

Featuring illustrations by Daniel Locke

RE-DISCOVER

Re-Discover

Re-discovering nature in the Valley Gardens and Brighton Biosphere, Inspired by Rewilding

The Valley Gardens and Brighton and Lewes Downs Biosphere.

The council is planning on redeveloping Brighton's Valley Gardens over the next 5 years, to engage more local people and increase the range of activities the space is used for.



Brighton is also part of a UNESCO biosphere area that aims to 'create a world-class environment that is economically successful and enjoyed by all forever.'



The Project

Fifteen ecologists and fifteen design students worked together over the summer of 2015 to co-create the ideas presented within this publication. A three day design workshop introduced the students to each other and the concept of rewilding. They formed their own teams and went wild with ideas. Over the summer the project developed around four distinct themes: Wild Games, Eco-Structures, Species Sculptures and Natural Foraging. A fifth theme came out of the Design Futures BA course from the University of Brighton, led by Carlos Peralta. Within these themes they each developed multiple projects, each project is presented here by an illustration and its rationale.

Rewilding

Rewilding is the mass restoration of ecosystems and natural processes, accompanied or driven by the reintroduction of species, for the benefit of wildlife and people. It recognises that if given the opportunity and a helping hand to start with, nature can look after itself and us. It asks society to consider how we can re-connect and bring back nature into cities, rural and wild areas.

Acknowledgements

This project would not have been possible without the hard work, innovation and creativity of all the students involved. The team of students involved in generating the ideas for each project are displayed in the top right hand corner of each poster, the names in bold are the people who have been more heavily involved in bringing the designs to life.

We would also like to thank Jake Hardiman and Joshua Rodrigues, graphic design students involved in the project, for designing the posters. Each project has a comic strip that tells the story of the idea; Daniel Locke from Rewilding Sussex has lovingly produced them all. None of this would have been possible without our partners the University of Brighton and Onca.

We would particularly like to thank Stefano Santilli, Nick Gant, Jim Wilson, Lauren Davis and Persephone Pearl for all their help and encouragement. Jim Mayor from the council and Rich Howorth from Brighton and Lewes Downs Biosphere also were a huge help in introducing the students to the Valley Gardens and Biosphere. We also want to say a big thank you to the Heritage Lottery Fund who funded this project.

Finally, Chris Sandom, who set up Rewilding Sussex on a whim to see what kind of rewilding could be done in his own back yard, would like to say a huge personal thank you to everyone involved in the project, all the Rewilding Sussex members and supporters, but particularly the Rewilding Sussex committee: Claudia Gray Treasurer, Daniel Ingram Secretary, Harri Tan Youth Leader, and Daniel Locke Creative Director. Without their creativity, passion, skills and dedication Re-Discover would never even have come to be, let alone be hugely enjoyable, fun and successful. I can't wait to work with you on the next exciting project.

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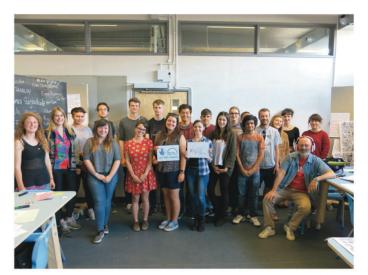






University of Brighton

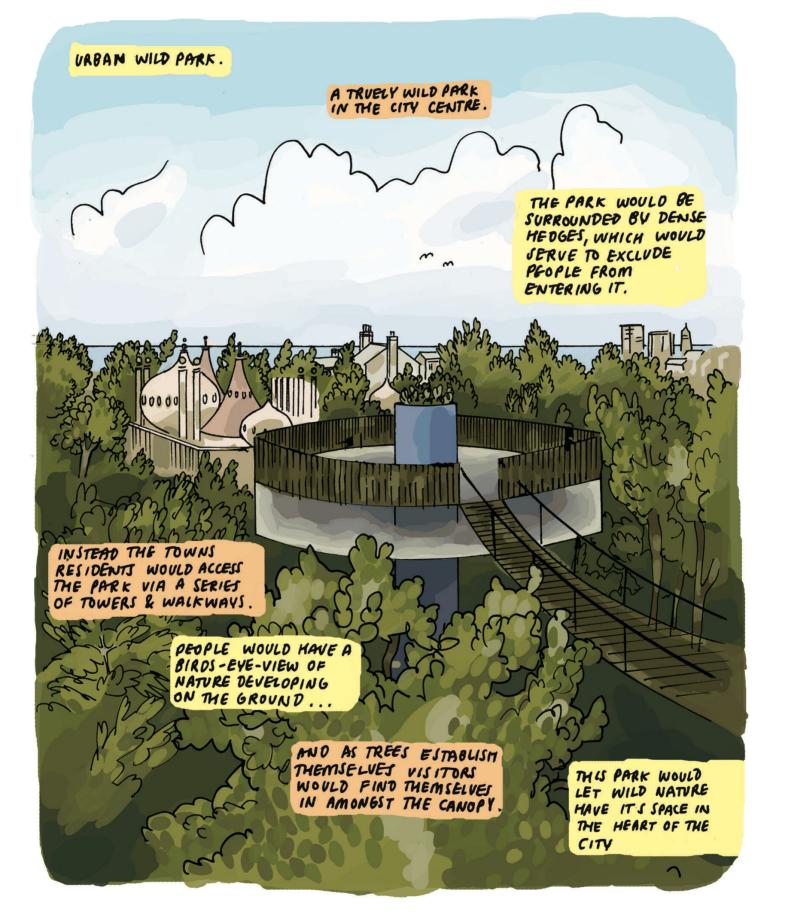
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The Student Team

Design Futures Urban Wild Park

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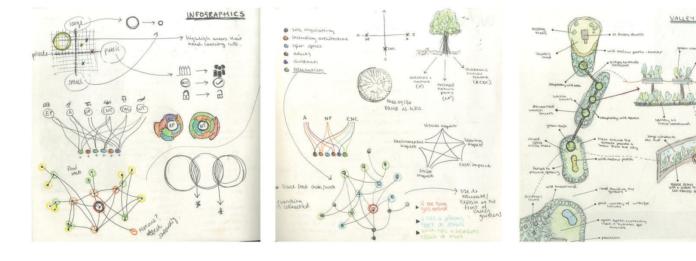
Francesca Kirkland

Rewilding is "Resisting the urge to control nature and allowing it to find its own way... not by human management but by their own processes." Feral, George Monbiot (2014). This project proposes creating a wild area within the Valley Gardens where nature can manage itself. People would not be given access at ground level, to avoid the heavy disturbance of nature by people. However, rewilding is not about excluding but challenging people to find new ways of interacting with nature. We propose to give people access, and a new perspective, from towers and bridges running over the wild space and through the canopy.

Why/How...

The very high population densities of people in cities mean that even walking over an area can prevent plants and animals establishing. By removing this pressure it is likely that the natural process of succession will take place, where shrubs will replace grasses and trees will replace shrubs. Dense vegetation will attract birds and insects that may not otherwise find a home in the centre of town. The green wall around the park will be attractive and the vegetation will also help trap air pollutants. The towers will be striking in themselves, draw people to the parks and give people a walk through the canopy.





Design Futures Green Bridges

GREEN BRIDGES.





Marco Prain

Rewilding has a motivation to reclaim the wild from artificial infrastructure, as there are more welcoming ways of having green areas in urban environments. Throughout the centuries, there has been an expansion of cities into wild areas of Britain and many parts of the world. This has isolated small land animals which are unable to traverse roads and buildings. Along with green roofs, green bridges would connect a rooftop prairie where these animals can circulate through urban areas. These areas would be best placed near and around large green areas and parks, where developed land may be preventing species circulation.

How/Why?

There is a lack of biodiversity in urban areas due to the absence of pathways for small land animals. Many of these animals are seed dispersers and help maintain a diverse ecosystem. Green roofs provide insulation and water retention, while being aesthetically pleasing. By bridging a network of green roofs and green spaces, rodents and other small animals would be capable of safely moving through a developed area. Small rodents are also the food of birds of prey, which are apex predators, and a key element of a healthy ecosystem.



Eco-Structures Chalk Wall







Evan Reinhold	Vega Tankun
Kate Vogiatzis	Jack Scott
Harrison Tan	Tim Kay

The design for a living amphitheatre grew from discussions on creating an ecological structure for public use. As artists and ecologists we were interested in 'living' constructions such as green walls and roofs, like those incorporated into many modern buildings, with the opportunity for creative expression. From a naturalist's perspective these creations are an innovative strategy to create habitat for species from bees and butterflies, to birds while providing useful services to people; improving the local air quality, and providing a freely accessible public space for buskers, poets or anyone looking to perform.

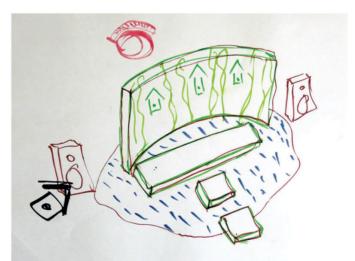


How/Why?

Our creation has drawn a great deal of inspiration from the local biome. Sussex is privileged to possess the habitat 'calcareous grassland', an endangered plagioclimax of chalk and grassland, whose very existence in the natural world is a hot topic of debate, particularly amongst supporters of 'Rewilding'. It is for this reason we took the opportunity to incorporate such an argument within our project, imitating this possibly unnatural placement of the habitat within nature, with our placement of an artist within the eco-structure.

The structure is created out of locally sourced chalk and woody debris to provide a carbon footprint friendly, viable habitat for the establishment of various calcareous species of lichen, moss and grass and consequently the insects which inhabit them such as solitary bees, rare butterflies and possibly even small reptiles. Our hope is that this enhances the environment and gives the performer the impression of being encompassed 'within' nature, providing a sense of naturalistic empowerment, as it did the artists of the Romantic era, whilst creating habitable space for species in decline.





Picnic and Foraging Foraging Kit



Charlotte Kay Karolina Gurjazkaite Megan Holms

The intention was to create a foraging kit which could be carried around the Valley Gardens, containing the essentials needed for planting and foraging herbs. The kit could potentially include tools which allow you to observe edible native wild flowers, as well as seed packets that allow you to plant your own seeds in designated picnic areas. It not only encourages people to visit the Valley Gardens and spend time there, it also educates people about their natural surroundings.

How/Why?

The aim of the foraging kit design was to be based on aspects of the traditional Sussex trug and wooden basketry, creating a contemporary design from these traditional methods. There are two designs, one being based on the shape of a traditional trug, and the other a more sculptural form, being based on the shape of a curving leaf. This latter design is collapsible in the way that it can fan in and out, into either the carrier or just the handle.

Materials: steam bent ash and laser cut plywood.



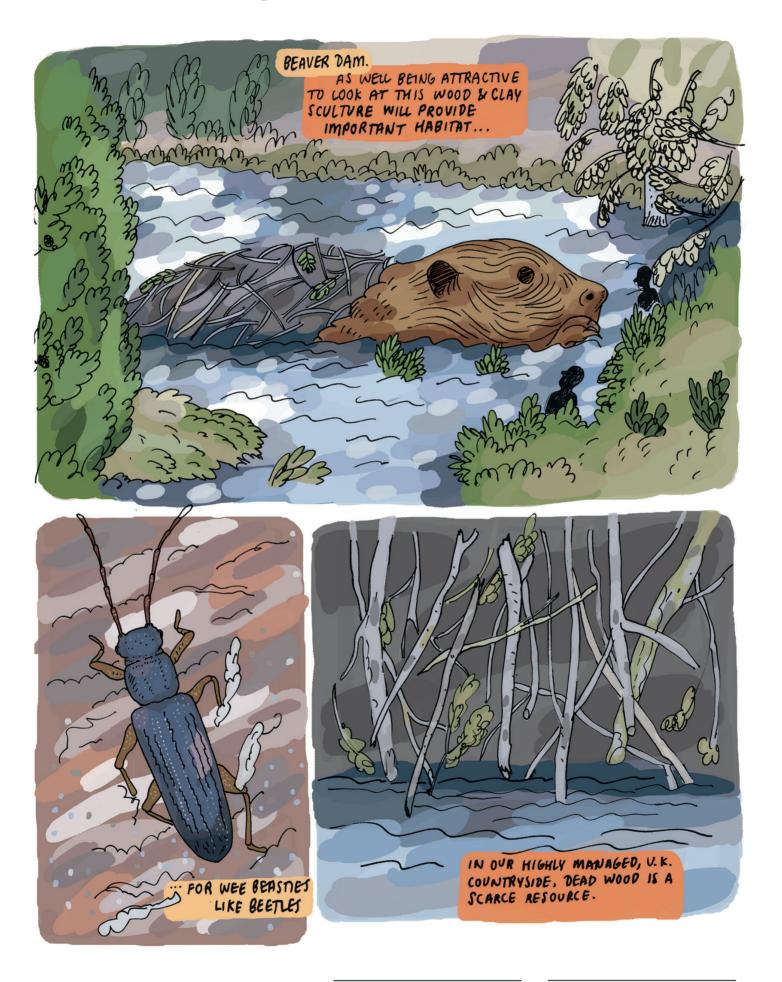








Species Sculptures Beaver Sculpture



Katie Barton	Emma James
Naomi Gann	Max Pannett
Bethan Hall	Indigo Rumbelow
Marco Prain	Claire Reboah
	Theo Dyer

As well as visually enriching public spaces, sculptures are an excellent medium to draw people's attention to certain areas. Sculptures made out of natural, bio-degradable materials "evolve" over time as they slowly decompose with the passing seasons. Beavers used to be widespread in the British Isles, and they might well have inhabited the vicinity of Brighton's Valley Gardens. Hunted for their fur, meat and scent glands, they became locally extirpated with last mention of beavers in England in the 16th century. Eurasian beavers are important ecosystem engineers, building dams that create habitat for other wildlife. This deadwood sculpture will help to inform the public about one member of our charismatic Sussex wildlife that one day may well return to its former haunts in the county.

How/Why?

Our design team has created a life-size sculpture of a beaver, in the manner the animals construct their dams. Collecting local dead wood, we have created pointed ends that resemble chiselling of beaver teeth, and bound the pieces together with clay around a plywood beaver silhouette. In the past, beavers would have thrived on surface water-rich clay soils of the Sussex Weald. The animals use the clay soil to reinforce the construction of their dam. As the sculpture slowly decomposes, it will provide habitat for invertebrates the same way an actual beaver dam does, in nature.





Eco-Structures Extinct Species Benches

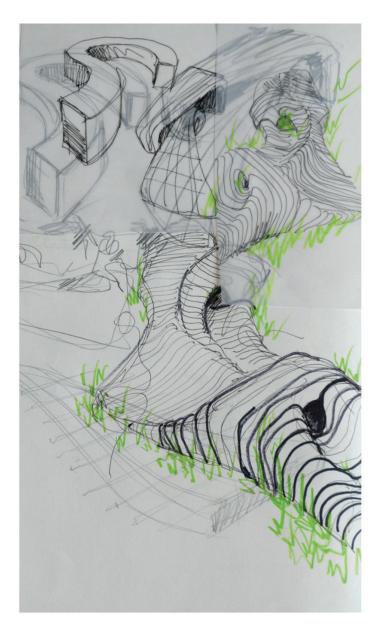
AUROCHS BENCH.



Vega Tankun	
Evan Reinhold	
Harri Tan	
la als Ca att	

Jack Scott Tim Kay

The park bench is an effective way of getting people to sit in a park and enjoy their surroundings. Benches are often also symbols of memorial. This project proposes creating park benches in the shape of the species that would be here today if people hadn't driven them to extinction 100s to 1000s of years ago. By shaping the benches to resemble native species, and providing information about them, the benches will act as a sculpture and functional feature in the park that will attract people to use the park and learn about their heritage in the process.

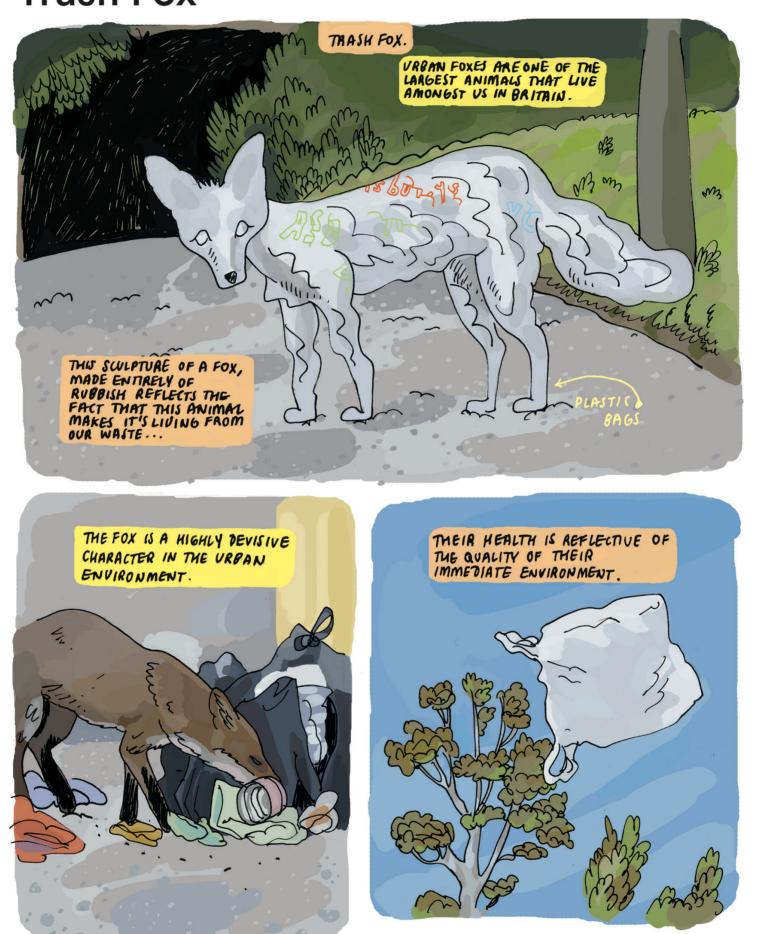


How/Why?

The benches would take on the form of lost species such as the aurochs (the original wild cow), beaver (a species lost from Britain about 400 years ago but which is now making a comeback), the narrow-nosed rhino, the straight-tusked elephant (a close relative of the Asian elephant but much bigger), and the hippo that is now only found in Africa but that once lived in Britain. Some of these species were last seen in Britain 100,000 years ago, the last time the climate was similar to the present day. Over the last 2 million years these large mammals have moved back and forth across Europe as glacials advanced and retreated on roughly a 100,000 year cycle. This ecological heritage challenges ecologists to question what species should be considered native to Britain today. If species naturally move in and out of an area over 100,000 years period could they not or should they not again? This is particularly important when thinking about the natural processes these species provide such as browsing and seed dispersal that are not as functional without them. So while very controversial and perhaps impractical: could we see rhino, elephants and hippos back in Britain again?



Species Sculptures Trash Fox

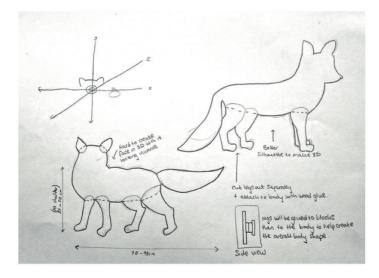


Katie Barton	Emma James
Naomi Gann	Max Pannett
Bethan Hall	Indigo Rumbelow
Marco Prain	Claire Reboah
	Theo Dyer

This project envisions the creation of a series of sculptures of animals that have occurred here, are found here currently, or could be returned in the future to run through the Valley Gardens. The urban fox, an example of our current fauna, exemplifies the extent to which some species adapt to, and even benefit from, interaction with urban civilization. Whether we consider them pests, or enjoy their company, is affected by their presence in the urban landscape. We have created the sculpture out of waste and recycled material and these signify both the urban fox's means of survival, and represents the 'pest' identity that it carries. The fact that scavengers of waste food are doing so well, in turn tells a story about how much food and other resources are wasted and our wider impact on the natural world. Were we to install our fox sculpture into the valley gardens, our vision would be to have it accompany other native species such as rabbits, badgers and hedgehogs, whose habitats are also affected by urban development. A focus on re-imagining uses for waste and encouraging awareness of environmental issues is essential to this section of our timeline of species sculptures.

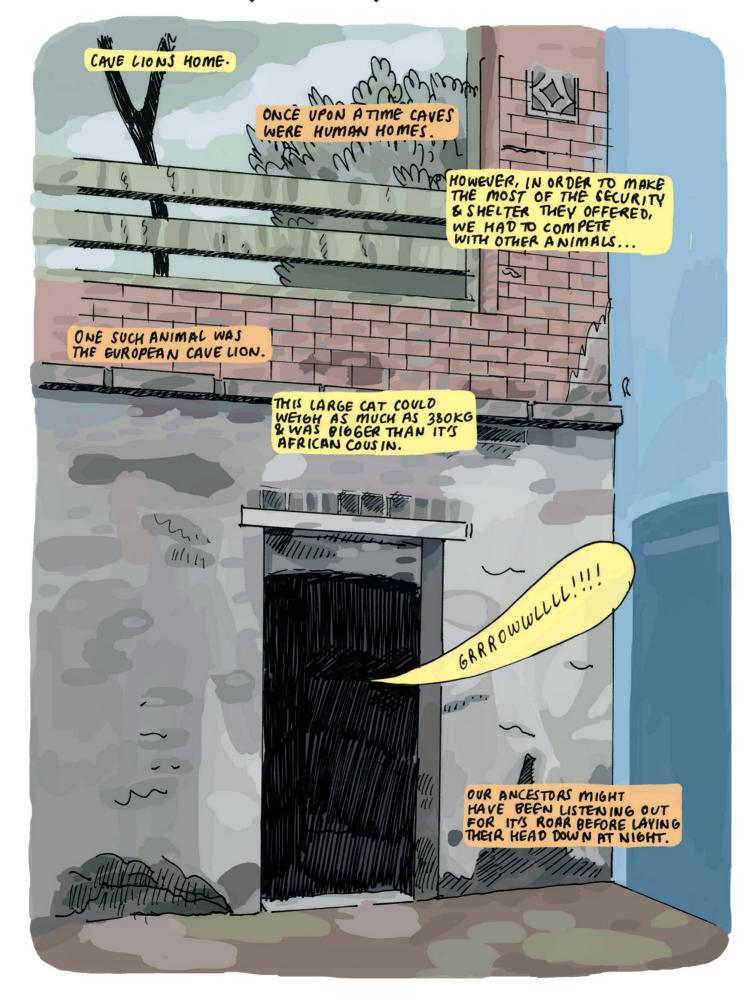
How/Why?

In creating our sculptures we wanted to incorporate an awareness of materials, and their source, into the design. Our trash fox is made from used rubbish, which connects the design with the fact that the urban fox's habitat is largely comprised of human waste. We also chose to create a fox because of its familiarity to us as a species, drawing a contrast with the exotic cave lion and the recently reintroduced beaver to Britain. In creating the sculpture, we produced a life-size 2-D wooded silhouette of the fox, in keeping with our initial vision of incorporating these models into a kind of nature trail of hidden creatures in the gardens themselves, which would be more involving if the models were to scale. Over the cardboard silhouette we layered old newspapers, and built it up with coloured carrier bags, and other scraps, for detail.





Species Sculptures Cave Lion (vocals)



Theo Dyer	Katie Barton	Emma James
	Naomi Gann	Max Pannett
	Bethan Hall	Indigo Rumbelow
	Marco Prain	Claire Reboah

Cave lions were one of the more charismatic beasts of the 34 species of British megafauna that became extinct in the late Pleistocene (approx. 50,000 to 12,000 years ago). Regarded as Britain's national animal, the lion features in the coat of arms of both England and Scotland and these magnificent carnivores roamed the woodlands and plains of Sussex as recently as 12,000 years ago. Closely related Asiatic lions have been recorded in historic times in Southern France, Spain and on the steppes of Ukraine. As top predators, along with cave hyenas, wolves, bears and lynx, they played an important ecosystem role by keeping the numbers of herbivores in check, reducing the pressure on vegetation growth.

Lions use vocal communication in their social interactions, and as warnings to potential competitors such as humans. Modern-day male lions roar to establish territory – this would have an effect on the entire ecosystem, as herbivores would be more weary in the presence of carnivores, avoiding certain areas leading to greater vegetation growth.

How/Why?

A male lion's roar would have struck fear in the hearts of our ancestors - being able to recognise one would mean the difference between life and death, and in evolutionary terms we can think of such elements of the soundscape as of significance. We can make somewhat of an assumption that a Eurasian cave lion's roar would be very similar to a modern-day African or Asiatic lion's thanks to their close relatedness. The cellar at ONCA gallery resembling a cave, provides an excellent space for projecting a male lion's roar, taking the listener back to their very evolutionary past. Cave lion remains have been found in caves, where they either sheltered or entered to predate on hibernating bears and perhaps Neanderthals and modern humans.

Species Sculptures Wire Cave Lion Sculpture



Theo Dyer	
Katie Barton	
Naomi Gann	
Bethan Hall	

Marco Prain Emma James Max Pannett Indigo Rumbelow Claire Reboah

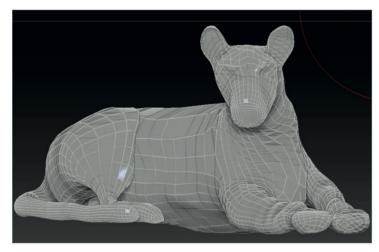
The wire sculpture of an extinct Eurasian cave lion, is a great way of drawing attention and informing the public about the region's ecological past past. In the period during, and before the last ice age, megafauna would have roamed the plains and woodland around the South Downs and the present-day Valley Gardens. In the warmer period preceding the last ice age, the interglacial when climate was somewhat similar to today's, cave lions would prey on the plentiful herbivores such as red deer, aurochs, moose, wild horse, wooly rhinoceros or Irish elk.

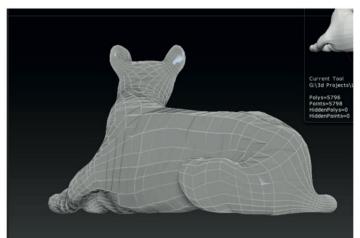
Slightly larger than both modern-day tigers and African lions, they actually constituted a somewhat intermittent form between the two. As top predators they were what is known as a keystone species – fulfilling an important roles in the ecosystem by keeping herbivore numbers in check. Known from prehistoric cave art, it was likely driven to extinction by humans some 10 to 12,000 years ago. Many of us don't realise such magnificent creatures existed in the same spaces we use today, and how incomplete our current ecosystems are without such species. The idea of a wire sculpture fits well into the space of Valley Gardens, and its simple form is apt to depict an extinct species.

How/Why?

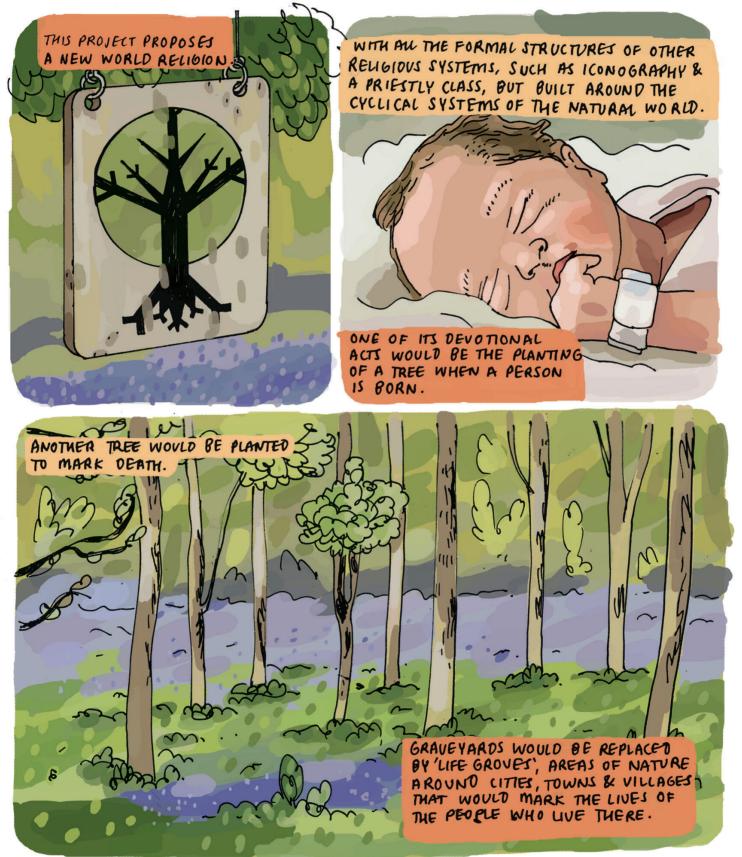
Our designers have created a three dimensional model of the animal; with attention to the size of the extinct animal known from paleontological finds and photographs of modern-day African and Asiatic lions which are thought to be closely related to the Cave lion. The form of chicken wire sculpture allows faithful three dimensional representation of the animal's features, and will create a cage around a chalk wild flower bed symbolically protecting it from herbivores. The apex predator role of cave lions would have controlled herbivore numbers, allowing vegetation regrowth in areas of predation. This ecosystem role could still be fulfilled, by reintroducing some extant large carnivores such as lynx, wolves and brown bears.







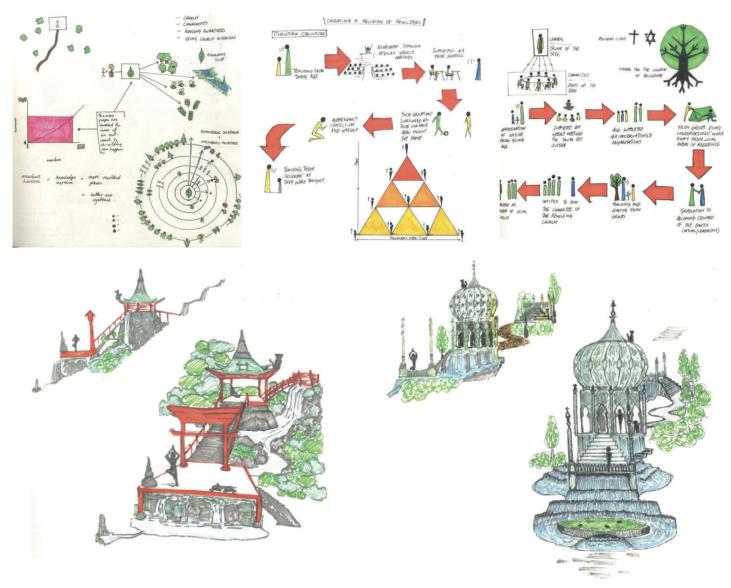
Design Futures Spiritually Wild



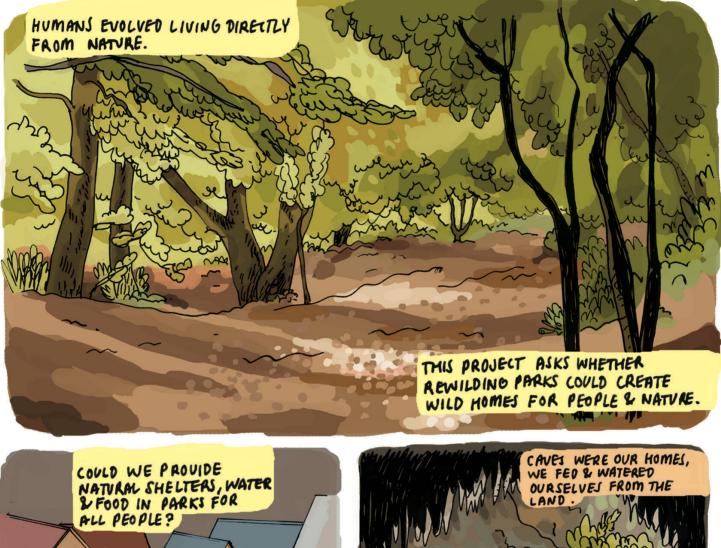
This project explores how nature could be reestablished as a central pillar in people's lives by looking at parallels with religion. During the Medieval Ages churches were often considered to be the centre of communities. They served as places not only for worship, but a social space for gathering. They tied much of the community together (weddings, baptisms, funerals). Could nature areas become places of community?

Why/How...

This project suggests that typically religious ceremonies could be conducted in, and used to help restore, nature areas. For example, at births and funerals trees could be planted to mark these important life events. The groves these trees create over time could become important community areas for weddings, remembrance, and leisure. The complete life cycle of events tied to these natural areas reminds us we are part of the whole Earth's ecosystem.



Design Futures Urban Wild Homes



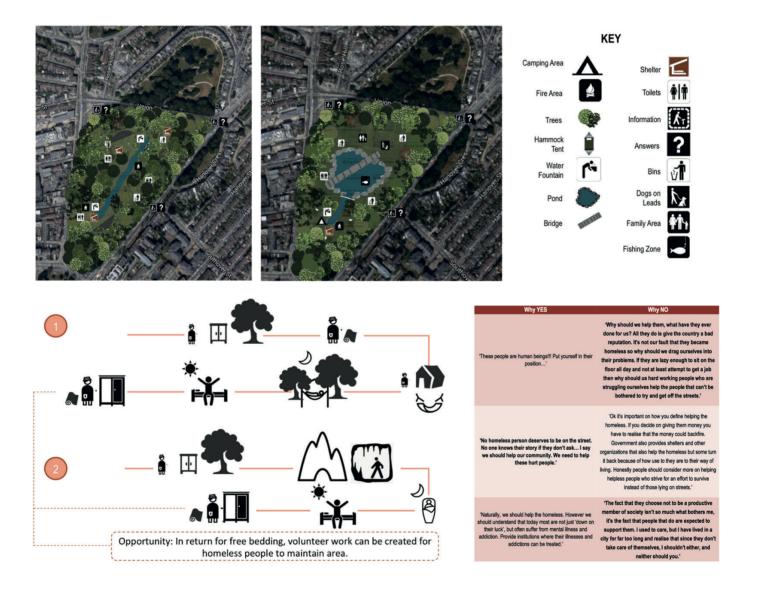




Humans evolved as hunter-gatherer societies, with nature providing shelter, food and clean water. Today more people live in urban areas than in the countryside. With this shift towards urban living there is an increasing disconnect between people and nature; we rely on others to provide us food, water and shelter. While this offers huge benefits it also limits the opportunities for people to choose or benefit from a more nature based existence. This project asks whether we can create urban wild parks that offer a natural home to those that chose it.

Why/How...

In Brighton & Hove the numbers sleeping rough on the streets rose from 588 in 2010 to 1,163 in 2013. Shelter, natural forage and water sources could be provided in our proposed wild home areas and users would be invited to care for the park in return for the resources it provides. Such a space would be open to anyone, giving even those with a home in the city the chance to sleep outside, in nature.



Wild Games Relay Baton



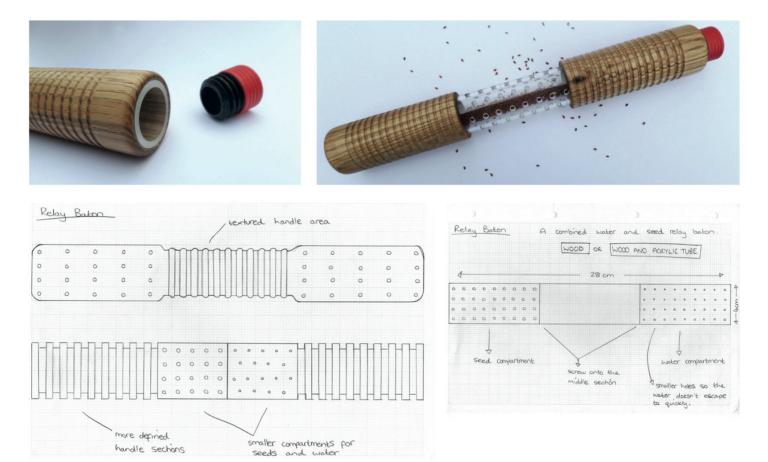


	Alice Gray
Alice Weatherell-Toms	
	Piotr Szota
	Max Withey
	Tom Blackburn

With increased rates of sedentary lifestyle and lack of physical activity, childhood obesity has been steadily becoming a growing problem in developed countries such as the UK. At the same time, our young generation is facing being even more cut off from nature. It is safe to say that not enough people are aware of the both physical and mental health benefits of interacting with the natural environment our bodies and brains have evolved in for millenia. The idea of "Wild Games" combines outdoor team sports-based physical activity with elements of environmental education.

Why/How...

Inspired by the seed pods and inflorescences of wildflowers such as vetch and field poppies, our designers have produced a relay baton and a discus, both of which have integrated seed compartments. As they are being used in their respective sports, they disperse seeds of native wild plants through holes distributed across the compartment wall. Seed dispersal is an important ecosystem function, and many of the large animals which carried plant seeds on their fur or in their stomachs across vast distances have been hunted to extinction by humans.



Wild Games Seed dispersing Frisbee

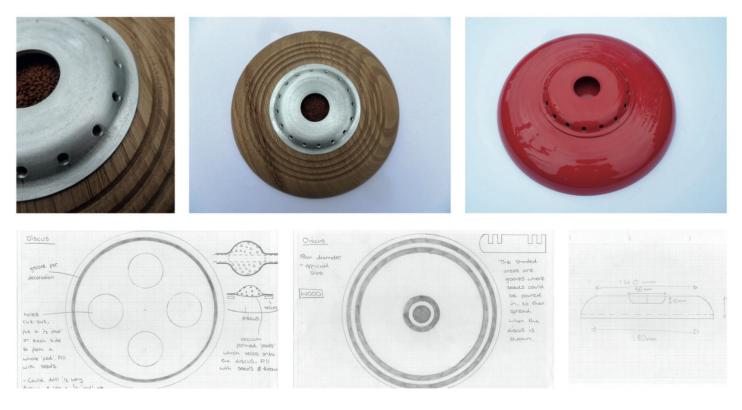


Alice Gray Alice Weatherell-Toms Piotr Szota Max Withey Tom Blackburn

It is worrying that instead of playing free and exploring the natural world around them, many children spend most of their free time indoors in front of TV and computer screens. More and more young people are growing up with very limited knowledge of the environment, and we are now beginning to realise how this lack of contact with nature at a young age may lead to behavioural problems in adolescence and later in life. It is therefore imperative to encourage children to play outside and interact with nature for healthy development. In our Wild Games idea we tried to develop a range of activities which integrate physical exercise with learning about the living beings around us and how they interact with each other. For this part of our "Wild Games", we have focussed on birdmediated seed dispersal.

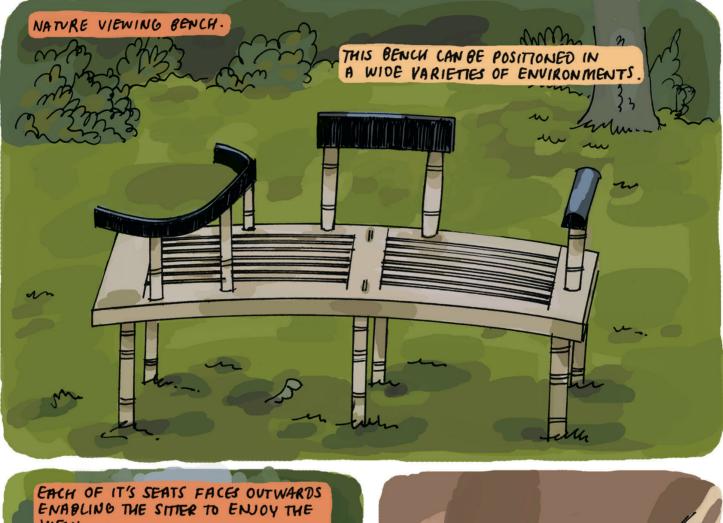
Why/How...

Our original idea for the Wild Games was for it to be modelled on the Olympic Games, with an environmental twist - however in the design process we became aware of the limitations, and decided to settle for more spontaneous activities that can be carried out in various "natural" settings such as unmown fields, woodland and such. In our initial designs, what was to become a discus, ended up as a Frisbee – which we discovered was more versatile and works better from a practical point of view. Fitted with an inner seed compartment and holes around the rim of the Frisbee, as it spins flying through the air it expels seeds with the centrifugal force, dispersing them over a distance. This is reflective of the way that birds disperse seeds in their digestive tracts over wide areas - as well as informing the players about this important ecosystem function, they can have a little go at fulfilling it themselves. Children can compete to see how far they can throw the Frisbee or use it in a game of ultimate Frisbee.



Eco-Structures

Nature Viewing Bench







Syd Foster Tyla Garrett

The purpose of this bench, which we propose be placed in Victoria Gardens, is to encourage people to learn more about nature around Brighton. In addition, it is a place to socialise and have down time, while bringing more of an aesthetic look to the park. It is a reimagining of a park bench that encourages a personal interaction with nature. The bench will also be a source of information for people to learn about nature.



Why/How...

The bench, made of oak, has a seating arrangement that directs the user to a nature feature like a tree, pond or bird feeder. With three people sat on the bench each has a different view of the nature around them. The bench will have QR codes which will allow the public to scan for information about wildlife. Obviously technology is becoming something of a problem when it 'boxes' people in, however, instead, we propose working with technology and making it a solution, by combining technology and nature. The backrests will be angled differently depending on what will be observed, e.g. it may positioned in an unexpected way making the user realise that they are positioned to look at something in particular. Their next thought might be why are they directed in this direction, they might guess or find out by the QR code, eventually it will all make sense and they will understand that observation is key.





Picnic and Foraging Picnic blanket

WILD PICNIC BLANKET. allter in, THE IDEA BEHIND THIS PROJECT WAS TO CREATE A PRODUCT THAT COULD BE PURCHASED OR RENTED AT SPECIFIC LOCATIONS 1111 IT WOULD BE ILLUSTRATED WITH IMAGES OF INSECT, ANIMAL & PLANT LIFE THAT RELATE TO THAT LOCAL ENVIRONMENT. 1 · . . 1 111 Mun . 11 111111 (1) 11/11 11 IT WOULD ENHANCE IT'S USERS UNDERSTANDING OF THEIR SURROUNDING AND POSSIBILY HELP THEM IN FORAGING TRIPS

> Jake Hardiman Eleanor Hardiman Joshua Rodrigues Tara Cox

With new age technology and the digital revolution, our current generation has become detached from the surrounding natural environment. As a result, many of us are unaware of rich variety of species available to discover at our doorstep. By designing and creating a family orientated picnic blanket, our aim is to encourage both the younger and older generations to go outdoors and immerse themselves in nature, whilst providing illustrative examples and key information on native species.

Why/How...

Our picnic blanket provides different illustrations demonstrating the variety of native flora and fauna found within the Valley Gardens. This ranges from insects, including native woodlice, present since the last ice age, to birds and mammals such as the European hedgehog and blue tit. The blanket also provides examples of some of the regions rarer species, including the twospotted ladybird, currently under threat from the invasive harlequin ladybird, as well as the large garden bumblebee, whose population is declining as a result of wildflower habitat loss. Therefore, whilst the blanket works to draw people outdoors, it also acts as an educational tool that encourages people to explore this environment.





A selection of photographs from the opening night of Re-Discover at ONCA Gallery, Brighton.



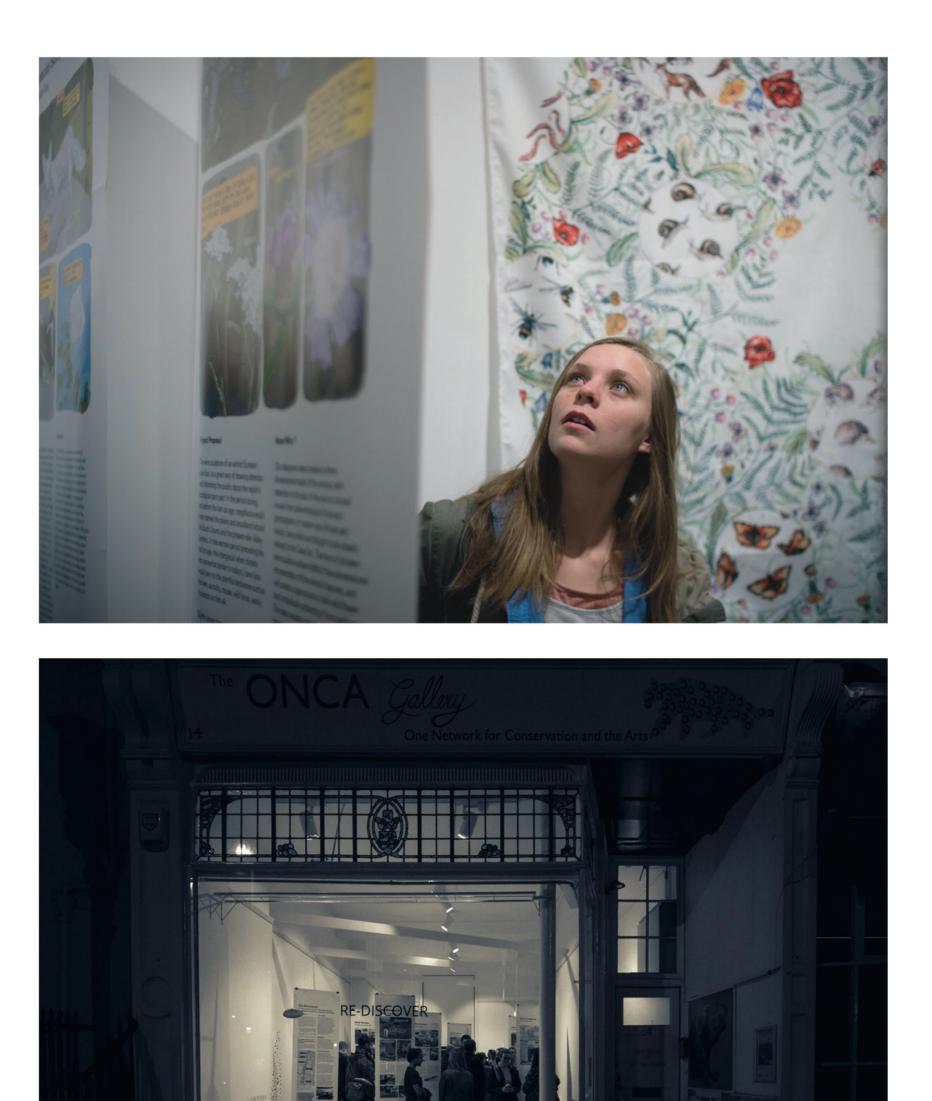


Photo credit: Max Gray & Lianne Williams





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