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3

# interpretation

## journal

of the Association for Heritage Interpretation

A H I



Preserving the planet

*Interpretation and sustainability*

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the AHI awards 2006:  
**Priority audiences**

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# In an age of global warming

David Masters

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The latest research suggests that global warming is happening faster and with more severe consequences than had been thought until even recently. We know that, to prevent catastrophe, radical action is needed in all areas of our life. In this edition of the journal we explore some of the critical issues connecting our work as interpreters with the needs of sustainable development.

We start with a thought-provoking article by renowned American interpreter Carl Strang, who presents a personal approach to interpretation rooted in ideas of 'community' and aptly summarised by his definition that "interpretation is the art of opening peoples' hearts to the voices of the Earth".

On page 7 Simeon Day suggests a series of practical sustainability design principles for anyone creating or commissioning interpretation. Arthur Girling from The Centre for Alternative Technology at Machynlleth then describes a major interpretive programme that is engaging visitors with practical and fun ideas about sustainability.

Communicating messages about the perils of global warming is happening across a broad range of media. On page 12 Bergit Arends from the Natural History Museum describes *The Ship*, a major art exhibition about the impacts of global warming. For this project the Museum worked with many of Britain's best contemporary artists, taking them on a voyage to the Arctic and displaying their responses to the impact and reality of global warming. The resulting works

have been interpreted within the scientific museum context to promote an 'emotive personal engagement' amongst visitors and encourage them to act on climate change.

In another thought-provoking article, Michael K. Stone describes the concept of 'ecoliteracy' and the urgent need to reconnect people with the natural ecology of the Earth. Michael is based at the Centre for Ecoliteracy in California which, drawing on the thinking of physicist Fritjof Capra, works with educators and interpreters to counter the growing disconnection that many people have with the natural world.

Of course, sustainability is about more than the natural world, and on page 15 Nicola Holland and Bob Tevendale explore how Historic Scotland is promoting sustainability within the historic environment. Finally, we review a case study of environmental education from Vietnam that illustrates how, the world over, our colleagues are working to communicate sustainability messages to their audiences.

We hope this edition will stimulate and enthuse you in your work, and that you can take some inspiration from it. Your thoughts and letters are, as ever, warmly welcome.

## References

<sup>1</sup> Carl's book *Interpretive Undercurrents* is highly recommended. Details on page 6.

*David Masters is Commissioning Editor*

# Moving beyond method

**Carl Strang** encourages interpreters to explore the depths of personal meaning and motivation, to consider the community context for interpretation, and to pay attention to the diverse individuals for whom they are interpreting

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Much of the early history of interpretation in the United States was driven by our National Park Service (NPS) and its underlying purpose, which was to support the natural resources conservation movement both within those parks and beyond. Author Freeman Tilden reviewed NPS interpretation and formulated a philosophy that guided interpreters as the art spread into other organisations with interests in conservation. The interpretation of cultural history has become increasingly important in the following decades. And in recent years, leaders in both the NPS and the other primary interpretive organisation in the States, the National Association for Interpretation (NAI), have been refining Tilden's principles, focusing on the interpretation of the many meanings that natural and cultural history have for people. Both organisations have developed new training programmes that are intended to lift the general quality of interpretation nationwide, and there can be no question that this is happening.

## New recruits

These training programmes get new interpreters off to a good start. There appears to be an emphasis on method, in part because that is where interpreters begin, and in part because the content of natural history interpretation is so different from that of cultural history interpretation (though there are

## The context of community

Standardising interpretation has its good points, but I also remember Tilden's admonition that each interpreter needs to come up with a personal definition of the art. I believe that exploring one's own deeply felt meanings, and a focus on the human qualities of interpretive interactions, is



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**'Standardising interpretation has its good points, but I also remember Tilden's admonition that each interpreter needs to come up with a personal definition of the art'**

points of overlap) that method is the main thing specialists in these two areas have in common. This emphasis has some negative side effects, though. For example, some young, freshly certified interpreters take their new status as a license to lambaste those who don't transparently follow the new, standard methods. This could lead to an unhealthy homogenisation of the profession. Also, there is the danger that content assumes a low priority. Too many new natural heritage interpreters are fabulous presenters with inadequate field skills and spotty scientific backgrounds.

where method needs to be enriched as an interpreter grows in experience. My own definition is rather abstract, and it reflects my own field of natural history interpretation. Interpretation is the art of opening peoples' hearts to the voices of the earth. While the site or organisation that employs the interpreter deserves its measure of focus, interpretation in my view takes place within the broader context of community, and even 'community' is meant unconventionally. The landscape has within it both the human social community and the biotic community, and both

need to be regarded together if interpretation is to have its context complete.

The linchpin of community is interdependence, and among the elements that make a community work are the give and take of responsibility and enjoyment. Each community member contributes in some way to its character and support, and each draws from it both the things needed for survival and the pleasure of participation. Enjoyment deserves more attention than it has been given, I think. Considering the seriousness of global problems, it's easy to emphasise responsibility in our interpretive work and forget that our pleasure is derived from the community as well. We need a lighter touch. Freeman Tilden emphasised the importance of love, and, ultimately, a movement from a consciousness of physical dependence to one of love for all the community makes for the richest life.

Another advantage of thinking in terms of community is that it leads us away from such unfortunate concepts as 'environment', 'nature' and 'resources'. Terms such as these require an assumption of separateness, as though any human being could survive for five minutes without these things. They are a paper doll vision of life, in which environments, wild places and the things that support our survival can be changed or discarded at

will. When you are part of a community, these things are part of you, you are part of them; there can be no changing or stepping apart.

#### Particularising our audience

We are models, planters of seeds, and teachers of whole people. These important points can be lost in the single-minded focus on method. People, however oblivious they may be to what is going on in the wide world around them, are keen and intuitive observers of other human beings, and they respond, consciously or unconsciously, to the non-verbal cues coming from interpreters. If those cues conflict with the interpreter's message, credibility is undermined. We don't have to do the entire job with every person we meet. Our contact with people is a step in a chain of their experience, and if we leave them with a positive experience and provoke some thinking and feeling we set the stage for their seeking out the next appropriate step. We are interpreting to the entire person: when working with a child, we also are speaking to the adult that child will become; when working with an adult, we also are communicating with the child that still resides within. As we gain confidence, we less and less see the groups before us and more and more perceive the individuals, each with a unique background and set of needs.

Left: Interpreting with humour emphasises the enjoyment aspect of community

Right: Sand Mountain, Nevada. Beauty is part of community enjoyment

**'Another advantage of thinking in terms of community is that it leads us away from such unfortunate concepts as "environment", "nature" and "resources"'**





**'We are interpreting to the entire person: when working with a child, we also are speaking to the adult that child will become; when working with an adult, we also are communicating with the child that still resides within'**

Above: Roger Raccoon Club campers enjoy a pond

Right: Tree climbing, a time-honoured free play activity

#### Nature deficit disorder

A hot topic in the past couple of years has been what author Richard Louv has termed 'nature deficit disorder', the notion that we are beginning to produce generations of children whose lives are impoverished by the absence of free play experiences in wild places. Given that natural heritage interpreters chose their profession in large part because of such early experiences, we certainly want to reverse the trend. The irony is that interpretation may not be the best tool for this. We can model the value of such experiences, we can give children some of the skills with which they may find them, but ultimately we need to acknowledge that the earth is the primary teacher here, and we need to step back at some point. After years of positive results with a summer day camp for 9- to 12-year-olds, I found that its value for the participants became an order of magnitude greater when I built in significant blocks of free time in which, within certain limits, the children were free to explore, play and try out the

skills we had taught them. It's hard for an interpreter to step aside. Sometimes we need the maturity and broad perspective to do so.

#### Conclusion

Of course both NAI and NPS go deeper in their trainings than the mechanics of method. But it's easy for trainees to fall prey to the temptation to focus on technique, to forget about the importance of content, the context of community, and the diversity of the particular people we meet in every interpretive encounter. We are better motivated by our values than by accolades we receive as entertainers. I trust that experience will provide its broadening and mellowing guidance, whether in directions I suggest here or in others unique to each of us in this important profession.



*Carl Strang is an interpretive naturalist for the Forest Preserve District of DuPage County, Illinois. His book, Interpretive Undercurrents, was published in 1999 by the National Association for Interpretation. It is available through Acorn Naturalists, [www.acornnaturalists.com/store/](http://www.acornnaturalists.com/store/) ISBN 1-879931-02-8*

# Interpretive design that won't cost the earth

**Simeon Day** explores some sustainability design issues to bear in mind when specifying and designing interpretation



The Native Tree Trail at Westonbirt Arboretum is made of entirely FSC certified timber, including green oak, seasoned oak and MDF

Rainforest destruction, species extinction, poisoned seas and climate change that threatens our very existence: once the preserve of the 'hippy fringe', these issues are now mainstream news items. As ethical consumers, we all know that we must make important decisions that will minimise our contribution to them.

All aspects of our different organisations are under the scrutiny of those responsible for ensuring our activities, vehicles and buildings are all becoming more 'environmentally friendly' – and rightly so. Our interpretive exhibitions should also make their contribution. So how can we, as interpreters provide an enjoyable visitor experience that has as small an impact on the planet as possible?

It is important that we should consider a range of sustainable principles when commissioning or designing interpretation. 'Green design' is one way that we can minimise our impact on the world's systems.

When developing interpretation schemes it is essential to identify the opportunity to incorporate sustainability into the project from the beginning. It is much more difficult to add sustainability principles halfway through a project. Starting early enough will give you the time needed to build the case, find resources and secure support.<sup>1</sup> The following checklist should help stimulate your thinking about ways that could help reduce your project's impact:

## Design principles

- Don't do any unnecessary interpretation or over-interpret a site.
- Build the exhibition or installation to last – ensure all hardware has a long lifespan and is designed to allow key messages to be updated (e.g. a replaceable panel in a green oak frame).
- Where relevant, use green building design – this also provides the option to use the construction process and building structure as a teaching and interpretive tool.
- For outdoor interpretation in sensitive landscapes, consider the use of mobile media (e.g. mobile phones, MP3 players) that visitors already have with them instead of panels and other installations.
- Use first person interpretation where possible –



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it is a powerful and effective medium and a direct investment in people and skills.

## Materials

- Use durable materials.
- Use materials that have a low embodied energy – both in their manufacturing process and transportation.
- Avoid high embodied energy materials such as concrete.
- Use natural and renewable materials – timber should only come from certified sources i.e. Forest Stewardship Council (FSC).
- Consider using recycled or reclaimed materials or those with the most benign manufacturing process.
- Consider how recyclable and reusable the display could be.
- Limit the use of plastics as far as possible.
- Use totally chlorine-free paper from certified forests or recycled paper.
- Develop a best materials list.

## Contractors

- Use local manufacturers and suppliers where possible to reduce embodied energy and 'design miles', and for local economic benefit.
- Use consultants and designers who have an environmental policy and can supply items for approval electronically.
- Use printers who specialise in 'green' (i.e. vegetable-based) inks and print processes.



### Sustainability principles

- Keep it simple – avoid over design.
- Consider the use of renewable/green energy sources and micro-generation.
- Consider carbon offsetting of projects and activities – use recognised reforestation or energy conservation schemes.
- Explain to visitors that the display is designed to be environmentally sustainable.
- All ICT hardware should meet best environmental standards including energy efficiency.
- Use 'environmentally friendly' products in the cleaning and maintenance programme.
- Encourage the use of biofuels by contractors.
- Write all your environmental best practice requirements into the design brief.
- Lobby the Heritage Lottery Fund to include environmental criteria in their funding awards.
- Be prepared to pay more!

Ultimately, decisions on the final form of any displays and exhibitions will be a balance between sustainability, availability and budget. Realistically, and despite the best intentions and ideals of all those involved, the final scheme is likely to be a compromise – the important thing is to make sure it's not too much of one. At the end of the day, if you want your interpretation scheme to tread more lightly on the earth, it needs to have a smaller boot!

For further information check out the following:

- The Centre for Alternative Technology (CAT) ([www.cat.org.uk](http://www.cat.org.uk)) is concerned with the search for globally sustainable, whole and ecologically sound technologies and ways of life.
- Low-Impact Living Initiative (LILI) ([www.lowimpact.org](http://www.lowimpact.org)) is a non-profit organisation whose mission is to help people reduce their impact on the environment.
- [www.greenexhibits.org](http://www.greenexhibits.org) was launched to provide museum exhibit designers and fabricators with a resource for designing and building exhibits and environments that best support healthy spaces and a healthier future for kids and the environment.

### References

<sup>1</sup> [greenexhibits.org](http://www.greenexhibits.org)

*Simeon Day is project manager with Imagemakers.  
For further information contact 01837 840717*

# Serious fun

**Arthur Girling** looks at the updated visitor centre at the Centre for Alternative Technology and asks CAT's display team how they made sustainability interesting and fun



Above: The information desk

Below: The *Whole Home* display, including a display of sustainable suburban gardening

Below right: A couple explore the *Energy & Power* zone

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When the Centre for Alternative Technology (CAT) was founded in 1974 at Machynlleth, in the hills of mid-Wales, it was intended as an experimental community – the visitor centre was a later addition. The little community, who started building and working in the abandoned slate quarry, wanted to work out ways of living sustainably, without depleting the planet's resources or damaging the natural environment. By 1975, ongoing publicity attracted so many visitors that CAT's daily work was constantly interrupted. The organisation decided to build a permanent exhibition to show the public what they were doing, and create a source of income.

## Ideas that work

The visitor centre grew organically in scope and popularity. It rapidly became the most important centre of its kind in Europe. More than 65,000 visitors now come every year to find out about their impact on the environment and how it can be improved.

A community still lives on the site in the most

'CAT is a living, working place,' says Peter. 'When visitors come here, the fundamental thing they should see is that CAT embodies everything we stand for. For example, we have an adventure playground for kids, but it's done in a sustainable way.' He says the playground, built using untreated local timber and fencing made from recycled plastic, is just one example of how the centre adheres to its core message.

And what is that core message? 'Sustainability can work', Peter says. Carrie, his partner both at home and at work, reinforces this: 'Sustainability does work – that is the message.' But this is at odds with the stereotypical hippy ideal of 'sustainable living', which often conjures up images of tasteless lentils, cold houses and smelly compost.

## Bring the future forward

Dispelling this myth was the idea behind the £550,000 revamp (known as *Bringing the Future Forward*) of several of the displays, completed earlier

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**'Unless you can attract visitors with a great day out, you will only be preaching to the converted'**

environmentally friendly way possible, testing the ideas that CAT promotes. It is this link with real life – showing that these ideas actually work – that gives CAT its credibility. According to Peter Canham and Carrie Wiltshire, who share the role of displays and interpretation coordinator at the centre, this is integral to interpreting their message.

this year. The old displays in some areas were beginning to look tired and worn after many years of service. 'We really wanted to show sustainable living as a comfortable, mainstream alternative – not necessarily a step down from a modern lifestyle,' Carrie says. A big part of this was a complete refit of the *Whole Home* display, which shows what people



**'We wanted to show things without too much bias, so that people can take their own message back with them. It is difficult though, because our existence proves that we have some bias'**

Above: Some children using the flywheel interactive, displaying a way of storing energy

can do in their own homes to save energy and reduce their other impacts on the planet.

The display is in a building that can still claim to be Britain's best-insulated house, 28 years after it was built. Earlier this year, it was adapted to look more like a modern show home, complete with super-efficient appliances, green cleaning products and stylish furniture made from recycled materials. The other main areas that were changed this year were *Energy & Power*, and *Waste & Recycling*.

#### Information – not a lecture

Visitor surveys over the last few years suggested that some people found the displays one-sided, impractical and preachy, and didn't really address problems with the technology. When they were revamped, Carrie says, 'We wanted to show things without too much bias, so that people can take their own message back with them, whatever they think is right. It is difficult though, because our existence proves that we have some bias.' After all, CAT's mission statement is to 'inform, inspire and enable' people to reduce their impact on the environment. 'By presenting open arguments,' Carrie continues, 'We can justify the bias.' Peter adds, 'We can't just tell people that they shouldn't own cats or dogs. People will just turn off and lose interest. So our display boards just tell people that pets have a big (ecological) footprint. They can make the decisions for themselves, but won't be put off by preachy messages.'

CAT attracts a very wide audience. The visitor centre has to be accessible to uninitiated holidaymakers and dedicated self-builders, renewable energy enthusiasts and groups of schoolchildren. Display boards were designed so all these groups could be catered for.

Each area has short, punchy explanations, which expand in increasingly detailed paragraphs.

For those with a genuine interest in the environment, the visitor centre is only one part of the

picture. The displays are backed up by the organisation's free information service. Visitors can dig as deep as they like at the centre – real enthusiasts can also book onto courses, buy books in the shop or book an eco-audit of their home.

#### Hardware and interactives

At eight different points around the site, there are listening posts, powered by renewable energy. By turning the handle, visitors generate the power to turn on speakers, and the voice of weather presenter Sian Lloyd explains the display. Turn the handle in the other direction, and the message comes out in Welsh.

Many of the new displays are interactive. For example, people can generate electricity in a variety of ways when learning about renewable energy, or play games like the 'Recycling Bagatelle'. But by making a serious issue like climate change fun, can it be trivialised? Is there a danger of turning CAT into a theme park? Peter thinks not.

'We're not a theme park. The difference is they come away with something, after having an experience. The visitor centre is based on principles rather than themes. For example, the *Energy & Power* zone all works on the principles of energy generation, storage and transfer. The one area based on a theme is *Waste & Recycling* – waste management is the most boring subject in the world, so we tried to make that more fun and interesting.'

The brand new *Waste & Recycling* section includes several more artistic interpretations to challenge people's ideas of what they really need – the things we buy cause a lot of environmental problems. The 'Retail Therapy Couch' is a beautiful chaise longue,



Above right: The Bottle Dome

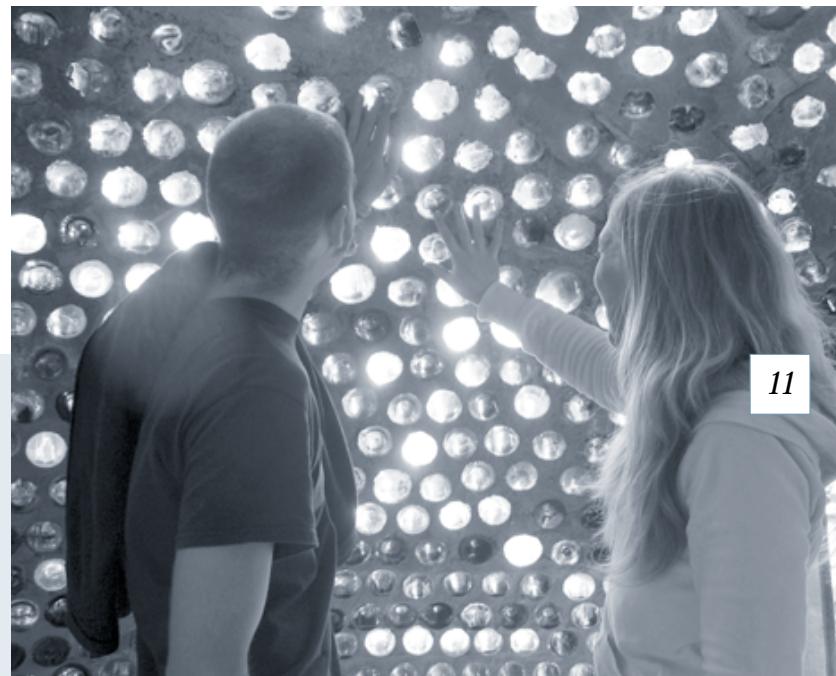
Above: The Retail Therapy Couch

made from wood and old coins. Visitors are invited to lie down, and think about what ailment 'retail

therapy' is meant to cure. They can put coins in a groove down the back of the seat, and watch them roll down into a drain.

A large dome made from bottles is the centrepiece of this area. Nearby, the *Treadmill of Happiness* turns when walked on. The visitor remains stationary, while a big wheel turns with the message 'Earn More... Buy More... Spend More... Need More.'

Carrie says that it's 'really important that people come up here, and have fun in this place.' Unless you



#### Walking the walk

The purpose of CAT is to teach people, not to make money. Of course, revenue from entrance fees is important, but only to keep the place running.

All the organisation's profits are channelled back into new ways of getting the message across. All staff are paid low wages and shareholders do not receive dividends.

CAT has just started work on its biggest project yet – the £6.1 million Wales Institute of Sustainable Education (WISE), a mini-university that will increase the courses the organisation offers on all kinds of environmental topics. This will be built to the most stringent environmental standards – when students

**'CAT's message – that sustainability does work – is at odds with the stereotypical hippy ideal of "sustainable living", which often conjures up images of tasteless lentils, cold houses and smelly compost'**



Above: A child tries out the Wind Tunnel interactive display

can attract visitors with a great day out, you will only be preaching to the converted, she says. If people come for the water-powered railway, animals in the small holding and fun interactive displays, they may leave

with some other ideas that they can put into practice.

at WISE are learning about eco-building techniques, they will be sitting in a huge rammed earth lecture theatre with the highest walls of this kind in the UK.

This is the way it has always been at CAT – living and working by the principles they espouse. As long as the organisation stays in touch with its roots, its message will be successful – 'sustainability does work!'

*Arthur Girling works in the Media Office at the Centre for Alternative Technology and helped put some of the new displays together*

# The journey to Cape Farewell

**Bergit Arends** asks can art help to rescue us from apathy about climate change?

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Below: Alex Hartley's claim to his island  
© CAPE FAREWELL



Science tells us that how we live our lives affects the health of our planet. But seeing and understanding these changes sometimes takes a different eye. *The Ship: The Art of Climate Change* at the Natural History Museum uses specially commissioned work from artists inspired by journeys to the Arctic in order to motivate people to engage with the issue. Interpretation of the exhibition was set within the scientific context of the museum, a deliberate emotive and personal engagement with the art, and the urge to act upon climate change.

## Predicting climate change

Scientists are generally cautious about making predictions about the natural environment. After all, complex biological systems are dynamic and highly

experiencing. What's more, we now realise the situation is worse than we thought. This is what science tells us, but it seems some still aren't listening. We need another voice, and that voice could be art. One salient image, sculpture or event can speak louder than volumes of scientific data and engage our imagination immediately.

Rather than use frightening statistics, the Natural History Museum's recent art exhibition *The Ship: The Art of Climate Change* took visitors on a journey – one inspired by the high Arctic, the heart of the debate on climate change. Through the eyes and ears of a number of renowned artists, visitors could experience for themselves works inspired by this northern landscape, the changes it's seen, and those it faces.

**'One salient image, sculpture or event can speak louder than volumes of scientific data and engage our imagination immediately'**



Above: Artists and scientists in front of the *Noorderlicht*  
© CAPE FAREWELL

variable. And so it is for predicting climate change, a process that stretches vast periods of time.

Research on climate change is now so well advanced, however, that we can safely conclude that human-induced global warming is at least partially responsible for the climate changes we are currently

## Cape Farewell

Invited by the Cape Farewell organisation that had been conceived by artist David Buckland, artists, scientists, educators and journalists travelled to 79 degrees north to the Svalbard archipelago, to witness the ongoing deterioration of this landscape. During the past four years, Buckland and his team have developed a programme of Arctic activities to draw the public's attention to human-induced global warming.

As Buckland says, 'We intend to communicate through art works our understanding of the changing climate on a human scale, so that our individual lives can have meaning in what is a global problem.'

In May 2003, the first expedition with crew and captain travelled on the schooner *Noorderlicht* (northern lights) from Tromsø (Norway) across the rough Barents Sea – also called the Devil's Dancefloor – to Spitsbergen. The sea had just opened up after the winter ice and the initial part of the voyage was through the seawater 'sinks', which drive all the planet's ocean currents. In the two



## 'The gory film of artists Ackroyd & Harvey defleshing the skeleton of the stranded minke whale stopped visitors in their tracks'

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Above (top): *Ice Lens* by Heather Ackroyd  
© CAPE FAREWELL

Above right: *Here Today* by Kathy Barber  
© CAPE FAREWELL

Above: Dan Harvey working on *Ice Lens*  
© CAPE FAREWELL

following years, expeditions took place around the archipelago: the one in 2005 was a winter journey on the ship the *Noorderlicht*, frozen in ice at minus 30 degrees Celsius.

### Making art in the Arctic

You can appreciate that it is extremely difficult to make pieces of art work in those conditions, so the artists took photographs, filmed, walked, experimented with ice and sound, taking their own specimens of Arctic light and air.

As well as carrying out their own investigations, the artists exposed themselves to the scientific research taking place onboard, and visited Spitsbergen's polar research centres at Longyearbyen and Ny-Ålesund, which lie approximately 11 degrees south of the North Pole. Both research centres were originally coal-mining settlements, but now many nations, including Norway, the UK, Germany and Japan, have research programmes centred in Ny-Ålesund.

The artists onboard the *Noorderlicht* engaged not only with climate change, but also with the socio-economic situation of the Arctic settlements. Witnessing the deterioration of the landscape and the impact of climate change on biodiversity has left indelible impressions.

### Alex Hartley

The works selected for display at the museum were mostly new, specially produced for the exhibition. Artist Alex Hartley's work dealt with the exploitation of the landscape, the 'grabbing and naming' of it. He purposefully sought an island that was revealed only in the past five years as a result of a glacier retreating. In proper explorer fashion he conquered the island, measured it up, and took mineral samples. 'Nothing has yet been ruled out: annexation, independence, tax haven, wildlife sanctuary, short-let holiday homes or timeshares. Postcards will be

printed and a major architectural competition will be launched. Engineers will be consulted as to how best to keep all the mud together and prevent any shrinkage of our island,' said Alex Hartley. He is currently going through the Norwegian administrative quagmires to register and name the new piece of land Ny Mark (meaning new land in Norwegian). This process was extensively documented and took the form of a wall-sculpture in the exhibition.

### Gaultier Deblonde

Since the end of the 19th century, photojournalism has played an important role in contributing to public environmental awareness. It was also at that time that artists first referred in their work to the exploitation of nature, human settlements and urban environments. The images of photographer Gautier Deblonde are in this tradition and he shows us the range of environments we can expect from life just south of the North Pole – from the pure and majestic mountains to the deprived life in the Russian coal-mining settlement of Barentsburg. What does living in the Arctic mean? What does climate change mean to the people who live here?

### Heather Ackroyd and Dan Harvey

Sculptors Heather Ackroyd and Dan Harvey's work bears direct relationship to the Cetacean Strandings Project at the Natural History Museum. Their sculpture is made from the skeleton of a minke whale and transformed through encrustations of alum crystals, resembling ice crystals, preserving the fragile bones for eternity.

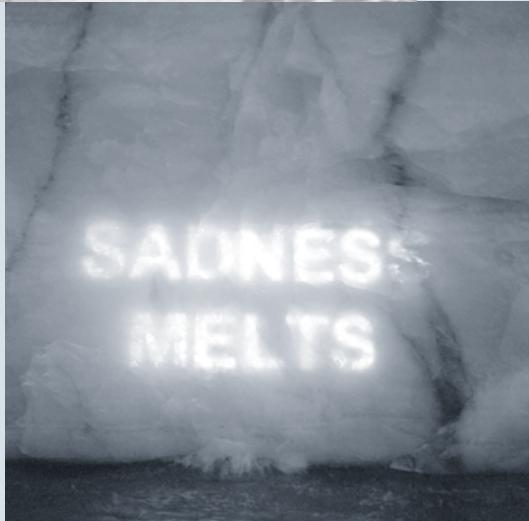
Each work tells of a deeply moving experience, provoking us to engage with the effects of changing weather patterns, rising sea levels, alterations in biodiversity and landscape, and the build-up of toxic chemicals in this seemingly pure landscape. The message is clear: we need to adapt to a dramatically



Above left: *Three Made Places* by Antony Gormley  
© CAPE FAREWELL

Above right: *Ice Field* by Max Eastley  
© NATURAL HISTORY MUSEUM

Right: *Sadness Melts* by David Buckland  
© CAPE FAREWELL



changing environment and we need to stop behaving as if it hasn't anything to do with the way we live our lives.

#### Beyond museum walls

We wanted to create an exhibition that lingers in our imagination and stokes the urgency to act. The exhibition project as a whole was structured in three parts: a film about the artists spending time in the Arctic by Cape Farewell and film-maker David Hinton; the exhibition itself; and a variety of activities that brought the ideas behind the exhibition beyond the walls of the museum.

A conscious decision was made to allow the visitor to engage with the works on an individual and emotional level, and, despite being contextualised by the Natural History Museum, the works were interpreted not just from a scientific perspective. Interpretation labels accompanying the works were therefore kept to a minimum and each interpretation text was approached differently. This ranged from artist quotes to a more detailed description of aspects contained in the work relevant to climate change. The inexpensive newspaper to be picked up on exiting the gallery space gave details of the

Below: Bones laid out  
© HEATHER ACKROYD



background of the project as well as the scientific research inherent in Cape Farewell's work and the artists' installations. A debating space was offered by a four-day international Youth Summit on Climate Change, which starred eminent speakers such as chief scientific Sir David King or Deputy Mayor Nicky Gavron.

Some works particularly captured the visitor's attention. A 25-minute video of an iceberg slowly collapsing, or the gory film of artists Ackroyd & Harvey de-fleshing the skeleton of the stranded minke whale stopped them in their tracks. But the touch screen work by Kathy Barber and Nathan Gallagher, both from design practice Bullet, also allowed the visitor to email home links about sustainable living and climate change resources.

If you are a user of public transport (as you should be if you care about alleviating climate change) you may also come across the work by choreographer Siobhan Davies, who created a poster of her arctic piece *Walking Dance*, a collaboration between the museum and Platform for Art, the art programme on London Underground.

#### Creating whispers

We encouraged visitors to appreciate that climate change is part of our lives, be it on a domestic, local or global scale. Being knowledgeable will give us the option of choice. The real power of the Cape Farewell project is the gradual sedimentation of ideas from the journey into the works of artists and then into our minds and actions. The works in the exhibition don't shout at us; instead, they create a whisper that will travel quietly and forcefully from one person to another. This is the offer within and beyond the exhibition. I hope our imagination doesn't fail us.

*The Ship: The Art of Climate Change* was at the Natural History Museum from June to early September 2006. *The Ship* then travels to the Liverpool Biennial of Visual Arts opening on 16 September. For more information about Cape Farewell, please visit [www.capefarewell.com](http://www.capefarewell.com). A publication, *Burning Ice: Art and Climate Change*, priced £19.99, is available from Cape Farewell.

*Bergit Arends is Curator for Contemporary Arts at the Natural History Museum, London*

# People and places

**Nicola Holland and Bob Tevendale** look at how Historic Scotland is promoting sustainability within the historic environment

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Sustainability is not a new philosophy, indeed it is often the fundamental reason for heritage organisations' existence – promoting the long-term survival of culturally significant resources. This article focuses on how Historic Scotland is addressing the sustainability agenda and how that approach has changed from a focus on the purely physical aspect of preservation, to looking at also maintaining a site's relevance and significance to the people who have a connection with it.

## Sustainability in the built environment

Historic Scotland is an agency of the Scottish Executive. It is charged with safeguarding our national heritage and promoting understanding and enjoyment of it. In this statement there is a clear mission to act in a way that promotes sustainability.

So what do we mean by sustainability in respect of the historic environment? Conservation of the historic fabric of buildings is one way to ensure its preservation for future generations. But as we shall see, there are initiatives in place that promote communication and partnership, education and

Scotland. These sites include castles, standing stones, parks, churches and brochs, all of which serve as physical reminders of the chain of events making up Scotland's past. Marked out for their cultural significance, these sites have been identified as those that justify the need to argue for their physical sustainability and by doing that so ensure the sustainability of their cultural meaning. This is not a new argument and is indeed the basis on which heritage organisations exist. What is interesting is how an organisation such as Historic Scotland seeks to do this, how this has changed from a focus on physical preservation to focus on people's attitudes and support for such sites, and which of the variety of methods that exist are proving successful.

## A new venture

In Orkney, 2005, a new ranger service was established. This ranger service is funded by Historic Scotland and Scottish Natural Heritage and has a multipurpose agenda. It was set up in a slightly different way from those already in existence in Historic Scotland. Most crucially a holistic view of heritage management was taken in Orkney. The ranger service here is working towards both the physical protection of the environment and maintaining a good relationship with the people who have a stake in the area's heritage. The rangers are there to encourage visitors to explore the whole of the World Heritage Site that extends way beyond the most popular sites of Maeshowe and Skara Brae. They hold walks, activities for schools and provide information to tour guides about less familiar heritage sites in the area. However, they are also there to maintain good lines of communication between Historic Scotland and the Islanders. They work both with visitors and locals at a grassroots level – attending local events, delivering school's programmes and holding daily walks around sites. But they also sit on management groups and provide input to both natural and built environmental management strategies. This unique approach, for Historic Scotland, has been highly successful in its first year. Positive comments have been abundant, due not least to the enthusiastic way in which the two rangers, Sandra and Elaine, have approached the posts. Funding is assured for three years and, as that

Below: A 'quiet' day at the Ring of Brodgar, Orkney



**'There is a clear mission to act in a way that promotes sustainability'**

understanding as key in promoting sustainability.

Whilst the individual case studies cited here have counterparts elsewhere, they serve as an example of one organisation's take on this agenda and raise the idea that it is only through commitment and management of such initiatives that real change can be effective.

Historic Scotland cares for 345 sites around

**'There are initiatives in place which promote communication and partnership, education and understanding as key in promoting sustainability'**

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Above: Getting the family involved at Caerlaverock Castle

Below left: Lincluden Collegiate Church: Scripting History, Abbey Antics Day 2005

Below centre: Lincluden Collegiate Church: Abbey Antics Day 2005

Below right: Lincluden Collegiate Church: Preparing for Battle, Abbey Antics Day 2005

period draws to a close, the crux will be ensuring its approach is continued.

#### **A holistic view**

Sustainability in reference to our natural resources has been a key theme in natural heritage for some years. A recent project developing new children's trails at Caerlaverock and Dumbarton castles has sought to relate those issues to those of the built environment and us as visitors – under the banner of 'survival'. Both sites lie adjacent to wildlife sites of international importance. The trails are intended to link the history and wildlife of the site through a theme of survival. They involve games and activities based around a booklet and activity posts. Adults are encouraged to participate in the activities as well.

The graphics are colourful and lively, delivering a different kind of message to that of our standard interpretation. For example, Caerlaverock is famous for a siege that took place during the Middle Ages.

level flooding their habitat.

All of these messages help to promote a holistic view about the impact of people on the environment, seek to harness people's interest and encourage thought about sustainability in the natural environment.

#### **Changing hearts and minds**

Two recent cases serve well in illustrating new approaches that have been taken to ensure the sustainability of some of our most vulnerable sites. Lincluden Collegiate Church, Dumfries, and Crookston Castle in Pollockshields, Glasgow, have both suffered in the past from physical damage due to vandalism and lack of interest from the community that surrounds them. Both these sites are in areas of low economic wealth, high unemployment and poor housing, issues that leave locals struggling to see the significance of a 'ruin' in their backyards. One solution is to erect physical barriers around the site, physically protecting them from harm. There is here a chance that an already negative view from the locals could be exacerbated through the reinforcement of well established psychological barriers to access.



Children here are encouraged to compare knights with their colourful banners for identification, with insects like ladybirds. Ladybirds are poisonous to birds, so it pays to be seen too. Children are also asked to consider what will happen to the rare Natterjack toad if global warming raises the water



As a result, a different approach has been taken at these two sites, an approach that might not have the short-term impact of improved security but which in the long term might address those negative attitudes and build a more sustainable situation for both site and community.



storyteller-in-residence project.

All of this is in large part due to the establishment of a partnership with The Village, an innovative storytelling centre, a stone's throw from the castle. Historic Scotland has encouraged the use of the castle for storytelling events for the community and beyond, and, in turn, the increased activity and use of

**'What pulls all these case studies together is that they all depend heavily on partnership working and on working with those who have an interest in the historic environment'**

Above: Getting the community involved, Abbey Antics Day 2005

The emphasis at both Lincluden and Crookston was in securing a successful partnership with an organisation already working in the area. Historic Scotland recognised early on that there were many factors at play here, many of which we had no capacity to deal with ourselves. It was crucial therefore for the site to become an integral part of any long-term solutions for the area, a way of helping that community to build its confidence.

In Lincluden, a partnership was formed with the North West Resource Centre, a community venture funded by the council and regeneration organisations. Historic Scotland funded a community development worker's post, initially for two years, a post with the remit of raising awareness of the Collegiate Church and working on a more positive use of it. To date, several large community events have been held nearby, using the historical context of the site as a theme. A film has been produced and the newly constituted CHAVs – Cultural Heritage Active Volunteers – are now working on an interpretation leaflet. All of these projects have not only raised the profile of the church but have presented opportunities for people to develop new skills, highly relevant to the job market.

Crookston Castle is Glasgow's last surviving castle. Today it stands proudly over the surrounding city, illuminated at night as part of a project by Glasgow Council to light up key buildings in the city. During the day, a regular programme of storytelling for both schools and visitors is held, facilitated through a

the site has meant less damage. There is now an established friends group for the castle and work is progressing to secure funding for a development project and visitor centre.

### Conclusion

It is tempting to try to find the magic ingredients that made the case studies above such successes. In truth, there are many factors that led to their success and there is no magic formula that ensures a project affects the long-term culture of an organisation. What pulls all these case studies together is that they all depend heavily on partnership working and on working with those who have an interest in the historic environment. Where once it was the physical preservation of the historic environment that was perceived as ensuring sustainability of the resource, the key now is maintaining a balance between physical preservation and the sustainability of the meanings behind the stones with support from today's communities.

*Nicola Holland is Interpretation Manager for Public Programmes, Access and New Audiences; Bob Tevendale is Interpretation Officer for Natural Heritage. Both work within the Interpretation Unit at Historic Scotland*

# Reconnecting audiences with the natural world

**Michael K. Stone** explains how the Center for Ecoliteracy in Berkeley, California, aims to educate people about sustainable patterns for living by drawing on the past and the natural world

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The art of interpretation is the skillful facilitation of first-hand experiences and explorations, often in nature and in places where people historically have lived for centuries in cooperation with natural systems. Interpreters in many settings are in a position to help visitors develop knowledge and attitudes to support more sustainable living.

## The web of life

Interpreters can help us become aware of our place in the web of life. They can help us learn – and inspire us to communicate to political and corporate leaders – fundamental facts of life derived from basic ecological principles. For example:

- the energy driving the ecological cycles flows from the sun, and that a sustainable society will have to live on only as much energy as it can capture from the sun;
- diversity assures resilience;
- there is no waste in a healthy ecosystem, because one species' waste is another species' food;
- life, from its beginning more than three billion years ago, did not take over the planet by combat, but by networking.

**'Interpreters in many settings are in a position to help visitors develop knowledge and attitudes to support more sustainable living'**



## An approach to ecological understanding

At the Center for Ecoliteracy in Berkeley, California, we have developed a pedagogy, 'Education for Sustainable Living', which offers an experiential, participatory and multidisciplinary approach to fostering ecological understanding. Our understanding of 'sustainable living' is grounded in the work of physicist and systems thinker Fritjof Capra, a founder of the centre and president of its board of directors. Capra argues that the term 'sustainable' has been overused, and often misused. Responding to the typical definition of a sustainable community (one able to satisfy its needs and aspirations without diminishing the chances of

future generations), Capra says, 'This is an important moral exhortation. It reminds us of our responsibility to pass on to our children and grandchildren a world with as many possibilities as the one we inherited. However, this definition does not tell us anything about how to build a sustainable community. What we need is an operational definition of ecological sustainability'.<sup>1</sup>

## Learning from the past

The key to such a definition, Capra says, is the realisation that we do not need to invent the practice of sustaining human communities. We can learn from historical communities that have practised bioregional self-sufficiency over centuries. 'We can also model human societies after nature's ecosystems', he writes, 'which are themselves sustainable communities of plants, animals, and microorganisms'. The outstanding characteristic of the biosphere has been its ability to support life over eons. Hence, 'a sustainable human community must be designed in such a manner that its ways of life, technologies, and social institutions honor, support, and cooperate with nature's inherent ability to sustain life'.

## Learning from the natural world

Education for sustainable living, then, requires understanding the principles and processes by which ecosystems maintain the web of life: 'How can ecosystems flourish with an abundance of energy and

without waste? How does nature manufacture surfaces (in abalone shells) that are harder than our hardest high-tech ceramics, and silk threads (spun by spiders) that, ounce for ounce, are five times stronger than steel? And how are these materials produced silently, at ambient temperatures, without any toxic byproducts?'

Encounter, observation and interpretation in the midst of nature lend themselves to learning basic ecological processes. Writes Capra, 'The systemic understanding of life that is now emerging at the forefront of science is based on three fundamental insights: life's basic pattern of organisation is the network; matter cycles



Children have an instinctive affinity for the natural world

**'This understanding of natural principles and processes, coupled with the competencies of heart, mind and hands to act upon it, is what we call ecological literacy'**

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continually through the web of life; all ecological cycles are sustained by the continual flow of energy from the sun'. These phenomena – the web of life, the cycles of nature and the flow of energy – are particularly accessible through experience and exploration in the natural world.

#### **Ecological literacy**

This understanding of natural principles and processes, coupled with the competencies of heart, mind and hands to act upon it, is what we call ecological literacy. It begins with the kind of direct experience of nature and place that is facilitated by interpreters. Oberlin College professor David W. Orr, another member of the board of directors of the Center for Ecoliteracy, speaks of 'the re-connection of young people (we would say people of all ages) with their own habitats and communities ... a process of organised engagement with living systems and the lives of people who live by the grace of those systems'.<sup>2</sup>

Through these experiences, we also become aware of ourselves as part of the web of life. Over time, that experience gives us a sense of place – another fundamental constituent of ecological literacy. We become aware of how we are embedded in ecosystems, in watersheds and bioregions, in particular social systems and cultures. In that sense, natural and historical interpretation are complementary, and both contribute to education for sustainable living.

As articles in the Summer 2006 Interpretation Journal described, interpretation can foster both intellectual understanding and emotional bonds – connections that convert knowledge about the world to commitment on behalf of preserving it. Says David Orr, 'We all have an affinity for the natural world, what Harvard biologist Edward O. Wilson calls "biophilia". This tug toward life is strongest at an

early age when we are most alert and impressionable. Before their minds have been marinated in the culture of television, consumerism, shopping malls, computers, and freeways, children can find the magic in trees, water, animals, landscapes, and their own places. Properly cultivated and validated by caring and knowledgeable adults, fascination with nature can mature into ecological literacy, and eventually into more purposeful lives'.

#### **Interpreters can help**

Interpreters can encourage the people they serve to understand sustainability ecologically, to comprehend the processes by which nature sustains life, to develop attachments to natural and historical places. They can contribute to nurturing responsible citizens who care about the future of the planet and have a passion for applying ecological understanding to redesigning our technologies and social institutions. They can help bridge the gap between human design and the ecologically sustainable systems of nature.

For more information log on to [www.ecoliteracy.org](http://www.ecoliteracy.org)

#### **References**

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*Michael K. Stone is senior editor at the Center for Ecoliteracy and coeditor of Ecological Literacy: Educating Our Children for a Sustainable World*

# All aboard the EcoBoat!

**Mike Hayes** describes how educational programmes run from a classroom in a Vietnamese boat are highlighting the impact of huge economic development in beautiful Ha Long Bay

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Environmental education may not immediately come to mind when thinking of Vietnam – the country often conjures images of the terrible wars that plagued the country for much of the last century. But times are changing and the country is developing – fast. A specially converted boat the 'EcoBoat' offers a new type of environmental education experience for Vietnam, introducing new themes and methods of discovery learning at a time where the environment takes second place to economic development.

## An amazing location

Ha Long Bay is a designated World Heritage Site, containing a proposed UNESCO biosphere reserve as well as a National Park. It is a truly amazing location, both in beauty and biodiversity. There are over 1,000 islands, only 10 per cent of which have a name – every scientific expedition discovers species new to science. Major economic development has severely impacted the bay, and it remains under huge pressure from industry, infrastructure development, increased shipping and dredging, over-fishing, urban expansion, land reclamation, coal mining and rapid tourism growth, all of which pollute the bay. In a developing country, it is extremely difficult to argue for long-term environmental protection as a priority over economic development.

Above: Ha Long Bay

Below: A learning circle aboard the EcoBoat

Below right: The urban sprawl of Ha Long City



## The undiscovered world

Worldwide, marine conservation has been far less of a priority than land conservation. For example, around 12 per cent of the land surface of the planet is protected in National Parks. For the oceans, less than 0.1 per cent is protected. By volume, humankind has explored only 2 per cent of the world's oceans, yet we continue to exploit them at an ever-increasing rate. The world's oceans absorb more carbon dioxide from the atmosphere than all the world's forests combined, and make up 98 per cent of the planet's livable volume (biosphere). We exploit what we have not yet discovered.

## The EcoBoat

This is where the EcoBoat comes in. Our aim is to create a forum for debate on the impact of humankind on Ha Long Bay and what we, as people, can do to help. The EcoBoat is unique to Vietnam – we aim to promote not only environmental awareness, but also new methods in teaching, especially 'discovery learning'. We don't just limit ourselves to education – we monitor the environmental quality of the bay as part of our education programme. We work with local communities, spreading our conservation message. We contribute to the long-term management of Ha Long Bay by highlighting issues and solutions to provincial agencies. Most of all, we aim to deliver our programme in a way that is fun and memorable to our learners.

**'There are over 1,000 islands, only 10 per cent have a name – every scientific expedition discovers species new to science'**

## The audience

We have three main target audiences. The two most important groups are Vietnamese school groups and Vietnamese school teachers. The education system in Vietnam is very traditional, with a focus on teachers delivering facts to children. Debate, problem solving and asking questions are not actively encouraged, as these suggest the teacher is

## 'The EcoBoat is unique to Vietnam – we aim to promote not only environmental awareness, but also new methods in teaching, especially "discovery learning"'



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lacking in knowledge. Accompanying teachers are often astonished when we ask learners what they think the answer is. Around half of our programme is targeted to the international schools in the region: we have a diverse mix of learners. Depending on our audience, we deliver our programme either in Vietnamese or English.

### A party boat

EcoBoat is a 29 m, specially converted 'party boat'. For overnight trips we can comfortably sleep up to 22 learners in a camping-style environment. For many, this will be their first excursion into the natural world, and we need to emphasise the unpredictability of the environment, for example, if it rains – we get wet! The new learning environment helps make the educational experience more memorable – this spreads our message further as learners tell family and friends of their 'EcoBoat experience'. We use the main cabin in the evening for activities that reinforce the day's learning. This includes PowerPoint based sessions – each a maximum of 10 minutes, as well as a conservation documentary – the Blue Planet from the BBC gets a great reaction from the learners. We'll also play environmental games and practise our singing voices through karaoke – this is Asia after all!

### Developing a programme

The classroom of Ha Long Bay offers us endless opportunities to develop new sessions. It is one of the world's greatest examples of a multi-use World Heritage Site. We are constantly evolving our programme, but a typical three-day cruise would include:

- a study of the biodiversity and heritage values of Ha Long Bay;
- participation in environmental protection activities (e.g. replanting mangroves and water quality monitoring);
- understanding some of the conflicting uses of Ha Long Bay;
- exploration of new environments – marine, cave, tidal lake, limestone karst ecosystems;
- taking part in a World Heritage Site management debate simulation;
- developing team-building skills;
- learning outdoor skills, including kayaking and hiking.

Flexibility is important, too. Whilst our theme will always be humankind's impact on the bay, we can develop our programme to meet the needs of our clients. For example, we can provide scientific monitoring, plant science, marine conservation, outdoor 'discovery' focus and so on.

### Our organisational set-up

We are a not-for-profit organisation. Our set-up costs are provided from the UK-based Darwin Initiative, through the support of FFI (Fauna and Flora International), which is one of the world's longest standing conservation organisations. Our operating expenditures are met from charges we make for each trip.

Vietnam is a communist country that presents its own issues when delivering an education programme. There is a huge bureaucracy that can interfere with our education programme. We must play a delicate balancing game – anything that could be seen as embarrassing the government or party could result in an abrupt end to our activities. We must strive to maintain good working relationships with provincial structures, the management board of Ha Long Bay, as well as the provincial police.

You can find out more about us through our website [www.ecoboot.org](http://www.ecoboot.org), FFI at [www.fauna-flora.org](http://www.fauna-flora.org), and Ha Long Bay at [www.halong.org.vn](http://www.halong.org.vn)

*Mike Haynes has worked in Vietnam for three years in marine conservation, education and community development projects. mikehaynes01@yahoo.co.uk*



Top left: Learners kayaking at Hang Luan tidal lake

Top right: Learners practicing traditional squid fishing

Above: The EcoBoat at sea

# Am I bovered?

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Dear Editor

Fascinated by the last journal, I feel compelled to add some thoughts of my own. I was reminded of the comedian Catherine Tates' teenage schoolgirl character who asks (repeatedly) if her face looks bothered. Is she or isn't she? How do we know?

I thought Ruth Gill's piece on mind-mapping was a fine example of a new approach that seeks to answer this question. It certainly breaks away from the 'the majority of the audience will understand, feel, do...' approach, typified by the frankly dated Learning, Emotional, Behavioural (LEB) model.

We are all regularly bombarded by information and have evolved to survive. Finding effective ways of punching through our audiences' highly individual perception barriers couldn't be more essential.

Our common approach to this is the (LEB) model. This has been championed by many. It seems to originate from Bloom's Taxonomy, a method of setting educational test questions and teaching plans in the 1950s (!) As interpreters we seem to rely on the model. Our marketing cousins however, once as enslaved, have slipped its bonds, condemning it as not reflective of real life.

The difficulty in evaluating this model is certainly well documented.

Ruth Taylor's excellent piece on influencing behaviour shows that our audiences' response to interpretation is clearly more complicated than the LEB model. Many things in our everyday life undermine its simple progression. In Ruth's case the cost of compost or the availability of compost bins may be unexpected variables effecting behavioural outcomes.

It is clear to me that time has come to challenge our practices. Approaches like mind-mapping update and redefine the way we do things.

We want our audiences' faces to be bothered, surprised, delighted and inspired. That has not changed. Let's be sure that our approaches to showing we have achieved this remain as clear as our motivations.

Yours fervently,

**Nigel McDonald**  
*Interpretation Manager*  
*Shropshire County Council*

# Review



Brown L, MacLellan G,  
Mason T, Vis C

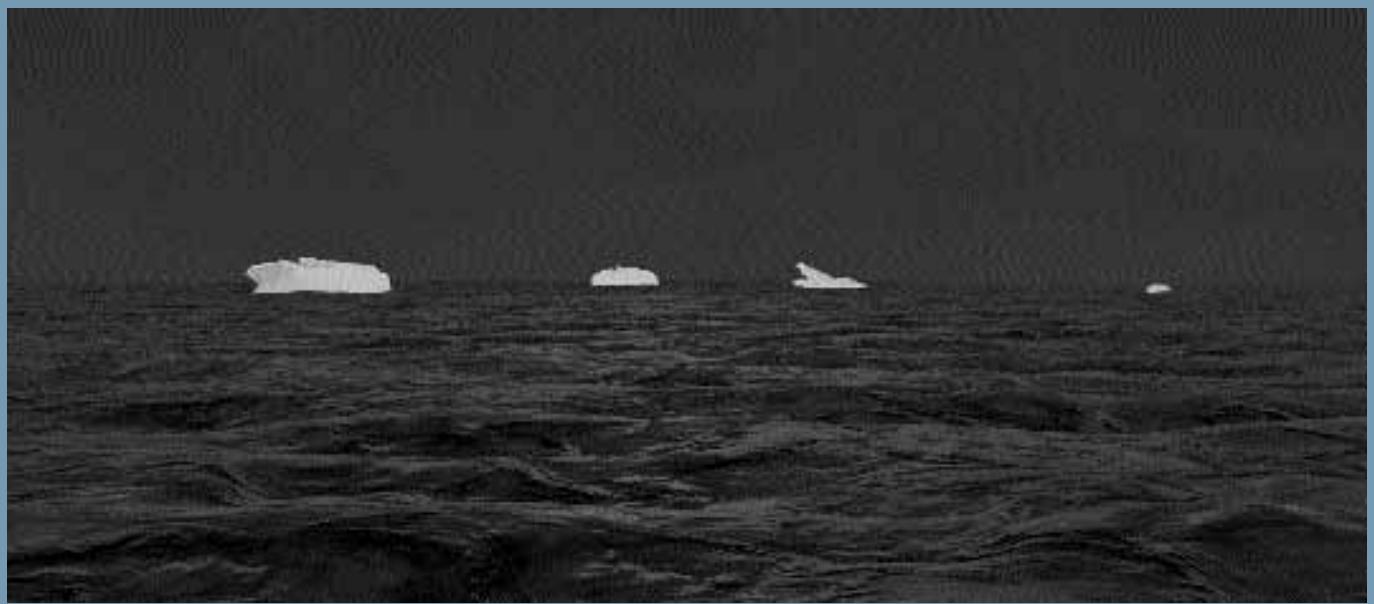
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## StarMatter: Towards a New Perspective

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My reactions to this book are as diverse as its contents: I was by turns awed, chilled and exhilarated. Don't be put off by the front cover or the uninspired blurb on the back. For anyone engaged in interpretation, whatever your subject, this book is a real find – although you do need to stick with it to find out why. It is a (not always comfortable) mix of readable treatise on the concepts of Deep Space and Deep Time, a glimpse into the potentially catastrophic impact of our actions upon the Earth and an inspiring handbook on interpreting such mind-bending subjects for children. The aim of the book seems to be to provide practical tools for educators that will inspire young people to change their behaviour, through stimulating an appreciation of our insignificance in terms of the evolution of the universe – we humans are just a blip in cosmic terms – and by raising awareness of how significantly we have impacted on our planet in those short moments. While I found the explanations of space, time, geology and so on fascinating and accessible, I was far more excited by the case study and practical workshop ideas for drawing together and exploring science and art through creative projects and performance. Judging by the hauntingly insightful poems about the Earth's beginnings by the children of Radcliffe's Wesley Methodist Primary School, Manchester, the StarMatter approach seems to work!

*Jo Scott*



*Still from 80° North* by  
Nick Edwards  
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