

# Merlin Trust Report

## Funding to attend the 2022 Beth Chatto Symposium

### Rewilding the Mind

This was a two day conference essentially looking at how the horticultural industry can continue to be leaders in conservation and sustainability. All of the speakers agreed that we have to think more deeply about our connection with the natural world and reflect this in our design/planting projects, wherever that might be.

“All who are privileged and fortunate to have an influence over the use of land/outdoor spaces have an opportunity to maximise the positive impact this can have to humans, wildlife and the environment” - Julia Boulton (Beth Chatto's granddaughter)

#### **Opening Speaker - Dan Pearson OBE, Landscape Designer**

“For too long we have been the agent of control, overfarming and overgardening - taking from the land. We have agency in this debate to re-evaluate our relationship with the natural world”

#### **Prof. Alastair Driver - BSc (Hons) Director of Rewilding Britain, Conservationist**

Rewilding Britain - “Large scale restoration of ecosystems to the point where nature is allowed to take care of itself.” Alastair travels the UK by invitation advising/informing landowners and various organisations.

Long ago we reduced or removed apex predators altering the natural ecosystem. Rewilding Britain seeks to reinstate natural processes and, where appropriate, reintroduce missing species. If we allow them to shape the landscape we can increase biodiversity, restoring and preserving our ecosystems. Good examples already exist, such as the Knepp Estate and Wild Ken Hill where conservation grazing using low impact herbivores is used as the driver to habitat creation. Wild Ken Hill has also combined rewilding with regenerative farming. Both of these projects have seen an increase in threatened species such as the Turtle Dove, Nightingale, and Lapwing. Countrywide, through careful conservation management, Britain has also seen the return of species such as Water Voles, White Tailed Eagles, White Storks, Pine Martens and the Pool Frog.

#### **Key Principles of Rewilding Britain:**

- 1 - People are key
- 2 - Size matters
- 3 - Think natural processes
- 4 - Marathon not a sprint
- 5 - Fit for the future

In Britain our ambition is to have 5% core rewilding, we are currently at 1%. 5% is easily achievable without impacting food production, bearing in mind the UK currently wastes 40% of the food crops produced. Marginal land areas on farms are not usually very productive but these strips of land can be used for rewilding and have already proven to be beneficial to both farmers and nature. Government legislation can assist farmers financially by providing money for doing public good. As with projects like Knepp and Wild Ken Hill there is also an income stream open to landowners through growing activities such as nature tourism, outdoor education, camping, grants and donations.

The aim of all the rewilding sites is to allow natural regeneration, bringing it back to life in a way that will save wildlife, tackle climate breakdown and benefit people and their communities.

### **Dr Wei Young - Chair of Wei Yang & Partners, Planning Garden Cities**

The essence of a garden city should be about social community and, as an economic model, about self sustainability. The foundation of planning these areas must be built on compassion, selflessness & creativity.

“Civilisation should be based on service to the community and not on self interest.” Sir Ebenezer Howard 1850 - 1928

The world’s urban population is fast growing, it is estimated by 2050 there will be twice as many people living and working in urban (rather than rural) areas - 9.73 billion. The planning and design of urban spaces must include wellbeing factors. Consider what the immediate surroundings of residential areas will look like, where will children play, where will people find outdoor spaces for social contact and connections to nature. Planning is both an art and a science, the use of technology can help fulfil the need for better planning in harmony with the community. If we get this right we build resilience and create a balanced system for people, nature and society.

### **Ton Muller (Scientific Curator) and Giacomo Guzzon (Landscape Architect)**

#### **How to grow green cities in the face of climate and environmental crisis.**

How do we green our cities on a large scale in a way that is long lasting, manageable, biodiverse and respected by the people that live and work in these spaces. In these public areas plants need to be chosen for their resilience and robustness. Observation of plant communities in the wild and the conditions under which they survive and thrive can help to ensure the right plant is in the right place, especially long-lived plants like trees. Alongside longevity, using variety and diversity of planting allows people to witness the seasons and encourages the growth of a rich biodiversity.

The design of green spaces in cities should be connective. Think about removing fences or walls where possible and link the green areas. Add height so the whole view can’t be seen at once and bend the paths so that it becomes a space to slow down and notice rather than just passing through.

Put in seats especially around work offices and high rise living accommodation where people can sit outside, rest, eat and socialise.

Use natural elements in the design, local stone, wood and water.

Create non prescriptive play areas that teach children how to deal with risk.

Reduce the amount of hard landscaped borders to buildings, using plants to soften these functional areas and where possible plant on roofs and walls. Careful design can also help divert storm water, soak up and slow the flow.

Importantly involve communities from the start, their engagement is key to its success. If the design is kept simple this will minimise the need for intensive maintenance. Legislation can help, for example, any new commercial buildings must contain a natural environment, i.e. room for green planting.

It has been well documented that greening projects in towns and cities have encouraged people and businesses in, benefiting the local economy. New projects are underway in both London and Amsterdam which will showcase a methodology that considers habitat-based plant selection, sociability, biodiversity enhancements and on-going care.

### **Tom Stuart-Smith (Landscape Architect) - Involved in the design of RHS Bridgewater**

This is a walled garden development which also houses a school of horticulture for future generations of career horticulturalists. The walled area is surrounded by completely free access to community gardens.

Within the formal design it was important to show that a cared for garden can still be nature friendly. Like a lot of gardens now, seed heads remain in situ and grasses are planted to be left over autumn into winter providing structural interest as well as food and shelter for wildlife. Incorporating rises and dips into the landscape design is much better for nature than flat areas.

In public gardens a thoughtful design of informal planting and pathways can create an illusion of privacy for visitors so they don't feel like they are sharing the area with so many others. Alongside this visitors should never be told how to look at the space but instead be allowed to explore and find their own way.

If visitors have a good experience it will stay with them. More importantly it may have a positive influence on their own relationship with outside spaces. It can encourage people to become involved, inspire them to become part of the solution to the environmental challenges we are facing.

Near his home Tom has helped design a community garden project which houses a plant nursery run by a charity, plant therapy groups and a plant library for everyone. This garden is built upon the foundations of sustainability and community, and how horticulture can connect the two.

### **Dave Goulson - University of Sussex & author of Gardening to Save the Planet.**

Worldwide there has been a dramatic decline in insect life. Insects provide sustenance for many other creatures further up the food chain, they recycle waste matter, beneficial insects help control pests, they pollinate the majority of our food crops and improve our soils.

One example of the impact of insect loss can be seen in the orchards of SW China where they now need to painstakingly hand pollinate all the fruit trees.

150,000 years ago the earth was covered in forest and then grazed by large herbivores who cleared areas of trees creating a mosaic of landscape, including open areas for wildflowers. This mosaic supported a great and balanced biodiversity, so how can we replicate that?

Our towns and cities have the greatest concentration of people and this is set to increase. We need to look at the role that gardens, allotments, parks and brownfield sites can play in supporting healthy and diverse insect populations. Turn these areas into nature reserves, good for nature, good for people and great for the environment.

As has already been discussed, observing plants in their natural environment is key to successful establishment in our urban spaces. Incorporating plants such as Marjoram, Vipers Bugloss and Greater Knapweed into designs and reduction in mowing allows the growth of clovers, vetch and dandelions. All of these plants are insect magnets. Incorporating wildflower areas wherever possible is a simple and effective way to create a pleasing and insect friendly space alongside our home grown produce, leisure areas and private gardens.

## Day 2

### **Sarah Price, Garden Designer & Writer - Recently involved in a garden design for one of the Maggie Centres.**

'Through considered choices of plants, and a circular economy approach to sourcing materials her gardens are low impact, innovative and rich in wildlife'.

Maggie Centres are buildings set up around the country by a charity providing free cancer support and information. These buildings have open kitchens in the centre serving tea and cake, creating a warm and welcoming environment all accessible on one level.

Sarah was asked to design the approach/surroundings to the centre, by way of a garden. Twisting paths and a feeling of wild planting immediately softened the approach, allowing immersion into the sounds and sense of nature, a world away from the clinical and often daunting hospital environment.

This design was heavily focused on sustainability:

- Recycled materials used in the hard landscaping.
- Hardy long lasting drought resilient plants.
- Use of smaller plants/bare root where possible and planted in autumn to allow for strong and resilient establishment.
- Use of waste ceramics to make seats and tables
- Chairs made from disused fire hoses.

In the future there may be less access to virgin materials so we must start to consider the value of using waste, for instance, from industry and farming. At the design stage first look at what already exists on site that can be effectively re-purposed. Where possible move away from using environmentally damaging building products such as cement. Sarah and her team have space on her own land to experiment with the use of different materials for landscaping and planting. Crucially horticulturists and designers alike need to share their

experimental and environmental successes. This should be the fundamental base for all future designs and projects.

### **John Little - Creator of the Grass Roof Company, Urban Planting and the Development of Brownfield Sites.**

Brownfield sites are extremely valuable spaces that with thoughtful planning can become wonderful nature friendly areas and importantly benefit the surrounding human population. It is easily possible to mimic nature and cause very little disturbance.

For sustainable ground maintenance use material that other people disregard such as building waste and rubble. Examples of which:

- The sowing of a wild flower meadow mix onto a base of crushed toilets, the plants flourished because of the low nutrient content of the substrate.
- Gabion edging to a design that uses waste rubble and sand looks good and creates homes for wildlife.
- Drilling different size holes into wooden structures for insects to shelter and reproduce.
- Design a path out of waste stones and sand and place a metal grate over the top. The substrate material is porous and becomes a shelter for wildlife. The metal grate provides a walkway for people to move through.
- Instead of removing material from a site if possible hire a crusher and use the material as a base for hard landscaping.
- Plants can thrive with little or no topsoil. Start with the right substrate and plants, then the insects come and after that everything else will follow.

Create a design that is rich in biodiversity and economical to care for into the future. Wildlife loves our mess. We just need to design the mess in a way that people can accept, reuse our waste and create pleasing spaces that provide the best sites for people and wildlife. Whilst this type of habitat creation has been practised now for years as part of living roof designs, transferring this to the mainstream horticulture sector is a relatively new concept.

### **Errol Fernandes, Head Gardener at The Horniman Museum and Gardens**

### **Henrik Sjoman, Scientific Curator at Gothenburg Botanical Gardens.**

**Micro Forests** - Urban afforestation, the introduction of the micro forest to our towns and cities, was the brainchild of Japanese botanist Akira Miyawaki. These are valuable areas of dense fast growing pocket woodlands. Density is key along with a variety of native species to recreate the layers of a natural forest. If we plant enough of these areas they can:

- Provide habitat and wildlife corridors
- Increase biodiversity
- Help cool the landscape
- Filter air
- Store carbon
- Subdue noise
- Be a part of the solution to stormwater management

- Be a part of the green urban designs enhancing the living conditions for everyone in the community.

The success of these areas depend on our understanding of time and the phases of a forest. In any clearing the quick growing pioneering annuals come along first, then perennials and after that grasses/shrubs. Trees then grow and shade out the grasses and protect the ground environment. The Horniman museum garden is in the very early stages of establishing a micro forest with 30 species and 900 trees over 400 sq metres. Nothing left the site, the topsoil removed was used to create mounds for another planting design and home made compost was laid around the young saplings to keep weeds at bay and retain moisture. Planted around the saplings are a shrub understory and other plants which protect the young trees whilst they establish themselves. This project involved many volunteers from the local community, sharing knowledge and nurturing collaborative working. This will continue as the micro forest establishes itself.

The future of this industry depends on ecological and sustainable credibility such as the development of schemes that sit comfortably alongside nature and have a low impact on the environment. Community engagement is key to taking these ideas beyond the garden wall.

### **Fergus - Head Gardener at Great Dixter, Sussex.**

Great Dixter was once the home and garden of Christopher Lloyd, a respected and experimental gardener. The garden is designed with layers of plants that mimic the natural environment:

- Wet bog garden,
- Dry garden,
- Woodland into pasture - where these meet there is a valuable ecozone, we've lost much of this.
- Wild flower meadow
- Formal planting with shady, sheltered and exposed areas.

As a result there is never a season without interest to visitors and benefit to wildlife. Dixter now has a wide range of habitats which is home to over 700 different types of insect life with space to eat, sleep and reproduce.

Chemicals are not used, the planting of long season pollen rich flowers, no dig where possible, seed heads are left through autumn into winter and there are wilder less managed areas. Even in the formal gardens plants come up from the cracks in the paving and others spill over the border edges. This garden shows that managed areas as well as being beautiful can still be a haven for wildlife and increase biodiversity.

Observation, creativity and experimentation are key to keep evolving our green spaces, helping them adapt to the environmental changes in a robust and sustainable way.

Thank you to the Merlin Trust for awarding me the funding to attend this event. I am a career changer, entering the horticultural industry later in life. Following my apprenticeship it was inspiring to spend two days immersed in the company of over 200 people all of whom have the same outlook, passion and commitment to the future of horticulture and the infinite possibilities it has to be a force for positive change. Ideas were shared and connections were made by people of all generations who understood that we are part of the ecosystem not separate from it and our focus has shifted from control to regeneration and recovery. These discussions illustrated well the ingenuity, positivity and hope which will take us forward in a more sustainable way to readily adapt to our climate changing future.

April Cummins  
Gardener