looking at the house in this way. This makes all the hard work seem worthwhile because it renews our confidence in the readiness of people to accept that sometimes access must be limited in the interests of conservation and that not all visitors want to jump on the beds or, in our case, have unrestricted access to the Chapel.

One Friday during the October half-term, I asked the audience, many of whom were dressed in Hallowe'en costumes, a question. A number of hands went up, amongst them that of a small skeleton. My question was 'What do you think could cause damage to the building and contents of somewhere like Cotehele?' The child's answer was simple and true: 'Me!'

The Chapel floor may still be a headache but once visitors are told, they are interested and often understanding about access. And if the small child in a skeleton costume is representative of her generation, there will be sympathy and support for looking after dusty old tiles in the future.

Reference

1. The ten agents of deterioration for heritage collections are: physical forces (wear and tear); pollutants (eg dust); light (ultraviolet and infrared); pests; incorrect relative humidity; incorrect temperature; thieves and vandals; dissociation (loss of knowledge/data about the object); water (eg flood); and fire; see http://intranet/intranet/collections_identify-problems.htm

Capacity, access and conservation in an empty house

Amy Forster, House and Visitor Services Manager, Croome Court, Worcestershire

Our places are open more than ever before. Many of our visitors (or should we call them guests?) are being welcomed into areas which once were closed. We're encouraging people to interact with our places in entirely new ways. We have developed visits and created experiences that we hope people will remember and will want to repeat with friends and family.

By doing so, we hope not only to make our places unforgettable, but also to increase the numbers visiting us and increase the amount of money they spend, thereby improving our income. It is difficult to strike the right balance between creating a larger business, and in many cases a year-round business by opening more days, and conserving our places for the future.

It's much easier for a house without a sensitive collection or any collection at all, yet we have found that there are other expectations and issues of conservation to contend with.

Providing a different experience for visitors

Croome, in south Worcestershire, is one of a handful of places that has a mansion which is effectively empty. We often feel that this is a blessing as well as a curse.

The Trust acquired the parkland at Croome in 1996 and the acquisition of the house followed only in 2007, opening to visitors in September 2009. We had nothing in the house except for some simple interpretation and chairs to sit down on. We chose not to have a route, leaving our visitors to wander where they please across two floors, unhindered by ropes or, for the most part, locked doors. They make their own discoveries through the building with the help of our volunteer guides.

We love the fact that our experience is different and that we don't have to worry about conserving or protecting a large collection, which comes with many concerns and worries about capacity and access.

We want Croome to continue to be accessible, relaxed, informal and open as much as possible. I remember too many glorious winter days when we had to turn away visitors because we were closed. The worst thing was that we could not send them to any other Trust property as nowhere else nearby was open either.

We've decided to bite the bullet this year. From opening the house six days a week, March to October, and at weekends only in the winter, we shall open the house six days a week all year round this year and into 2014. The park has also followed suit and opened up the lakeside garden during the winter every day, giving our visitors a full visit whenever they choose to come and see us.

Our business is growing, and our operational contribution is strong as always. This is helped by our long opening hours of not only the house throughout the year but also the park. Our visitor numbers increase every year and we now receive over 135,000 a year, half of whom enter the house, which



The south front of Croome Court, remodelled by 'Capability' Brown in classical Palladian style. © National Trust Images/Andrew Butler



Above: Our visitors don't seem to mind the lack of furniture and *objet d'art*! Note our substitute art in the alcoves and above the chimneypiece.
© National Trust/Amy Forster

Left: Room after room of beautiful space; a view through the doorway of the Dining Room. © National Trust Images/Layton Thompson

is a pretty large footfall. There are pressures throughout the property, however, and for the house in particular we pored over the Conservation for Access Toolkit,¹ thinking of ways to push the business and spread our load but without damaging the fabric of the house, which is our primary concern.

Croome Redefined

Croome Court, however, is on the brink of considerable repair (not restoration) works. Croome Redefined, the name we have given the large-scale works, will see £5 million spent on re-servicing, repairing and sharing the house in new ways over the next four and a half years. Even though it can look and feel like an unrestored, unrepaired shell, and some people expect us to be able to push our capacity and access arrangements to the limit, we have to be careful. Croome Court is still a delicate mansion even if by the very nature of its being empty, it is treated very

differently from the 'normal' Trust house. This is great for our visitors to experience, but we have to pay extra attention to protect its interior and exterior fabric. It has been compromised over the decades, long before it came to the Trust, but we certainly don't want it to get any worse!

Generally the house, staff and volunteers can cope with large numbers of visitors during a week or in one day. Naturally, we are all alert to and as protective about anything detrimental happening as at any historic house. We have the same worries over our floors and our chimneypieces as any house team.

Our Saloon, after a hard day's footfall, can look strained. The floors look like they're aching and dry. This important and beautiful room that once played host to George III has been unintentionally mistreated. We often hear concerns that too many visitors have passed through and left the floors in a state, but these were in fact belt-sanded in the 1980s. No matter what we do to the floors

(short of undertaking a full restoration), they will always look tired and worn as the scrapes from the belt sander and the removal of too many layers of the wooden surface have left ugly, permanent marks.

Ever since the house opened, we have struggled to manage our visitors' expectations which envisage a more complete historic house when they come to a National Trust place. It's flagged up often in our visitor survey results and we are currently being more honest about what people can (or can't) see and not being apologetic for what we present. The first historic house I worked in was full of priceless paintings, period furniture and intricate environmental monitoring; I have personally found Croome Court to be a new and enjoyable challenge to resolve.

With the large number of visitors we receive at the front door of the house, we have to be sure that they already understand what they will experience, otherwise their visit is likely to be disappointing in some way.



We still have delicate features to watch over. This is a detail from one of our wonderfully ornate Adam's fireplaces. © National Trust Images/Layton Thompson

Developing Croome's offer

By 2016 the part of the original collection that is in public ownership will return and we are expecting visitor numbers to rise even further to 200,000 a year by 2017. This collection represents about a fifth of that once owned by the Earls of Coventry, much of which was sold after the Second World War. Given to the nation in lieu of death duties on the death of the 11th Earl in 2002,

the collection is currently on display at Kelmash Hall in Northamptonshire (not a Trust property) and will return once our building works are complete. Although we shall then have a priceless collection of Robert Adam's first furniture designs and precious pieces of art, we don't want to reduce access or opening hours, put up the ropes and pull down the blinds; we still want the experience inside Croome Court to be unlike any other in the Trust.

We want as many people as physically possible to experience the house. To increase capacity, we will open up all four floors to visitors. To protect the collection, we won't be displaying everything in one go. The collection will be displayed in different ways and changed often to encourage people to come back again and again to discover something they haven't seen before. We will have environmentally controlled conservation stores, but they will be accessible so visitors can see objects that aren't in the house.

We have a lot of work to do, lots of discussions to have, plans to make and questions to answer. I always remind myself and take comfort from our Chairman's words, however: 'But conservation is fascinating precisely because there are no clear answers to these questions.'²

References

1. Conservation for Access Toolkit: http://intranet/intranet/cns-conservation_for_access.htm
2. Simon Jenkins, 'Why Alan Bennett is wrong about the National Trust, *Guardian*, 21 November 2012.

Home improvements: a fresh look at Standen

Ben Dale, House Manager, and Victoria Witty, House Steward, Standen, Sussex

Standen was designed and built by the architect Philip Webb and is well known as an Arts and Crafts house with a corresponding collection. As such an outstanding example of the art and design of the period, less attention has been given to how the house was lived in and enjoyed by the family who had it built, the Beales.

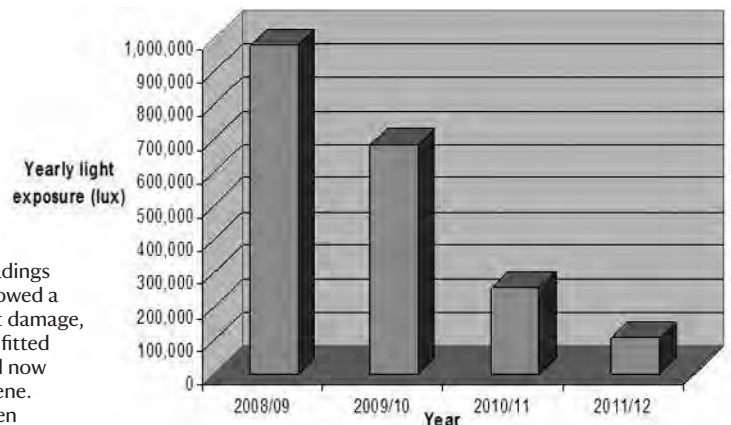
Visitor numbers have increased from 57,871 in 2001/2 to a record 93,563 in 2011/12. Opening hours have also steadily increased over this time, both of which have resulted in concerns about caring for the house and collection properly. Following the introduction of seven day a week opening in 2012, the property is now working towards opening 363 days a year in 2014/15, and aiming for visitor figures of 100,000 in 2013/14. So, at the same time as extending our opening hours, we have had to consider how to redisplay the house to tell the stories of the Beale family, as well as enabling our visitors to see and get closer to our collections in a safe and conservation-friendly way.

Improving display and allowing access

We wanted to ensure that the family story ran alongside the Arts and Crafts theme, so have tried to add and/or relocate rather than remove objects. We have introduced props, both non-indigenous historic objects and copies of historic documents, but only moved items where necessary, opting to try to protect historic surfaces first. There are

now only three rooms in the house where visitors aren't able to walk on the carpets because of their historical significance.

We have improved light control in the house with new blackout blinds as well as showing the Westbourne Bedroom and Dining Room as evening scenes because these rooms showed a high propensity to light damage, evidenced by blue wool dosimeter readings.



Blue wool dosimeter readings for the Dining Room showed a high propensity for light damage, which reduced once we fitted new blackout blinds and now present it as evening scene. © National Trust Standen



The Dining Room dressed for a family dinner. © National Trust Images/Andreas von Einsiedel

Opening every day has spread the number of visitors over the week, but this could be due to the stagnation in overall visitor figures. To reduce volunteer numbers needed per day, we decided to run 45-minute-long taster tours on weekday mornings before Easter, reducing to Monday and Tuesday mornings for the rest of the year. Volunteer uptake for training and delivering tours has been more than sufficient, and visitor feedback has been positive. The recruitment of a Volunteer Manager and involvement of volunteers and, initially, a representative of the local volunteering bureau in the property Volunteering Development Group have proved to be very successful in recruiting new volunteers.

Standen: a day in the life

To bring out the stories of the Beales at Standen, we now show the house as if it were 1925, when Mrs Beale was living here with her two unmarried daughters and is being visited by her married daughter, Amy, and her husband and children, as they often did for a weekend. Visitors experience the house over a 24-hour period, starting with the first few rooms as an afternoon setting, continuing into early evening where dinner is being served in the Dining Room before heading upstairs to bed. Morning follows in

the next few rooms before completing the 'day in the life' of Standen in the Kitchen where a picnic lunch is being prepared. Throughout the house there are family letters that have been either reproduced or rewritten to tell of genuine events retold in correspondence.

As visitors walk through the Hall over the sacrificial carpet to sign the visitor book, they get a sense of the room's former use for musical entertainment as the room guide plays period records on the gramophone. In the Billiard Room there is the opportunity to look closer at mounted butterflies with a magnifying glass in the same way that Barton, a grandson of Mr and Mrs Beale, who became a renowned entomologist, might have done. Unfiltered cigarettes and a decanter of brandy hint at a refreshment break during a pool game with Aunt Helen. Children can take away a piece of paper they have embossed using the replica Standen address embosser. In the Drawing Room we encourage people to handle a copy of part of the Vine Hanging embroidery, the original being moved here from a more vulnerable location on the visitor route. Visitors regularly comment on how homely the Drawing Room is, the drugget and stanchions unobtrusive but protecting the important Morris & Co. carpet. In the Dining Room, visitors can now walk all around the table and take a closer look at the paintings at the far end of the room.

Upstairs – after dinner – the Westbourne Bedroom with its original curtains is shown in the dark with the Morris & Co. embroidered bedspread out of reach of small children. There is a replica bedroom chair which visitors can sit on in the North Spare Bedroom to take in the room and read the morning letters. The Larkspur Bedroom can be seen from the new sacrificial carpet, or even from the window seat where visitors can sit down. Back downstairs in the Business Room, visitors can use the typewriter, and copies of original documents await discovery in the in-tray. In the Morning Room corridor, the alcove cupboard is ajar – the family used to keep a decanter of sherry and a ball of hairy string in there – and visitors can hear clavichord music and look out onto the Lavender Lawn with the aroma of lavender from the vase on the George Jack table. Finally, in the Kitchen, visitors are greeted with seasonal cooking demonstrations or the smell of freshly baked rolls.

What we learned

We have had to be pragmatic – there are always disadvantages or problems. We have had to be open to trial and error, such as learning through experience not to do taster tours in half term. Taking away ropes in the Drawing Room didn't work; volunteer room

guides found it very stressful, and on one occasion a visitor got as far as the other end of the room on the historic carpet before the volunteer could stop them. In other rooms, where ropes would not have helped, we've left them out: for instance, there was nothing we could have done about a broken plate in the Dining Room where a visitor had already been asked not to touch by the volunteer, but the benefits of keeping the room open without a rope, to us outweighed the risk of a recalcitrant visitor.

We chose not to allow visitors to play billiards because we would have had to take the majority of the ceramics off the shelves and moved Dobbin the rocking horse out of the way of cues. We tried letting people sit on the Morning Room sofa, but after six months it became apparent that the upholstery wasn't robust enough, so that couldn't be continued. However, we have been able to let it be used for filming, so most recently it has been sat on by BBC presenter Jeremy Paxman.

So what's next?

The next five years are going to be an exciting time for Standen, with plans to open significantly more rooms in the house for visitors. Longer term this will help ensure that we have a substantial offer out of the

main season when we close some of the fragile showrooms to help conserve their contents.

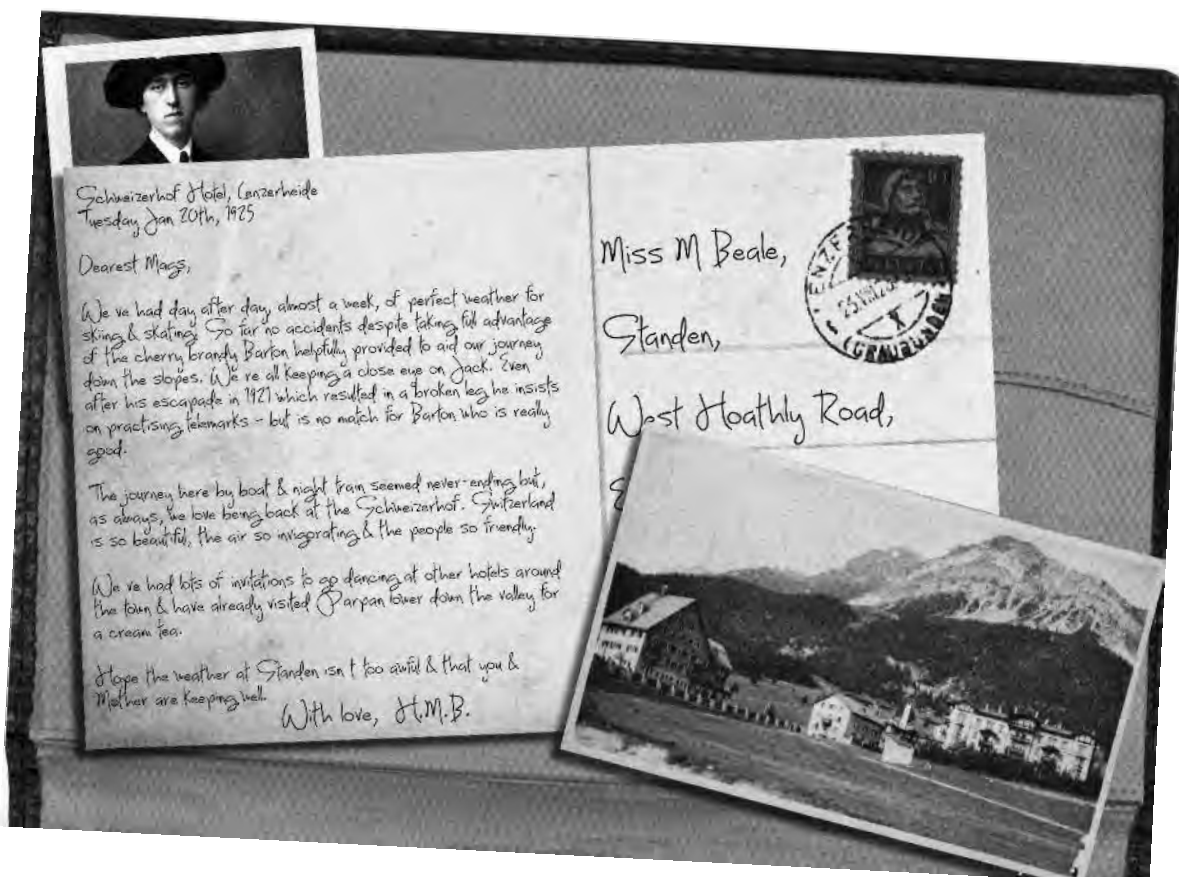
In the more immediate future, a successful workshop with staff and volunteer representatives identified our five main seasons and what our 'offer' might be, ie what we open and what events we provide, such as talks and tours. In our winter season, which excludes Christmas as that entails a themed offer, we are looking to develop our guided tour programme to include 'behind the scenes' areas. This will include our water tower, cellars and stable yard as well as potentially using part of the restaurant as exhibition space. The emphasis is on a different offer from what you would get in August, rather than a reduced one.

For the core season we are looking at opening the house later in the day, with an enhanced events programme prior to that time, to help maintain a responsible approach to light management. Longer opening has been on the cards for some time, so we have been gearing up with measures such as installing full blackout blinds across the property to ensure we are making best use of our light hours. Further seasonal room displays showing rooms at different times of day to fit in with the 'day in the life' theme will also help to manage light exposure. Later this year, we shall give greater access in more show-rooms by



Have-a-go typewriter in the Business Room.
© National Trust Images/Andreas von Einsiedel

removing ropes and having items to handle. We are also investing in imaginative interpretation in less sensitive and currently under-utilised areas to tell the story of the servants at Standen, as well as continuing to develop our offer in the servants' areas with our popular kitchen range demonstrations.



Postcard from Switzerland from Helen Beale to her sister, Maggie.
© National Trust, Standen

Anticipatory History – making sense of change

Phil Dyke, Coast and Marine Adviser

Anticipatory History was the title of a project and a subsequent publication¹ about our capacity to anticipate, and maybe alter, the future ‘history’ of a place through our actions – or inactions – in the present. It’s a wonderful concept and should be familiar, as much of our conservation work is about anticipating long-term future states, but it isn’t necessarily obvious so I hope this article will put more people in the picture.

The Anticipatory History project comprised three phases:

- 1 A series of workshops facilitated by the University of Exeter, in which many Trust colleagues participated.
- 2 The editing and publication of a book that captured what lies behind the idea of Anticipatory History (again facilitated by the University of Exeter).

- 3 A pilot dissemination project to apply this thinking within the Trust at a number of locations where physical environmental change is a major issue for the property or team concerned.

The first two phases were funded by the Arts and Humanities Research Council, and the final phase was funded by the Trust.

Placing it in a Trust context

Although Anticipatory History was the official title of the project and is the title of the book, in Trust terms we very quickly adopted the subtitle ‘making sense of change’ as this, in a very practical sense, is what we were hoping to get from the work – a better understanding of how we deal with environmental change. My interest in the

project was allied to my day job on climate-driven coastal change, in which I’m often reminded that we don’t do change particularly well as a species. Within the Trust, our organisational understanding of conservation is framed by the phrase ‘the careful management of change’. On this basis, change, loss, replacement, decay and succession – all features of the natural and built environment – should sit comfortably with our understanding of conservation. And yet so often when we use the term ‘conservation’, we do not mean enabling the careful management of change but are instead seeking to maintain the status quo, more akin to the thinking associated with the word ‘preservation’.

In this regard we are perhaps haunted by one of our most popular straplines: ‘For ever, for everyone’. I have no problem with the ‘For everyone’ part but we do need to think



Building flood defences at The Vyne, Hampshire, as water from the overflowing lake rushes into the house, during the July 2007 flooding.
© National Trust Images/John Hammond

carefully about the 'For ever' element. In *The Excluded Past; Archaeology in Education*,² the editors Stone and MacKenzie introduce the idea of 'excluded pasts' where museologists struggle to find ways of reintroducing topics that for one reason or another have been neglected or suppressed.

For me, the 'For ever' part conjures up a mirror image of an excluded past, the 'included future'. In the included future, we feel obliged to talk about the future as an eternal 'for ever', cherishing all the 'stuff', the artefacts from the past and the present, that we have around us. If for no other reason than practicality, the included future looks set to be a crowded place, a hoarder's paradise, where we have ignored the reality that all 'stuff' is, to some extent, ephemeral. This may sound heretical but it is not meant to be disrespectful of conservation; it is more a plea that when we use the word, we apply its proper meaning, ie it being about the careful management of change, and not mix it loosely with the embalmed-in-aspic 'preservation' word. In coastal change, we see graphically the ephemeral nature of our coast. Change is the only constant and indeed change is what shapes the coast. Were it not for change and the erosive forces of tide and storm, our coast would not feature cliffs but rounded 'hogbacks', vegetation-covered slopes running gently to the shore – the Green Slopes of Dover?

So it is through this particular lens of coastal change that I approached engagement with the Anticipatory History project or 'making sense of change'. The focus was on how the past can inform the future, even when environmental change carries with it great uncertainty.

Learning points

One of the key learning points I took from being involved in the project was that if we are to be effective in negotiating the transition from past to future, we are most likely under-investing in our use and application of social-science techniques and the way we draw on insights from arts and humanities. *Rooted in Community*,³ the Trust's toolkit on community engagement, was mentioned often in our workshops but where does it feature in our organisational consciousness as a key tool to improve our understanding of environmental change? We use the ideas from *Rooted in Community* at the coast where environmental change is stark and clear for all to see and yet the impacts of climate change are gradually pervading every part of the Trust.

Pests and diseases previously unknown in the UK infiltrate our gardens and woodlands, general managers tear their hair out as intense summer rains render our extensive grass car-parks useless, the rainwater goods on our mansions spill over, adding humidity to the interiors and creating a microclimate beneficial to the cultivation of moulds on paintings and books. We are in a world increasingly dominated by rapid and remorseless environmental change and we need to start making some sense of it.

The penultimate word on Anticipatory History goes to Drs Caitlin DeSilvey and Simon Naylor of the University of Exeter, as

editors of the book and the place where our journey into making sense of change started. In the preface they write: 'In recent years, reports on accelerating sea level rise, species extinction, shifting weather patterns and stressed landscapes have become increasingly common. Although we are well supplied with scientific information about environmental change, we often do not have the cultural resources to respond thoughtfully and to imagine our own futures in a tangibly altered world.'

The final word on Anticipatory History goes to me, however, and I would simply ask how well is the Trust equipping itself to deal with a world altered by climate change? Making sense of change will become essential as the planet warms, our weather systems fluctuate between extremes and our natural resources become still more depleted. I'm concerned that at present it still feels like climate change is to the Trust and many other organisations, an inconvenient truth.

References

1. DeSilvey, Caitlin, Naylor, Simon, Sackett, Colin (eds), *Anticipatory History* (Uniform Books, October 2011). Available from www.uniformbooks.co.uk
2. MacKenzie, Robert and Stone, Peter (eds) *The Excluded Past; Archaeology in Education*, (One World Archaeology, London, 1990).
3. *Rooted in Community* (National Trust, 2009): <http://intranet/intranet/rootedincommunity-2.pdf>

Creating capacity and building conservation



Building capacity for conservation

Rory Cullen, Head of Building

Those people interested in buildings who work for other organisations often look with envy at the huge range of structures and buildings that we have responsibility for – from churn stands and ‘poultiggeries’ (a poultry house/pig sty) to iconic architecture and Grade I listed mansions. All of these are maintained by our team of 100 building surveyors and around 150 of our own craftsmen. It is only when you consider the scale of the task, with an estimated 28,000 structures with an insurance value of £6 billion, that you realise capacity is an issue.

Our driving purpose is the same as it was more than a hundred years ago when the Trust was founded – to conserve our built heritage, safeguarding its fabric and structural integrity ‘for ever, for everyone’, but to do so our staff have to be armed with the right funding, knowledge and experience.

Review of the buildings profession

It has always been difficult to put a figure on the workload that a typical surveyor should be able to manage, as this will depend on their property portfolio, logistics and their skills development needs as well the support they have. To assist with workload I have been undertaking a review with a particular emphasis on sharing tools which could help with operational as well as project works.

The principle is simple: by freeing up the valuable resource of skilled time, work which could not have taken place or, more likely, would have been outsourced at extra cost, can be achieved in-house and the money saved spent on conservation or other works. This efficiency can in turn be equated to cost savings.

While I never fail to be amazed at the breadth and depth of knowledge within the

Trust and the many excellent practices evident in all regions/countries, I still find myself somewhat dismayed when I see that such practices are unknown beyond the region or even outside an estate! I am trying to address this by engendering a change of culture within the building profession, encouraging teams to share their practices by promoting them to the Whole Trust.

Building design guides

If I could take a single example which has perhaps the greatest potential, it would be the Building Design Guides. These have either been written in-house or by consultants, cover just about every building subject you can think of, and they link to over 500 ‘sense checked’ specifications. Nothing like this library exists in any other conservation



Managing projects such as the rebuilding of the New Inn Stowe from start...
© National Trust

organisation that I know of, yet only now are they starting to be used as they should.

You may not have heard of the Building Design Guides, and if that's the case, I strongly recommend that you take a look at them on http://intranet/intranet/i-bui-building_design.htm (on the website: <http://www.nationaltrust.org.uk/article-1356394057773/>). In essence, they are an expanding colour-coded database of about 120 different types of project which take you through from their inception to completion and beyond, with a feedback section at the end. Highly visual and very accessible, they include photographs of the various stages, plans and costs.

The concept is simple – they offer ideas for similar projects together with the specifications which can be adapted accordingly, saving considerable time and money for the Trust. They are universally applauded but there is always room for improvement. If you have any questions, please contact the Project Manager and general guru, Ingrid Chesher, who will always be delighted to help.

Increasing capacity

There is a huge and largely untapped potential that qualified volunteers can offer us. To cite just one example, although I know of many more, there are around 50 volunteers who have been working in London & South East for the last fifteen years or so, undertaking small building surveys by using

standard templates. During this time it is estimated that this has saved the Trust well in excess of £1 million, let alone the cost savings in picking up defects early which could so easily turn into expensive projects. The set-up has little impact on staff time as the team leader is also a volunteer. It would not be too hard for other regions to follow this example, again freeing up resources for where they are most needed.

The last two years have also been spent preparing regions for the arrival of PS3, an extension of the Property System which provides an electronic building management system. Once developed and used to its full capability, this should revolutionise the way we work as it will act as a one-stop shop for building maintenance schedules, reports and contacts, and will provide access to information for property staff as well as high-level management information. Linked to this, we are developing and refining the Short Term Cyclical (STC) maintenance process, which will both capture what we need to spend in a uniform way, which will undoubtedly create more time for our surveyors to focus on the things they should be doing, ie where their strengths and expertise lie, particularly relating to conservation work.

Also allied to this is the Red-Blue list (accessible from the Review of Building Profession wiki <http://wiki/display/RBP/Review+of+Buildings+Profession>), which sets out which STC tasks must be undertaken by a qualified building surveyor (the red column) and which could be delegated to competent

others who need have no building experience (the blue column). Surveyors are expected to discuss and negotiate the blue list with their property clients, with the aim of freeing up the costly time of a surveyor to focus on those tasks where they can use their knowledge and training, and allowing property staff to get on more quickly with ticking off tasks instead of waiting for a surveyor to be free.

Using craft skills

These examples relate to building surveyors but could equally apply to other Trust staff involved with building work. We are also extremely fortunate to have our own in-house highly skilled craftsmen across the regions, covering diverse trades including carpentry and joinery, painting and decorating, and stone masonry. However, resources and expertise here are also in constant demand, particularly as there is a national shortage of external craftsmen able to undertake conservation work to the required standards. We have helped to address this through our Apprenticeship Scheme – at present we have 30 apprentices at various stages of their development spread across the Trust. This has huge benefits for us, freeing up more capacity each year as they become more experienced in their trade.

Learning at college is one thing but the real advantage comes from passing down knowledge, skills and experience from our



... to finish
© National Trust
Images/John Millar



Top left: It's not all old buildings; installing a ground-source heat pump at a cottage on the Mottisfont Estate. © National Trust

Above: Many of our apprentices are doing well in national competitions, such as Jenny Sibley, an apprentice at Cotehele, Cornwall, who won the South West heat of Dulux Decorator Centres' 2013 Apprentice of the Year and came third at SkillBuild in 2012. © National Trust

Left: Keeping skills in-house; the Trust's Direct Labour Team from Devon who repaired and rebuilt Greenway's vinery. © National Trust

very experienced teams. Through a continuity of skills and a very strong link to the construction/maintenance history of each property, the value of this knowledge transfer from experienced craftsmen to new starters cannot be overestimated. The Apprenticeship Scheme was started at a crucial time when we were faced with almost a third of our direct labour staff due to retire within three years. Details of our current Traditional Skills Bursary Scheme for Displaced Apprentices, which is funded by the Heritage Lottery Fund, can be found on www.buildingbursaries.org.uk

There are other initiatives and processes which can increase capacity, and these are being shared with consultancy managers and

buildings staff through the review. For instance, every region is being encouraged to have a regional lead to ensure that staff are kept in touch with relevant internal and external building-related events and ways of working. This will help to build a professional community within a region and across the Trust as a whole. The regional lead is someone who will understand critical training and development needs and will share information, whether by meetings or other methods, to regional colleagues and ensure regional best practice and successes are promoted throughout the Trust via the centre.

The Trust has an enviable reputation for managing the historic environment, and as a charity we have an absolute duty to ensure

that the funds raised through our hard-earned memberships are spent wisely. We therefore need to operate as efficiently as we can, with all the knowledge and tools available – many of which we already have – to ensure that the money we save can go further on our conservation works. Facilitating a culture of sharing experiences, ideas and innovations can only enhance staff effectiveness, skills and job satisfaction internally and the Trust's reputation and recognition externally.

Acknowledgement

My thanks to Jamie Cain, Building Surveyor, South West, for his help with this article.

Caring for Holnicote's historic buildings: a matrix for decision-making

James Clapperton, Building Surveyor; Andrew Lawes, Rural Surveyor; Rachael Pavey, Rural Surveyor; Stephen Ponder, Curator; and Christopher Turner, Building Surveyor

The Holnicote Estate

When Sir Richard Acland gave the Holnicote Estate in Somerset and the Killerton Estate in Devon to the National Trust in January 1944, it was the largest acreage ever transferred to the Trust. The Holnicote Estate in Exmoor National Park now comprises 5,026 hectares of diverse Exmoor landscape: moorland, woodland, farmland and coast. It includes the Dunkery and Horner National Nature Reserves.

Vernacular buildings are an integral and important part of the Exmoor landscape and the Holnicote Estate. The Trust is responsible for 165 cottages and houses, almost all of them historic buildings and many also listed, in five individual villages with distinctive Exmoor communities. There are 14 farms with farmsteads comprising many vernacular buildings, many listed. A high percentage of the properties are of cob-and-thatch construction. All but one property, a cottage, have been declared inalienable. (This cottage was included in the original gift of the estate from the Acland family; however, it was omitted from the inalienability declaration, probably accidentally. In due course we hope to declare it inalienable.)

The challenge

Exmoor is an area of economic extremes, from rural poverty to affluence, and Holnicote has both. The estate came to the Trust in poor condition. In nearly 70 years of maintenance and repairs, we have been unable to address the severe backlog of investment required. The Holnicote Let Estate Business Plan, approved by central Projects and Acquisitions Group in July 2011, aims to change that. The plan identifies the problems and releases funding to address them. Its objectives are set out in the Somerset Countryside Property Business Plan:

Our aim is to:

- eliminate our backlog of repairs
- create an annual revolving fund to deal with future long-term cyclical repairs

- manage our let estate as a sustainable profitable business unit within the context of the general manager portfolio
- maintain the historic interest/beauty and thriving local communities where it is appropriate to do so

Principles of the plan

- We will continue to improve people's living environments.
- We will continue to listen to local people and work at a local level with the Holnicote Tenants Association and retain the current good relationship.
- We will communicate our plans clearly with local people so there is an understanding of decisions we have taken or have to take.
- We will not 'sell the family silver' for short-term gain but produce an effective management plan which considers the actions of what we do today on those who follow us, so the estate can be managed effectively for ever.
- We will actively seek and maximise third-party funding.

Identifying priorities

Although the plan provides funding to invest in building repairs, it was clear that there would not be enough to do everything we would like. Most of the buildings are of high landscape value and historic or architectural significance, whether listed or not. We recognised that we needed a method for identifying the priorities to make the most effective use of resources. The method needed to be as objective and as straightforward as possible, applying agreed criteria so that the approach and outcomes were clear and consistent and did not rely unduly on the input of particular individuals.

We were unable to find an existing template or methodology, so we came up with our own. Stephen began by looking at other assessment processes and guidance that might be relevant. This included the Conservation Performance Indicator (CPI) process, Heritage Impact Assessments (HIA),

which are a recognised approach linked to conservation management planning, and the Trust's guidance on *Farm Building Development* and *Adaptive Re-use of Historic Buildings*.

From the CPI criteria for ranking objectives came the basic approach of ranking priorities using Significance – how significant the building is, Consequences – the impact of action/no action, and Urgency of the threat or problem.

HIAs are used to determine the extent of the impact of any proposed development or other change. They are highlighted in Trust guidance *Conservation Management Plans and Conservation Statements*, which refer to Heritage Lottery Fund (HLF) guidance on preparing HIAs. The HIA process developed for Tyntesfield using HLF guidance provided criteria including historic/current/proposed uses and proposed changes/works.

The checklists for farm building development provided points including financial viability, visual impact and the risks and opportunities for the historic and natural environments. *Adaptive Re-use of Historic Buildings* emphasised that sustainable reuse ensures the survival of the significance of historic buildings, that bringing a building back into use or adaptive reuse can provide revenue, and the importance of understanding the landscape character/context.

From these, an initial list was drawn up of criteria that might influence a decision for an individual building.

Building

- Type/historic use, eg barn, and date(s).

Significance

Each of these was given a notional score according to whether the answer is Yes or No, or a High/Medium/Low or negative ranking:

- Statutory designations – listed building/grade, Scheduled Ancient Monument, National Park, Area of Outstanding Natural Beauty, Conservation Area, etc. Ranked according to importance, eg listed buildings where Grade I listed ranked highest, Grade II ranked lowest.
- Unlisted but of listable quality, notable features, historic interest or other special merit.



The Linhay – before and after its refurbishment – which scored high on operational risk, historical significance and landscape value owing to the unusual circular stone columns. © National Trust/Andrew Lawes



Before and after pictures of the restored stock shed and barn/stables. These were ranked as having a high operational risk given the condition they were in which was compounded by their location – adjoining a National Trust ticketed car-park. The buildings also scored well in terms of functionality with regard to modern-day farming practices. © National Trust/Andrew Lawes.

- Group value – does it contribute to or detract from the quality of a group?
- Landscape value positive or negative, eg does a building have a detrimental or positive effect on the landscape character?
- Nature conservation value – including designations.

Functionality (use, adaptability)

Each of these was given a notional score according to whether the answer is Excellent/Fair/Poor (condition) or has a High/Medium/Low or negative ranking:

- Condition – what is its current condition?
- Current agricultural use and/or current non-agricultural use.
- Adaptability, eg those elements which affect its possible use, such as location, access, availability of services, planning constraints, hazards and the physical features that might help/hinder new uses.

Operational risk (consequences of not taking action)

These were given a notional score according to whether the answer is High/Medium/Low risk:

- Potential for statutory action
- Loss of reputational risk
- Potential for health and safety risk

Based on the overall scores, which rank the priority compared with spending on other buildings, a decision could then be made on:

- Do nothing
- Minimal repair
- Full repair
- Continue or revert to historic use
- New use
- Demolish
- Replace

Stephen developed from this an initial spreadsheet matrix with weighting and scoring. Groups of buildings would be considered together, using ranking and weighting to generate a score for each building within the group. Andrew, Rachael, James and Chris refined and reconfigured it for use, and then tested it. It has now been used for decision-making on specific projects, using tendered – not estimated – repair costs.

A first tender process (Phase One tendering) takes place to get an accurate repair figure for a group of buildings. Comparing this with our actual budget, we invariably find that we do not have sufficient funds to do everything. This is where the matrix helps us to prioritise the building repairs, following which we can, if necessary, go through a second tender process (Phase Two tendering) for final figures.

	Old House/ Store	Stock shed	Barn/ stables	Shippon/ Stables	Tack room	Hen house	Lean-to food store	Linhay	Threshing barn Copperclose 1	Stock Linhay: Copperclose 2	Stockyard: Copperclose Yard
Significance sub total	16	12	16	12	12	6	8	14	12	12	12
Functionality sub total	18	21	21	21	21	15	21	18	21	21	21
Operational Risk sub total	21	21	27	24	21	13	27	24	27	24	21
Raw score total	55	54	64	57	54	34	56	56	60	57	54
Raw score ranking	7	8	1	3	10	11	6	5	2	4	9
Repair cost (% of total)	5.72%	14.33%	7.73%	5.11%	4.22%	1.58%	4.03%	9.86%	14.04%	9.92%	6.3%
Repair cost ranking	5	11	7	4	3	1	2	8	10	9	6
Total of raw score + repair cost ranking	12	19	8	7	13	12	8	13	12	13	15
Priority ranking score	4	11	2	1	7	9	3	8	5	6	10

Applying the matrix – Horner Farm

An example of a worked matrix is on the intranet at http://intranet/intranet/rur-lepb_prioritising_repairs.htm and a summary of it is shown above.

Before starting the process, we needed to have:

- a full schedule of repairs, on a per building basis
- complete tender of the above (Phase One tendering)
- a vernacular building survey for the holding to assist with the raw score exercise
- a prior discussion with the farm tenant to understand the functionality of the buildings and business requirements
- prior discussion with the property to understand wider estate-management objectives

Each of the 11 buildings which make up the Horner Farm holding had a maximum score of 100 points, which were divided between the significance, functionality and operational risk categories outlined above.

Having attributed a weighted score against the factors which gave the building significance, functionality and operational risk, we could then rank the raw score (the total of the three elements) from 1 to 11, with 1 being the priority building.

We set out all landlord repairs across the buildings for tendering. The lowest tender was £103,106.50 and our allocated project budget, identified prior to the matrix exercise, was £89,000, which meant we would not be able to do all the work. The

Phase One tender figure, however, enabled us to populate the matrix accurately.

We turned the Phase One tender figure into a percentage for each building and then into a cost ranking (1 being the cheapest and therefore most readily achievable) to enable the costs to be included in the prioritisation process.

The raw score and the repair cost ranking scores were added together to give a final overall score, which was ranked in order of the lowest score to give the final overall priority ranking score. Based on the project-allocated budget, we were then able to identify those buildings we could repair, in priority order, up to our actual budget limit. These buildings were then re-tendered by all contractors who had completed Phase One tendering.

All buildings identified at Phase Two tender stage were completed with the exception of the threshing barn, which was identified at the outset as our contingency building, due to unforeseen extras on the stock shed and barn/stables.

We focused our attention on the vernacular stone and slate buildings which are located opposite the farmhouse and form the core of the holding. The works completed include re-roofing, masonry and joinery repairs and repairs to the cobbled yard.

Conclusions

The matrix provides a clear, consistent process for decision-making and effectively allocating limited resources to care for Holnicote's historic buildings. Some key points:

- The process is relatively quick to use and does not require lengthy discussions each time.
- To be of real value it has to be based on tendered repair costs. Estimated costs are not sufficiently reliable – if the decisions are based on estimates which prove to be significantly wide of actual cost, the whole basis of prioritisation will be skewed.
- Once it has been discussed with tenants, they have clearly understood and accepted the process.
- Having used the matrix on a number of farm holdings, the process quickly becomes second nature.
- The principle of the matrix can easily be applied to other projects across the wider estate.

References

Conservation Performance Indicator, management process (National Trust): http://intranet/intranet/i-con-cpi_feature.htm
Thinking about conservation (Heritage Lottery Fund, February 2009): available to download from www.hlf.org.uk
Farm Building Development, internal guidance (National Trust, 2012): http://intranet/intranet/i-bui-farm_building_development.htm
Adaptive Re-use of Historic Buildings, internal guidance (National Trust: revision available on the intranet shortly).
Conservation Management Plans and Conservation Statements, internal guidance (National Trust, 2008): http://intranet/intranet/conservation_plans_jan08.doc

Extending our work – and the glory – of Beningbrough Hall

John Moorey, Building Surveyor (Yorkshire East)

On a slight rise above the water meadows of the Ouse, about eight miles north-west of York, lies Beningbrough Hall, a Grade I Georgian brick-built mansion built around 1716. Of considerable interest for its collections and parkland, the house is a particularly fine example of English baroque. With hand-carved detailing, such as the superb stone carving around the central doors on the two main façades and splendid wood-carving inside, and features such as an exceptional cantilevered staircase, the house epitomises the restrained boldness of the English style. We don't know who designed Beningbrough Hall, only that it was commissioned by John Bouchier, a local landowner who had been to Italy on the Grand Tour. The executant architect was almost certainly William Thornton, a local carpenter-designer – hence the superb quality of the carving – but some of the Italianate detailing raises the possibility that Thomas Archer may have been involved, or else Bouchier himself, based on what he had seen in Rome, may have contributed to the designs. The complete loss of the house archive, rumoured to have been cast on to a bonfire, means we will probably never know.

Two of the hall's most photographed features are the brick-built bridges leading to the entrances on its main elevations. These bridges cross over the light wells which run

the length of the north and south elevations, allowing light into the basement areas. The bridge on the north front, facing the drive, is entirely stepped and that on the south front, facing the parkland, comprises steps leading to a stone-paved deck. Settlement over time had caused the mansion to sink lower on its south side, distorting the brick arches of the south bridge and allowing the whole structure to suffer from water penetration and frost damage.

The sloping deck of the south bridge was directing rainwater towards the extremely fine limestone door surround, causing deterioration of the lower stones. The doorcase had already been repaired once following an earlier investigation by the Trust's adviser on statuary and stonework. The previous shelter coat, a lime-mortar shield over the stone, had started to fail and was in need of specialist care if the doorcase was to be put in a stable condition for a good few years.

In a project partially funded by the Wolfson Foundation, we were able to repair years of damage to the whole of the light well on the south front, including rebuilding the brick-vault arches of the bridge as well as consolidating the doorcase. The floor of the light well was also repaved to address long-standing drainage issues, and the brick of the retaining walls was repaired and

limewashed to help reflect more light into the basement rooms.

Susan Amaku of Woodhall Planning & Conservation of Leeds was architect for the scheme, with Alan Wood & Partners providing structural and construction, design and management support. Local contractors William Anelay Ltd won the main contract through some very keen tendering, with Cliveden Conservation nominated sub-contractors for the consolidation and shelter coat to the doorcasing.

Rebuilding the south bridge

The early stages of the project saw much discussion as to whether or not the original arches of the south bridge could be retained, but the brickwork was in such poor condition, the core of the structure unknown and the arches so distorted and cracked, that it was felt a long-term repair necessitated rebuilding. This view was agreed with the conservation officer who concurred that rebuilding the arches was essentially a repair and Listed Building Consent not required.

The bridge needed to be rebuilt from the point where the arches began, which meant the removal of the historic cast- and wrought-iron railings. These also needed



Installation art: the quite beautiful timber former constructed to enable the brick arches of the bridge to be rebuilt, after which the former was dismantled. © National Trust/John Moorey

substantial repairs as jasmine had been growing through them for decades, making them impossible to maintain. Many of the cast sections had fractures which needed repair and, in one case, a replacement panel.

Rebuilding the bridge proved quite challenging with the centering for the arches testing the joiner's skills. Both these elements of work were carried out by Anelays, whose work is of national renown. The height and fall of the deck had to be reduced so that rainwater would be directed to the ground, rather than towards the door. To do this, we tightened the joints of the top four step risers which slightly reduced their height, so giving the deck an imperceptible but positive fall away from the mansion.

Many of us work with buildings that include brick vaulting, often tucked away in a basement; for me it is a first to have been involved with vaulting built from scratch. It was really interesting to see the timber former for the arches; it was such a masterpiece, as you can see in the image, that it was a shame to dismantle it when the job was done.

The image shows the timber former and the brick arches being set out at each end and to the cross arch. There was considerable discussion about the number of bricks for each arch to give the correct joint width to suit the York Handmade Bricks Ltd bricks. After the setting out, the arches had to be infilled, before the time-consuming, painstaking brick cutting to ensure the four arches met tidily. The limestone flagstones went back on to the bridge, along with the repaired iron balustrade and handrails.

The light well itself was looking rather neglected with the brickwork of the retaining wall and the mansion both needing some



The north light well in its heated tent. © National Trust/John Moorey

bricks replacing and significant areas repointing with lime mortar and then coats of limewash. Additionally the paving in the light well was uneven with some slabs broken and the rainwater channels failing to work efficiently. All paving and water channels have now been relaid and a few replaced where necessary. We were able to complete the work by the end of October.

Achieving more than intended

The decision that the paving needed to be relaid on the south front gave us an opportunity to improve the drainage arrangements by the installation of a new foul drain running the full length of the south light well. This part of the project (which fell outside the Wolfson funding) also

included a separate treatment plant for the Laundry holiday flat; whereas previously the single existing drain contained sewage from the Laundry flat and the basement, plus all rainwater from the west side of the mansion, and sent it to the river, now only rainwater goes to the river.

This was effectively the extent of the original intended works but very competitive procurement meant that there was a considerable amount of funding unused, so permission was gained to extend the project to three elements of outstanding conservation work on the north front.

The two light wells on the north elevation also required brick replacement and repointing works but to a lesser extent than the south front. By now the work was taking place during winter so a heated canopy had to be erected over the light wells to allow



The south bridge completed.
© Susan Amaku,
Woodhall Planning &
Conservation

work to continue throughout the snow and frost by ensuring the temperature never dropped below 4°C beneath the canopy.

Visitors to Beningbrough Hall arrive, as they have always done, at its north front, although they now walk up the drive on foot when once they would have been conveyed to the door by carriage. Back then, by pulling a lever adjacent to the railings on the door steps, the gates at the other side of the courtyard could be opened, permitting carriages to drive up to the door without hindrance. The north side works gave us a rare opportunity to carry out work to reactivate the gate-opening mechanism which probably dates back to the nineteenth century. New actuators were fitted to each gate and a special casting had to be made of a cog wheel. Once the pulleys and steel ropes have been reinstated, we shall be able to reconnect the whole mechanism, which we hope to have completed by the time this article is published.

Final touch

Finally we were able to complete the long overdue consolidation of the north entrance door surround, which is surmounted by an extraordinary sculpture of a pair of horses emerging from carved stone drapery. The source of the sculpture is unknown but it has a certain Prussian quality. It is certainly contemporary with the house and of superb quality. Vertical cracking in the fine carved limestone threatened to cause further loss of carved material, especially from the right-hand or sinister horse which had long since lost its 'face'. Following a report on the condition of the doorcase, it was decided to form an enclosed heated scaffold to enable the work to take place while the property was largely closed.

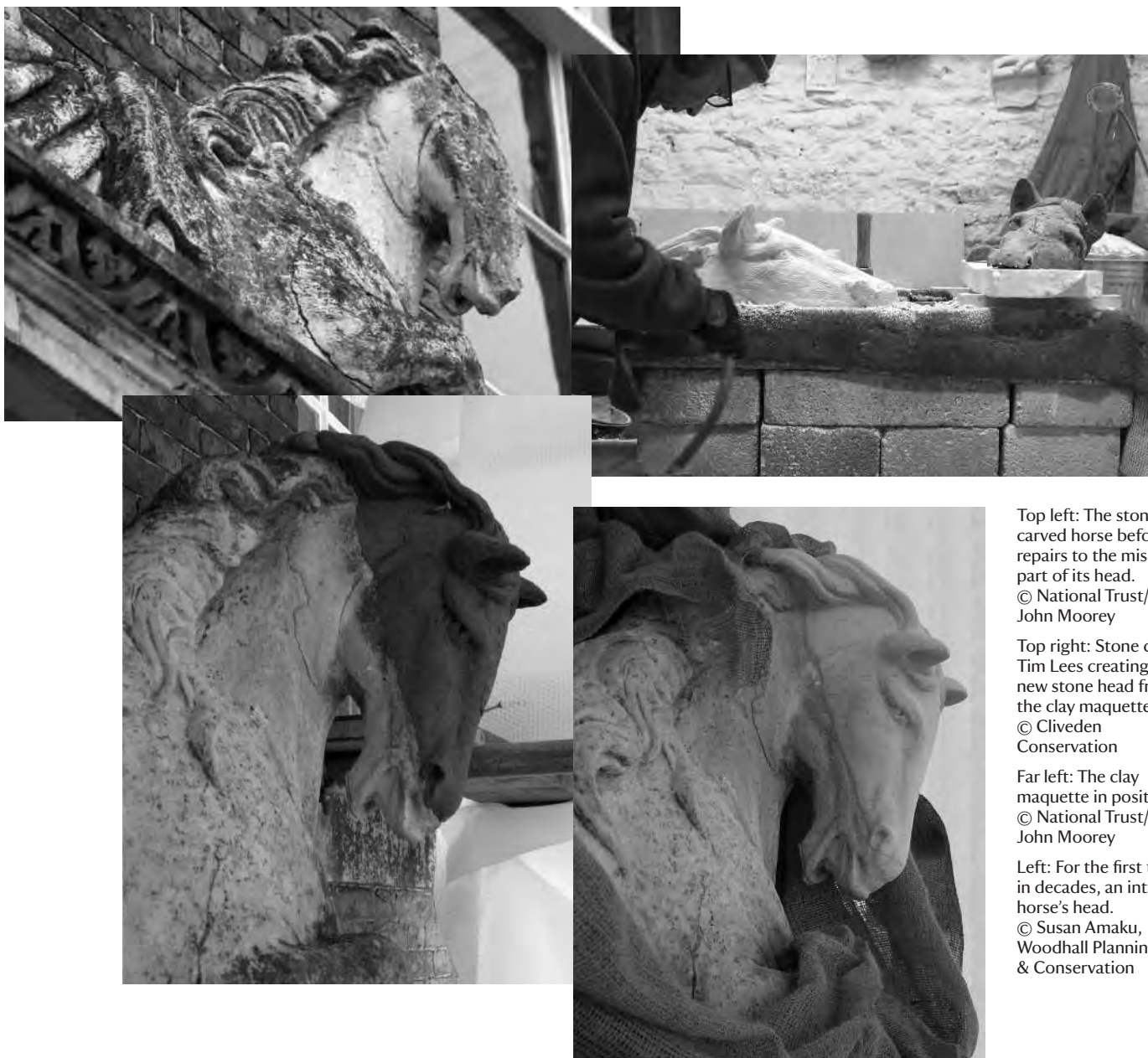
The main vertical cracks were pinned and pointed to prevent further loss, several 'guttae', a series of small carved cones, were replaced and repaired, and the whole

doorcase given a light clean to remove accumulated dirt and algae. Most significantly, the opportunity was taken to replace the missing face of the horse, the evidence of which survived in early twentieth-century photographs.

First a clay maquette was formed and approved by the curator before being removed to the carver's workshop where the head was carved in local Tadcaster limestone. Next the carving was returned to site and fitted to the remaining part of the horse's head before being given a final trimming on site.

The scaffolding was finally taken down in March this year to reveal the horse in its full glory – and the house looking superb – for the first time in decades.

This project has enabled so many elements of long overdue conservation to be carried out at Beningbrough Hall that the changes have dramatically enhanced it, enabling it to be seen in a much more befitting condition than it has been for years.



Top left: The stone-carved horse before repairs to the missing part of its head.
© National Trust/
John Moorey

Top right: Stone carver Tim Lees creating the new stone head from the clay maquette.
© Cliveden Conservation

Far left: The clay maquette in position.
© National Trust/
John Moorey

Left: For the first time in decades, an intact horse's head.
© Susan Amaku,
Woodhall Planning & Conservation

Home-grown masterpiece: the wooden art of Speckled Wood

Catherine James, Visitor Experience Manager, South Downs, East Sussex

Nestled in an ancient wooded valley and tucked away behind Haslemere High Street lies Swan Barn Farm. This beautiful property offers pastures that are perfect for picnics, and with an excellent network of footpaths and easy access by public transport it is a popular gateway to some of Surrey and Sussex's finest countryside. Its closeness to such a bustling town and its volunteer basecamp offer great opportunities for residents and visitors alike to learn about and get involved in the countryside and sustainable living.

This lovely area and its wildlife are much loved by local people, so when a new building to house long-term volunteers was proposed it was obvious that the construction would have to echo the surrounding landscape and be constructed in an environmentally friendly manner to win support and demonstrate the ideals of self-sufficiency promoted by both the team at Swan Barn and the wider National Trust. And so the concept of the sustainable building named Speckled Wood was born; the results are an outstanding example of what can be achieved when the Trust and the community work in partnership to achieve a shared vision.

Our aims

The principal objective was to create a building using locally sourced and processed materials that would offer opportunities for long-term volunteers looking to get involved in countryside management to work on Swan Barn and the neighbouring Black Down estate. The team of staff and volunteers worked in collaboration with Ben Law, a local designer and woodsman with expertise in self-build techniques, and the Roundwood Timber Framing Company was employed to oversee the project and advise on the design. A roundwood cruck-frame technique was chosen because it would produce an attractive, functional building that could be constructed entirely from local timber.

Within the project, we also undertook the 'greening' of the existing Hunter Basecamp, used to house working holiday groups. The old heating/hot water systems were inefficient, consuming huge amounts of electricity, and the basecamp was generally expensive to run. The planned environmental improvements



David Elliott, Head Ranger, copping wood for the new building. © National Trust/Matt Bramich

included the installation of additional insulation, draught-proofing, secondary glazing, LED lighting and replacing the storage heaters with a log-fired biomass boiler. A solar-powered water system and photovoltaic panels were also installed to supplement its electricity use, with any unused electricity being sold back to the National Grid. All of the space and water heating and a significant proportion of lighting, appliances and cooking energy requirements would eventually come from renewable sources.

Working with local support

The first hurdle to overcome was obtaining planning permission. Swan Barn Farm sits within the Surrey Hills Area of Outstanding Natural Beauty, an Area of Great Landscape Value and the Metropolitan Green Belt, and any new building might constitute 'inappropriate development'; to our advantage was that our new building would mainly be on the footprint of an old shed. The team worked extremely hard to prove that the development would actually assist in the ongoing management of the surrounding countryside, through the recruitment of long-term volunteers and their work on enhancing access to the open countryside

and the protection and enhancement of the landscape and its nature conservation interest. Thanks to this hard work and an abundance of local support, including that of Haslemere Transition Town and supporter groups from Black Down and Hindhead, officers recommended the project before it went to committee. Planning permission was submitted in October 2010 and approved in December 2010 without contest.

So work could finally begin in earnest. The old shed was demolished to make way for the new building and, in the spirit of the project, concrete from the old building was crushed and placed in pits to form the foundations for the new construction. These pits were topped up with sandstone from a nearby quarry and finished with a 'padstone' on which the frame of the building would rest.

Sourcing suitable wood

All building materials were sourced from local Trust estates in accordance with the project's sustainability objectives. Much of the timber was harvested from nearby coppice woodland. Coppicing is a traditional method of woodland management where timber is harvested as part of an ongoing cycle, allowing the cut wood time to regenerate and regrow. It also opens up the woodland canopy, enabling light to access new areas and encourage the growth of ground flora, butterflies and other associated wildlife.

The roundwood cruck frame was made from locally coppiced sweet chestnut and built on a larch framing bed, which enables it to be constructed on the ground before being raised (after which the framing bed is removed). A ridge pole, wall-plates, underfloor supports, jowl posts and wind-bracings were added to form the main frame, which was traditionally jointed with locally sourced oak pegs. On the day of the frame raising, a wreath fashioned from rowan for luck, hawthorn and wild roses from the hedgerows at Swan Barn Farm was placed on the frames. At the time of raising, a speckled wood butterfly, the namesake of the project, flew in and landed on top of one of the frames where it rested briefly before disappearing into surrounding woodland. A very auspicious start indeed!



Left: Raising the cruck frames.
© National Trust/
David Elliott

Right: Interior of Speckled Wood (part of the staircase shown on far left).
© National Trust/
David Elliott



Rafters were added and covered in a waterproof membrane, battened and then shingled, and finally the roof was insulated with sheep's wool. Douglas fir, a strong and durable softwood, was used for wall-plates, floor joists, rafters and battening. The trees came from a plantation in Haslemere. Thinning in such plantations is really important to allow other wildlife such as birds and flowers to grow and thrive, and also to allow the remaining trees to grow to their full potential.

The wooden shingle roof tiles were fashioned from sweet chestnut. Shingles are a sort of wooden tile and have been used on buildings in this part of the world for hundreds of years. Ultimately over 14,000 shingles would be hand crafted to cover the roof. The community was central to this task, with many groups of volunteers working at special 'shingle camps' set up in the surrounding woods. To help finance the

project, supporters paid £5 to 'sponsor' a tile. In return for this donation, their name and messages were written on the underside of a shingle and these were then placed around the edge of the roof.

Oak was used for the floorboards and external cladding, and the internal walls were constructed from sawn softwood stud frames with sweet chestnut lathes, both locally sourced. The external walls were constructed from bales of straw and lime plastered to both faces or clad in oak. The internal face was finished in several coats of limewash, a traditional form of paint that has insecticidal and antibacterial properties as well as being breathable, making it the perfect finish for the timber and straw-bale walls.

A timber spiral staircase was handmade from beech, oak and elm that had been air dried to prevent the wood warping. Newel posts were fashioned from larch, spindles and handrails from chestnut, and a shapely

piece of rhododendron forms a hand-hold next to the first two steps. The overall effect is one of glorious contrasts in colour and texture and is a real feature of the finished building.

Finishing touches

A special inclusion was a length of rowan from Black Down which was placed over the entrance door for the fortuitous benefits that folklore attributes to this tree.

The planting of an orchard of heritage fruit tree varieties and the establishment of a small chicken run and flock, an on-site beehive and a vegetable garden make Speckled Wood a working demonstration of sustainable living which will hopefully inspire visitors to see the potential to make positive changes in their everyday lives.

In July 2012 the building was officially opened by Jane Cecil, General Manager for the South Downs, cutting a ribbon of sweet chestnut bark to mark the completion of this incredible project. It would not have been possible without the support of the community, both in practical terms (685 volunteers gave 4,074 hours to produce 14,863 hand-crafted wooden shingles) but also in the way they welcomed, embraced and supported the idea from the outset. The team at Swan Barn Farm worked tirelessly for nearly two years to see the project through from planning stages to completion, and the drive, passion, knowledge and determination of David Elliott, the Head Ranger, was crucial in seeing the project through to its successful conclusion.

Reference

If you would like to read more about the construction of Speckled Wood from start to finish, see the Swan Barn Farm blog <http://swanbarnfarm.wordpress.com/>



External view of Speckled Wood. © National Trust/David Elliott

Building refurbishment on a National Nature Reserve

Graham Lubbock, Coastal Ranger, Blakeney Point, Norfolk

Blakeney Point, part of Blakeney National Nature Reserve (NNR), is a four-mile shingle spit projecting out into the North Sea on the North Norfolk coast. Along with its NNR status, which it achieved in 1994, it has several national and international conservation designations, including Site of Special Scientific Interest, Special Protection Area and Ramsar. It was actually Norfolk's first nature reserve, which, in 1912, was purchased for the Trust by the Rothschild family and the Fishmongers' Company for £500. A major player in its purchase for the nation was Professor Francis Oliver from University College London who studied the flora and fauna on the Point; he realised its significance and the need for enduring protection of such an important site. The university still has a presence on the reserve, bringing groups of students who study the three main habitats here which are the shingle ridge, salt-marsh and sand dunes.

The spit has been constantly growing in a westerly direction for hundreds of years, changing the shape of the reserve on a daily basis. Many of these changes are quite subtle and go unnoticed, but an occasional storm surge tide driven by gale-force winds from a northerly direction can move the whole spit several metres landwards in just a few hours.

Management of such a dynamic reserve is never easy, and the same is true for its few buildings. One of them, Lifeboat House, was built in 1898 to replace a wooden hut deemed too small for the class of lifeboat needed to effect rescues at Blakeney. The lifeboat was still housed in the building when the Point was given to the Trust so the first wardens, then called watchers, lived on site on a houseboat. This carried on until 1922 when it had become too difficult to launch the lifeboat from the building because of the silting up of the harbour as the spit grew further westwards. The Trust was able to buy Lifeboat House and it is now our visitor centre, where we give out information on the work we do on the reserve and its wildlife, and is also home to the rangers who live there for seven months of the year.

Time for a few improvements

After almost 120 years of exposure and use, Lifeboat House, a large wooden building



Before work started. The lower windows and door were relatively modern, and the refurbishment allowed us to put the building back closer to how it looked 100 years ago, based on old photos.

© National Trust/Graham Lubbock

clad with corrugated iron, was in need of some urgent repairs both internally and externally. Internally the accommodation had always been at best basic. Although regularly painted, the metal cladding had suffered from salt spray. It had the added challenge of being about 3½ miles along the shingle from the nearest road access. It is quite a trek, but the only other way of getting there is by boat which is itself restricted to a window of about two hours either side of high tide.

A major refurbishment programme had been talked about for several years, and our centenary year seemed to be a good time to try to secure the funding and push on to get the work done. In spring 2012 we heard that a £275,000 plus budget had been allocated, 50 per cent of this coming from the Neptune Coastline Campaign. It was now down to finding a contractor and more importantly working around the reserve's wildlife.

Blakeney Point is known internationally for its tern colonies. The birds arrive in spring and nest throughout the summer months. In 2012 Blakeney had the largest sandwich tern colony in Britain with approximately one-third of the British population breeding here. There are also nationally important numbers of little terns breeding in small colonies all over the reserve's shingle spits. Little terns are a Schedule 1 species which means they are

afforded special protection and fenced off during their breeding season. It was essential that the work took place through the winter months to avoid disturbing these ground-nesting birds.

Due to the tidal patterns, moving tons of equipment and personnel by boat was not an option. Therefore everything would have to be brought over the shingle. As well as avoiding the birds' breeding season, we had to consider staff who live in the building until around the middle of October. Tenders for the work went out in early summer 2012, aiming for a start date around the end of October with a finish date a month before the breeding season begins in April. The firm chosen from the tenders was Norwich-based Draper & Nichols. Before work began, we had meetings on site with the contractor and Norfolk Wildlife Trust, which runs the neighbouring Cley Reserve, to discuss issues around access and the extremely sensitive nature of the site. It was agreed that just one single track along the shingle would be used, with an occasional passing point; once work was underway, however, often a simple phone call to the site foreman, Paul Dawson, to check whether any vehicle was travelling along the beach stopped unnecessary tracks being put in. Thanks to Norfolk Wildlife Trust allowing us space in its car-park, we were able to erect a compound on site to secure materials and vehicles.



Above: The scaffolding was extensive and robust but the contractors were often unable to work on it because of bad weather. © National Trust/Graham Lubbock



Top: An inconvenient spot: a seal takes a rest under the fork-lift truck. © National Trust/Graham Lubbock



Left: A grey cow seal and her pup; including the males, we had almost 3,000 of these burly animals on the reserve – and sometimes on the building site – during the refurbishment. © National Trust/Graham Lubbock

Above: Over at last! © National Trust/Graham Lubbock

The work gets underway

The contractors had to learn the limitation of access along the soft shingle. Even though they had a sturdy tractor and fork-lift truck, they got stuck a couple of times trying to drag too much scaffold or building materials in one go. Paul and his staff were extremely helpful throughout the whole job; they learnt fast and soon a smooth rhythm was in place with the work carrying on at a steady pace. The weather was unfavourable though, with lots of strong winds often making it too dangerous to work on the scaffolding. By Christmas, however, the work was going well despite hold-ups caused by bad weather and rust and rot being uncovered, which meant more work would have to be done. Combined, these two problems put the contractors two to three weeks behind schedule but the delays were not thought much of a problem because the planned finish date of 1 March was weeks before the breeding season began.

As if the refurbishment wasn't already challenging enough, around Christmas time the other wildlife attraction for the reserve – the mixed grey and common seal colony that lives at the western end of the reserve – made its presence felt.

The grey seals pup here from late October through to early January. Over the

past 12 years the breeding grey seal colony has seen an extraordinary rise in the numbers of pups being born on the reserve, going from 25 in winter 2000/01 to a staggering 1,223 healthy pups born in 2012/13 despite a 5 per cent mortality rate which is normal. These pups put on up to 2 kilos a day purely from their mother's milk. By the time they are three weeks old, the mother abandons them. The cow seals will not have eaten in the time they have been

tending to their pups, and are driven by hunger to leave the beach and hunt for food. After a few days, the pups, no longer getting any form of nourishment, are forced to do the same though they are also learning to hunt for the first time. The pups start to turn up all over the reserve and beyond, being washed around by tidal currents.

On more than one occasion the builders found pups in their work area, even under their vehicles and refusing to come out, and



Our beautifully refurbished Lifeboat House, good for another 120 years. © National Trust/Graham Lubbock

would regularly find them in the tracks up the beach. A hungry, slightly disoriented grey seal pup is not as cute as it looks in the pictures! They give a 'don't come near me' snarl and if that does not work will quite happily bear their sharp teeth and are not frightened to use them. All this can be a little off-putting, and often we would see diversions in the tractor tracks around a pup rather than an attempt to move it.

By the end of January the continued bad weather and a decision to re-roof and decorate the public toilet block had pushed

the finishing date back again. Some weekend work was added in to the schedule and we helped out by using our Land Rover to transport some of the workers. By now there were on average 12 people working on site to try to catch up some lost time, with only two four-wheel-drive vehicles and a tractor to get them there. Towards the end of the contract there were plumbers, painters, electricians, carpenters, metal workers, roofers and even carpet layers, all vying to get the best seats in the vehicles.

Through shingle, storms and seals, we made it!

On 4 April the last builders left the site and the tracks on the beach were filled in using a borrowed snowplough. So, despite battling through bad weather and an extra workload, the work was finished just in time for the ranger team to return and hopefully watch over another successful breeding season for the wildlife in the 101st year of the Trust's care of such a very special place.

'Heaven helps those who help themselves': the technical protection of buildings

Paul Holden, House and Collections Manager, Lanhydrock House, Cornwall

In November 2012 four delegates from the National Trust were invited by the Friends of Czech Historical Buildings, Gardens and Parks to speak at a conference organised by the National Heritage Institute of the Czech Republic. Held at the historic and picturesque Sychrov Castle, two hours' drive from Prague, the conference included a wide-ranging mix of papers based around the themes of technical protection of buildings, the philosophy of exhibitions and the economics of opening historical properties to the public. Our collective aim was to discuss the motion, 'Is our approach to heritage responsible enough?' The trip was extremely rewarding and enjoyable thanks entirely to our hosts, whose warm welcome and generosity of spirit well exceeded our expectations.

My particular piece was to talk about fire-prevention measures in historic buildings – and historic fire-prevention measures – using Lanhydrock's experience, past and present, as the example.

Fire!

On 4 April 1881 Lanhydrock House, one of the most impressive mansions in south-west England, caught fire. As a consequence, Lord Robartes commissioned the architect Richard Coad to refurbish the house as an 'unpretentious' family residence which incorporated the latest in Victorian fire-prevention solutions. The most notable were

300mm-thick concrete ceilings supplied by Dennett & Ingle of London to stop the spread of fire between floors, patent fireproof plaster, structural ironwork to hold these great loads in place and an internal fire hydrant system drawing on 200,000 gallons of water stored in a reservoir in the High Gardens. Despite the employment of these High Victorian technologies, Lord Robartes curiously did not consider gas lighting or electrical power safe and so built a lamp room from which paraffin lamps were wicked and primed.

In 2005, 130 years after these measures were installed, the Regulatory Reform (Fire Safety) Order was legislated through Parliament. The Act places emphasis on a risk-based attitude towards fire assessment, most notably in reducing the possibility of fire starting in the first place or, in the worse-case scenario of fire being confirmed, safeguarding life by providing a safe means of escape and then damage limitation in restricting the spread of fire.



Lanhydrock House in April 1881, soon after the fire. Although the roof has been lost, the Jacobean walls remained intact. It took four years and an investment in excess of £100,000 to restore the house to its former glory using the latest in Victorian fire-proofing technologies. © National Trust/Lanhydrock

Fire-risk assessment

In response to the new Act, we initiated a detailed risk assessment. On completion we instigated a phased schedule of works to deal with the issues identified and to explore building solutions to create a sustainable future for Lanhydrock.

Fortunately the construction techniques of the Victorians gave us a head start. The concrete ceilings, for example, still offer good fire resistance between floors, a methodology known as horizontal compartmentation. Furthermore, the iron fabrication uses little or no timber beneath the floors and in the roof. The risk assessment, however, did identify several issues of concern.

The first was the need to repair all pipe-work and cabling breaches between floors and compartments in order to stop any potential fire spreading. These breaches varied from small cable routes to gaps that a whole body could pass through with ease. Once done, we commissioned an independent specialist to certificate all existing vertical and horizontal compartment walls.

Secondly, we needed two new vertical compartments, one to separate the internationally important seventeenth-century Gallery from the rest of the house, the other to create a second protected staircase for means of escape. To do this we had to introduce new bespoke fire doors into the historic interior, and for certification we also had to consider all existing historic doors in these compartments, making sure that they had the correct intumescent and cold smoke seals fitted. Furthermore, to prevent a potential fire spreading through the door frame itself, we had to dismantle the door architraves and seal all gaps with intumescent foams and sealants, treat all combustible linings with reversible intumescent varnishes and paints and seal all voids beneath and above the door.

Thirdly, it was vital to separate the high-risk areas, such as the kitchen and boiler room, from the historic interiors. As both of these areas contain gas-burning equipment, we needed to consider safety shut-off valves, fire shutters activated by the automatic fire alarms, the safety of flues, flue-proving systems and electrical-isolating switches.

A fourth element to the project was replacing old unsupported systems with a new automatic alarm system. To create the earliest warning possible, the fire alarm specification included an intelligent fire panel which feeds addressable information into localised pagers via a radio link and thence direct to the fire service and monitoring station through protected telephone cables. In addition we have installed six air-sampling devices, known as



Mick Stone from the Trust's Direct Labour Team seals all breaches from the tunnels into the mansion itself to create a horizontal fire-resistant compartment. © National Trust/Paul Holden

Vesda units, which analyse air patterns and activate pre- and full-alarms on discovery of smoke particles. These units are interfaced into auxiliary safety components such as mechanical door contacts, gas-leak detection systems, fusible links on boilers and external fire shutter and fire curtain systems.

Statutory protection and curatorship

The real challenge of this project has been effecting statutory changes without any noticeable impact on the historic interior of Lanhydrock, a Grade I listed property. Even in unlisted buildings, all of the activities mentioned have, understandably, raised pertinent questions within the Trust over conservation practice and modern intervention techniques; for example, on the longevity, performance and aesthetic appearance of new materials, natural and artificial ventilation systems to maintain humidity control through newly created compartments and challenging the potential for physical damage to the same historic interior that we are trying to protect.

Placing such an emphasis on good conservation practices and high curatorial standards means lots of dialogue. One of the real benefits of communication was our ability to thin out the fire-risk assessment by looking carefully at the historical layout and operational management of the house. For example, it was initially determined that the six vertical compartment walls running from the roof structure down through the property would, for continuity, have to be terminated in the tunnels beneath the house.

But because they are a highly protected bat roost this was impractical. So, after discussions with our architect and fire specialists, we decided that by fire-stopping all breaches in the tunnel walls and roof, and by separating the adjoining boiler room from the tunnel with the installation of a bespoke automatic fire curtain, we could treat the tunnel as a single horizontal compartment.



Where compartments were newly formed or upgraded, the door architraves had to be removed to install intumescent seals and foams to prevent any potential fire spreading through the door frames. This caused many challenges, not least as shown here on the Livery Room door case which had been packed full of plasterwork fragments by the Victorians, perhaps to achieve the same ends as modern-day interventions. © National Trust/Paul Holden

Another thorny issue was dealing with the directive to upgrade a Victorian Drawing Room door with beautiful etched Aesthetic movement-style glass in order to create a 30-minute fire-rated door. To do this, either with fire-rated secondary glazing or intumescent varnish, would have essentially destroyed the heritage we were trying to protect. After looking at other solutions, such as a fire shutter or curtain, we came to a pragmatic solution which was to consider the volume of the room in terms of its ability to contain smoke in the barrel-vaulted ceiling, thereby facilitating a safe means of escape. Both of these simple solutions saved money, time and, more importantly, unnecessary damage to the historic interiors.

A further challenge, and one I am sure we all share, is how to comply with statutory requirements regarding, for example, emergency lighting, fire signage and self-closing fire doors without compromising the historic integrity of the building. Thankfully, once again, management systems came to our rescue. The historic lights were deployed as emergency lighting using battery packs connected to inverter switches that automatically switched power supplies to battery back-up in the event of mains power failure. This meant that no specific bespoke escape lighting was needed. Excessive signage was avoided as we operate an evacuation procedure led by our volunteer room guides who would chaperone visitors from the building to muster points outside while closing fire doors manually as part of the procedure. Solutions like these have allowed us to retain the authenticity, appearance and value of Lanhydrock.

This level of preventive fire protection is an aspiration for all Trust properties yet one element of the Fire Safety Order that we live with daily is our responsibility for record keeping. Maintaining our duty of care for historic buildings means that we need to

carry out and record fire alarm and emergency lighting testing, evacuation training and certification of fire-fighting water supplies, back-up battery packs, gas boilers, gas supply pipework, extinguishers, chimneys that host open fires and electrical installations. Our policy is to install electrical supplies in mineral-insulated cable which has higher fire integrity than PVC cabling and a much greater life span. As part of the fire-risk assessment, the cabling is certificated every five years while all small electrical appliances are tested and certificated annually.

Emergency response

Emergency planning is a key part of fire strategy. Plans should take a pragmatic approach to salvage operations, not least because we have to be realistic in that we would not be allowed into a potentially burning building without the authority of the fire service. Our role in an emergency is to call staff to the site either from a telephone tree or call-out system. We need to monitor and manage their arrival, establish an effective command and control structure, and establish and equip salvage teams who will stay well out of the way of the fire-fighting operation but be in readiness to spring into action when asked. Our role as curators is to facilitate the progress of the operation by advising on aspects as diverse as room layout, systems infrastructures, priority salvage, storage and care of retrieved items, and afterwards deal with site security and inventory checking.

Having been on several fire exercises I have witnessed first-hand how plans can be compromised. One exercise I attended became completely overwhelmed by too much unnecessary radio communication; another took 20 minutes to locate the front-door key while engaging the fire service in

small talk during the hunt. At another, a salvage operator severed his thumb when cutting bubble wrap in the dark in order to wrap ceramics – a better plan would have been to get the ceramics out first and then protect them.

Working closely with the fire service has allowed us to rehearse our comprehensive emergency procedure plan and look at our infrastructure to support fire and rescue systems, such as the installation of deep hard-standings in our courtyard to accommodate specialist high-level cranes, rehearsing tunnel rescue and rope techniques and drawing back-up water supplies from the river, one mile away.

Curatorial duty

Throughout our fire-risk assessment project we have made well-informed decisions based solidly in good practice and on sound research. It was important for the project team to maintain meticulous records of the works in order to be accountable for the changes we, as custodians, were making to our heritage. Hence, our comprehensive ‘as-built’ documents record, both in text and photographs, the before and after changes and the logic that we have applied in implementing change.

The proverbial title of this paper ‘Heaven helps those who help themselves’ is drawn from an 1879 copy of a journal called *The Fireman*. It implies that those of us with a duty of care for a house and collection must realise that the effectiveness of any solution will rely on the amount of effort that is put into its preparation. It is a perilous journey into the unknown world of endless logistics and permutations, particularly in our hope that such strategies will never be deployed; nevertheless it is an absolutely crucial professional duty.

The power of effluent recirculation: advances in reed-bed sewage treatment

Chris Weedon, Watercourse Systems Ltd

In **Views** 48 (2011) I described the innovative new reed-bed sewage treatment system at Bodiam Castle, East Sussex, which was meeting the needs of a tea-room, a public house, shop, two cottages and public toilets. Back in January 2011, Bodiam Castle had opted against connecting to the mains and had instead built a state-of-the-art sewage system (at a tenth of the price!) comprising a mechanical package plant and compact vertical-flow reed-bed. The system came complete with a simple *effluent recirculation* facility – at almost no extra cost – allowing set proportions of the reed-bed effluent to flow under gravity to the inlet of the mechanical plant. Now into the third growing season, and following monthly sampling and lab analysis, a lot has been learned, much of it unexpected!

Odour control

The original aim of installing a recirculation facility was to allow stabilisation of the overall biological treatment of the sewage, as well as to improve nitrate removal. However, an additional, unexpected and possibly even more important benefit has emerged. A few months after installation, the mechanical plant – a rotating biological contactor (RBC), selected over alternatives for its low power requirements – started to produce a rather unpleasant odour. The odour was caused by the front-end bio-discs becoming depleted of oxygen, owing mainly to the combination of pipe-cleaning chemicals and the high fat levels in the sewage discharged from the pub. Although the odour never reached a level triggering interest from Environmental Health, it was a concern for the property with respect to visitor enjoyment.

The solution turned out to be incredibly simple – recirculation of some of the reed-bed effluent to the inlet of the RBC. This meant that fully aerated water, rich in nitrate (an oxygen-containing form of nitrogen), was supplied to the microorganisms on the bio-discs. And this allowed the bugs to break down the chemicals and fat much more effectively, without producing odorous gases. It was so effective that within a day or so of recirculation, the odour disappeared and has not returned.



Bodiam Castle reed-bed sewage system in its first growing season (September 2011), with Castle Inn public house in background.
© Chris Weedon

Advanced effluent polishing

The final effluent – ie the crucial sample point, at the end of the system, when the effluent has passed through both the RBC and then the reed-bed – invariably contains *undetectable* levels of all three main parameters (biochemical oxygen demand [BOD], suspended solids and ammonia). But, before effluent recirculation was introduced, the RBC performed rather disappointingly, being consistently unable to meet the standard set by the Environment Agency (EA) (20:30:13mg/l, BOD/SS/Ammonia-N). The fact that subsequent passage through the reed-bed yielded such a high-quality effluent demonstrated the value of the reed-bed and the great increase in the robustness of the treatment system of having the two technological approaches used in series.

The unexpectedly poor early treatment performance of the RBC appears to have been due to the high strength of the pub's sewage, essentially overloading the first bio-discs of the RBC. From the onset of effluent recirculation, not only has the odour disappeared but the RBC effluent has been much cleaner, only once not meeting the EA standard.

Less green than expected

No, not in an environmental impact way! One rather unexpected observation has been the rather yellow appearance of the reed leaves in the second and now third growing seasons – ie since effluent recirculation was introduced. This is in contrast to the first year, when the seedlings

were small and supported by nutrients from the nursery plant pots they arrived in, when the reeds grew with rich green leaves, indicative of a full complement of chlorophyll. The (as yet unexplained) reed yellowing has caused no adverse effect on sewage treatment performance and there is dense growth over the entire bed, so concern is not great.

Yellowing is generally associated with a lack of iron. And the observation may be a reflection of the iron-removing facility used at the local water supply company. Alternatively, there may be some other nutrient deficiency or even some toxic effect in the effluent (eg from the pub's cleaning products). Observations and investigations continue.

Reference

Weedon, Chris, 'The new reed-bed system at Bodiam Castle – a milestone in sewage treatment', **Views**, Issue 48 (National Trust, 2011).

About the author

Chris Weedon runs a small sewage consultancy and reed-bed installation company, Watercourse Systems Ltd. Having left the pharmaceutical industry in 1991, he redirected his training in biochemistry to sustainable waste-water treatment, eventually developing the compact vertical-flow reed-bed. He has lectured widely, including to the Environment Agency and Royal Institute of British Architects, and is actively engaged in research with a view to design improvement. Chris can be contacted on weedon@compuserve.com or by phoning 01984 629070.



Entering the world of gardens conservation

Emma McNamara, Freelance Gardens Consultant

Late last year I returned from living in the northern Loire Valley, France, where I saw a great many grand châteaux with large gardens, once beautiful but now largely neglected. My work as a garden designer had drawn me into working on these gardens, and I could see the enormous potential they held to be returned to their glory days. The expertise that restoration requires is not commonly available, and I wanted to learn how they could be brought back to life sympathetically whilst retaining their history for modern visitors to enjoy.

Therefore, on my return to British soil, I started a MSc in Conservation of Historic Gardens and Cultural Landscapes at Bath University. Over the course of my studies, I was beginning to see the vastness of the area that conservation covers, from the trees in the landscape, the hedgerows around our fields to archaeological surveying. I soon realised I would need broader work experience than I had so far gained from my previous life in design and project implementation.

I wanted to work in the area related to my studies to increase my understanding and confidence and first looked for a volunteer opportunity with the National Trust, caretaker and champion of the nation's best and most loved gardens and landscapes, in order to get to know the Trust a little from the inside. The Mottisfont Hub in Hampshire, near where I was based, was advertising an internship post for a Project Knowledge champion, so I duly applied and got the job...or so I thought...

A change of job on my first morning

On my first morning, I was introduced to Mike Buffin, Gardens and Parks Adviser for the South East. It had been decided that with my qualifications in horticulture and MSc studies, I would be better suited to working with Mike and to participate in the projects currently taking place across the region, which would require me to work at some of the most beautiful gardens in the South East. I was to be the first Gardens Adviser intern!

Gardens and Parks Internships by Mike Buffin, Gardens and Parks Adviser

I have always been, and still am, a strong supporter of internships as I was fortunate enough to take part in a one-year internship at the Morris Arboretum of the University of Pennsylvania in Philadelphia, which remains one of the most enjoyable experiences of my working life.

So, having worked with Emma – the first of many Gardens and Parks interns in London & South East Region, I hope – for the last six months under the Trust's internship programme, I am now a wholehearted supporter of the benefits this can offer.

I did have initial concerns about whether I would have the time to manage and mentor an intern and also that I could ensure they would gain actual, practical experience of consultancy work. It would be unfair to play down the management that interns require, but in my experience, a good induction and working in partnership helped me to ensure that Emma was fully involved with a wide variety of garden projects in the region, occasionally being able to deliver projects for the properties herself. But more importantly we have both benefited from the experience.

I have already appointed my next intern, Jan Atkinson, who joined us at the Micheldever Consultancy Hub on 23 June to work on the Sandham Memorial Chapel garden project and the Phoenix Project at Sheffield Park. Emma's skills have been retained as she is working as an external Gardens and Parks Consultant (being mentored by me) on a number of small projects funded by properties, including identifying the potential of the garden offer at Emmetts in Kent and designing the planting for the west bank at Hughenden Manor, Buckinghamshire.



Herbaceous borders like these are an integral part of Polesden Lacey's garden.
© National Trust Images/Nick Meers

I did a six-month internship, visiting several large gardens that had active conservation projects being implemented and some that were in the planning stages. My first project was the research of early twentieth-century rose varieties for the replanting of Morden Hall Park's rose garden in outer London, and I also produced a report into the possible reinstatement of additional herbaceous borders at Polesden Lacey, Surrey, which were an integral part of the garden's design at its height in the 1920s and '30s.

I had the opportunity to visit the Olympic site (on the coldest day of December) with other Trust Gardens Advisers to hear about the plans for its transformation to a public

park and also had a trip to Northern Ireland, where we visited Mount Stewart and Rowallane, looking at conservation ideas for their extensive and rare collections of rhododendrons.

The value of an internship

The intern project enabled me to understand the complexities of managing a historic garden and the research that is necessary to ensure that the best practices are used to conserve the history of the garden at its finest while ensuring that the spirit of the previous owner/creator remains. All this has also to take into account the visitor

experience and the management of the garden as an attraction – a veritable balancing act!

As a supplement to university studies, the work experience the programme has given me is as valuable as any studying I could do, helping to take the learning out of the classroom and applying it to the real world of gardens conservation. I have met many experts working for or with the Trust, building connections that will be valuable in my developing career and creating a superb professional network for the future. With advice, support and professional input provided by all in the London & South East Consultancy team, I can say that being an intern was incredibly rewarding!

Paradise Lost ... found in Zimbabwe

Karen Dickin, People Project Manager

It is 1950. A rich but ageing English gentleman and his glamorous Hungarian/Italian wife are scouting Africa in their private plane in search of paradise in which to build their final home. Why Africa? Because he wants a suitable climate to build a special garden and she loves 'the African sun which burns'. Eventually they find their dream plot in the Eastern Highlands of what was then called Rhodesia and decide they will name it La Rochelle after the home of his Huguenot ancestors. To their surprise, when they receive the deeds, it is already called La Rochelle and they conclude that fate must have led them to this place.

Sir Stephen and Lady Virginia Courtauld spent their last two decades creating their beautiful home and botanical garden, and when they died they bequeathed it to the people of Zimbabwe. The National Trust for Zimbabwe (NTZ) was set up as custodian, and for a while the garden continued to thrive. Then political and economic strife escalated in the country and NTZ began seriously to struggle with the upkeep. The beautiful house and gardens started to slip into decline. From 2003 hyperinflation in Zimbabwe rose to an unimaginable 6.5 sextillion per cent, the currency collapsed and the small reserves of NTZ were vaporised completely. Now, membership of less than 100 provides little support, tourism is impossible, local people are barely subsisting and the world is unwilling to invest whilst the current regime remains in place.

Discovering La Rochelle for myself

Last year I approached the International National Trusts Organisation as a volunteer in search of a worthwhile project. A few months later I found myself on a plane with a mission to help NTZ develop a management plan for La Rochelle. It sounds, and indeed proved to be, a fairly impossible task, but, on the other hand, very little was expected!

What did I find? The NTZ Council consists of a few stalwarts who were feeling very tired and demoralised. They have no support – there is no-one else in the country with an interest in preserving heritage or beauty. Everyone's focus is understandably on simply surviving. I also detected a fear that an NTZ property could be snatched away if it began to look attractive. The few government-owned national parks are also under-resourced with funding channelled towards Victoria Falls only as a national income earner.

At La Rochelle it was sad to see such a magical place in a state of decay. The garden team there have only a few hand tools, an old tractor and one rusty old lawnmower to maintain a garden of 36 hectares. In its heyday there were 23 gardeners but now the team is just seven subsistence workers, untrained and unskilled, led by an elderly farmer who lost his farm some years ago in a land grab.

The house is run as a hotel but for many weeks I was their only (non-paying) guest

although the hotelier, Simon Herring, is desperately trying to promote it as cheap accommodation for American Methodists who come to support local orphanages and schools. The once grand interior is now very shabby and the building needs urgent repairs to the roof and tower. The income formerly received from tourism has completely collapsed and local people have no money, so it is hard to see where resources will come from for much needed restoration.

A great worry is that there is no understanding of what might prove to be of historical, architectural or botanical significance or therefore what the priorities for conservation may be.

Creating a viable management plan

Where to start a management plan in such circumstances? The answer had to be to identify a few small achievable improvements to boost morale, find some viable low-scale income-generating ideas and then outline the bigger priority projects in the hope that, as soon as there is the first wind of change, they can be worked into applications for international funding.

The initial SWOT analysis had some very unusual elements: a strength is the inherent interest and romanticism of the Courtaulds and the lost garden stories; a weakness, the zero tradition of volunteering in Zimbabwe; opportunities include the potential of a



Above: La Rochelle: truly a paradise found in Africa.
© National Trust/Karen Dickin

Above right: Close-up: the crumbling base of La Rochelle's tower. © National Trust/Karen Dickin

Right: A fine pergola that is collapsing, partly held up by the plant it used to support. © National Trust/Karen Dickin

Far right: Affixing one of our donated tree labels to a specimen in the arboretum. © National Trust Zimbabwe/Darrel Plowes



carbon-offset scheme and the chance of alluvial gold deposits in the river valley (both an opportunity and a threat in view of corruption and violence in the gold-mining industry); and, most ominous, the threat of government takeover.

However, even in such widely different circumstances from one's own, it was interesting to reflect that the basic cause of the organisation and the utility of the business model are exactly the same. NTZ found our strategy wheel a useful tool for logically grouping the plan objectives under the headings – conservation, engaging supporters, financing the future and investing in people.

The conservation priorities were easy to see, starting from such a very low base. Start by gaining a better understanding of what they have, put in place a basic maintenance regime which can be achieved with their current resources, then scope out and cost the bigger priority projects ready to pitch to potential donors.

The need for wider engagement though was a harder concept to sell and a much bigger challenge. La Rochelle is perceived locally as white colonial heritage, irrelevant at best and at worst something to be despised. In fact though, it could have much to offer local people, from environmental education for schools, training opportunities in

horticulture and land management, a venue for weddings and cultural events, and as a source of employment when tourism eventually recovers. They could also do much more to develop partnerships with national museums and parks, and Africa University which is located just a few miles away.

Income-generating ideas included developing a business plan for commercial-scale plant propagation and sales, specialising in their higher value plant collections of cycads, aloes and orchids. Another was to revitalise a once-successful campsite in the grounds and market it to the over-landing tourist market. Finally, with no money at present to employ staff, they need to build their volunteer base, not least to spread the load for the overworked small nucleus of council and committee members who are keeping things going. The hardest lesson for me, used to the vast resources we have at our disposal here by comparison, was to keep the ambitions small and simple. The need was to focus on rock-bottom basics.

Hope for the future

Every small improvement helps them believe a future is still possible. I was delighted when, telling the tale to Ian Wright, Gardens Consultant, when I returned, he immediately

volunteered to organise producing a set of botanical labels for the collection of exotic trees and shrubs that Sir Stephen had collected from around the world. Thanks to the generosity of head gardeners David Bouch, Ed Ikin, Phil Griffiths and Alexis Datta, we were able to send out a batch of labels which will help generate interest and reposition the garden as a botanical resource for educational visits.

I am pleased to report that there are prospects of exciting new developments. NTZ has an enthusiastic new chairman who is galvanising the council into strategic planning for the future. There are also plans under discussion to lease the property to QuestAfrica, an educational establishment which will be able to secure funding for further projects.

When that time comes, they will need the kind of professional expertise we take for granted. If anyone is interested in hearing more or would like to become involved, please contact me or Catherine Leonard at INTO (www.internationaltrusts.org).

For more on La Rochelle, read their blog at <http://larochellemutarezimbabwe.blogspot.co.uk/>

The pollards of Borrowdale

Maurice Pankhurst, Woodland Ranger, North Lakes, Cumbria



The Stonethwaite Lime, estimated to be more than 500 years old, and the author. There are very few small-leaved lime pollards in Cumbria and this may be one of the oldest. © National Trust/Maurice Pankhurst



Ash trees newly pollarded in the Watendlath Valley.
© National Trust/Maurice Pankhurst

A tree cut back almost to its trunk' is how the English Oxford Dictionary defines a pollard. It is a simple definition of a remarkable natural resource which is, without doubt, poorly studied and even more poorly recorded, let alone protected.

The preservation of royal hunting forests and numerous stately homes throughout Britain is perhaps one reason why so many remarkable trees exist in the UK today. The National Trust has in its care possibly one of the greatest collections of ancient trees found in Europe, including species such as oak, beech, hornbeam, yew, apple, alder, willow, hawthorn, birch and ash.

This part of our 'collection' is extremely important and, if not actively protected, easily lost. Our large houses are carefully safeguarded from potential threats and their contents cared for throughout the year; humidity and light are controlled to ensure their continued survival. Within the wider countryside, ancient trees, especially ancient pollards, are often overlooked in terms of their management and continued survival.

Management in Borrowdale

The Trust protects some 61,437ha of land within the Lake District National Park; the North Lakes property with 18,358ha is perhaps the largest single countryside unit under one management team. Although dominated by agricultural land, the property

also supports more than 1,000ha of broadleaved woodland, much of it designated a Site of Special Scientific Interest and a Special Area of Conservation.

Many pollards in the North Lakes are found as remnants of ancient wood pasture while others can be seen scattered over the valley-bottom farmlands in hedgerows. Pollarded trees are often used to mark boundaries between farmsteads. The dominant pollarded species is ash, *Fraxinus excelsior*; known as 'cropping ashes', these ancient trees are a major component in the cultural landscape. Ash yields remarkable timber that is versatile, dries quickly, is stress-resistant and burns well even when green; its leaves were an important source for leaf hay. Today these products are no longer harvested so almost all of our working trees are unemployed! The North Lakes pollarded ashes are concentrated in the hamlets of Watendlath, Rosthwaite, Stonethwaite and Seathwaite in Borrowdale, a valley dominated by internationally important Atlantic oak woods. Over 1,000 ash pollards are actively managed in Borrowdale.

A question I am often asked is 'do you need to continue with this ancient practice? It must be a costly exercise' and indeed it is. There are two major reasons to continue with this process of management:

- The cultural footprint left by ash in the Lake District is considerable; very few farmsteads, valleys, even valley headlands, are without their complement of ash trees.

Working trees are reshaped and it is this reshaping that dictates their future. Once established, the tree must be maintained as failure to do so would increase the sail area or canopy to a size that could no longer be sustained by the ancient trunk (bolling), leading to inevitable collapse and perhaps the death of the tree.

- Over many centuries and many pollarding cycles, the ancient pollard is colonised by a large range of biological species including bryophytes, lichens and ferns, and its numerous cavities and rot holes support a range of bird species from flycatchers to tawny owls. The dark humid inner world of the pollard is home to a great diversity of invertebrates, and ash is probably one of the most important British trees for saproxylic species (species dependent on deadwood at some time of their life cycle). It is likely that our ancient ashes support or coexist with an incredible diversity of fungi, both antagonistic and mutualistic. Recent surveys in Borrowdale have found that most ancient ashes have at some time been subjected to long-term coexistence with species such as honey fungus *Armillaria spp*; one recent and still on-going survey examined over 500 ashes, and in cases where hollowing was pronounced there were always indications that *Armillaria* had been present. Further studies into the relationship of the tree and its fungal relations may well yield some interesting results.



Senior foresters Thomas Harrington and Bob Moreland pollarding ashes at Watendlath.
© National Trust/Maurice Pankhurst

Internal responses in the ash pollard

It is no surprise that the pollarded tree is often hollow; periodic removal of the entire canopy opens the door to a host of fungal spores ever present in the atmosphere, yet today even our most ancient ash pollards are able to withstand this treatment and appear to be immortal. Why are they not overcome by the stresses of pollarding and continued occupation by a host of fungal marauders? Many are thought to be over 500 years old. Pollarding is an ancient form of tree management, perhaps the most ancient. Over a thousand years, tree species would be favoured for their many products, and over the centuries those trees that were unable to withstand this process would be lost from the gene pool. Co-evolution of tree and fungi would follow a similar pathway, whereby only those trees that showed resistance would survive. In effect the process is simply a form of natural selection and what remains today is the result of that process.



The Rosthwaite pollard at Yew Tree Farm shows just how hollow these trees may become. The fungi responsible for removal of the heartwood eventually breaks down all available carbon which results in a rapid reduction of moisture content, leading to desiccation in the centre of the tree, conditions that do not favour growth of fungi. The outer living tissues of the tree remain relatively unharmed and respond by a process of 'in-rolling' which gives the tree great strength. This is an extremely common attribute of many pollards in Borrowdale.

The architectural design for the tree is laid down within its DNA, and as with most trees there tends to be a main stem along which are arranged subordinate branches whose growth and form are under hormonal control from the main leading shoot or shoots in the upper canopy. Pollarding alters these chemical controls, leading to hormonal chaos as a multitude of dormant buds burst open in a bid to replace the lost crown.

Changes also occur internally as new stems develop. Connections to the root system require modification, new plumbing is required and, in a hollow tree, internal aerial roots may form. In the two images below you can see the newly coalesced plumbing work almost completed. This young ash had not only overcome rapid hollowing but had also reconstructed its entire vascular system both above and below; collapse was due to extremely high winds while the tree was in leaf.

Future management

Over the past twenty years, most of the ancient pollards in Borrowdale have been returned to periodic repollarding, ring counts from branches removed often exceeding 100 years. Despite these long periods of non-intervention, failures are extremely rare: only four trees have failed to survive repollarding, and many new pollards have been created.



A tree within a tree; an ash pollard at Watendlath.
© National Trust/Maurice Pankhurst

Until 2012 their future appeared to be secure. However, this future is now uncertain due to the arrival of yet another highly antagonistic fungus from continental Europe. *Chalara fraxinea* or ash dieback may well prove to be as devastating as the fungus that decimated Britain's elms. At the time of writing this article, there are no confirmed outbreaks of ash dieback in the wild in Cumbria. An in-depth overview of the possible outcomes of *Chalara* in Britain can be found in the April 2013 issue of *British Wildlife* which includes a number of articles on ash.



Remote, ancient lichen-encrusted ash pollard at the foot of Stake Pass in the Langstrath Valley, before and after pollarding.
© National Trust/Maurice Pankhurst

These remote ancient ashes are perhaps more significant now than ever before; the great diversity of biological species both on and within this tree are isolated with nowhere to go. These trees are our 'mansions' in a wild landscape, and losing them will impoverish that landscape forever.

Reference

Edwards, Bryan, Bosanquet, Sam and Stubbs, Alan, 'Ash and its host species. A look at three groups that may be affected by ash dieback', *British Wildlife*, Vol. 24, No. 4 (British Wildlife Publishing, April 2013), pp.243-53.

Increasing conservation value: the Bay Ness Pond Project

Mark Bradley, Coast and Countryside Manager, North York Moors and Coast and Durham properties

It began with a vision to create six ponds along the wetter reaches of Bay Ness, just north of Robin Hood's Bay, between Whitby and Scarborough. Always keen to fulfil our conservation ambition to improve and extend wildlife habitats, we were presented with the opportunity and funding through the North York Moors National Park Authority's (NYMNP) Connectivity programme, a scheme to promote and carry out conservation improvements on habitats within National Parks.

The project was passionately supported by the Trust's farm tenant, Owen Welford, who had for many years visualised ponds on the site, right back to when his father owned and farmed the land. Working together, we've been able to bring the Bay Ness project to fruition.

Pond design

The ponds were created with varying depths and surface areas, allowing a greater range of wildlife to be attracted to them. This will also assist in providing habitats as climate conditions change.

The ponds have been positioned where there is natural drainage coming off the high ground above Bay Ness from the Cinder Track bridleway and various gullies. These channels have the potential for slowing the flow, creating open water habitat and slack areas. With seasonal variations, other areas will continue to have temporary wet sites. The result will be a mosaic of stable, semi-permanent and seasonal ponds which will, given time, support a richer biodiversity of plants, mammals, amphibians and invertebrates.

Pond species

We should start to see invertebrates populating the pond, such as pond skaters, water boatmen, whirlygig beetles and various nymphs, but our ultimate indicator of success would be to have great crested newts (*Triturus cristatus*) in the ponds but this will take time. Great crested newt and the common toad (*Bufo bufo*) are in the new Biodiversity Framework, which follows on from the UK Biodiversity Action Plan (BAP) and still uses some of its documents.¹

One of the species the ponds will support is the smooth newt (*Lissotriton vulgaris*). They need a pond to breed but can travel up to 500m away so, by creating these ponds, we are establishing a wildlife corridor along which the newts can disperse.

Progress so far

Over seven days at the end of March, a contractor used a digger to excavate the ponds. The planning had stipulated a better record and understanding of the richness of the archaeology along this stretch of coastline, so an archaeologist was also employed to keep a 'watching brief' and inspect the earth the digger turned over. Nothing significant was found, however.

Though early days, the ponds are already starting to establish themselves. We're pleased with the results and we're getting good feedback from others. John Beech, a Coastal Projects Officer with the National Park, has said: 'The new shallow pools at Bay Ness are one of the first steps on the journey to developing and reconnecting habitat links along the Yorkshire coast. The NYMNP is



Smooth newt *Lissotriton vulgaris*
© National Trust Images/Paul Harris.

fully committed to implementing the recommendations of the 2010 Lawton report *Making Space for Nature*² and, as a result, has developed a strategic-connections map which shows direction of travel and focus over the next three years. There is a strong emphasis on linking existing areas of good wildlife habitat along the coastline by creating eco-corridors between sites. Working with our partners at the National Trust at Bay Ness is a prime example of where our organisations continue to enhance the coast and countryside for the benefit of biodiversity and people.'

Reference

1. UK Post-2010 Biodiversity Framework <http://jncc.defra.gov.uk/page-6189>
2. Lawton, Sir John, *Making Space for Nature: A review of England's Wildlife Sites and Ecological Network* (Defra, 2010). Accessible from Defra's archived website; visit <http://archive.defra.gov.uk> and follow links to The Environment > Biodiversity.



Before ... © National Trust/John Beech



... and after © National Trust/Mark Bradley

Scythes as a conservation tool

Andrew Marsh, Ranger, Hardcastle Crag, West Yorkshire

I never really thought about a scythe as a serious conservation tool until I was introduced to it by Pennine Prospects, the South Pennines promotion and development organisation.

As part of its work to help the struggling twite population by replanting hay meadows, Pennine Prospects gave a demonstration of the use of scythes to manage grass in small meadows and orchards.

Before the first strimmers and brush cutters became available, most people used scythes. I remember the local-authority workmen cutting the verges with scythes in the 1960s. For most of us, the brush cutter is an essential piece of equipment and we would not know how to manage without it. It does all those jobs that you can't do with a mower or a flail because of access or slope, is portable and light and doesn't require much skill to be effective.

A scythe might seem to be an out-of-date, pointless bit of kit that you would only bring out for a demonstration at an historical re-enactment. I might have agreed with that at one time, but I am now a convert. So what is so good about a scythe? What can it do that a brush cutter can't? To understand that, you need to know why we use a brush cutter in the first place.

Brush cutters

These were first developed in America in the 1970s to 'whack weeds'. It would seem from the advertising that they are designed to 'save your back and knees' from overwork and that 'no lawn-mowing job is complete until the trimming is done'. One of the reasons for the brush cutter becoming our tool of choice is perhaps the belief that anything mechanical must be better than anything manual.

In the world we live in today we have to adhere to many rules and conventions, and in particular we are required to undertake risk assessments before doing any task. Before using a brush cutter, we must undergo some training which, for organisations like the National Trust, is usually formal training to a recognised standard. This must be redone every few years to maintain our level of competence. The machine must be maintained and a record kept of services and repairs, vibration and noise levels must be measured and recorded, and exposure limits



Volunteer Ian modelling everything one needs to go brush cutting. © National Trust/Andrew Marsh

worked out and adhered to. Fuel for the brush cutter needs to be bought, mixed, stored and carried safely to the work site, where it needs to be safely stored and a spill kit must be on hand should an accident occur. Appropriate personal protective equipment (PPE) must be bought and worn, and all this before you can start using the thing.

Once you actually get on site, there are a number of things to consider: the proximity of the area you are working to the general public, vehicles and historic artefacts, ie anything that might be annoyed, damaged or need cleaning if you cover it in grass (a 15-metre exclusion zone is usually required). Will your work impinge on other people's enjoyment of the place? Or disturb other people working, trying to make phone calls, delivering talks, etc. Once you have completed the task, you will need to clear up, and often the clippings will be spread far and wide and chopped into fine mulch.

I recently ran a poll of Trust rangers to see how many were using scythes and who might want to start. One comment I got was, 'What next – wooden wheelbarrows and horse-drawn mowers? Are we going back to the eighteenth century?'

The modern scythe

None of the above applies to the use of a scythe, although it is a good idea to get some training, and your risk assessment will require it. It is much cheaper to train someone to use a scythe. You won't want to scythe through a group of people but you don't need a 15-metre exclusion zone. You can scythe in shorts and bare feet if that is your choice. There is no vibration or noise other than the satisfying swish of the blade slicing effortlessly through the grass.

There are some things that a scythe does not do as well as a brush cutter: it's not good in confined spaces nor does it deal with thick saplings easily, although up to 1cm is possible with the right blade. Set-up and technique are important as well as an understanding of how to keep the blade sharp. Time of day plays a part because grass wilts as the day warms up and becomes more difficult to scythe. Traditionally scything was done at dawn, not ideal for us if we don't start work until 9am.



Volunteer Chris ready to do some scything. © National Trust/Andrew Marsh

How do they compare?

Finances

Brush cutters cost about £400 and upwards for a good heavy-duty machine, training is about £400 and refresher courses about £150. Add to that PPE, fuel can, fuel, servicing and maintenance and it will cost £900–1000 to get one person set up.

Scythes cost £150–200 and include instructions and everything you need to get started and keep it sharp. Training is about £20 per person if you get a group together, although once you have a trained person it can be done internally. Scythes can be bought online from the Scythe Shop (www.thescytheshop.co.uk). There are several different sizes of snath (which is the handle) and a variety of blades for different uses, but all the information you need to choose your snath size and type of blade can be found on the website.

So on purely financial grounds you can get five people set up and using scythes for the cost of one person with a brush cutter.

Work rate

A fit and well-trained person with either a scythe or a brush cutter would do about the same amount of work in the same amount of time. The scythe will generally do a neater job. Take a look at this video to see how easy it really is:

www.youtube.com/watch?v=0mqFI86BOck

Health

Despite the claims made in the early days of brush cutters, they are heavy, noisy, smelly and hard work. The action needed to use either is much the same so actually you get as good a work-out with either. The advantage of the scythe is the lack of fumes, vibrations, flying debris, noise and all the associated risks of using flammable liquids.

Want to have a go?

The following properties are currently using scythes so get in touch with your nearest place; I'm sure they would welcome the chance to show you how easy and satisfying it is.

Cliveden, Buckinghamshire
Dunwich Heath, Suffolk
Hardcastle Craggs, West Yorkshire
Llanerchaeron, Pembrokeshire
Marsden Moor, West Yorkshire
Mid South East Cornwall
Minnowburn, near Belfast
Mount's Bay, Cornwall
North Cornwall
Snowdonia, north Wales
South and East Cumbria and
Morecambe Bay

Cold comfort

Susannah Mayor, House Steward, Smallhythe Place, Kent

As I sit writing this in a sunny, welcoming room at Smallhythe Place in Kent, once the bedroom of the celebrated Victorian actress Ellen Terry, we are almost at the end of a project which consumed the winter and spring of 2012/13 and has presented us with enormous challenges.

In spring 2012 carpet beetles were found to have infiltrated not only our costume store but also the conservation boxes in which our collection of theatrical costumes are individually stored; the 250 costumes worn by Ellen during her sixty years as England's most famous and respected actress were under serious threat from woolly bears! We couldn't begin to tackle the problem until we closed for the winter in November as this is a small house with no spare spaces.

Theatrical costumes

The size of the collection is extremely rare, for costumes as well as props were the property of the theatre and were usually returned to the wardrobe department to be

reused. It is most unusual for an actor to have kept their costumes, but in doing so Ellen created a unique collection which charts her remarkable career.

Ellen first appeared on stage as Mamillius in *The Winter's Tale* at Drury Lane Theatre in 1856 at the age of nine; she came from a theatrical family and was schooled and trained by her father. She was an instant success and her career blossomed alongside her unconventional and very eventful private life. In 1879 she began a 20-year partnership with Henry Irving at the Lyceum Theatre in the Strand, and it was during these years that she played all the great Shakespearian roles. It is also from this period that most of the costumes originate.

Henry Irving was a successful actor-manager and the first actor to be knighted; his productions were lavish and he insisted on great attention to detail both in props and costumes, sparing no expense. Ellen was very involved in the design and creation of her costumes, working closely with designers and needlewomen. She knew what suited her figure and colouring but, more importantly, she was interested in how costume helped to create a character.

A collection under threat

Faced with the horror of an attack on these most precious items, we consulted our area conservator, Gill Nason, and our textile consultant, Zenzie Tinker, who had been responsible for the conservation in 2011 of the famous beetle-wing dress worn by Ellen as Lady Macbeth in 1888. Our two conservation assistants and I set about formulating a plan.

The solution was obvious – freeze each costume in order to kill the larvae and eggs – but not the method. The cost of hiring a refrigeration unit was prohibitive as was the possibility of sending all the costumes elsewhere to be treated. We decided our only option was to treat the costumes ourselves. We took over the garage of our property operations manager, who lives opposite, where we installed a large domestic chest freezer. We also used the slightly smaller freezer in our café while it was closed for the winter and cleared the Dining Room of Smallhythe Place to use as a work station for packing and cleaning.

After consultation we settled upon a treatment time that would kill the infestation:



The Dining Room became our workshop. © National Trust

72 hours in the larger freezer which runs at -30 degrees and 14 days in the smaller freezer which runs at -24 degrees. Zenzie provided the training we needed to prepare the costumes and gave us the confidence to tackle the project. We removed most of the acid-free tissue which pads out the costumes and carefully wrapped them in tissue paper, paying particular attention to metal and glass attachments, before vacuum-packing them in polythene. The costumes were

documented and placed in the freezers on rigid plastic trays which we had fashioned from corrugated roof plastic; we used polystyrene as spacers and were able to freeze four costumes at a time. On removal the costumes were left to defrost at room temperature for 48 hours before being cleaned.

Cleaning and packing was very time-consuming as every seam and crease had to be carefully cleaned with a museum vacuum.



Placing a costume into the large freezer to kill pests and their eggs. © National Trust

The costumes were then repacked with fresh tissue paper and placed back into their 18in-wide conservation boxes. Many of the costumes have vast amounts of material in the skirt and train, and it was not unusual for two people to take over an hour to pack one costume. Eight of the costumes had had conservation work carried out during the 1980s using adhesive; these we were unable to freeze without compromising the repair so they were treated in a hydrogen chamber for a week at Hampshire Museum Service.



The author with the dress that Ellen Terry wore when she played Beatrice in *Much Ado About Nothing* in 1884. © National Trust

Overcoming the challenges

There were many challenges along the way: preserving the correct relative humidity; avoiding cross contamination; identifying materials that would suffer in the freezing process; and, not least, carrying the boxes down icy steps, through small doorways and over a busy road to the freezer, all in very cold temperatures.

We had help along the way, of course, especially from two volunteers, Sarah Pearce, our Visitor Services Assistant, and Jackie Davies, who worked all winter on the project and whose dedication, encouragement, good humour, care and skill were invaluable.

Now the task is almost over, we can take a little time to reflect. We have learnt huge amounts about the construction and design of the costumes and have seen the hand of different designers and needlewomen. The contrast from simple early pieces, through to the extravagant, beautifully finished costumes of the Lyceum days through to the later artistic, unstructured drapery designed by Ellen's daughter, Edith Craig, has been fascinating. The costumes tell their own

stories through repairs, wear and tear and stains – Edith Craig refused to allow her mother’s costumes to be cleaned because she said it took all the life and character out of them.

We have also had the privilege of seeing the entire collection, which is familiar to us but generally only from old black and white studio photos, and the colours and the quality of the materials have been startling.

We still have a few bits and pieces to finish, mainly shawls and small pieces of costume, but the collection is now back in the store, which we scrubbed clean, stopped

up holes around the windows, treated with insecticide and have subjected to a strict cleaning and inspection routine.

During this project I was constantly asking myself how we could make such a precious but delicate collection more accessible. As we still had quite a lot of the repacking to do once the house reopened, this was a fantastic opportunity for visitors to engage with the collection and it made us realise just what an asset it is.

We will be changing some of the costumes which are on display in the house this winter but it is a very expensive exercise because

each time a costume is displayed, it requires the time of a textile expert and the creation of custom-made support on a mannequin – not something we can do ourselves. In the meantime, we are offering limited tours of the costume room to talk about this project and the history and construction of some of the costumes. There is something which really appeals to people about going into a space which is not usually accessible and being shown conservation boxes which, when opened and the tissue paper pulled back, reveal something truly beautiful and historic, a little like finding treasure.

I want to be an ambidextrous octopus: the complexities of carriage cleaning

Katy Dainton, Carriage Museum Steward, and Paula Martin, House and Collections Manager, Arlington Court, Devon

There are times when my job would be easier if I were an ambidextrous, contortionist octopus, able to concertina.

Let me explain: in early 2012 I arrived in this idyllic north Devon spot to start my job as Carriage Museum Steward; I had some preventive conservation knowledge up my sleeve, but didn’t know the first thing about carriages. I do now.

The joys of carriage construction

Carriages are extraordinarily complex objects, made up of numerous parts and materials with endless nooks and crannies. Consequently they require quite particular preventive conservation care and distinctive cleaning methods.

As the ultimate composite object, a single carriage may encompass nearly every material there is – certainly a variety of wood, different finishes of leather, various metals, textiles, painted and unpainted surfaces, often glass and rubber and sometimes bone or ivory, too. So, minus ceramics, stone or plasterwork, all other materials that might be found in a whole room of a house are intricately assembled to create a single working carriage. And here lies the next complication: carriages were built to be used, designed to move, be maintained and repaired, not to sit stationary and unchanged in a museum.

A carriage is like a scaled-down version of a house on wheels, complete with the superior areas and ‘servants’ quarters’; there is a floor, ceiling and walls, blinds and curtains, tables, carpets, drawers, shelves, cupboards, bells, beds, desks, seats, steps and even the occasional fridge! There are access issues unheard of in houses, however. I’m sure most National Trust staff wouldn’t dream of sitting on a sofa to clean it, or standing on a historic table to clean the wall and ceiling above and behind it, but the equivalent of this is occasionally necessary when cleaning carriages. It is a balancing act, literally and from a conservation point of view, with a constant stream of checks and questions to ensure that we are inspecting, cleaning and accessing the carriages as needed but not unnecessarily, weighing up the risks as we go, and finding new ways to mitigate these.

Getting ready to rock and roll

Before cleaning a carriage, we read through the relevant condition report and plan of care so that we are aware of any fragile areas or recommendations, and also what tools we need.

Most exterior carriage cleaning is very similar to that in a house but with more ladders involved. We use a range of different brushes to suit the materials and collect the dust in a small vacuum cleaner, but rarely

use any form of duster owing to the high occurrence of painted and/or uneven surfaces where these could easily snag and cause damage.

When it comes to the interiors, we have a whole host of additional concerns, which is why we are very particular about inspecting and cleaning only as necessary rather than by rote. To start with, just opening the doors can be a conundrum, with windows having to be lowered, screens folded, glass strings lifted, knee flaps rolled back and steps lowered. Once the doors are open, and with torch in hand, it is usually possible to have a fairly good look around, either from the ground or a ladder, for any obvious problems. For a thorough inspection, we do sometimes climb inside the larger four-wheeled carriages, but this isn’t something we do gratuitously and we only go ahead if the carriage is robust enough. We never climb on the two-wheeled carriages as they are too unstable, the pressure on the shafts would be too great and it is usually possible to access them from the ground or ladders anyway.

Before getting in, anything that is detachable from the carriage interior is removed, such as the seat cushions and carpets, as these can be more carefully examined and cleaned on a table in good light and, if left *in situ*, would hinder movement, increasing the likelihood of damage. We do not use the historic steps when climbing in and out as these are invariably brittle and fragile. Instead we use



Top: A travelling chariot showing folding steps, imperials (suitcases on roof), and a splinter bar at knee-height before the front wheels to which horses' harness would be attached. This carriage was built for Gibbs Crawford Antrobus c.1815 and given to the Trust by a descendant, Colonel Antrobus, in 1974.

© National Trust Images/Mark Bolton

Above: A victoria from c.1900, built for Earl Stanhope and on loan from the Trustees of the Chevening Estate, Kent, since 1982. © National Trust Images/Mark Bolton

ladders, the positioning of which can be difficult when the original steps are already in precisely the best place!

Once inside a carriage we have to think about what pressure we will exert on the floor boards: standing increases pressure on a single point, but space limitations mean sitting is not always possible, especially if there are elaborate trimmings; these can be protected with a covering sheet like Tyvek but we still have to weigh up the choices – pressure on seats/cushions/trimmings versus a foot going through the floor! Plus, it's not

just the floor but what's holding up the floor – metal and leather supports and springs, sometimes rusty and worn, so we will have checked all of these too before climbing in. Depending on the type of springs, it can be quite disconcerting how much a carriage moves around and wobbles. C-springs are particularly bouncy and rock in three directions – side to side, forward and back, up and down. If you watch the Royal Family getting in and out of their carriages, you can see how much they tip and tilt as the weight distribution changes.

It's stressful, and not just for the carriages

I do feel slightly ridiculous when I'm lying across a footwell with my lower legs sticking out of a door, or I'm half kneeling, half standing to keep my balance, painfully aware of the creaks emitted by the suspension with every stroke of the pony-hair brush I'm holding. My beginner's mistake was to stay still for too long – I ended up with dead legs and then had to endure the pain of pins and needles whilst staying still until enough feeling had returned for me to climb out of the carriage safely.

As getting in and out puts stress on the carriage, it is important to have all the tools you'll need with you or to have someone else around to hand up anything forgotten. You'll need a torch, as one of the most important jobs to do is a thorough inspection of the whole interior, including carefully looking in all the crevices and corners to check for pests – it is quite astonishing how many small, dark places there are inside a carriage! Perfect pest-breeding grounds are along any joins in the carriage trimmings, including the edges of the head cloth, the seats and seat cushions, the window surrounds, the door sills, in and under the carpets, the seat corners, inside concealed compartments, down the back of and the underside of seats, behind squabs and more, which is why it is so important to check fastidiously and to keep a set of tweezers handy just in case. In a damp environment, the static microclimate of a carriage interior is also the ideal place for mould growth, which is something else we check for.

How dirty and dusty the interior is obviously depends on the nature of the carriage; chariots, coaches, broughams and landaus have fully enclosed heads, whereas barouches, victorias, gigs, carts, wagonettes, phaetons and cabriolets either have no head at all or one that only half covers the carriage body, leaving the other half open. The interiors of those with enclosed heads are fairly well protected from dust and therefore require less cleaning; those without are subjected to much more dust, dirt and consequent cleaning. Once we know what we're dealing with, we can decide how much or how little we need to clean. Then it is back to a more familiar procedure with various brushes, vacuum cleaner and attachments.

Keeping track

As with all collections, keeping condition reports and other conservation records up to date is vital, but there is the challenge with carriages of learning the correct



Clockwise from top left:
Interior of a travelling chariot c.1815-20, a gift from the Marquis of Bute to the Trust in 1964. © National Trust Images/Mark Bolton

Interior of a britzschka c.1810-40 showing its quarter and corner squabs (cushioning for the head and shoulders) and the fold-up screen; on loan from the Science Museum. © National Trust/Katy Dainton

Close-up of a body loop in the shape of a serpent's head (from the state chariot of the Earl of Craven). © National Trust/Katy Dainton

Beautifully designed: the rear 'C' springs and support shaped around the footman's cushion at the back of the state chariot of the Earl of Craven. © National Trust/Katy Dainton

terminology, which is extraordinarily extensive: 15 months ago I certainly wasn't able to recognise splinter bars, imperials or squabs, or differentiate between C-springs and whip springs!

We look after 50 carriages altogether and have a limited budget which covers conservation work for both the Carriage Museum and Arlington Court house so the team here have to prioritise not just carriage conservation but the usual work associated with an historic house as well. Although we do the conservation cleaning and monitoring ourselves, when problems do occur and we need interventive conservation, where do we turn? There are very few specialist carriage conservators and we tend to need small-scale remedial works rather than full-blown conservation projects. Their sheer size means that carriages cannot easily be moved and, as composite objects, their materials deteriorate at different rates. We therefore use approved conservators, specialising in leather, paint, textiles, wood and metal, to do particular projects *in situ*. We prioritise

and budget for work by material type so that we have one specialist come and do all the leather parts on the various carriages at once, followed by a textile conservator and so on. We use a whole range of 'normal' conservation skills plus traditional craftsmen such as wheelwrights. We employ a wheelwright to check and turn the carriage wheels annually in order to relieve the stress on one point.

A collection that is the sum of many, many parts

Carriages are a completely alien subject for most people, and many of our visitors assume that they are robust because they were once working vehicles. We have to point out that although they were when built, they would have required a lot of maintenance and replacement parts to keep them roadworthy: broken axles were common and wheels were regularly replaced. We often get asked whether we are restoring

our carriages and if they are ever used, to which we explain that they are now museum pieces and to put them into use would mean replacing so many elements that we would lose much of the original carriage and its history. (Visitors are able to see horses and a modern wagonette in use in Arlington's working stables which are adjacent to the Carriage Museum.)

However, for all the added complexity they bring to my job, I cannot deny there is something magical about working with these extraordinary objects; each is a typical example of a type of carriage, but as every carriage was made to an individual specification, each is unique and tells a story about its owner, their circumstances and the journeys they made. And although it is a rare occurrence, it is an amazing privilege to experience sitting in a carriage, to be able to feel the difference between suspension types (albeit when stationary), to study the craftsmanship up close and to view the surroundings from the same perspective as the occupants over 100 years ago.

Inviting involvement



Keeping access ticking over

Jo Burgon, Freelance Outdoors Consultant

The other month, our grandfather clock was repaired. It kept getting stuck at 12. The trouble was caused by a spider which had lodged itself in one of the balances, hindering the clock's progress round the hours. It made me think about balance and having the ability to spot the problem and make things right. Balance is precarious; where and what is the tipping point?

Too often at opposite ends

During my time at the Trust, championing and wrestling with outdoor access matters at a micro and macro scale, there were many debates and discussions on how people were damaging and disturbing nature. 'Nature good – people bad' was a common attitude, and it felt at times that people were welcomed on to Trust land under sufferance, with very little organisational promotion of the Trust's countryside.

Thankfully much has changed, and particularly in the last 15 years, as new access legislation came into being – Countryside and Rights of Way Act 2000 – and the organisation's own efforts to bring its outdoor spaces into greater relief and to improve accessibility for a larger variety of activities. There is now more confidence in local teams being able to find and strike the right balance between the needs of nature

and those of people; new skills have been acquired to ensure that finding the appropriate solutions can be looked at in the round.

That was the situation I felt was emerging on my retirement from the Trust a couple of years ago. But, of course, this is a never-ending journey, with the next generation making new demands on the great outdoors, and new activities wanting to find space. I remember being contacted a few years ago by a Trust coastal warden asking what our policy was for horse surfing! When geocaching first appeared on the scene, we had to determine what our response should be. The arrival of the mountain bike provoked the same reaction.

A visit earlier this year to Divis Mountain by members of the Countryside Recreation Network gave me great heart when hearing Dermot McCann, Divis Warden, describe how the Trust has sought to open up the mountain for a wide range of uses, while still being very mindful of the environmental quality of this upland site on Belfast's doorstep. This takes time, it requires patience and persistence and, increasingly, working in partnership with a growing range of interests. In the case of Divis, the Belfast Hills Partnership provides the wider landscape and strategic backdrop, enabling the Trust to play its part in improving accessibility to the hills as well as achieving new conservation goals. For me this



Confidently going forward on Divis: providing good, safe access to the countryside brings benefits to all involved. © National Trust Images/ Arnhel de Serra

demonstrated the Trust working well and hard with local interests. The place felt safe and well cared for, and all this within sight of the Peace Wall that signifies that there is still so much more travelling to do in this troubled and divided city. In a nice and very human touch, coffee and hot chocolate sales, at £1 a cup from a self-service machine, pay for a seasonal warden.



View of Belfast from Divis. © National Trust Images/Nick Meers

Encouraging movement

Although the story of Divis may be at one extreme end, such stories and responses are not unique to the Trust so I have been pleased to help support a travel bursary for staff to investigate what others are doing in helping people get outdoors and closer to nature. Last year it supported research into how canoe trails worked in Northern Ireland, how natural play spaces were created and managed, and what lessons could be exchanged between the Trust's residential outdoor learning centres; surprisingly they had never talked to each other! Do keep a look out for the experiences of the 2013 bursaries and consider applying for 2014. The scheme is planned to run until 2016.

There does appear to be a new-found organisational confidence in enabling people to experience the outdoors, with imaginations being encouraged to flourish, which will bring surprise and delight to many – staff, Trust supporters and potential new supporters.

The ability to strike a balance, whether in clocks or in life generally, is an art in itself; one must always watch for it being thrown out of kilter, causing discordance and stopping movement. The pendulum of my grandfather clock will ensure it keeps good time if the balance remains true. To keep the balance between nature and people true, requires us all to value and respect nature as well as our need for it as part of our quality of life.

Reference

Find out more about the Outdoors Travel Bursary and read previous winners' reports at http://intranet/intranet/acc-outdoors_travel_bursary.htm

About the author

Jo is the former Head of Access and Recreation for the National Trust and continues to work, largely in a voluntary capacity, on outdoor recreation matters. He is a Secretary of State appointee on the Cotswolds Conservation Board, a member of Defra's Public Engagement in Nature Group and Chairman of the Countryside Recreation Network. He can be contacted via Countryside Recreation Network on jo@countrysiderecreation.org.uk

Rangers at work, otters at rest, people at play

Gwen Potter, Head Ranger, Llanerchaeron, Ceredigion

This is a story about one of our sites in Wales which should have been pleasant and welcoming but wasn't, a place which had a number of common problems and a lot of conservation potential.

Having the capacity for conservation can be difficult for rangers, particularly when one person has several places to look after. When balancing public access, volunteer management and conservation across a range of sites, it would be handy to have some ranger clones or a personal time-travel machine. However, as neither is provided by the Trust yet, certain sites inevitably take priority over others. The irony is that the places which receive the least attention often have the highest conservation potential – one such site for us was at Henllan, on the border with Carmarthenshire.

Problem planting

Henllan is a beautiful wooded valley adjacent to a SSSI river, frequented by dog walkers, otters and not much else. It was a popular place for recreation, and much of the original flora remained intact. It should have been teeming with birds, insects and flowers, but instead was gloomy, dark and silent. The culprit? Cherry laurel planted one hundred years ago, alongside the occasional monkey

puzzle or Douglas fir. One gardening book from the period described laurel as a 'marvellous invasive' plant; more like 'awesomely contumacious' to me.

What was once a joy had become a curse – a dark, twisting, fast-growing poisonous plant which had a stranglehold on almost five hectares of land. Cherry laurel is ingeniously evil – resistant to drought and shade, with cyanide in the leaves to reduce the number of insects able to feed on it. It spreads by suckering underground as well as by seeds spread by bird droppings, although with few insects, there are fewer birds too.

Small patches of bluebells between swathes of laurel attested to the potential of the place. A very rare *Cryphaea* moss, the fantastically named multi-fruited river moss, grows on the banks but was starting to be shaded out in some areas. Our way forward should have been clear, but we had also received a report which said otters loved the site precisely because of the laurel, which was perfect for them to rest in.

Gaining ground

There were, therefore, a lot of potential barriers to doing anything towards improving biodiversity: lack of funding, too few staff, local people who were happy using the place



Volunteer ranger Jacob chats to a tree planter.
© National Trust/Gwen Potter



After cutting the laurel, beautiful trees are revealed. © National Trust/Gwen Potter

as it was, and a European Protected Species which liked to rest in dark, shady places by a river, undisturbed by walkers or bird song.

It was clear there was no purpose to having a piece of land if it was completely neglected to the overall detriment of the wildlife and people using it. Our first job was to talk to the Countryside Council for Wales (CCW) about what conservation improvements and work we would be allowed to do and what funding might be available. We also emailed the otter expert, Geoff Liles, who had written the otter report, to discuss our plans with him. It turned out that it was possible to build mitigation holts with cut laurel. It was also possible to close to the public some parts of the river more popular with otters by using cut laurel.

Cut laurel was proving to be very useful indeed! Geoff was willing to train volunteers in building holts and CCW was willing to allow the work to go ahead.

Securing funding from CCW was now a possibility, but lack of staffing and managing public expectations still had to be overcome. Volunteers were the next step – we needed to get people involved. We had recruited a great group using the local volunteer bureau and environmental volunteering websites in the past so we went to these sources again. Not rangers clones but the rangers and volunteers on the Gower offered to come and help which meant we could organise larger groups of local people if they could be persuaded to help us out.

As this was primarily a place used by local dog walkers, we wanted to engage them in any laurel-removal project. We delivered information leaflets to the two hundred or so homes in the area. Rather than leading to complaints, when the work started we had lots of dog walkers chatting to us about what we were doing and to say how happy they were about the changes that we would be making!

Benefits all round

Ceredigion is one of the least populated counties where the Trust has a presence, but the people still have a huge effect on the management of our sites, whether it be through use, access or planting an invasive species a hundred years ago. As part of the project, we organised three events both to engage and inform the local community: a teddy bears' picnic with a mini-beast foray, a laurel removal day and tree planting (of native, local provenance trees). In total, around 45 people were involved in the events, but no-one showed up on the laurel removal day as the weather was absolutely terrible!

Although there may be some barriers to conservation work, with some effort these 'problems' can be overcome and even bring extra benefits such as closer links with local people. At one point, it seemed like this beautiful site was never going to be improved, just as it seemed like spring was never going to come this year. Going back to Henllan now, while the bluebells are out incredibly late, it's clear that in the end, all that was really required was perseverance and a willingness to try.



The River Teifi which flows through Henllan. © Peter Pimblett

Getting down to doggy business

Sarah Stevens, Ranger, Tintagel to Holywell properties, North Cornwall

How it started

It all started back in 2010 when two local dog owners, Anita and Jenny, were walking their dogs at Holywell and complaining about the amount of dog mess. Rather than leave it to the council dog warden, Anita decided to do something about it herself. She started wearing a high-visibility vest when out walking her dog, chatting to others about the problem and why it was important, and handing out dog poo bags, which were paid for by herself. Jenny, a Trust seasonal car-park attendant, started chatting to people in the car-park about the problem and offering out dog-poo bags, which she paid for. Dog owners and non-dog owners reacted well and their efforts did start to reduce dog mess.

How it evolved

Other dog-owners started asking how they could get involved. These are dog owners who don't want a bad reputation or dog bans, but do want to help clean up places.

Mandy at Duck Soup, a local company that invented Dicky Bags for dog owners, became involved through talking to Jenny; Dicky Bags are discreet bags that hold a supply of clean dog-poo bags and have space

to carry a used one (www.dickybag.com). By May 2011, Duck Soup had agreed to donate some Dicky Bags for dog rangers and a supply of poo bags.

I then became involved as they wanted someone in the North Cornwall National Trust team to help them take the scheme forward and involve others. In July 2011 we ran a recruitment drive and we now have a dozen volunteer dog rangers covering three of our sites.

Education not policing

We have signs asking dog walkers to be responsible and informing them about the dog rangers. On one of our sites we have a couple of signs which say how far to the next dog waste bin to avoid bags being thrown into the undergrowth. But it's our volunteer dog rangers who are doing a great job and making the difference. When they take their dogs for a walk, they wear high-visibility vests with 'National Trust' and 'Dog Ranger' on them and chat to people, both dog owners and non-dog owners. They hand out poo bags (now provided by Duck Soup and Cornwall Council), let people know where dog-poo bins are, what to do where there aren't any, and talk about the area and anything to look out for, such as horse riders



← 60m
250m →

Sign to how far it is to walk to the nearest dog bin.
© National Trust/Sarah Stevens

on the beach, ground-nesting birds, livestock, picnickers who might object to a dog joining them, etc.

Whilst the volunteers may have first become interested in the scheme to tackle the amount of dog mess, they have all come on board as ambassadors of the Trust, engaging with other users about all aspects of being a responsible dog owner. They don't want to confront people, they just want to educate to make the sites enjoyable for all.

Each of our dog rangers is a registered Trust volunteer, with a role description and a code of conduct. They are given a risk assessment, ideas on how to approach and talk to people, maps to show where we own land, a high-vis vest, a Dicky Bag, plenty of poo bags and details of local and emergency vets. On hot days they carry water for dogs, too.

Jenny acts as local co-ordinator of the team, collating the hours from each dog ranger monthly, arranging meetings and storing supplies of poo bags. I manage the team by dealing with the paperwork, recording the hours, attending meetings, replacing signs and dealing with any issues. I'm now trying to take the idea of a national dog-ranger scheme forward.

The dog rangers and I have regular meetings to discuss any problems or ideas. We invite the council's dog warden to our meetings, who is very supportive and has



All the red flags (circled on photo) mark dog mess. © National Trust/Sarah Stevens



Dog Ranger, Debbie Bouckley, handing out a dog poo bag to a dog walker. © National Trust/Terry Murden

helped at one of our 'Red Flag Days'. We've held two of these days when we've put in up to 200 red flags by dog mess and bags of mess to highlight how much there is, as well as being on site to explain what we are doing and why. Both days received positive feedback, as does the scheme generally, so we'll hold more Red Flag Days in the future.

Our volunteer dog-ranger scheme is working: we do have less dog mess and fewer filled bags left lying around. It's hard to measure but there also seems to be generally better behaviour and less disturbance to wildlife and livestock too.

What's next?

It's from our regular team meetings that the idea of a national scheme came about.

We (myself and the dog rangers) want all dog walkers on our land to be responsible by always bagging-and-binning and not allowing dogs to be a nuisance. We think that one way to achieve this would be to have a National Trust Responsible Dog Owners Scheme whereby, in return for signing up to the scheme, they are given a Trust-branded dog collar, which will help spread the word of the scheme as dog

owners often talk to each other. If we could get a majority of responsible dog owners to sign up to a scheme, less responsible dog owners might be influenced to comply too.

Such a scheme could tick many Trust boxes, including Visitor Engagement and Getting Outdoors and Closer to Nature. There are an estimated eight million dogs in the UK, which means there are millions of dog owners with whom we can positively engage, showing we welcome responsible dog owners to our sites. It could really raise the profile of the Trust amongst this audience.

It may not be a financial option to recruit volunteer dog rangers without private/local authority support as there are the equipping costs. It has been suggested that instead of going it alone we could see if an organisation such as the Dogs Trust would be interested in setting up a national scheme with us. They already have a national 'The Big Scoop' week each year, have educational packs, a large membership and a good reputation. The Kennel Club has its Good Citizen Dog Scheme which asks for much more than we need for responsible behaviour on our sites (it requires attending training classes and an assessment).

Contact

If you would like a role profile or any further information about our volunteer dog rangers or you can offer help, advice and support about a possible national scheme, please get in touch with me on 01208 863821 or sarahe.stevens@nationaltrust.org.uk (note that I've an extra 'e' in my first name in the email address!)

Youth volunteering in Purbeck

Phil Stuckey, Area Ranger, West Purbeck, Dorset

At Purbeck we are good at attracting volunteers, for the place sells itself: our landscapes are stunning, the habitats varied and rich in wildlife, we have an iconic castle at Corfe and Studland is the most beautiful beach on the south coast. Who would not want to help us look after it?

Most of those offering help come from the upper end of the age spectrum, which is not surprising as these are people who have the time, skills and experience to give us. At the other end of that spectrum, however, was a group we were not involving in our

work: the young people of Purbeck, growing up, we are told, as a generation disconnected from the countryside and less active than previous generations.

We were already doing education work with young people, but now we wanted to put bow-saws in their hands so they could discover what it really means to work the fields and heaths of Purbeck. Initially we achieved this by establishing a partnership with a local school, which led to two spin-offs in the shape of a Family Day and the Purbeck Youth Team.

Purbeck School Partnership

Our aim is for most of Purbeck's youngsters to spend time on heathland, the major local landscape, learning about how it was formed, why it has declined, the work that we do to conserve it and, most importantly, actively helping us do that work. The logical place to start was Purbeck School, the secondary attended by the majority of local youngsters. Working with Jane Williams from the school, we have arranged that during October, all Year 9 tutor groups visit



Purbeck School students scrub clearing on the heath. © National Trust/Neil Davidson



The Purbeck Youth Team cut the biggest gorse. © National Trust/Phil Stuckey

Hartland Moor, where the Trust's ranger team tell them about the heath and then lead them in a gorse-cutting task for a couple of hours. Most of the students are around 13 years old, meaning they are sensible when using tools and physically capable of carrying out the work.

The partnership is now jointly run by Jane and Trust Ranger Jim Cribb. A few weeks before the visits, Jim attends a school assembly to introduce the scheme to the pupils, and last year he was joined on stage by Ben and Ed, two Year 10 students who are now key members of the Youth Team.

The practicalities of running the school event are straightforward. Hartland Moor is in Higher Level Stewardship and, as this partnership helps us achieve our scrub

clearance targets, we are able to fund the £800 cost of transporting the students to site. We space the visits out over several weeks in October and ensure that at least three members of the ranger team are there to help with each session. The students' behaviour on site remains the responsibility of the school staff, but we deal with site safety.

Jim starts the visit by introducing the youngsters to the heathland environment, how it was formed and how we look after it. He introduces the practical task by explaining what they will be doing, why they are doing it and gives a tool talk. The students are encouraged to work in small groups, with some cutting and others stacking the gorse in large piles; we have found that having a tractor on site to load the bonfire is essential

if we are not to be overwhelmed by the huge amount of gorse each group cuts. We finish off with a quick question-and-answer session to drive home the key points about why they are there. Each day we are able to work with two groups of roughly 30 students.

Jane reports that from the school's perspective the project fits nicely into their delivery of the science curriculum, highlighting the connection between human activity and natural processes, and in addition it acts as a team-building exercise for the new intake of students because it occurs early in the school year and they work in tutor groups with their new tutors. This project has now offered an educational experience outside the classroom to approximately 1,000 students, giving them an experience of volunteering in their local community, and it has been recognised by Ofsted as a very worthwhile project. In Jane's words: 'For some it has encouraged them to join the National Trust Youth Volunteers. Here they have learnt countryside management skills that will enable them to find employment in this area when they leave school.' Purbeck School's headteacher said: 'For many of our students this project sparks a lifelong interest in ecology and wildlife.' In 2013 we are doubling the size of the project by involving Year 8 students, meaning that roughly 600 local youngsters will be visiting Hartland Moor.

Family Day

Realising that the students are likely to talk about their experiences when they get home, we set up a Family Day on the weekend following the last session, when they are encouraged to show their families the work they had achieved. This allows us to talk to local people about our work and the sites we look after. Throughout the day we run Land Rover safaris across the heath, offer baked potatoes from the fire and encourage the whole family to cut down a bit more gorse.

Purbeck Youth Team

Across the estate we run volunteer groups every day of the week, with most members in the older age profile. The idea for setting up a regular group of young conservation volunteers was given to me by a lad from my village who attended the first school visit in 2009. As we worked he said how much he was enjoying the day and how he would love to do it at weekends; this was the seed for an idea that grew into the Purbeck Youth Team which was launched in 2011.

As with the school partnership, the aim is to connect young people with the countryside, but by joining a volunteer group they are able to broaden their skills and learn in greater depth about the areas they are working in. At first we publicised the group through Purbeck School and by contacting the local Duke of Edinburgh scheme organisers, but with 18 members we are now at capacity, the main limiting factor being available transport.

The group meets on the second Saturday of the month, starting at 10.30am, finishing at 2.30pm, and it is open to 13–18 year olds. The main emphasis is on running an enjoyable practical task that teaches new skills or reinforces existing ones – we are definitely not interested in hitting work targets. We have found four hours to be the right amount of time; any longer and there is

serious mission drift. It is not all hard work – each year we programme in activity sessions, including geocaching and a Forest School, and every August, thanks to a local activity centre, the team go coastering on the South Purbeck coast.

The Youth Team works across the whole estate which opens up a wide variety of tasks. The skills they have picked up include scrub clearing (of course), stone walling, coppicing and hurdle making, wire and post-and-rail fencing and building gates. What they really love is pond clearing (warm weather only), cider-making (non-alcoholic, of course) and cutting down trees, the bigger the better. Ben and Ed from the group will happily spend the whole session felling a 40-foot birch using a 21-inch bow-saw; I have now bought them a bigger saw, but I suspect they will just try to fell a bigger tree.

The future

It is said that the rising generations are disconnected from the countryside around them, and tempted to remain indoors by readily available technological and media distractions. I have seen this tendency in my own children and their friends, and realise that possibly I come from a luckier generation that was forced outdoors to seek excitement and adventure and avoid looming boredom. With this in mind, we aim to continue in a partnership with Purbeck School for as long as possible – when two Purbeck students announced at the Dorset Area of Outstanding Natural Beauty Forum that what we were doing was brilliant, we knew we were not wasting our time. Our hope is that the Youth Team will continue to thrive and possibly inspire some to seek a career in conservation.

Me, Myself and Nature

Laurel Chalk, Community Engagement Officer, Erddig, Wrexham

During the creation of any new project, there is a moment, a spark, where a word is spoken or a sentence outlines the entire aims of the project and sets things in motion.

At the start of 2011, Hayley Foster, Environmental Learning Officer, Sue Jones, then Head Warden, and I were having a cup of tea and discussing our work: what we were working on, any problems we were facing and new ideas we had. We talked about some local groups who were intimidated by the idea of conservation work, getting their hands dirty and perhaps not totally understanding it. How could we encourage new groups to get involved with conservation work? We wanted to avoid presentations or talks about our work and wanted people to discover it for themselves first hand.

We have a plan!

Within three minutes flat we had formed the basic idea of a project which was to be called 'Creative Conservation'. The project would allow people to learn about conservation and introduce them to the Erddig estate in a fun and creative way. We would run a number of workshops that encouraged

people to look at the outdoors, breaking down any inhibitions about getting grubby and showing them that the work we do – and that they could do – is vital in order to preserve our precious landscape for others to enjoy in years to come.

As the project developed, our ideas began to slot into place. Before long, the name had changed to 'Me, Myself and Nature', encouraging people to see the benefits that the countryside around them had to offer. We planned to run four workshops in our first year: photography, environmental art, patterns in nature and willow weaving. The Countryside Council for Wales agreed to fund the project, and it was brilliant to see that Helen Buckingham, Wildlife and Countryside Adviser, was as excited about the project as we were.

When it came to the groups that we wanted to involve, we decided to invite those who might not have had the opportunity to participate in conservation work or outdoor projects before. After inviting a few groups along, including a women's refuge, a young persons' hospital project, a mental health support group and an additional learning needs group from a local school, word spread through Wrexham and, in the end, group leaders were contacting us to see how they could get their group involved.

Time to reflect

From the outset we knew that a flexible approach and time for reflection would be incredibly important for this project. As each group was totally unique, we would change the session to meet the group's individual needs. This meant using a variety of delivery techniques and evaluating each session in its own right to see what worked well, which techniques were not effective, and if the aims and objectives for the session had been met. In most cases we were successful, but anything that didn't work we simply learnt from and remembered it for the next group.

The project was overseen by Sue and sessions were run by myself, Sue, Hayley and two local willow weavers, Helen and Kalven Stanley. All the staff involved really enjoyed the project, making for an incredibly positive atmosphere. The groups involved got so much from their time at Erddig, whether it was just peace and quiet, a chance to relax away from the kids, or the chance to see, smell and touch unfamiliar things.

Something that we had to consider from the outset was how we managed the material that was gathered by participants, because we were working with some vulnerable groups. At the start of every session with the women's refuge group, for example, we



The art of nature. © National Trust

made it clear that any photos that the participants took would be put on a CD for them to take away and then deleted from our system so that no-one would be able to trace them or identify where they had been. After stating this in our initial welcome talk, it made many of the participants relax and really enjoy their time away from the hustle and bustle of daily life. The same was said to every group, encouraging them to connect with the activities, the natural environment we were working in and giving them a bit of space to think about their own lives.

Simply outstanding

There are two key moments that stand out in our minds as the highlights of the project in its first year. The first was when one of the ladies from the women's refuge group saw the photographs that she had taken in the gardens at Erddig. She was particularly taken by the lime trees that stand on either side of the canal and had her picture taken alongside them. She wanted this photo as a way of

starting a new life. Having come out of hospital and being on the way to recovery after an abusive relationship, the photo shows a strong woman in a peaceful environment, capturing an image of who she is now.

The other moment was when we ran a session with the additional learning needs group. They were fantastic and took some amazing autumnal photos during their session. Towards the end of the session, two of the young ladies sat on a fallen log amongst a number of glorious beech trees. They put their arms around each other and just looked up and around them at the falling beech leaves. After a session of laughter and excited cries, there was a moment of complete silence where we could simply enjoy the estate and everything it has to offer. Nothing needed to be said, no more instruction was needed. This was the core purpose of the project.



A transient moment captured forever.
© National Trust

From here the project has grown. We were fortunate enough to receive a second year of funding which meant that we could offer other groups the opportunity to get involved at the property. This year, instead of willow weaving, we have been able to offer a 'When You Go Down To The Woods' session, where groups get to know some of our precious woodlands and form a relationship with them.

Space to just 'be'

What has become evident over the last two years is that, given time, people begin to have a greater respect for the natural environment. Simply by giving them the capacity to be creative and express themselves in a stunning setting, we have been able to bring people closer to nature conservation by giving them the space to just 'be' without pushing the work side. No one was there to judge, each person's opinion was valid and valued, and if they simply went away with a fond memory of their time in the countryside then we had done something right.

With the groups that have been able to take part in more than one session, we've been able to see the participants develop; they start by running through the woods and laughing with the excitement of this new experience and grow into young people with an emotional connection with nature. It is this connection that we should strive for, as then people will begin to feel some ownership of our natural environment and protect it for others to enjoy.

Good from woods?

Jade Bartlett, Researcher, Good from Woods project

How do we know if families benefit from the outdoor activities that National Trust staff provide? To find out, I have been conducting research with parents taking part in a woodland adventure scheme with their children. This group activity scheme is run by Trust rangers in partnership with Devon Family Learning and local children's centres in south Devon.

Different groups visited Halwell Woods near South Pool, woodland at Overbeck's near Salcombe and Gallants Bower near Dartmouth, all sites to which the participants could return. Some families involved were from areas of social disadvantage and had been invited because of their particular learning, social or emotional needs. All undertook activities, provided by both Family Learning staff and Trust rangers, such as bug hunting, mirror walking, smelly cocktails game and making stick men. Each session included a woodland walk, a fire and refreshments.

The aim of my research was to explore what types of well-being parents might achieve through visiting woodland sites and engaging in led activities. I conducted five-minute one-to-one interviews, recorded on a Dictaphone, during activities or walking alongside respondents on woodland walks. The interviews were short as parents had to divide their attention between looking after their children and answering questions, but accommodating their needs gave us flexibility and immediacy.

What did I find out?

The results collected showed the different levels at which parents considered their experiences. It became apparent that they had answered the interview questions with their own well-being in mind and with the benefits they perceived or observed for their children. This was taken into account when analysing the data. The main benefits for the parents' well-being could be grouped within the categories: Psychological, Emotional, Physical, Biophilic and Social.

Psychological

Quotes and observations suggested parents achieved positive psychological well-being for themselves by enabling good experiences for their child. As a consequence, they had feelings of being competent, confident and

in control in relation to their child's well-being and development. They experienced this in a number of ways:

- By making a perceived good choice for their child: *'For the exercise, so they can do something tangible... I think a lot of life these days is not something you can touch... so the more they can effect change in their environment then the happier they'll be, I fancy. Good preparation for life really.'*
- Through learning about their children's abilities, learning new activities to do with their children or seeing their children learning in the natural world: *'I mean to be honest with you, I'd have never thought of coming here with a picnic so that's something that's nice, so I'll do it again... and the mud slinging – I'd never do that – too messy! Lazy mummy...'*
- Recalling memories of positive experiences from their childhoods in the outdoors and now being able to offer their children similar experiences: *'When I grew up, in the summer holidays we used to spend all our time outside. Now kids seem to spend all their time indoors playing, playing computers or TVs, so I just want them to spend as much time as they can outdoors, being happy.'*
- Reinforcing existing beliefs and ideas: *'You know, I think they learn different stuff from sitting in front of the TV all day... they are very happy doing their own games, building their own little things, shelters and stuff in the garden which is nice. I just think they'll grow up knowing a bit more about the world.'*

Emotional well-being

Parents seemed to feel good simply by participating and spending time in and around woodland. This indicator of well-being emerged frequently, possibly because it was easy for parents to describe what they had enjoyed and felt happy about. Feeling good was regularly associated with shared parent/child activity. *'It's just the chance to get out, spend some time with [child's name], just the two of us...'*

They became optimistic about the future; this was evident when asked why they had chosen to come on the activity and if they would go to the woods again. Some thought that sessions sounded like a promise of fun. Some had been to sessions before and wanted to have a good experience again.

Most showed optimism by expressing their interest in returning to woodland environments, coming on similar sessions, bringing other members of their family to the same place and trying some newly learnt activities at a later date in the woods. One participant commented that their child had been looking forward to the session and *'thinking about it for days'*. Another participant had hopes that their child's good experience in the woods would grow on them: *'I think it's great for the children, it's wonderful for them to be in nature in the outdoors, I think it feeds their soul, it feeds their imagination. It's great for them to learn about things so they can get an appreciation of it and they will come to love the environment and look after it as they get older.'*

Observations and the data suggested that the majority of parents left the sessions with optimism, looking forward to continuing and growing their own and their children's relationships with woodlands, the Trust and the Family Learning/Children's Centre project.

Biophilic well-being

'Biophilic' comes from the biophilia hypothesis which asserts that humans have a natural empathy with other living systems. A sense of feeling good from being close to nature was commonly expressed by parents who talked often about observing their children being engaged with nature, being able to do activities as a family and their own personal relationship with nature. The majority of parents who expressed this feeling acknowledged it as an opportunity to 'get out', where 'out' was described in multiple ways, including enjoyment of fresh air, beautiful places, non-commercial/free spaces and somewhere that could be returned to.

They described satisfaction in having the opportunity to experience pleasure, aesthetic enjoyment and playful interaction with the outdoors, the fresh air and the woods: *'I love the green and the serenity of being in the woods.'*

A proportion of those experiencing closeness to nature felt this had been specifically achieved through the organised activities in which they had participated.

Social well-being

Parents mainly seemed to achieve feelings of positive social well-being from taking part in the woodland activities with other families



Above: Marc Hoskins, National Trust South Devon Ranger, helps a young participant to make a wooden disc badge. © Devon Family Learning/Jinks Woodfield



Above right: A Family Learning group from Kingsbridge Children's Centre sets off for Halwell Woods. © Devon Family Learning/Jinks Woodfield



Right: Making stick men; a craft activity with Family Learning staff. © Devon Family Learning/Jinks Woodfield

and staff from both organisations. They also perceived benefits for their children interacting with other children and adults. Part of this social benefit seemed to be related to the support parents felt was provided by having 'expert' staff both to help them care appropriately for their children and to share their 'expert' outdoor knowledge: *'When I'm on my own with him...I'm always thinking, right [I've] got to do more things with him all the time, but when you're with a group, it's somehow a bit more relaxing, as long you can just go with the pace and they're telling you where to go next and what to do next, which I think is better.'*

An interesting aspect of the achievement of social well-being by respondents was how a shared experience *between* parent and child was mentioned as a particular source of feeling good. This experience was regularly related to learning about or engaging with the natural world.

Reflections

The study found benefits for families taking part in the Trust-led activities. By choosing activities they felt were significant for their children's well-being and development, the parents benefited from improved psychological well-being as they saw themselves as being 'competent parents': they learnt new activities, new places to go and observed their children learning new things. Family cohesion was developed by learning about each other and each other's abilities. Families achieved physical well-being benefits from being active in the woods and biophilic well-being due to a sense of feeling good by being close to nature.

This research has given the Trust evidence that partnership working with Family Learning and children's centres can lead to positive well-being development for the families involved. I believe that we have

proved that by offering parents and carers opportunities to take their young children out into woodland environments, we can impact positively on all involved.

Acknowledgement

Good from Woods is a lottery-funded research project, led by the Silvanus Trust with Plymouth University, in partnership with the Neroche Scheme, the Woodland Trust and Forest Research.



Lost in the archives?

Sophie Houlton, Archives and Records Adviser

Often, when an important or interesting historic record is found, we talk about it being 'unearthed' or a 'lucky find' or 'rescued' from the 'dusty shelves' of an archive. This gives the impression that it is nothing less than an exciting miracle that we ever find what we need! A new strategy for record management being developed during 2013 aims to make finding and accessing our records and archives in all formats, whether in our offices, in stores or deposited with other organisations, less of a miracle and more of a simple, everyday occurrence.

An essential asset

Like every organisation, our records are vital to meet our obligations and manage our business effectively. For the Trust there are many additional historical and cultural reasons why we should look after them. They are often themselves historic assets which need to be cared for, but they are also

essential to support the conservation and future care of our land, properties and collections. The way we interpret our properties may change in the future, as it has in the past, but the archives will always tell us what existed, the story of our assets and how we managed them, and will be the basis for decision-making both now and in the future.

The records and archives held by the Trust, along with those of other local and national organisations, are also an essential research resource for the management of the historic and natural environment as a whole. Caring for our archives, making them accessible and meeting the needs of users should be one of our essential aims.

An accepted frustration?

No one would disagree about their importance but we have not always regarded our records as assets, with the consequence that we cannot always find the information

we need. Has this become an accepted frustration and just one of those things? There is always something more urgent to do than filing, but if we stop to add up the amount of time and resource we spend searching for information and reorganising it, it could be shocking. An oft-quoted statistic is that the average manager in an organisation can spend up to 15 per cent of their time looking for information.

The strategy – fixing the problems and finding the potential

The new strategy centres on valuing, understanding and managing our records and archives. By improving these aspects, we can unlock the full potential of our assets. We aim to have high-quality, reliable records that support our purposes and to understand and meet user needs.

Valuing

The strategy aims to ensure that the National Trust values its records as assets and affords them the importance and resources they deserve by:

- changing our view of records management as an afterthought or background task to a key component in our processes and a key asset requiring consistent and professional management;
- establishing the top-line messages about our records and archives that will endure, regardless of the systems we may use;
- celebrating and encouraging access to our historic archives and working with others to maximise their potential and use the information they contain.

Understanding

Many of us understand the records we file ourselves and locally or in our teams, but we need an overall picture of our holdings to make records accessible across the Trust and to manage them in the longer term. Signposting our archives, whether held within the organisation or deposited with



A (very) small corner of one of our stores of records. © National Trust

other bodies, will help staff, volunteers and researchers to access more complete and useful records.

To open up our holdings fully, we may need to spend time creating information about our backlog of stored records in order to make them widely accessible. This will help us both to manage them and increase access.

Managing

Managing our records consistently is essential to their long-term care and access. This will involve developing a framework of policies, processes and guidance to help manage records and archives at each stage and to care for them.

Consistent processes

We need consistent processes at a basic level across the Trust so that we all meet the same standards for creating, using and storing our records. A core requirement here is that we make it part of a business process, so that the records do not become a big headache to think about at the end. The work will include:

- a framework for records management that will focus on putting simple and effective processes and guidance in place for managing records at all stages, including creating, filing, accessing and storing them in all formats;

- a framework for the care of our archive collections that will focus on advice and guidance for their care, storage and display and for their long-term care.

Meeting the electronic challenge

Like many organisations, we operate in a hybrid world between electronic and paper records. Sometimes we like to have both since it feels more secure, but is this sustainable? We need to balance the need for flexible, accessible records with our need to be able to preserve them for the future.

There is no doubting that our storage for electronic records is overloaded and full of duplication. This does not help us find things. We need sustainable ways of classifying, filing naming and storing our electronic records collectively so that they can be accessible in years to come, whatever system we may store them in. One version of each record is an ideal to work to! A requirement for the management of electronic records will be produced, with the intention that this feeds into new processes and IT developments.

Our other big challenge is to ensure our electronic records survive and are accessible in years to come. An enormous amount of work is being done by specialist organisations and national institutions to make this a reality. We need to use this work to look at our own digital preservation needs and achieve a sustainable solution for the Trust.

What will we keep?

There is no doubt that we create a lot of records so part of the strategy will be for us to decide what we will keep permanently in our archives. This is a key decision for many organisations. For example, the National Archives aims to select five per cent of government records to be retained permanently.

Our inclination as a heritage organisation is to keep everything, and we will inevitably keep more than five per cent, but unless we make decisions we risk losing important information in the overall 'noise' of records we do not need.

A retention schedule and appraisal scheme will be developed under the strategy to enable us to make these decisions.

In conclusion

Implementing the strategy successfully across the Trust will have benefits for our business and efficiency, meaning that we will be able to find information more quickly, make links and have more confidence in our decision-making. We will also have ensured that the records we create are available and protected for future generations.

The strategy will be developed and approved during 2013-14 and implemented from 2014.

To store or not to store, that is the question

Adrian Woodhall, Ecological and Environmental Consultant

As a conservation organisation, how well should we store and value information? Is it possible to future-proof the information we hold? There are many ways to store information, from the written or printed form to film and to more contemporary methods in digital formats. With the advent of email, websites and electronic transfer, physical methods of storing and sharing information may not be so important.

We all put certain values on this information, according to the content and our use of it, our interest, its history, potential and other factors. This perceived value may change in the future as new information and technology become available. However, there

is a danger that with reorganisation, staff changes, office relocation or lack of available storage space, some of this information may become 'lost' or its significance overlooked.

Happily I have been involved in two projects recently where information has been found again (in one case) and resources given so that it could be shared among staff in different disciplines and regions, and, it is hoped, eventually with the public.

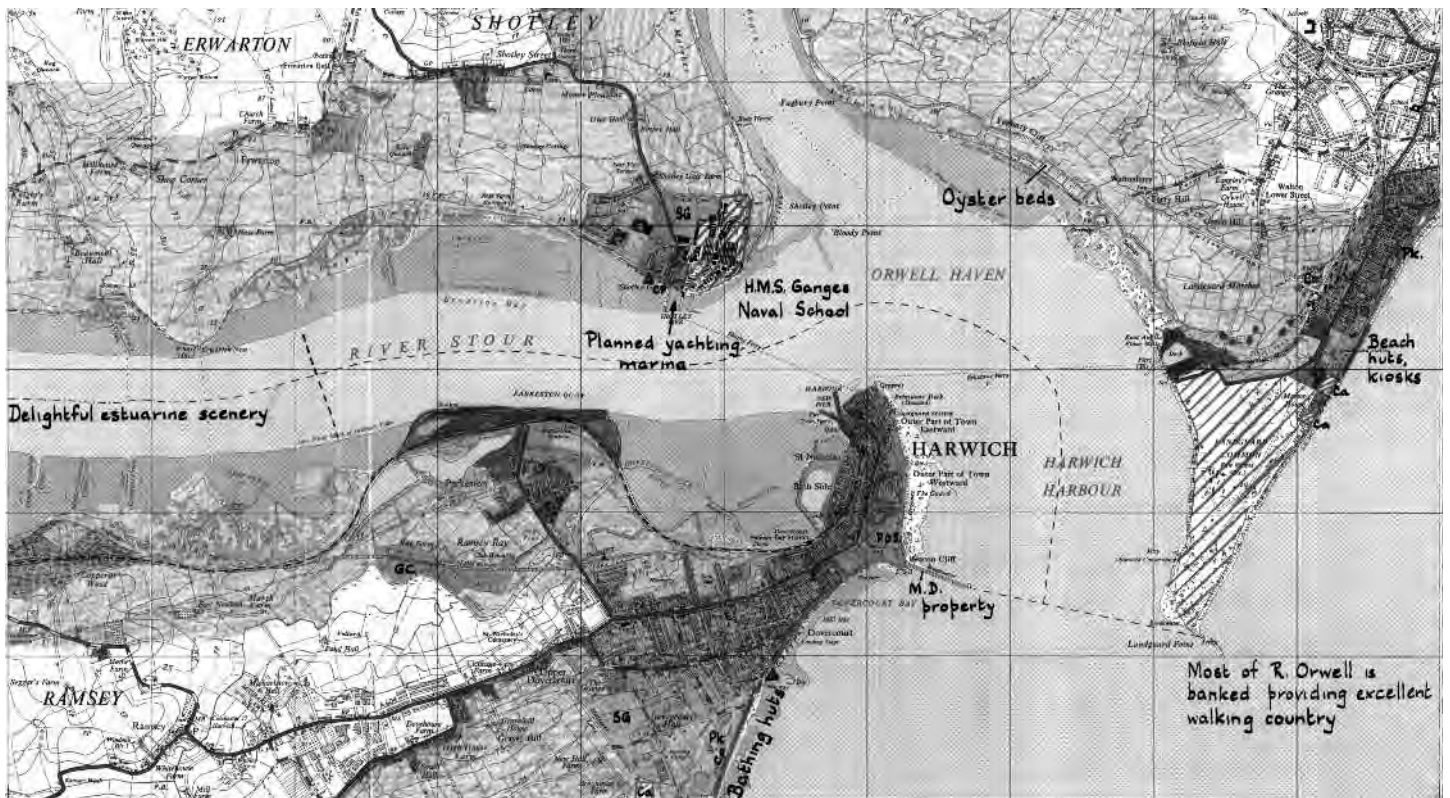
Coastal survey

Enterprise Neptune was originally the name given to the 1965 coastline survey of England, Wales and Northern Ireland. The survey and

its resulting maps were important as they helped the Trust target its coastal acquisitions in a period of great change and development on the coast. Prior to 1965, the Trust owned or managed approximately 190 miles of coast. Now, in 2013, this figure has expanded to 742 miles, nearly 10 per cent of the total in England, Wales and Northern Ireland.

The 1965 survey was a tremendous undertaking by Dr John Whittow of Reading University who organised his PhD students to walk the coastline, recording all the various land uses within their sections. This field data was then transferred to a best copy map and the results compiled.

The original survey maps were first held at Attingham, Shropshire, where the Neptune



Example of a 1965 Enterprise Neptune survey map. © National Trust

Officer, Richard Offen, was based. On a restructuring of the Trust in 2003, Richard's post was made redundant and the maps went to Heywood House, the Trust's office in Wiltshire, to be kept in various cabinets. On the closure of Heywood House in 2005, many of the maps went to the Wansdyke store, again in various cabinets, with no one person knowing or understanding the storage of this information. With no single system for cataloguing the 700 plus maps, either best or a field copy, we did not know what they covered, their condition nor, indeed, if any were missing. Before we could understand the specification and task of scanning, we had to know what we had.

The first task was to catalogue any Neptune maps we found and record their condition. In some cases we found two field copies and one best copy of the same area. The grid reference numbers were then matched to areas of coastline and a complete picture of coverage was obtained. Where the best copy was either not drawn or had been damaged, we scanned the field copy instead. We now know that the 1965 survey results covered 95 per cent of the coast, up to a mile inland, giving the various land uses at the time.

As the 50th anniversary of Neptune approaches in 2015 we want to share this unique information – no other country in the world has got this past land use on the coast so comprehensively catalogued. Working with Mike Renow-Clarke, Senior Conservation

Data Officer, we have set up a specification for the scanning and then digitisation of these maps. The scanning preserves the data on the maps and the digitisation allows the various land-use layers to be converted into a format that can be interrogated.

In the past, it would have been an onerous task to measure all the different areas of land use, eg caravan sites, factories, undeveloped land, etc., but this information is now available. We even have a digital layer of the surveyors' personal comments on the maps – a tangible insight to what the coast looked like and perceptions from that time. It should be possible seamlessly to join maps of contiguous coast, giving us greater knowledge of how large areas of the coast developed post-1945 to the mid-1960s.

Currently the Core Data Team is working on the 'Land Map' project where a lot more information on Trust properties will be available to the public through a website; we hope this Neptune information will be a major part of this.

Vernacular buildings survey

My second project is only slightly more recent. In the late 1980s and early 1990s, the Regional Building Departments were part of a major project to survey the Trust's vernacular buildings, such as cottages, barns and outbuildings. Many thousands of buildings were surveyed and it has been

estimated that to repeat this work now would cost approximately £8.5 million.¹

Technology has moved so fast in just under 30 years that many of these surveys are typed, rather than word-processed, with either black-and-white or colour photos of features. And where they are word-processed, they're often in a format that has now been surpassed and cannot be read by current software – so the only available copy is the paper one in the filing cabinet!

With some consultancy offices in regions moving to new locations with hot desks and less storage, there is not going to be space for 4–5 large filing cabinets to store the vernacular building surveys. Before Christmas 2012 I was asked to work up a project to scan some of these surveys where it was known storage would be an issue. I visited four regions to check the surveys and, I hoped, to identify a typical document by sampling and detailing the number of A4 pages, single- or double-sided, black-and-white photos or colour photos or both, architect drawing plans present, etc. I found that survey formats varied from region to region: some had diagrams and more photos, others include extra information that is not strictly to do with the building but valuable, nevertheless. It was difficult to set up a specification for all surveys that would cover all regions.

Eventually a specification was agreed and a company in the north of England won the contract to scan the documents from one

region. Despite all the time and care taken, when the first survey arrived for scanning, however, it was found to vary substantially from the samples that were logged with the company to price the work. As the total price agreed cannot be changed, we shall have to prioritise those surveys where storage will be an issue.

A few lessons learned

- Know what you have and keep it up to date; do not assume somebody else is doing this unless you have checked.
- Technology moves fast and information stored on paper is not easily shared with many people in an organisation (or with supporters, academics, planners, etc., who may also be interested).
- Software programmes are not forever (anyone still using the once ubiquitous WordPerfect or Lotus?), nor are the machines that read them. Resources are needed to update those records so they can still be used. If records are not updated, another generation may lose them, either inadvertently through not knowing what they are or being unable to access them, or deliberately, because they don't realise their importance.
- Operational staff tend to want only the sections that they use all the time scanned, putting information not currently needed at risk. Conservation and curatorial staff tend to believe the whole report is a snapshot of the property in time – *all* the information is important and should be kept – but how can anything then be prioritised?

This latter point has massive implications for the cost of scanning documents. It should be a major part of the scoping of a project before other details are drawn up, otherwise there will have to be changes to the brief and new costings, again. Discuss.

Reference

1. Mark Newman, *An Audit of the National Trust's Vernacular Buildings Surveys*, internal report (National Trust, 2008).

About the author

Adrian Woodhall is a freelance project manager/ecological consultant, working on ecological/environmental issues, communications and project work for the Trust and others. Adrian can be contacted on 07917 010357 or adrianwoodhall@btinternet.com

Virtual attractions

Rowann Goldsmith, Collections Engagement Officer, South West

Historic houses rarely have exhibition spaces for objects from their collections to be brought together for visitors to see. The South West Region has over 240,265 objects, the largest proportion of the Trust's collection (29 per cent), spread over six counties. Staging regular exhibitions of joint collections would be a huge logistical and organisational feat – finding a location, choosing objects, arranging loans, transport and display. Thankfully, the world wide web provides a solution. For the last year, the South West's local 'Things to see & do > Collections' section of the website has hosted a page showcasing objects from the regional collection through online exhibitions and links, see <http://bit.ly/NcYiUH>

The page is broken into two main elements: an exhibition – a series of rotating images and captions with hyperlinks – and the relevant pages of the items shown, which will either be in the National Trust Collections (NTC) website or collections-based content from property web pages. Its content is managed by the regional Collections Engagement Officers who use the Collections Management System (CMS) to find the items and Nurture2, the program used to create the Trust's website, to create the visible page.

Content

The website feature used to create the exhibition allows the use of up to 12 images. The first image is used as an introduction, setting the theme of the exhibition; subjects have covered Christmas, bugs, back to school, fairs and coronations.

Even though these exhibitions are virtual, there are practical issues that affect an object's suitability for inclusion. For instance, the Trust doesn't own every item in its collection: some have been lent by external museums or families or private individuals. Unless they have given us their permission, we cannot use them on the website.

And without images, the web page wouldn't work. Most of the collection has been photographed but there are some 59,000 objects that haven't. Even for those that do have images, often the quality varies or doesn't show the aspect of the object needed for the theme. Nurture2 requires all images to be landscape format and to set dimensions, but collections photographs are available in three different sizes, none of which match the specifications for Nurture2. National Trust Images (NTI) holds the highest resolution version of any collection photograph as well as many professionally



This painting of Guy Fawkes is normally in store at Snowhill but was used in an online exhibition to celebrate traditional fairs and festivals. Tempera painting by Charles Paget Wade, 1901. © National Trust



Paintings are available to study at one location, often from a distance and during opening hours only, but there are no such restrictions on the internet. (*The Nativity*, workshop of Lucas Cranach the elder, also on view at Knightshayes Court.) © National Trust

taken images and is a valuable resource. If an image can be found that can be cropped and resized, then the object has a better chance of appearing online.

Thanks to CMS, it is no longer necessary to spend time contacting properties to source objects. Instead all that is needed are search terms that limit the results to objects in the South West which we own and that have images. From that base line it is then a case of searching for objects that fit the theme, but this can raise difficulties. Most object records concentrate on physical properties, such as object type, dimensions and material. For engagement purposes, creation dates, descriptions and historical information are more useful, but these are harder to find although work is underway to improve these areas in the records.

Online

The online exhibition consists of object images, text and web links. CMS and NTI are used to identify the objects and their images but the text and web links still need to be written and created. The text is treated no differently from any other exhibition, ensuring quality and tone of voice are suitable to the medium. The web links route through to either the page of the property where the object is

held or www.nationaltrustcollections.org.uk, the NTC website. Information on all Trust collections is available via this website and most object records can be viewed, providing further information. Linking through to

property and object pages allows users either to plan a visit or research an object.

To maintain the webpage and keep it fresh, only the exhibition is changed on a regular basis; the introduction to the NTC



Displaying costumes online and close-up won't create any risks of light or handling damage. Detail of a c.1905-8 wedding dress from the costume collection at Killerton, part of a 'love and marriage' exhibition. © National Trust



Cabinet doors are often kept shut at properties but can be left wide open on the internet. The interior of this travelling medicine chest from Saltram is not usually on view to property visitors; each individual bottle could also be studied via a link to National Trust Collections.
© National Trust

website uses text from the press release and is kept static. Information and links to collection-based content from across the South West are found by searching the main website and copying the content. This requires only minimal editing and helps keep the page fresh.

NTC provides an additional layer of engagement. Each object page has the capacity to contain a web label, created through a field in CMS. These can be written to match the theme of the exhibition, but it is important to remember that users of NTC can come across the objects without being aware of the website exhibition. If the label is too specific to the theme, it can seem out of place on NTC.

Recording the exhibition

When any object is used for an exhibition, it needs to be recorded using the CMS exhibition procedure. Each Exhibition Record details an exhibition's duration, location and budget (which for online exhibitions is staff time only) and all the objects involved. Once created, a link is generated on each object record back to

the Exhibition Record, creating a list of exhibitions in which it has been used. The correct use of Exhibition Records improves the management of exhibitions as all details are in one place. Although not an issue for online exhibitions, the list of physical exhibitions on each object record is important for the object's care: the conservation implications of moving and displaying objects increase with every use. It's useful to know about both forms of exhibition as never or seldom exhibited objects may be the preferred choice.

Promotion and visitor numbers

Just like a physical exhibition, online resources need marketing and promotion to bring them to people's attention. When the page has been refreshed, we use digital means to inform interested groups: there is a link on the main South West web page and we post updates on various forums, such as LinkedIn and Museum Computer Group. For the first few exhibitions, the web page was in the top ten visited pages in the South West and attracted around 500 visits in one month.

Online and digital interpretation is a useful way to provide low-cost access to our collections. Whether it is because of conservation or physical issues, we cannot provide access to all our objects or bring together different objects in the same way that a virtual exhibition can.

Ten steps to an online exhibition

1. Find a location in your web pages for a collections page.

- You may need to contact the regional team to set up.
- Think about layout and possible content.
- Agree who is going to maintain the page – house staff, property web editor, regional staff?

2. Identify some themes.

- Are there any national, local or property-based anniversaries or events to tie into?
- Talk to colleagues to identify themes and possible objects.
- Agree a timetable of work – how often it will be refreshed, who will be responsible, etc.

3. Search CMS.

- Create a search
 - Location= [property or region]
 - Has Media = true
 - Owner Status = National Trust Owned
- Save the search as 'Website' or similar so that you don't have to keep recreating it.
- Use Summary Description – 'contains' – as a keyword-type search to find objects.
- Use staff knowledge of the collection to identify appropriate objects.
- Search for more objects than you need in case any turn out to be unsuitable due to images or information.
- You can use the CMS Object Group function to keep a record of your selections. You can keep this private or public so that other CMS users can see it and add suggestions.

4. Check for images.

- Do the CMS images show the aspect of the objects you want?
 - Yes – click on the image to open the larger thumbnail, right click and save.
 - No – go to the Media Tab of the record and see if there are any more images. If there aren't, then you will either need to take a new image or discount the object.
- Is the larger thumbnail version high enough quality for Nurture2? Follow the guidelines created for Web Editors.
 - Yes – edit the image and save.
 - No – see if the NTI image is higher. Type either the inventory number or the image reference found on the Media Tab, into the search box. The low res version may be enough but you may have to order high res versions.
 - CMS images for Trust use are free, despite the costs that accumulate on the website.
- Is the NTI version high enough quality for Nurture2? Follow the guidelines created for Web Editors.
 - Yes – edit the image and save.
 - No – either take a new image or discount the object.

5. Upload images into Nurture2 and create page.

- Follow the guidelines created for Web Editors.
- Create a tile/link to NTC web page (and you can reuse text from an existing link rather than write your own).
- Look for existing collections content to add to your page, at your property, other properties, regionally or nationally.

- Set the links to go to the NTC object pages. Type inventory numbers into NTC to find the web pages of individual objects.
- Try incorporating the name of the property where the object is located into the text and then creating a link to the property page.

6. Write NTC web captions.

- See page 134 of CMS Level 3 Manual.

7. Create a CMS Exhibition record.

- See page 58 of CMS level 3 Manual.
- If you have used an object group to refine your exhibition, you can use it to add objects to the Exhibition Record.
- If your page is a regional page and you have a regional office or store as a CMS location, use that as the location for the exhibition.
- Use the phrase 'Website' or 'Web page' in the name so that you can easily find all web-based exhibitions.

8. Promote the web page.

- Get a link on the property/regional home page created.
- Share on social media.
- Promote on site.

9. Changing the exhibition/page.

- Close the Exhibition Record when you have published a new page.
- Screen grab/print screen the web page to keep a copy of past exhibitions.

10. Enjoy the warm glow of satisfaction of seeing your creation online and then start looking for the next opportunity!

A multi-channel approach to Chinese wallpaper

Emile de Bruijn, Registrar (Collections and Grants)

The idea to produce a catalogue of the Chinese wallpapers in the historic houses of the National Trust arose quite recently, but it has already developed so quickly and in so many different directions that it is quite difficult to reconstruct its origins. I think I must have mentioned to Andrew Bush, our paper conservation adviser, that I was doing research into 'orientalism', or the influence of Asia on western decorative arts and interiors, and he probably responded by saying that he had quite a lot of records on the physical condition of the Chinese wallpapers in our care and the work done at various times to conserve them. Whatever the exact beginnings, we soon decided to work together to produce some kind of catalogue, in order to celebrate these beautiful objects and to bring together the information about them in an accessible format.

The production, use and significance of Chinese wallpapers has, as yet, been relatively

little researched, and there are still many gaps in our understanding of them. One of the reasons for this is that they cross the boundaries between fine and decorative art and Asian and European style. They are exquisitely detailed paintings which were used as 'mere' wall decoration; a symbol of wealth and taste but secondary to the furniture and paintings placed over them. They were made using Chinese materials, techniques and motifs, but were intended specifically for use in western interiors. Their imagery was largely incomprehensible to the western audience, and yet they were highly coveted and very expensive. The confusing and yet rich hybridity of Chinese wallpapers exposes the limits of traditional art-historical interpretations, and suggests the need for a more flexible approach that includes art history, conservation, social history and economic history, and one that is aware of both the western and the east-Asian artistic traditions.

Early-modern globalisation

Claire Forbes in the publishing department at Heelis immediately saw the point of a catalogue of Chinese wallpapers in Trust houses, and she found some funds to produce a small catalogue in a joint online and printed format, as part of the well-established series of guides to specific Trust collections (www.nationaltrust.org.uk/article-1356394365384/). The aims of the catalogue are to describe what we have in the way of Chinese wallpapers, to put these wallpapers in the historical context of the particular country houses they find themselves in, to compare them to examples elsewhere, and to make them better known and thereby to stimulate research into Chinese wallpaper generally.

Another stimulating paradox of Chinese wallpapers is that these 'frivolous' decorative objects are the physical expression of the trade and cultural exchange between Britain



Detail of the wallpaper in the State Bedroom at Erddig. The original Chinese symbolic meaning of an egret with hibiscus flowers, 'may you enjoy wealth and glory all your life', would not have been recognised when the wallpaper was hung at Erddig in the 1770s. © National Trust Images/John Hammond



Detail of wallpaper in the Chinese Bedroom at Blickling Hall. Conservation work revealed that the sky is European and was probably added when the wallpaper was hung in the early 1760s, presumably to add to its height. © National Trust

and China, which, by then, were part of a growing global network of trading channels. Indeed, one of the audiences we want to reach is the Chinese one, and to that effect we are planning to commission a Mandarin translation of our catalogue. We hope that this will be a two-way exchange: that we can show the Chinese how their heritage was admired and used in a western context, and that we can benefit from hitherto untapped Chinese expertise, knowledge and source material.

Internal and external expertise

The Trust holds important information about the Chinese wallpapers in its care. Andrew came up with a number of condition and conservation reports in his files which describe what the wallpapers were made of, how they were hung, what treatment they were given and what additions or inscriptions they were found to have. These reports were compiled by the freelance conservators who have been commissioned at various times and are testament to the expertise that has been building up in this area over the last few decades, but it has not been widely disseminated.

I had previously been in contact with the members of the East India Company at Home (EICAH) project, whose blog is at <http://blogs.ucl.ac.uk/eicah/home/>, an academic research project mapping the effect of the East India Company on British material culture. Dr Kate Smith of the EICAH spotted my National Trust collections blog (<http://nttreasurehunt.wordpress.com/>) and we had an interesting discussion about the pros and cons of social media. When it became apparent that another member of the EICAH team, Dr Helen Clifford, was researching the role of the East India Company in the importation of Chinese wallpaper, it seemed to make sense to invite her to be a co-author of our catalogue. Apart from supplying useful details from her

research, Helen also kept us on our toes academically and strengthened the rigour of our analysis.

In-crowd sourcing

Around this core team, a wider advisory group now began to accumulate, partly through personal and professional contacts, partly through networking at conferences and other events, and also through online social media. This larger constellation included academics (such as PhD candidate Anna Wu and Open University lecturer Dr Clare Taylor), curators and historic interiors consultants (such as Melissa Gallimore and Allyson McDermott), conservators (such as Mark Sandiford) and present-day Chinese wallpaper producers (Tim Butcher and Lizzie Deshayes of Fromental). Sarah Staniforth, the Trust's Museums and Collections Director, introduced us to a group of Dutch conservators and historic interiors consultants who are currently working on the Chinese wallpapers at Oud Amelisweerd, a historic country house near Utrecht which was built in 1770.

Initially we simply communicated via email, but one member of the group, historic interiors consultant Jonathan Gration, suggested using a private LinkedIn, which we are now experimenting with. In effect we have created a virtual equivalent of the late seventeenth-century coffee house, where like-minded people could get together and exchange news and ideas (see my article about this phenomenon in **Views** 48). In a way what we are doing is similar to the social media phenomenon of 'crowd sourcing', where a large group of people contribute data, ideas or money to a particular project. The difference is that in our case the group is fairly small and limited to people with an interest in and knowledge of Chinese wallpaper, so perhaps this should be dubbed 'in-crowd sourcing'.

International collaboration

At the same time we have not forgotten more traditional channels of knowledge and expertise. We asked the Trust's curators if they had any knowledge of Chinese wallpapers in the places they advise on, and we have incorporated their feedback into the catalogue. Through the curators we also received some invaluable information from several volunteer archivists who have been transcribing and cataloguing donor family archives. Mike Renow-Clarke, Conservation Information Manager, is creating a map of the British Isles to show the geographical spread of Chinese wallpapers (in both Trust and non-Trust houses). The map shows a pattern that mirrors the distribution of country houses generally, and proves that these fragile exotic imports reached almost all the corners of Britain and Ireland, from Norfolk to western Ireland and from Cornwall to the Scottish Highlands. In addition, David Bullock, Head of Nature Conservation, is advising us on the identification of the flora and fauna depicted. Traditionally Chinese wallpapers were thought to be very realistic, but David's input is making clear that there was a considerable degree of stylisation and 'artistic licence'.

The catalogue which will be the result of all this activity will, in turn, feed back into our online collections database, our guidebooks and the documentation used by our room guides. To build on the momentum this has generated, we hope to organise a conference about Chinese wallpapers to discuss our research and to learn more from an international expert audience. It is a wonderful paradox that something so physically and metaphorically 'marginal' as Chinese wallpaper can act as the catalyst for international collaboration and outreach.

Reference

de Bruijn, Emile 'From coffee house to blog', **Views**, Issue 48 (National Trust, Autumn 2011), pp.74–6.

Give us your views!

Please take a few moments to give us your opinion of **Views** – these feedback forms are all read and, as necessary, acted upon. Please detach this page and send it to Views, Conservation, National Trust, Heelis, Kemble Drive, Swindon SN2 2NA, or email your comments to: views@nationaltrust.org.uk

How did you like this issue of Views?

Dull Brilliant!
1 2 3 4 5

Would you contribute to a future edition? If yes, what would you write about?

.....
.....

Do you keep Views for reference?

.....

Are there any other comments you would like to make?

Have you any comments on a specific article?

.....
.....
.....
.....

If you read other conservation/heritage/ countryside/environmental magazines, how does Views compare?

Have you any suggestions for articles or a theme for a future issue?

.....
.....
.....
.....

.....
.....
.....

Your details

Your details are useful if we need to follow up feedback but not obligatory. We would appreciate a note of your job title in order to see who in the Trust takes the most interest in **Views**.

Whom would you suggest that we approach for an article?

.....
.....

Job title

Name(Optional)

Property/office(Optional)

Thank you!





Views is also available as a pdf on the intranet
at <http://intranet/views> or website at
www.nationaltrust.org.uk/views
or by emailing views@nationaltrust.org.uk
or by telephoning 01793 817791