

# VALUING NATURE



CALOUSTE GULBENKIAN  
FOUNDATION

UK BRANCH

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## INTRODUCTION

Bringing about long-term improvements in wellbeing, particularly for the most vulnerable, is at the heart of our mission at the UK Branch of the Calouste Gulbenkian Foundation. We know there is more to 'the good life' than material well-being, so our work explores the value of social, cultural and environmental initiatives through a wider prism than the economic narrative which is so often dominant.

*Valuing Nature* builds on the interests of our Founder and the work of others applying this approach in a single programme of work. Its projects are diverse but share a central aim: using creative engagement with the natural world to promote the value of the environment and to help drive change to more sustainable lifestyles.

We want to test and demonstrate what works ensuring that the best can be sustained and spread. Our ambition with *Valuing Nature* was to provide models that would both inspire others and show other funders the value of supporting such initiatives. Some projects were designed

to engage disadvantaged communities and others to influence business and government. Some had participants literally getting their hands dirty with conservation activities. Others used the power of art to highlight environmental issues. Innovative collaborations lay at the heart of all the projects.

By making connections across boundaries in this way, we seek to create new coalitions of interest that challenge the norm. As a society, we have individual and community assets we can build on not least the skills, experience and interests of people whose needs and potential contribution may be undervalued. Few needs are more pressing than learning to value – and so cherish – the very environment in which we all live.

Andrew Barnett  
Director, Calouste Gulbenkian  
Foundation (UK Branch)

Above: A child plays in the earth at the Royal Botanic Garden Edinburgh. Photo: RBGE.

Front cover: A drawing by Alexis Deacon, an artist who took part in the Gulbenkian Galápagos Artists' Residency Programme in 2009.

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[www.gulbenkian.pt/uk-branch](http://www.gulbenkian.pt/uk-branch)

# SUMMARY

There is an urgent need to reconnect people with the natural world. As a society, we must foster a greater collective understanding of environmental issues if we are to have any hope of meeting the ambition of the UN Sustainable Development Goals and the challenging targets in the 2015 Paris Agreement on climate change. As individuals, there is mounting evidence of the importance of the natural world to our personal wellbeing. But modern life seems more distanced from it than ever.

*Valuing Nature* is a diverse programme of innovative projects aiming to promote the value of the environment and help drive change to more sustainable lifestyles by:

- engaging the public in a better understanding of the natural world;
- harnessing the power of art to highlight environmental issues;
- demonstrating the social and economic benefits of investment in the natural world;
- influencing government and business decision-makers.

## Projects included:

- Environmental organisations offering communities that rarely get opportunities practical activities to get involved.
- New artworks exploring natural and scientific themes.
- ‘Citizen science’ collaborations between scientists and the public.
- Tools to help planners and businesses gauge their effect on the environment.
- Groundbreaking ways to measure the personal and social impact of our connection to the natural world.

Visitors from Pilton Community Health Project enjoy Edible Gardening at the Royal Botanic Garden Edinburgh. Photo: RBGE.

## Overall the programme found:

- For many people, professionals and public, participation was life-changing.
- Art told the conservation ‘story’ in fresh and surprising ways which engaged the public and changed their preconceptions.
- Imaginative use of technology expanded awareness of, and active involvement with, natural concerns.
- Projects brought people together, provoked dialogue and forged new partnerships within and across sectors.
- Participating organisations attracted new visitors, increased their profiles, tackled new conservation work and accessed new funding.
- Environmental and heritage organisations expanded into exciting new areas, often profoundly reassessing their corporate culture and how they work.
- Projects provided evidence for decision-makers and models, learning and resources for practitioners.

This paper explores the lessons from the *Valuing Nature* programme. It looks at how this kind of intervention can help shift cultural attitudes and asks how funders can better support such approaches.





# WHY VALUING NATURE?

There is an urgent need to reconnect people with the natural world.

Protection of the natural world and sustainable management of its resources are at the heart of the recently agreed UN Sustainable Development Goals. The 2015 Paris Agreement has brought concerns over climate change into sharpest focus: 195 nations have committed to attempting to keep global temperature rise “well below” the point when climate change could threaten human life on Earth (2°C above pre-industrial levels). It’s a very tall order, one that will require “a paradigm shift in the philosophy of political parties – unlikely to happen unless the public start pushing for it” (BBC, 2015).

This challenge comes at a time when we seem ever more disengaged from the natural world – despite growing evidence of how it benefits our physical and mental health (NEF, 2012). Four out of five children in the UK have inadequate connection with nature (RSPB, 2013). Environmental concerns are often seen as the preserve of older, white, middle-class people, excluding communities who could both benefit from and become champions of better environmental conditions. Environmental organisations are working hard on conservation, but their specialist focus can make them appear insular.

This disconnect between people and the natural world, between communities and conservationists, means the future for protecting the environment looks bleak unless we take action (RSPB, 2013).

The Calouste Gulbenkian Foundation (UK Branch) (CGF) has a long-standing interest in how the environment contributes to human wellbeing. *Valuing Nature* grew out of what was then (2010) a core objective: to support imaginative interventions that help increase

understanding of the importance of habitat conservation for the protection of the environment. CGF also has a history of combined interests across the arts, the environment and wider social issues. The *Valuing Nature* programme could put this unique vantage point to good use.

## OUR THEORY OF CHANGE

Both our own experience and independent research suggest particular tactics underpin positive social change. These include:

- generating fresh insights;
- working with others to make a case for change and identifying how to make it;
- forging networks of like-minded organisations and empowering them to act;
- placing an emphasis on learning – not for its own sake but to elicit change;
- working across sectors – including the private sector – to blend social purpose with profit.

We believe improving wellbeing requires change at different levels. *Valuing Nature* addresses:

- *cultural change*: trying to change the way people think, so as to influence individual or collective behaviour;
- *organisational change*: encouraging change in the way organisations act;
- *corporate change*: helping stimulate demand, shape markets and influence how organisations deliver products and services.

These, in turn, can then influence change at policy and ‘big system’ level.

# ABOUT THE VALUING NATURE PROGRAMME

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Between 2009 and 2014, CGF supported seventeen initiatives (see Appendix 1, p. 27). The programme was not conceived as a discrete whole, but evolved as CGF, co-funders and participating organisations learnt from the projects and as CGF's own strategic priorities developed. Over the last 18 months, CGF has focused on assessing the impact of this work and securing its legacy.

Projects took a variety of approaches, including:

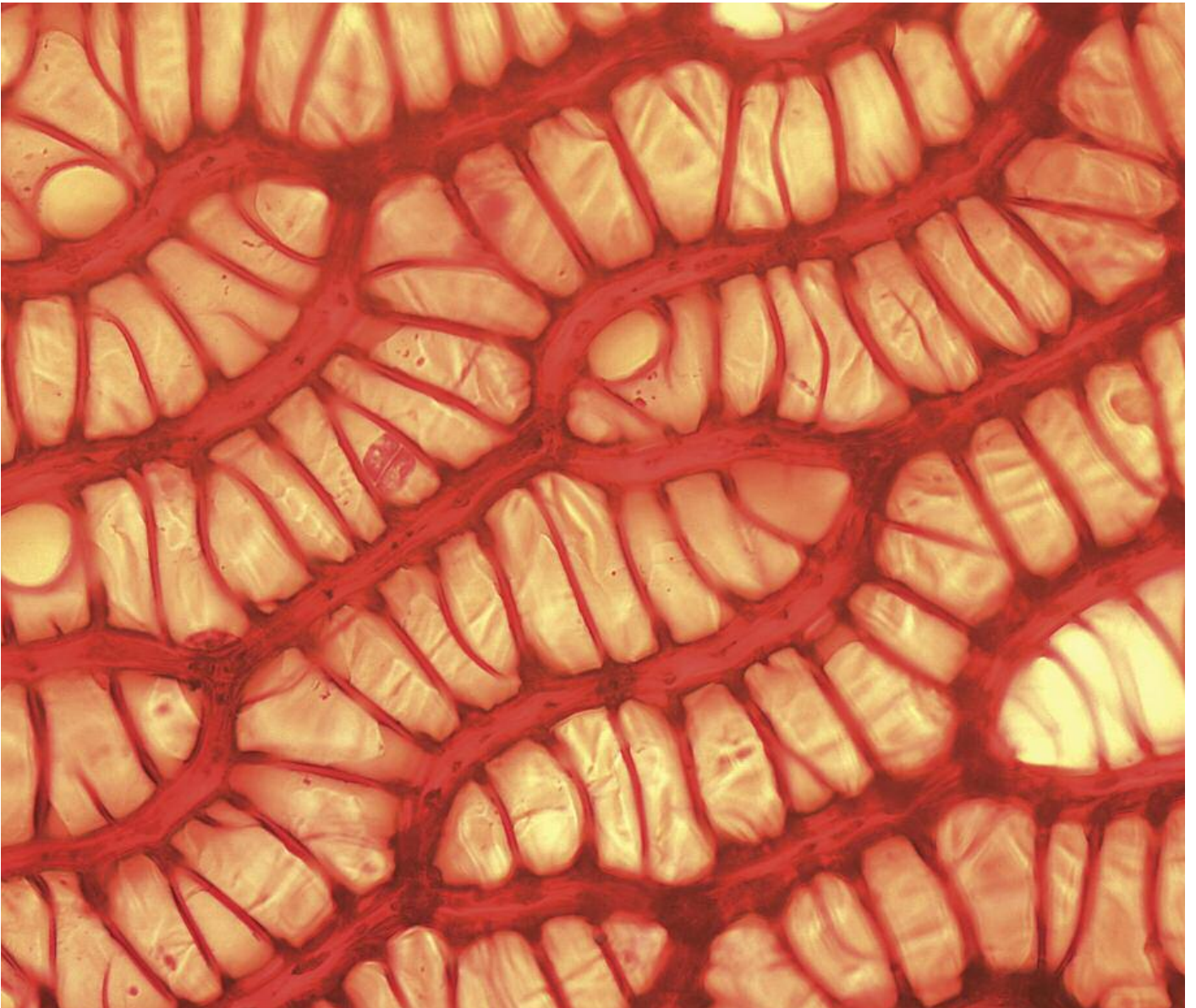
- Practical projects with disadvantaged communities, in particular, *Communities in Nature*, a dedicated sub-programme looking at how botanic gardens can take on a more social role. (For a detailed evaluation of the *Communities in Nature* projects, see Lynch, 2015.)
- New artworks exploring natural and scientific themes through various media, including photography, film, exhibitions, sculpture, illustration, sound and painting. Artists used both physical and digital spaces, and worked in collaboration with scientists and the public in the UK and abroad.
- 'Citizen science' projects, with scientists and members of the public collaborating on activities such as data collection.
- New ways for public planners and businesses to understand their relationship with the environment.
- Gathering evidence and establishing ways to measure impact.

Some projects were aimed at the general public, through exhibitions, screening and digital resources (many of which remain available online). Other projects worked specifically with groups who might feel excluded from, or find it harder to connect with, environmental debates and conservation spaces, including:

- people from ethnic minority communities and related faith groups;
- disabled people and those living with chronic conditions;
- people with drug and alcohol dependence;
- older people with high support needs, and their carers;
- families living in disadvantaged city communities; and
- young children and teenagers.

Many projects also engaged environmental and heritage organisations, often helping them reassess their own approaches and culture during the course of the work. Those taking part included:

- botanic gardens;
- conservation organisations, such as the RSPB;
- museums and galleries; and
- scientific research centres.



Rob Kessler: *Sphagnum palustre*, Sphagnum moss.  
Kessler created this piece by staining micro-fine sections of flower stems to expose functional characteristics.

# WHAT DID THE VALUING NATURE PROGRAMME ACHIEVE?

Projects were evaluated using a range of methods, including individual reports and overviews by independent researchers, honest self-evaluation by projects, participant feedback, regular progress reports, and close contact with CGF and other coordinators. These show some very positive effects on both individuals and organisations.

## CHANGING LIVES, CHANGING ATTITUDES

For many people, participation in the projects was life-changing.

Since I've come to the garden ... I'm changed from being a bad boy ... to [thinking about] being a gardener. It's keeping me out of trouble and that's it.

*Participant, Royal Botanic Garden Edinburgh Edible Gardening project (quoted in Vergou and Willison, 2013)*

Participants reported better physical and mental health, increased vitality, improved self-esteem and confidence. They also welcomed opportunities to learn new skills and knowledge (for example, how to grow vegetables) and to meet a broader mix of people. Growing plants for Bristol Zoo Gardens, for example, gave people a common purpose.

The project brought everyone together because we are all about the gardens now and the plants which are growing. Before we would all just be in our flats.

*Rose, sheltered housing resident,  
Bristol Zoo Gardens project (quoted in Lynch, 2015)*

Participation also prompted many conservation staff and volunteers to rethink their attitudes. Some initially had reservations about taking part: many lacked experience of public engagement; some had preconceptions about certain groups. But participation inspired them to reconsider their roles and develop new skills.

I can see my role here as broadening to involve that social role a lot more than I did before because I've experienced it, enjoyed it, seen how it's worked, seen what we need to work on and how we can develop it.

*Staff member, Westonbirt Arboretum  
(Vergou and Willison, 2013)*

## THE POWER OF CITIZEN SCIENCE

NATURAL HISTORY MUSEUM URBAN TREE SURVEY

The Natural History Museum's three-year tree survey invited the public to build a database of the UK's 'urban forest'.

The Museum developed interactive tools and resources to help citizen scientists identify trees in their neighbourhoods. This included an app for use in the field. It also developed resources for schools, linked to the curriculum and relating to real world science.

People across the country contributed information about trees in their gardens, streets and parks. This provided scientifically useful data on biodiversity, especially in previously unmapped private gardens.

The project significantly raised the profile of the Museum's citizen science work and provided learning and resources it can adapt for future projects. It created a

deep engagement with a new audience the Museum might not otherwise have been able to reach.

<http://www.nhm.ac.uk/take-part/identify-nature/leafsnap-uk-app.html>





Galápagos exhibitions:  
At the Bluecoat Gallery,  
Liverpool (above).  
Photo: Nuwan Wijee.  
At Centro de Arte  
Moderna (CAM), Lisbon  
(right). Photo: Paulo  
Catrica.



Imaginative use of technology expanded engagement with – and awareness of – natural concerns at a national level. The Natural History Museum, for instance, developed an app to help people identify and then report trees in their local area, as part of a census of the UK's trees.

[The survey reached] a wide variety of audiences nationwide, engaging gardeners and casual observers, as well as people who consider themselves amateur naturalists.

*Tree survey, evaluation report  
(Natural History Museum, 2014a)*

Using art to tell the conservation story in fresh and surprising ways also had a clear impact on broader public preconceptions about conservation and habitat. A number of artists undertook residencies in the Galápagos Islands, with the resulting work later showcased in two exhibitions in the UK and one at CGF's headquarters in Lisbon. Feedback found visitors' most common response to the exhibition was to feel more connected to the environment.

It challenges stereotypes of a 'green beautiful' with no problems. It encourages more awareness of sustainability and the environment.

*Visitor feedback, Galápagos exhibition  
(GGARP, 2012)*

Underlying these approaches is a common theme: audiences relished active participation in social settings, whether this was getting hands-on with plants or visiting a gallery.

I like it when I've got mud on my hands, I want it to be real ... I don't want it to be theory.

*Urban Veg project participant, Winterbourne Gardens  
(BGCI/RCMG, 2011)*

You experience it more than you would if watching TV. You see more through drawings and artwork. It gives you more time to absorb and you can go back and look at things.

*Visitor feedback, Galápagos exhibition  
(GGARP, 2012)*

Such active participation – together with the feeling they could make a difference – was at the heart of people making changes, however small, to their lives or professional practice.

Generally mind broadening and a good learning experience – something different, exciting and thought provoking which has got me using my sketch book more.

*Planning participant, By Leaves We Live (PAS, 2013)*



## NEW WAYS TO TELL THE CONSERVATION STORY

GULBENKIAN GALÁPAGOS ARTISTS' RESIDENCY PROGRAMME

The Gulbenkian Galápagos Artists' Residency Programme was an initiative which took place over five years, encompassing artist residencies, exhibitions, talks and events, a publication, websites, placements and prizes. It highlighted the challenges faced by conservation and natural heritage sites and the communities that live in them through the unique perceptions of 12 artists. Their highly individual and unconventional encounters with life on Galápagos – human and natural – gave rise to a rich body of work showing the complex truth of these distant and evocative islands.

The culmination was a major exhibition of the artists' work shown in Liverpool, Edinburgh and Lisbon. Feedback from visitors showed the most common response was to feel a greater connection to the environment. "We need exhibitions like this," said one. "Everyone cares too much about their own world. We need to be more considerate to others and the way we live."



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

Above: Isabela, Galápagos.  
Semiconductor: Ruth Jarman and Joe Gerhardt.

Left: Taking on the persona of indigenous bird the blue-footed booby, Marcus Coates made a local TV news programme in which he interviewed people about their habitat and behaviour – humans seen from the perspective of an animal – and returned from the Galapagos with 'enough material for a lifetime's work'. Photo: Marcus Coates.

It was not only individual attitudes that changed; organisations changed too. At the start of the Gulbenkian Galápagos Artists' Residency Programme, for example, the Galápagos Conservation Trust (GCT), was beginning to focus on the environmental impact of the islands' ever-increasing population and tourist industry. The resident artists demonstrated the potential role of arts in bringing people together and developing a shared culture and sense of community in addressing the issues. This led GCT to recognise the value of culture as well as science and education in its core mission. For many organisations, seeing their own culture evolve was a significant aspect of their involvement in *Valuing Nature*. These environmental organisations embraced the idea of taking on a more social role and engaging more with local communities.

Watering calendula plants at Robinson House Care Home, for the Bristol Community Plant Collection, Bristol Zoo Gardens. Photo: BZG.



Attitudinal change is the single biggest benefit and starting to build bridges with these communities. ... I suppose it's giving up a level of control and I think that's very positive ... We are 100% committed ever since. We now have a community volunteer team that works specifically on these community programmes. ... It has become a speciality of ours. The legacy is that we are still able to deliver. And it changed our mindset.

*Ben Oliver, Learning and Participation Manager, Westonbirt Arboretum (quoted in Lynch, 2015)*

## REACHING NEW AUDIENCES, CREATING NEW PARTNERSHIPS

Some conservation staff could be initially fearful that greater public engagement might hinder their core activities (Lynch, 2015). But many saw immediate and practical benefits from this work. Through its tree survey, the Natural History Museum attracted over half a million new visits to its website. The project not only gave it unprecedented access to data from private spaces, like back gardens, it also provided an engaging hook for the museum's wider messages about biodiversity, climate change and the importance of trees (Natural History Museum, 2014a).

Other organisations also found that working with 'citizen scientists' helped them tackle projects they would not otherwise have had the capacity to undertake. Bristol Zoo Gardens, for example, established the UK's first national calendula collection, with community groups growing plants and saving seeds.

Taking a more socially focused approach could open up new funding streams.

It gave us the funding to work with special needs groups and ... a lever to get future funding for further work.

*Ruth Godfrey, Botanic Garden, University of Leicester (Lynch, 2015)*

In the *Communities in Nature* programme, botanic gardens opened up to new audiences from local communities.

We now have communities working with us that didn't before and now do regularly via volunteering.

*Ian Edwards, Head of Exhibitions, Royal Botanic Gardens, Edinburgh (Lynch, 2015)*

But they also became a hub where people from different community groups could mix.

What heartened me was that people from very different backgrounds were able to work together, from the Asian Women's Group to the Drug Dependency Group to Stroud Macular Disease Society.

*Ben Oliver, Westonbirt Arboretum, interviewed for Lynch 2015*

Importantly, the programme forged new working partnerships across sectors. The Gulbenkian Galápagos Artists' Residency Programme, *By Leaves We Live*, ArtsAdmin, and individual work by Rob Kessler and Chrystel Lebas, for example, all brought artists together with specialists from other sectors, including planners, scientists and botanists, expanding practice on both sides.

[The project was a] Fascinating opportunity to understand the processes of planning for biodiversity and to help to find ways of promoting them.

*Participating artist, By Leaves We Live (PAS, 2013)*

## GATHERING EVIDENCE, INFORMING POLICY

Benchmark research for *Communities in Nature* found a main reason stopping botanic gardens taking on a broader social role was a lack of evidence of impact (BCGI/RCMG 2011). Evaluation is clearly crucial for attracting funding, promoting awareness and, often, convincing senior management of the worth of such projects.

Evaluating social impact was a new area for many conservation staff, and there were challenges. Language, translation and literacy issues could make traditional methods like form-filling problematic. Groups could be so grateful for being included they were reluctant to give critical feedback. Staff could also be confused about the purpose of evaluation, seeing it as a judgement rather than reflection for improvement. Others felt it an excessive demand for the size of the project and the time they had available (Lynch, 2015).

Nevertheless, projects did produce anecdotal feedback. CGF also worked with academics to provide independent evaluations (see, for example, Lynch, 2015 for the *Communities in Nature* projects).

Individual projects also produced practical outputs, developing learning tools and resources for others to use. For example:

- The Geffrye Museum has produced downloadable activity packs from its Evergreen Gardeners project, so others can reproduce its creative sessions designed for isolated, older people and their carers;
- The Natural History Museum devised educational resources from its tree survey: linked to Key Stage 2, these also fed into a new Naturalist Activity Badge for the Cub Scouts;
- Plan Vivo Foundation has developed 'insetting', a clear action framework to encourage businesses to invest in environmentally friendly practices along their supply chain.

Botanic Gardens Conservation International (BGCI) coordinated the *Communities in Nature* programme and is building a robust evidence base from the work. During the course of the programme, BGCI published results of pilot projects in peer-reviewed journals; compiled manuals, collecting evidence of diverse social inclusion work in botanic gardens internationally; and created an online map of relevant community projects around the world.

Where evidence already exists, it may need better dissemination if it is to influence public spending. A review by the New Economics Foundation (NEF, 2012) found abundant and robust evidence linking contact with nature with wellbeing and some with pro-environmental behaviour but recommended strengthening the evidence on the socio-economic benefits of these connections.

Two of the *Valuing Nature* projects have taken this forward. The Conservation Volunteers (TCV) has been mining the resources of its management information system to analyse quantitative data on volunteering. The data the system collects makes it possible to explore how volunteering benefits the volunteers and connects with environmentally conscious behaviour (TCV, 2014).

One of the most interesting findings is that people from highly deprived areas gain significant personal benefit from volunteering, much more so than elsewhere.

*Phil Rothwell, TCV Policy and Futures Director (TCV, 2014)*



The evaluation of the Evergreen Gardeners project found that some participants' physical dexterity had improved as well as their emotional wellbeing. Photo: Em Fitzgerald/Geffrye Museum.

## REACHING 'GOLD STANDARD'

EVERGREEN GARDENERS, THE GEFFRYE MUSEUM OF THE HOME

The Geffrye Museum had long worked with older people but they tended to be "quite active retired". Evergreen Gardeners provided something for isolated and vulnerable older adults and their carers.

Using the museum gardens as inspiration, the project aimed to encourage lifelong learning, reconnect people with the natural world and contribute to each individual's sense of wellbeing. Weekly gardening and arts sessions were carefully designed to be accessible for people with physical and

sensory disabilities. Activities ranged from planting, growing and baking, to ceramics, printing and garden-related arts and crafts.

This was a 'gold standard' project, according to the independent evaluation. Success came from a mix of factors: an underlying culture of respect and affirmation; careful implementation, attention to detail and adaptability; strong support from the Museum; and significant resourcing, especially staffing.

Evergreen Gardeners continues as a monthly club. The Museum is expanding the approach to other community groups.

<http://www.geffrye-museum.org.uk/learning/community-outreach/older-people/evergreen-gardeners/>



## SETTING A BASELINE

### CONNECTION TO NATURE, RSPB

Generations of children have little or no contact with the natural world. They miss out on proven education and wellbeing benefits and their resulting lack of understanding poses a serious threat to the long-term protection of the environment.

A groundbreaking study by the RSPB (with the University of Essex) has established the first national baseline of connection to nature for children. It finds only 21 per cent of 8- to 12-year-olds have a 'realistic and achievable' level of connection. This robust measure provides a tool for both assessing connection to nature and tracking the impact of policy and practice. It's one that any

organisation can use to assess its own nature programmes.

Analysis of the data confirms that children with a greater connection to nature achieve better test scores, have higher wellbeing and pro-nature behaviours. The RSPB is now working with the University of Derby to extend the measure to teenagers and is establishing a national baseline for adults. It has called on the government to adopt the measure in the nation's wellbeing accounts.

<http://www.rspb.org.uk/forprofessionals/policy/education/research/connection-to-nature.aspx>

Above: RSPB have shown that four out of five children lack a meaningful connection with their natural environment. Photo: David McHugh (rspb-images.com).

Below: Children taking the survey about their amount of contact with the natural world. Photos: RSPB.



In groundbreaking work, the RSPB (with the Universities of Essex and Derby) has developed a sophisticated metric to track the extent of 'Nature Deficit Disorder' in the UK. Previous research with adults suggested that connection with nature can provide a new paradigm for health and wellbeing. This project confirms the same associations between wellbeing and a connection to nature in children (tracked by activities like feeding birds and providing garden habitats).

It also highlights specific educational benefits for children, suggesting that nature should be part of every child's life. The findings reveal not only meaningful benefits to both human wellbeing and

natural preservation but demonstrate that we can set targets for our connection to nature (RSPB, 2013). The RSPB is now exploring a similar methodology for teenagers.

For the first time, we have created a baseline that we and others can use to measure just how connected to nature the UK's children really are.

*Mike Clarke, Chief Executive, RSPB*

The work by RSPB and TCV provide robust tools that can increase understanding of the *social* value of contact with the natural world and inform policy on reversing the trend in low engagement with nature and the benefits of investing in this.



Students from the Cabot Primary School growing calendula for the Bristol Community Plant Collection, Bristol Zoo Gardens. Photo: Jessica Johns.

# WHAT ARE THE BROADER LESSONS FROM VALUING NATURE?

The projects gathered under the *Valuing Nature* programme showcase effective ways of engaging a broad range of people with environmental issues. But they also provide pointers on how imaginative approaches to social engagement can shift culture, from the individual to the organisational level. Such culture change is essential if we are to communicate the importance of the natural world to our wellbeing – and take the steps needed to protect it.

Threading through the programme is the value of taking risks, breaking boundaries, being flexible and working with others.

## TAKE RISKS

All the projects in the programme were pilots, testing new approaches – reaching out to different audiences, collaborating across sectors, exploring scientific concerns through art, questioning long-established ways of working. An element of risk was inherent to them all.

While clearly challenging, this led to some real shifts in culture. This was especially true for the conservation organisations taking part. Take one example: traditionally, botanic gardens keep children away from their plant collections. As part of its involvement in *Communities in Nature*, Royal Botanic Garden Edinburgh (RBGE) decided to experiment by opening up part of its garden to very young children. This created an overwhelmingly positive experience for the children but also, in practice, posed no serious risk to the plants. Lessons from such projects are influencing change at the heart of the organisation.

[Communities in Nature] certainly helped to embed 'community' in the agenda for governance appearing in the corporate/strategic plan. It hasn't appeared formally before.

*Ian Edwards, Head of Exhibitions, Royal Botanic Gardens, Edinburgh (Lynch, 2015)*

The Gulbenkian Galápagos Artists' Residency Programme consciously placed risk at the centre of its process, for example:

- For project co-ordinators, the Galápagos Conservation Trust (GCT), this was its first detailed exploration of how art and culture might inform the practice and ambition of an environmental campaigning organisation.
- The local scientific institution, the Charles Darwin Foundation (CDF), was both inexperienced and cautious about what role artists might play.
- Artists were free to undertake the residency according to their own curiosity and in response to their day-to-day experience. There was no agenda.

The final report concludes that the project's success demonstrates "the art of enlightened risk taking" (GGARP, 2012). The crucial, stabilising factor was the appointment of expert curator, Greg Hilty, and the scientific and campaigning expertise of the GCT. At its creative helm, the project had key individuals and organisations with the passion, contacts, status and commitment to explore and deliver an exemplary meeting of art and science. This meant it could aim high and wide, leading to work of prize-winning quality. The report concludes: "if you want to take risks ensure you have unquestionable expertise at the heart of the project" (GGARP, 2012).

## BE FLEXIBLE

Flexibility was another defining characteristic of the programme. This allowed projects in turn to be fluid and adaptable, and this proved important to their success. Projects learnt by doing, changing course when necessary.





## THE PLAYFUL SIDE OF NATURE

NATURE PLAY, ROYAL BOTANIC GARDEN EDINBURGH

Horticultural staff can be nervous of young children playing in botanic gardens. RBGE hoped to develop a better practical understanding of what visitors with young children do – what appeals to them and what impact these activities have on the plants.

Its Nature Play research found that unstructured play is difficult to plan for. It will rain, high winds will affect safety,

children will get stung. Gardens must be prepared to be flexible – but minor adjustments are often all that's needed. Regular visitors with young children valued the freedom to explore wilder parts of the garden and be creative, though attracting local families not in the habit of nature play proved more difficult. The research confirmed that nature play is popular and easily accommodated – and the children's activities did not harm the plants.

The findings provide a basis for guidelines for nature play. RBGE is sharing these lessons with other botanic gardens and urban nature reserves in and beyond the UK.

<http://stories.rbge.org.uk/archives/15097>

Above: Children enjoying unstructured play at the Royal Botanic Garden Edinburgh. Photo: RBGE.

The most successful *Communities in Nature* projects, for example, were those that adapted to what communities needed. It became clear that involving potential community participants in planning from an early stage was crucial in ensuring issues were relevant to them and thus engaging them fully.

We went out into the community to find out what they were interested in. We trialled sessions, gave them taster sessions and they chose what they liked or not. We now build a programme with them.

Ben Oliver, Learning and Participation Manager,  
*Westonbirt Arboretum (Lynch, 2105)*

It was important to learn from experience and from mistakes.

We tried a lot to work with young mothers on nearby housing estates – tried everything but it obviously didn't work. What we learned from that is that we expanded the programme and offered it to a much wider audience. Once up and running we could go back and offer it as an established programme – then we were getting 50-60 young mums – a real buzz. [Before] They'd felt a little singled out for charity.

*Ian Edwards, Head of Exhibitions, Royal Botanic Garden Edinburgh, interviewed for Lynch, 2015*

Flexibility was as important for the arts-led projects. The Gulbenkian Galápagos Artists' Residency Programme shifted course after underestimating the pressures on scientists based at the Charles Darwin Foundation (CDF). It wasn't possible – or indeed desirable – for all the visiting artists to collaborate with CDF scientists. This led some artists to forge connections more firmly rooted in the local community instead. But these unanticipated connections and outcomes “tell a story of a significant shift in the cultural reality and future of Galápagos” (GGARP, 2012). In turn, this created artwork that then raised awareness of environmental issues through being exhibited in the UK.

## BREAK BOUNDARIES

Being flexible includes embracing working with those we might not automatically think of as partners – with ‘unusual suspects’.

All the *Communities in Nature* gardens wanted to reach out to local disadvantaged groups who were not regular visitors. All felt they achieved this; but this was not just a box ticked, many found it a revelation (Lynch, 2015). Working with new audiences could initially feel challenging but was ultimately rewarding.

When I was working with the drug-users I was apprehensive but these were misconceptions. They're people, just like me.

*Volunteer, Westonbirt Arboretum (Lynch, 2015)*

Some gardens were now recruiting volunteers from more diverse groups. Some had established new partnerships with other organisations, such as local disability groups, festivals or heritage organisations. These gardens show how – with will, respect and imagination – no group was too hard to reach.

Other projects highlight how partnerships between scientists and artists can surprise and enrich the practice of both. Photographer Chrystel Lebas, for example, uncovered a unique collection of historic landscape photography in the Natural History Museum archive. The Museum then invited her to collaborate with the botany department in developing the photographic plates, identifying the locations featured, and taking new photographs to explore environmental changes over the last 80 years.. The project resulted in pioneering an innovative research approach to documenting changes in the landscape, as well as a new body of work for the artist, which will be exhibited in the Netherlands in 2017.

## INVESTMENT IN THE ECOSYSTEM

'INSETTING', PLAN VIVO FOUNDATION

**'Offsetting' carbon emissions has become a familiar concept. Plan Vivo has now developed 'insetting' to help businesses reduce the carbon footprint and unsustainable land management practices within their own supply chain. This exciting new approach links farmers directly to end buyers through 'Payments for Ecosystem Services' for farming and forestry activities.**

**Plan Vivo provides a business framework and other resources to help businesses identify opportunities to do this.**

**Engaging some sectors, such as large supermarkets, has proved difficult. But insetting is becoming increasingly recognised as a way for companies to mitigate risks and strengthen relationships**

**with suppliers. "Instead of being a simple cost on their balance sheet, they can transform that into an investment, plus it's a fantastic communication and marketing tool," says Christopher Stephenson, Director at Plan Vivo Foundation.**

<http://www.planvivo.org/docs/InteractiveManual.pdf>



Photos from Kaffe Matthews' work from her time on the Gulbenkian Galápagos Artists' Residency Programme. She used underwater recordings of hammerhead sharks in a music-making workshop on Isabela Island.



In the Galápagos, artists Ruth Jarman and Joe Gerhardt, known as Semiconductor, worked with a volcanologist undertaking research on how magma shifts underground.

When Kaffe Matthews' sound recordings of sharks were broadcast on island radio: "local people said they have never heard anything like it – it made them turn up their ears and wonder why they only ever hear 'background pop music' from the radio" (GGARP, 2012).

Alison Turnbull connected with an entomologist (co-incidentally capturing a new species of moth in her room). Her residency strengthened her own environmental commitment.

I don't think I was a really committed environmentalist until I went to the Galápagos. I have become much more interested in environmental matters back home as a result of going there.

*Alison Turnbull, resident artist (GGARP, 2012)*

By Leaves We Live more consciously applied artistic approaches to professional practice. It teamed artists with planners to reflect on new ways to enable a wider discussion on how Scotland's natural resources matter to people in everyday life. The creative approach revealed the deep feelings and long-buried memories landscape can evoke. But it also shifted professional thinking.

[It] encourages creative thinking in utilizing the benefit of nature rather than dismissing its potential. Nature is a benefit not a hindrance.

*Participant, By Leaves We Live report (PAS, 2013)*

The multi-disciplinary nature of the Geffrye Museum project was felt to be the very foundation of its success.

The plural nature of the project, particularly the diversity of staff working with participants (artists, gardeners, educators, curators, filmmakers and photographers) lays the ground for increased social connectedness [and] emphasises the importance placed on the project. My feeling is that this helps foster a sense of individual and group importance ... This model of working is empowering project staff as well as participants.

*Project officer, quoted in Evergreen Gardening Project Evaluation Report (Neal and Coe, 2013)*

The ecology of change is complex. We cannot meet the many problems facing society by acting alone. We must work with others – including the public, business and social sectors – if we are to have wider and longer-lasting impact.

## MAKE USE OF MANY CHANNELS

The projects also experimented with the methods they used, taking a wide range of approaches, from practical outdoor activities to developing apps. Overall, this gave the programme a much wider social and geographical reach and appeal.

Liverpool University's Ness Botanic Gardens ran science-focused workshops for Year 7 and 10 students from a local school in a disadvantaged area. Growing vegetables helped students learn about scientific concepts like photosynthesis and climate change. At the other end of the lifespan, the Geffrye Museum developed an adult learning programme for older, vulnerable people from the local area. This encouraged creative engagement in the natural world, inspired by the museum's gardens, with activities such as growing plants and making herbal soap.

The Natural History Museum Tree Survey developed interactive tools and resources, including a tree identification app, to help citizen scientists contribute information about trees in their own neighbourhoods. The project also produced resources for schools, including lesson plans and a simple leaf ID chart.

During his residency with the Plant Development Group cell imaging unit at the Gulbenkian Institute of Science in Portugal, Rob Kessler created mesmerising images of native species, using the same material and technologies as the scientists to celebrate the hidden beauty of plants and reveal new ways of 'seeing'. During her residency at Oxford Botanic Garden, Gabriela Albergaria created an art book, *hither and thither*, part scholarly guide, part artist's exploration, inviting visitors to look more closely at the garden's trees.

Other projects explore conservation issues in both unusual formats and unexpected spaces. ArtsAdmin deliberately sought the widest audience for *What on Earth?*, a series of six short films challenging views on environmental matters in surprising ways. The series has been shown to art and film audiences, visitors to scientific and natural history organisations, climate change and green groups, schoolchildren, political audiences – an estimated 220,000 people. Screenings included prime-time slots on the BBC Big Screens in the run-up to the London Olympics. The films also remain available on dedicated YouTube and Vimeo channels (ArtsAdmin, 2011).

Fevered Sleep created an online text-based artwork with people across the UK – from a teenage girl on Lindisfarne to a grandfather in London. 'An Open Field' celebrates the unique and diverse habitats that make up the UK, and the people and others that live in them ([www.anopenfield.co.uk](http://www.anopenfield.co.uk)).

Engaging with environmental issues in this way did not compromise artistic quality. Several of the Galápagos artists won prizes for their work; indeed, these were important in helping to secure exhibition spaces in the UK and giving the work wider reach.

I always feel a bit queasy about issue-based art – artists are not here to make propaganda – but at its best the exhibition, and the whole project, engaged with this dilemma and raised more questions than it answered.

*Alison Turnbull, resident artist (GGARP, 2012)*

The programme also supported the development of practical tools for businesses to use. Plan Vivo Foundation created a framework for 'insetting'. Inspired by the more familiar offsetting, insetting enables businesses to identify and invest in opportunities *within* their supply chains that reduce risks to local ecosystems.

Across a whole programme, such a multi-channel approach doesn't just spread the messages further. Reframing concepts like this communicates messages to audiences in different, unexpected – and so more compelling – ways that can prompt them to change their own thinking.

Sketches in ink and aniline dye on paper by artist Rob Kessler.





The staging of *Above Me The Wide Blue Sky*, a performance installation exploring people's connection to the natural world. Photo: Fevered Sleep.

## ALLOWING PROJECTS TO EVOLVE

AN OPEN FIELD, FEVERED SLEEP

*An Open Field* was conceived as a podcast to accompany, and widen the reach of, *Above Me The Wide Blue Sky*, a performance installation exploring people's connection to the natural world. But, in development, its potential inspired Fevered Sleep to create a whole new artwork.

Associate artist Luke Pell invited people to take him to places that mattered to

them. As they walked, they talked. Things were shared and revealed, ordinary and remarkable things from those places and from people's lives. Each encounter unearthed particular knowledge of particular places.

The result is a digital text-based artwork, [anopenfield.co.uk](http://anopenfield.co.uk), celebrating how deeply we know ourselves in relation to the natural places where we

live and walk. The project has helped Fevered Sleep build strong relationships with environmental and conservation organisations. The RSPB, the British Trust for Ornithology and the Bumblebee Conservation Trust are all discussing possible collaborations.

<http://www.feveredsleep.co.uk/current/an-open-field/>

## COLLABORATE AND SHARE LEARNING

All the projects relied on some form of joint working – between participating organisations, between projects and audiences, and across disciplines. Better cooperation can clearly make organisations more effective, especially at a time when resources are limited. The NEF research suggests there is scope for a wide range of organisations to come together to provide a louder, more effective voice for a healthier natural environment (NEF, 2012). The study found several examples of innovative partnerships among and between private, public and third sector organisations. NEF recommends setting up a network or common platform to encourage information sharing and strategic co-ordination

between organisations, and CCG's Marine CoLABoration group established in 2015 builds on this recommendation.

These 'communities of practice' share both ideas and inspiration. Vitality, they also help build up evidence that can attract further support.

I think a community of practice is very important as it gives us access to evidence and examples for when we are talking to organisations we may wish to work with. When we did the [Heritage Lottery Fund] Activity Plan, for example, we were able to say we have seen this work in other places.

*Ben Oliver, Learning and Participation Manager, Westonbirt Arboretum (Lynch, 2015)*

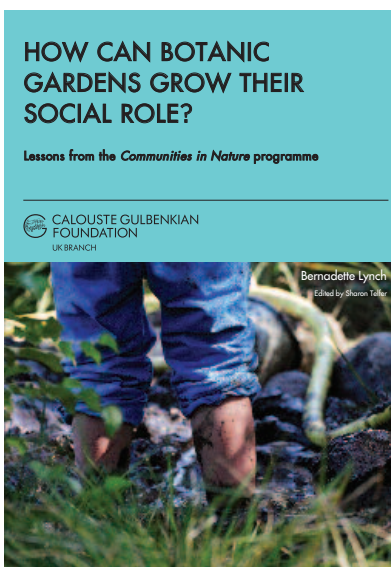


Developing a community of practice was a key objective for the *Communities in Nature* programme. It had mixed success but BGCi is continuing to look at ways to move this forward (Lynch, 2015). It is exploring the idea of ‘hub gardens’, leaders in the field that can share best practice and mentor others. It is considering how to help botanic gardens focus on business planning and develop funding approaches to support a social role. It is also looking at training for garden staff in audience development and data collection.

BGCi is engaging with existing research consortia with overlapping interests, such as health and wellbeing and climate change. It has also initiated a sector-wide discussion on the principles behind a social role for gardens. These could become recognised good practice standards that in turn can be used to raise profile, train staff and reach out to funders and donors. Establishing common standards and branding for botanic gardens’ social role would allow this work to be regularly monitored and evaluated with community partners.

**Isolated and vulnerable adults and their carers exploring the gardens of The Geffrye, Museum of the Home.**

Bringing groups of people together can have a significant impact on finding and implementing solutions. Collaboration increases the potential to generate new ideas, adds collective value and increases the capacity to spread learning. For funders, this can only maximise their investment.



**‘How Can Botanic Gardens Grow Their Social Role?’ details the learnings from CGF’s *Communities in Nature* programme.**

## FIND NEW WAYS TO MEASURE IMPACT

Sharing knowledge has the potential to generate significant social impact by persuading others to invest in nature. But trialling new ways of working may also mean finding different – more flexible – ways of measuring outcomes and impact.

The Geffrye Museum was working with vulnerable older people and their carers. Independent evaluators worked collaboratively with the project, taking joint responsibility for

capturing information and assessing implementation, progress and achievements. The evaluation dovetailed with internal reporting systems and the project's natural timetables. The evaluators used various non-intrusive methods to collect evidence sensitively. These included observation and participation, pre-arranged interviews, brief and simple questionnaires, and self-evaluation by museum and project staff. The project also set up an advisory group representing all those involved. This approach was not intended to be a rigorous study to academic standards. But the evaluators are confident it provides a robust perspective on the study's impressive outcomes (Neal and Coe, 2013).

The pioneering projects by the RSPB and TCV demonstrate that it is possible to take 'hard' approaches to measuring 'soft' benefits. But impact also needs to look beyond strict socioeconomic measures (Lynch, 2015). Other projects demonstrate ways of capturing softer information. By Leaves We Live, for example, illustrates the potential of creative approaches to help communities voice their views and decision-makers take account of these emotional responses.

The arts-led projects show the benefit of bringing in proven expertise from the start. Rob Kessler, for example, has been collaborating with botanical scientists at Kew since 2000. The long-term commitment of the respected curators, Greg Hilty and Bergit Arends, was central to the creative vision of the Gulbenkian Galápagos Artists' Residency Programme. His involvement was also important in helping secure gallery space at an early stage for the artworks arising from the project. Such experts not only generate new ideas, they add value and help spread learning from the start.

## GIVE PROJECTS TIME

Finally, for risk-taking and flexibility to flourish, projects must have time to develop and refine their approach. Westonbirt's collaborative approach illustrates the social impact a flexible project can achieve.

Initially we planned a big programme but ... we came to understand the importance of giving time for social sharing – indeed often the best discussions happened during this informal time.  
*Chris Meakin, Westonbirt Arboretum (Vergou and Willison, 2013)*

Designing projects with participants not only ensured that projects were relevant to them; it helped release their creativity and energy. Working over the longer term also made it easier for environmental issues to emerge organically.

Reconnecting people with nature is the first step. It's hard to engage people on environmental issues if you only have a one-off event, but more feasible over longer-term engagement.  
*Botanic garden staff member (Lynch, 2015)*

Creative people with the ideas and energy to make change happen need the time and space to learn. The organisations they work with and through need the capacity and capability to deliver. But long-term projects seed and grow profound change.

## FRESH THINKING FOR LOCAL GOVERNMENT

'BY LEAVES WE LIVE', PLANNING AID FOR SCOTLAND (PAS)

'By Leaves We Live' was an initiative which brought together six artists and six groups of planners in six locations. Each project took the form of an artist's residency, working with photography, sculpture, poetry and sketching. The artists facilitated each project, guided by a lead planner who brought in expertise when needed.

The projects demonstrated considerable potential for communities seeking to engage with proposed developments in their areas. Professionals also welcomed the chance to re-energise their approach. "It encourages creative thinking in utilizing the benefit of nature rather than dismissing its potential," said one. "Nature is a benefit not a hindrance."

PAS is looking to provide more regular opportunities for professionals to refresh their thinking in this way. Too often, it concludes, there is pressure on planners to deliver rather than reflect.

<http://pas.org.uk/by-leaves-we-live/>

## NEXT STEPS

CGF is working with projects, and in particular BGCI, to ensure the legacy of these pioneering initiatives. Many are taking the work forward (see box below).

CGF has also recently refreshed its own five-year strategy. The lessons from *Valuing Nature* have

directly informed one of its three new programmes, *Valuing the Ocean*, both in its objectives and ways of working. *Valuing the Ocean* is experimental in approach and aims to help increase the capacity of the environmental sector to communicate the role of the ocean in human wellbeing, particularly through collaboration with others.

## EXAMPLES OF PROJECT LEGACY

- **GCT** has developed an online educational resource, *Discovering Galápagos*. Combining rigorous science with strong imagery, interactive content, lesson plans and art activities, it aims to capture the imagination of the young people who will be leading the conservation effort in the future.
- **The RSPB** has extended its work measuring the effect of the natural world on young children and adults, developing a similar metric for teenagers.
- **The Natural History Museum** census of the UK's tree population continues with automated data collection through the Leafsnap UK app. A community of amateur naturalists now supports Museum scientists answering queries posted in the tree ID forum.
- **Westonbirt Arboretum** has received Heritage Lottery Funding to expand its work with people with substance misuse problems and is extending the approach to other isolated groups.



Hillcrest Primary School pupils participated in the Bristol Community Plant Project, Bristol Zoo Gardens. Photo: BZG.

- **RBGE** has secured follow-up funding from the Heritage Lottery Fund to further embed its work. It runs an outreach programme and several community groups now have plots at the garden.
- **Bristol Zoo Gardens** continues to support the Bristol Community Plant Project, growing calendula as a national collection in the community.
- **The Geffrye Museum** has extended the scope of Evergreen Gardeners through another three years' funding from the City Bridge Trust.
- **Plan Vivo** is developing a certification framework for businesses undertaking insetting, the process which helps businesses reduce the carbon footprint and unsustainable land management practices within their own supply chains.
- **Fevered Sleep** is following the model developed by An Open Field for new work. In particular, having a 'pop up' project from bigger performance pieces has proved a very effective way of deepening relationships with audiences.



## CONCLUSION

Attempting to bring about social and cultural change is ambitious. *Valuing Nature* has built a bank of evidence, models and resources to inspire and guide other organisations. But it also shines a light on barriers to achieving change, which environmental organisations and those thinking of supporting them need to address.

### CHALLENGES FOR ENVIRONMENTAL ORGANISATIONS

Working in this way does demand a willingness to re-examine organisational culture. A particular challenge for specialist bodies like conservation organisations is working out how best to take on a social or public engagement role without losing sight of their original mission. Science and conservation staff may lack the time or skills for such public engagement work. Some may feel it is the responsibility of dedicated education or outreach staff. Senior managers may see social engagement as marginal – at worst, as a ‘box-ticking’ exercise.

The fact is they thought they were doing some nice community engagement work and they found there were organisational implications.

*Anonymous staff member, botanic garden  
(Lynch, 2015)*

For engagement to succeed, organisations must embrace it as a central role for all staff, not just a ‘nice-to-have’. This means supporting staff to learn new skills. Organisations should also consider running activities away from their main site, programming over longer timescales, and using new channels to get their message out. For all this, top-down commitment and understanding are essential.

Director-level support is essential for systemic change. The shift and conversation needs to happen at multiple levels but the director is responsible for making sure all departments are involved and is key to ensuring support and communication.

*Anonymous staff member, botanic garden  
(Lynch, 2015)*



Urban Veg at Winterbourne House and Garden, University of Birmingham. Photo: Winterbourne House and Garden.



## CHALLENGES FOR FUNDERS

But developing new models needs the support of funders prepared to back new thinking (GGARP, 2012). Replicability and sustainability also remain major challenges (Lynch, 2015). Currently, funding rarely supports long-term change. Indeed, it can inadvertently contribute to the marginalisation of work. When projects depend on short-term, external funding, work is guaranteed to remain peripheral, ending once funding stops.

The majority of funding is for short-term projects and so a whole organisation may be committed to the cause but they are then trapped in short-term goals if this is the only funding they can secure.

*Communities in Nature, discussion event  
(Lynch, 2015)*

Some organisations new to community work were surprised that funders often do not pay for staff costs.

As someone new to the funding application process I am disappointed that hardly any funders give funds for staff wages. This is a real problem with a community project.

*Anonymous staff member, botanic garden  
(Lynch, 2015)*

A relatively high staff–participant ratio was critical in allowing the Geffrye Museum Evergreen Gardeners project to flourish.

I haven't worked on another project that has been so well staffed, and that brings so many benefits, as well as the talents of people involved – it creates a different opportunity to develop relationships, it feels like you can follow through with things. With the best will in the world, it's normally near impossible.

*Session leader, Geffrye Museum (Neal and Coe, 2013)*

As funders ourselves, we at CGF seek continually to understand what drives positive social change – the 'ecology' in which we work. We want to spark discussion with other funders about how we can all better support pioneering projects like those in *Valuing Nature*. The box on the page opposite throws out some questions for funders raised by our experience from this programme.

*Valuing Nature* suggests that for organisations wanting to shift culture, the willingness to try something new and untested, to first examine your own culture, and to work in imaginative partnerships beyond fixed disciplines is essential. For many, this is a big ask. It is imperative that funders not only support projects which innovate in this field, but also those needing accelerator funding. The challenge for funders is to find creative and robust ways of supporting those with the ambition and courage to do this.

**'Evergreen Gardeners' growing herbs and vegetables at The Geffrye, Museum of the Home. Photo: Em Fitzgerald/ Geffrye Museum.**

## TEN QUESTIONS FOR FUNDERS SEEKING CULTURAL AND SOCIAL CHANGE

**As funders, what can we do to:**

- 1. Work in partnership with others, including those with overlapping missions and those from related sectors who may be further along this road?**
- 2. Engage expert 'change-makers', who bring authority and inspire others?**
- 3. Broaden our range of collaborators to include 'unusual suspects' who bring stimulating new ways of thinking?**
- 4. Use our own authority to bring people together?**
- 5. Allow projects the time and flexibility to develop new ways of working?**
- 6. Evaluate projects in ways that give them the space they need to thrive?**
- 7. Learn by doing ourselves, letting go of fixing firm strategies and outcomes from the outset?**
- 8. Embrace the possibility of mistakes and learn from these?**
- 9. Foster imaginative ways of measuring impact that can supplement socioeconomic measures and carry weight with decision-makers?**
- 10. Factor continuing learning, sustainability and legacy into our support?**

### ABOUT THIS PAPER

This paper draws on project publications, websites and evaluations from the programme. It has been written by freelance writer, Sharon Telfer. CGF has also published a separate paper looking in detail at the *Communities in Nature* projects (Lynch, 2015).

For more information about the programme, contact Programme Manager, Louisa Hooper at [lhooper@gulbenkian.org.uk](mailto:lhooper@gulbenkian.org.uk).

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## APPENDIX 1

PROJECTS FUNDED IN  
THE PROGRAMME**ArtsAdmin**

Production of *What on Earth?*, six short films exploring the future of species; support for the widest distribution of the films through different media in the UK and abroad.

Max £25,000\*, 2010–2011

**Botanic Gardens Conservation International**

Phased programme which became *Communities in Nature* (see also Box 3): (1) research into social exclusion and inclusion within botanic gardens in the UK and Ireland; (2) promoting the social role of UK botanic gardens, through research dissemination and pilot projects in which botanic gardens examine and reshape their philosophy, values, goals and practices so as to realise their potential to contribute towards positive social change and environmental awareness; (3) supporting projects identified through a nationwide call for proposals, and producing an online ‘How to’ manual for all gardens; (4) embedding the success of *Communities in Nature* through: promoting evidence of impact; building an international alliance of ‘social role’ gardens; and supporting gardens to scale projects and secure funding; (5) strategic development of new five-year plan, embedding BGCI’s commitment to developing the social and environmental roles of botanic gardens; (6) disseminating evaluation report of *Communities in Nature*.

Max £415,850\*, 2009–2014

**Fevered Sleep**

Dissemination of events, publications and digital tools for an exploratory research and theatre production investigating humans’ relationship to nature and how people are affected by change and loss in the natural world.

£15,000, 2012

**Natural History Museum**

National tree survey to inspire people to become active guardians of the natural world while contributing to scientific knowledge that will give them a route to inform policy decisions.

£90,000, 2009

**Natural History Museum**

Observing Environmental Change: an art-science research project in collaboration with photographer Chrystel Lebas, exploring the Sir Edward James Salisbury Collection to identify and document changes in the Scottish landscape. [A reallocation of the underspend of a 2008 grant to support a strategic approach for the integration of contemporary arts activities into the Museum’s programme.]

£57,000, 2013

**New Economics Foundation**

Evidence review of the health, education and other benefits of contact with nature.

£32,000, 2011

**Planning Aid for Scotland**

Commission artists to work with town planners in six locations across Scotland to reflect on planning and sustainability and develop new approaches for facilitated public discussions on the future of Scotland’s natural environment.

£10,000, 2012

**Plan Vivo Foundation**

Create new tools and systems for Payment for Ecosystem Services ‘insetting’, enabling UK businesses to identify and invest in opportunities within their supply chains that would reduce ecosystem risks, and preserve and enhance the flow of ecosystem services.

£54,000, 2013–14\*

\* funding consisted of more than one grant

## THE COMMUNITIES IN NATURE PROJECTS

### Winterbourne House and Gardens

ran Urban Veg, a community-based vegetable garden designed as a two-way exchange between the garden and Birmingham's Islamic communities. Workshops addressed water conservation, sustainable growing media, chemical pollution, wildlife awareness, reducing food miles and carbon footprints.

**Ness Botanic Gardens** at the University of Liverpool was keen to engage with students from disadvantaged backgrounds. In science-focused workshops, Years 7 and 10 students grew vegetables and learnt about concepts such as photosynthesis and climate change.

### National Arboretum, Westonbirt,

worked with three groups underrepresented among existing visitors: adults facing substance dependence, South Asian women who have faced domestic abuse, and older people with Macular Disease. Groups carried out practical conservation, contributed to an audio trail for visually impaired visitors, and produced a recipe book and photography exhibition.

### University of Leicester Botanic

**Gardens** wanted to increase its capacity for working with disabled people and partnered with Mosaic (which coordinates services for disabled adults) to run a series of workshops. The garden has also increased accessibility by improving paths, toilets and information displays.

### Royal Botanic Garden Edinburgh

(RBGE) was keen to reach young people and neighbouring deprived communities. Its Edible Gardening project focused on growing, preparing and sharing healthy, sustainable food. Each group designed its own programme from a series of options.

**Bristol Zoo Gardens** (BZG) wanted to involve new audiences in plant conservation and bring people together. Recruits from primary schools, a community gardening group, sheltered housing and a care home for people with dementia grew calendula plants at their sites. Plants and seeds were moved to BZG, establishing a national collection.

### Royal Botanic Garden Edinburgh

Promote children's access to natural green space by testing the theory that nature play can encourage natural regeneration and biodiversity, disseminating the evidence and developing practical guidelines for the sector.

£25,000, 2013

### RSPB

Development of robust metric to: assess the extent and changes in 'Nature Deficit Disorder' in the UK and review options for reversing the trend in engagement; determine critical threshold levels for children's connection to nature and a national baseline for teenagers.

Max. £77,000\*, 2010-13

### University of Oxford Botanic Garden

The UK base for a cross-cultural inter-disciplinary artists' residency project undertaken with Portuguese colleagues inspired by International Year of Biodiversity 2010.

£50,000, 2009

### The Conservation Volunteers (TCV, formerly BCTV)

Study the impact of environmental volunteering in six locations in the UK, testing the theory that it promotes social mixing, attracts social value, redresses environmental injustice and influences behaviour, in order to establish stronger evidence for decision-makers and a method that can be used by the wider voluntary sector.

£30,000, 2012

### The Geffrye Museum of the Home

Develop and run a new adult learning programme for older, vulnerable people, inspired by the museum's gardens, encouraging creative engagement in the natural world, and linking biodiversity more centrally to the museum's core work. Then to build on the programme's success, continuing a core group course in-house and developing an 'outreach model' to extend the benefits more widely, scaling the programme and securing viability long-term.

£98,000\*, 2011-201

\*funding consisted of more than one grant



Feel Green project  
horticulture workshops for  
people with disabilities at the  
University of Leicester Botanic  
Garden. Photo: Janet  
Clitheroe.

## **ABOUT THE CALOUSTE GULBENKIAN FOUNDATION**

**The Calouste Gulbenkian Foundation is an international charitable foundation with cultural, educational, social and scientific interests. Based in Lisbon with branches in London and Paris, the Foundation is in a privileged position to support national and transnational work tackling contemporary issues. The purpose of the UK Branch, based in London, is to bring about long-term improvements in wellbeing particularly for the most vulnerable, by creating connections across boundaries (national borders, communities, disciplines and sectors) which deliver social, cultural and environmental value.**