

"What have plants ever done for us?"

Palmstead Nurseries placed health and well-being at the centre of it's Soft Landscape Workshop this year.

Marketing Manager Nick Coslett welcomed delegates to the event held on

Wednesday 21st September at the Ashford International Hotel in Kent and posed the question: "What have plants ever done for us?"

He drew the attention of the delegates to recent studies on population movement and cited the statistic that 73% of Europeans now live in an urban environment with 80% of UK residents now living in towns and cities.

Nick Coslett pointed out that this move from rural to urban has meant that the "urban environment delivers a hotter climate with parts of London measuring 7°C warmer than rural parts of Essex."

He pointed to surveys showing that air pollution is now responsible for between 3,000 - 9,000 deaths a year with a Kings College study citing 9,500 people a year. He also said: "some studies are even finding particles from exhaust in people's brains."

Highlighting the worrying statistic that the world's wilderness has reduced by 10% since the 1990s,

Nick Coslett added that the State of Nature reports "56% of UK species are now in decline." He also commented on surveys which suggest that pre-school children now spend less than 2 hours a week outside, saying: "we've become so disconnected from our natural environment; it's no wonder our youngsters are no longer connected to nature."



Nick Coslett outlined the purpose of the workshop and urged the delegates to listen to the assembled speakers and ask "what can we do in landscape industry to make things better?"

Dr Mark Spencer

Dr Mark Spencer took to the stage to try to answer the question "What have plants done for us?" by looking at biodiversity and warned of the unforeseen consequences of mixing things up too much!

Dr Spencer is a forensic botanist interested in invasive species and biocontrol and environmental change; particularly phenology. He takes observational data from the natural world and uses it to understand the shift in biodiversity.

"What have plants done for us? Well, without bacteria, fungi and our green friends we'd have a planet like Mars. There's barely an element of the natural world that we don't give thanks to plants. The sum total of our dependence and our experience of the world comes via biodiversity - we live in a world which sustains and enriches our lives - we're at our happiest and sanest when we are in wonderful landscapes."

"Biodiversity is sustaining on so many levels for human beings and we are in a serious situation at the moment. We have entered the



'Anthropocene' or age of man - a new period in our world's history. There is an interesting concept of 'pangaeafication' - the idea that as human beings we have moved biota all over the world; mixing everything up as if we are making a big cake, blending the ingredients so that the evolutionary distinct organisms from North America are now present in Europe. This 'pangaeafication' reflects an earlier period in our planet's history when we had just one landmass called 'Pangaea'; a place where there wasn't a huge amount of diversity. Biodiversity back then was relatively low - it wasn't until the continents broke up and plants evolved that we had diversity. Now the world is becoming more globally connected it's as though the tectonic plates have joined up again."

Dr Spencer pointed out that this movement of species not only leads to non-natives outperforming natives, but it also dilutes cultural identity.

"By moving things around the world we are taking successful species from one environment and putting them in another where they end up outperforming less successful species.

"Plants and landscape really are the stuff of our identity - take the Welsh leek, the Scottish thistle or the English oak - these plants are embedded in our psychology as our cultural identity."

Changing landscapes

Dr Spencer looked at our dependence as human beings on an enormous amount of plant material and how we need to look to the future carefully.

He said: "it's incredibly difficult to predict the consequences of our actions - we do not know what's going to happen and it's hard to future-proof ourselves. We have good models showing what climate will do, what will happen to temperature and rainfall in Northern Europe. Our native and horticultural plants are going to have to make choices as temperature and rainfall diverge further - as part of their evolution they will need to decide which of these parameters are more important to follow."

He suggested the delegates visit the Scilly Isles to look at an environment full of invading non-natives and to see how the ecology is changing on the island to adapt. He cited an example of how the starlings on the island had re-learned their nectar feeding behaviour in a short space of time due to the prevalence of Phormium (native to New Zealand) which grows along the coastline there. He said: "Starlings have learned to move right to left along the coastline, then to go back and start again, moving through the system; in essence the changing ecology has changed the bird's feeding behaviour."



He also suggested the audience look at projects in urban environment such as the Camley Street Natural Park in Camden to look at bio-diversity and human wellbeing.

As a member of the London Natural History Society Botany Group Dr Spencer has been documenting the flora within the London environment, as they try to understand the changes going on.

Invaders

"How do we square some of these problems? We often choose nice plants to make creatures happy but it's actually hard to ensure that these actions don't have the opposite distractions for us. For example, we often plant trees and shrubs for their berries, for colour and to keep the birds happy, but there are real significant problems if you chose to plant Cotoneaster for example. Ginger has become very popular but how many of you know that Hedychiums are a major invasive plant which modify and destroy previous landscapes."

Dr Spencer said that the seed setting viability of these plants will increase with climate change and that we: "need to look at out choices and think about breeding gingers with low fertility as a way of future proofing - this is *thoughtful horticulture*."

Controlling

Methodologies such as the 'centrifugal phylogenetic method' used in biocontrol programmes could be used when selecting plants for created environments. Dr Spencer explained; "From a biocontrol perspective, the centrifugal phylogenetic method can be useful if we are looking at controlling a plant. When you chose an organism to control a plant you need to make sure you haven't made a horrible mistake by first creating a testing regime and looking at the relatives of the plant you want to control. If you force feed your organism samples to the plant's family you can see if it 'goes for them'. You need to select the plant and look at the plant's family as it radiates out, testing them all to check that they will not be eaten by your organism."

Dr Spencer talked about particular invasive species and the consequences:

"If we bring a plant from Southern China, e.g. Ailanthus (Tree of heaven), then we are taking it from an environment where it has natural predators and pathogens and putting it in an environment where there are none; by stripping away the pathogens it's been given a natural predator release and *BOOM* the plant is *chocs away*! This subtle shift in environmental conditions tips things so that seedling production kicks off and we end up with 100k's seedlings in the London area.

"Paulownia tomentosa (Foxglove Tree) is desirable for bees but the plant has become a significant biological invader in the southern sates of the USA. 10 years ago we found seedlings of the plant in London then 4 years ago when it went cold the seedlings stopped. We've seen seedlings return in the last 2 or 3 years but most aren't establishing because they're being weed-killed out, but if they establish in an environment where they won't be weed-killed then the plant will get going - it's already beginning to happen in Gunnersbury triangle in London!"

Dr Spencer suggested that there are very few real reference points for what the natural British landscape should look like and said "one of the issues is that British

plants are boring! There aren't many plant communities in British Isles that give you a 'wow'. Heathland is one but they've become untrendy! However, there are many plants that are suitable; campanula heathers - these are superb for insects and in the right conditions they're beautiful.

"Here is my cheeky solution - look to Europe and our 'near-natives' if you want to enrich your landscape with a European invertebrate breed community but also want a larger palette. Many plant species in Europe are naturalised in this country that are potentially superb horticultural plants."

Dr Spencer finished by urging the audience to "think European and think oligolectic!"

oligolectic Applied to bee species that specialize in collecting pollen from one genus or species (or from only a few genera or species) of flowering plants.

Shenagh Hume and Jackie Herald: Unintended Consequences

Following a career in medicine, treating people with severe allergy and asthma in the UK's largest allergy centre at Guy's Hospital London, Shenagh Hume qualified as a garden designer. Working in the garden design industry, she began to see the

correlation between airborne pollen and allergies and wanted to find someone else within the design community who shared her views, so began a search through the Society of Garden Designers (SGD).

After many conversations with landscape professionals (that drew a bemused and sometimes negative response), she called Jackie Herald, SGD Award winning designer whose work has focused on creating healthy spaces for children's learning and play. Hume and Herald found that they shared the same worries and fears about the unintended consequences of using plants that cause illhealth and sickness.

Shenagh Hume took the stage and shared the statistic that **3 people every day will die of asthma**, a statistic that unfortunately last year increased. Hume explained that air borne pollen is synonymous with hay fever and asthma with



A selection of low allergy plants from Palmstead Nurseries selected by Hume & Herald

80% of asthma sufferers also suffering hay fever. Hume explained that **incidence** of allergic disease has doubled in the last 30 years.

Hume explained the problems suffered by asthma and hay fever sufferers and the problems of airborne pollution and how it can attach itself to a persons' hair, be in their car for months, on their clothing and brought into their house - affecting a hay fever sufferer long after initial contact.

Hume explained that trees with catkins are particularly problematic: birch, alder, hazel and trees from the family of cross relatives.

She spoke of a father who was unable to play with his children outdoors because pollen caused him such serious health implications. He travelled to Guy's for injections to help him to combat the problem - it took 30 injections and 3 years of treatment before he was able to enjoy the outdoors with his children.

Hume said: "my first assignment as a garden design student had a brief which included the very trees I had been injecting my patients against: the Birch!"

Hume pointed to certain have high pollen designs, including the landscape designed outside the Allergy UK headquarters in London and the landscape outside the Tate on the South Bank. She looked at how these can negatively affect well-being and explained that in Madrid the London Plane tree is now not used because of the health problems it has caused to the population there. In Amman, Jordan,

the Olive has now been banned in cities because pollution was "getting into the trees and making the pollen more allergenic." And, in Arhus, Denmark the Birch has been singled out as a real problem for the town's inhabitants.

Hume added: "scientific evidence published in 2011 states that a lack of planning in design of urban spaces has been among factors triggering one of the most widespread diseases in urban populations; pollen allergy."

Hume explained that the first principle of treating allergy is 'avoidance'.



Jackie Herald then took to the stage to talk about 'designing out' the problem trees and talked about the gardens she has designed for children with learning and health in mind.

Herald said: "pollen is nature's gold - we can't live without it but some people have problems living with it. It's important as designers that we look at pollen allergy and how it can impact human health and consider designing out."

Botanical science and selecting low allergy plants:

Herald said: "it's about botanical basics: what we are really saying is it's important when you're selecting plants to look at the science - of course it's about making beautiful landscapes - but in order to get those health benefits we need to look at the science.

"When you look at plant dictionaries you get a description of what the plant looks like; but nothing about the fact that the flower is composed of florets that are funnel shaped so the **pollen is deeper inside** for the insects to probe. When we plant we include different shapes - tubular, funnel, bell, labiate, double rather than single blooms. If we look at the structure of plants some are high in pollen and highly allergenic in nature because the pollen is cited on the tips of the fringes so that if you get close to it or rub up against it you'll get the consequences."

Key Measures:

increase plant biodiversity
avoid mass use of male individuals of dioecious species
choose low to moderate pollen producing plants
avoid large focal pollen sources by respecting planting distances
obtain expert advice when selecting suitable species
establish local authority by-laws to ensure sufficient time is allowed for planning
schemes.

Allergy scales: measuring & scoring

Hume and Herald use the 'OPAL' scheme devised by American Tom Ogren, explained in his book 'The Allergy-Fighting Garden'. The scale measures the allergenicity of plants on a 0 - 10 scale, with 10 being high. The duo showed plant labels created by Nigel Clarke at the Quex Plant Centre Guernsey for his range of allergy friendly plants and explained that there was "a growing movement of healthy garden school playground initiatives using low allergy planting schemes."

Herald explained that was is relevant in the United States may not be relevant to Europe but that they use Ogren's scale as a guide and don't use plants in their designs that score higher than 5 on the OPAL scale.

Looking at specific trees and plants, Herald explained that Privet scores 9 on the scale and is "nearly as bad as the Olive which scores 10 - something that Dr Spencer would have predicted as they're related to each other"

Key to selecting the right plant for the right place with allergy in mind:

choose low pollen emitting plants 0-5 on OPALS scale
 select females for low pollen levels
 avoid monocultures
 regular maintenance (eg. mown lawns and clipped hedges)
 celebrate with more flowers and colour

Maintenance as a preventative:

Herald explained that if the Privet hedge has been neatly clipped then the pollen is stopped in it's tracks. She then explained that a thick healthy regularly mown lawn made for an excellent pollen trap from nearby trees or shrubs and that pollarding reduces pollen as "you are getting to the pollen before it happens." If you have Birch, Hume suggested tip-pruning when the Birch is bare to make it "less allergenic", but this would be labour intensive.

Shenagh Hume joined Jackie Herald on stage and wrapped up by saying: "pollen is moving around the planet all the time but it's about managing the levels in the environments we create: it's really important that people are part of the 'right plant right place' equation - we need to prioritise vulnerable people. Our primary focus is to ensure that this is a scientific and evidence-based process formed of a multi-disciplinary team."

Dr Tijana Blanusa

Dr Blanusa is a leading RHS scientist based at University of Reading. Her work focuses on how a plant can add to the environment in terms of benefits such as; cooling, water capture, sequestration of pollution and biodiversity support. Her work also looks at how the application of science can help designers in their quest to select the right plant for the right place.

Dr Blanusa said: "We can choose plants that maximise the provision of localised cooling, species that help to absorb excess rainfall and in terms of pollution, choose plants that effectively remove pollutant particles from the air."

"Why talk about cities? When we have almost 90% of the population living in urbanised areas and 22.7 million (or 87%) of homes with access to a garden, and 20 - 25% of every UK town or city surface occupied by a domestic green space, we

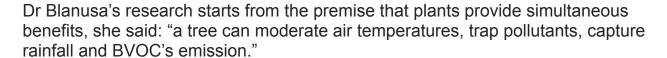
know that we can have a significant impact on the environment when we choose the right plants.

"It's important to focus on the problems associated with the city landscape. Cities are warmer than their surrounding rural areas - the build up of impervious and dark materials used in the spaces cool more slowly and release more energy than vegetation. Heat comes into the city a lot easier as energy is released from buildings, traffic, industry. Rain water run-off is another problem as is gaseous pollutants and noise pollutants.

Plant choices to mitigate the problem

"Vegetation is not the cure but it can be one of the solutions to the problem. The choice of species is very important and significant and appropriate use and choice of species could help with these issues. We should also look at

maintenance and how we manage the space - it can completely change the benefits of what we get."



Dr Blanusa pointed out the differences biologists observe with plants that are slow and sluggish and others that are energetic and said that both factors should be born in mind when making choices.

Her work looks at individual plants, at their mini eco-systems, she said: "we work at leaf level and whole plant level trying to group the findings into bigger batches to find what groups can be linked to cooling or pollutant trapping. We are beginning to see that there is overlap between the traits of cooling and pollutant trapping."



Dr Blanusa took the audience through some experiments she had been running with vegetation and precipitation and vegetation and particle pollutant capture.

Vegetation and precipitation

reduce pressure on urban drainage system. Plants that actively transpire are good candidates for protection from excess rain. We are running experiments this summer for the RHS looking at evergreen and deciduous Poplar and at how much rain they can hold, how much their transpire and how they can be used to prepare soil for the next rainfall. The initial results suggest that the Cotoneaster is good.

Vegetation and particle pollutant capture: the process of the removal of particles from the air by increasing the area onto which they can be deposited. I have been running experiments in Reading using hedge plants taking them to the centre of Reading and leaving them at street level for 8 days to look at lead concentration. Results from the plants suggest a 3 fold increase in concentration of lead in Cotoneaster and almost 3 fold in Crataegus (Hawthorne), while Ligustrum(Privet) was 2 fold. The Cotoneaster's leaves are

Dr Blanusa wrapped up her session by saying that the main messages from 'green infrastructure ecosystem services' research to date are:

- 1. Not all plants are the same they provide different benefits environmentally: larger and more active plants with more complex structure usually provide more environmental benefits.
- 2. When possible, plant choices for our green spaces should not only be based on the survival, but also on the ability of plants to provide environmental benefits.
- 3. Don't become frustrated by the information or feel under pressure you can't hit everything with a single plant and can't always solve the problems: you might have to think of prevalent problem and take a step or two beyond what is currently being considered in that space.

Anne Jaluzot: Air Conditioning a City

Anne Jaluzot is an urban planner specialising in green infrastructure and sustainable urban design. She is the convenor of the Trees and Design Action Group (TDAG) a not-for profit project promoting the role of the urban forest throughout the United Kingdom.

Palmstead Nurseries invited Jaluzot to share TDAG's vision that the location of trees and all the benefits they bring, can be secured for future generations by influencing the planning, design, construction and management of our urban infrastructure and spaces.

She began by discussing the underestimation of future heat waves and how higher temperatures as a very serious threat to health are not well understood. She believes that the threat of heat waves is poorly understood in the UK in particular.



"Climate projections using medium emissions scenarios will see an air

temperature rise of 6.5°C degrees on an average summer day and possible plus 10°C on a hot day by the end of the century. Temperatures from the 1976 heatwave will be common day (rather than a hot day). The impact of these high temperatures will be felt in urban areas where the city absorbs the heat and the environment does not cool down, so surface temperatures at ground level will go way beyond the plus 6.5°C/plus 10°C and will be very very hot. It is imperative that we mitigate and reduce the heat island effect otherwise heat-related deaths will be dire.

"We can't prevent hot weather from occurring but it is possible to:

- 1. limit how much the urban realm intensifies hot weather.
- 2. look at our exposure to heat
- 3. look at how we look after vulnerable city residents.

"As result of the 2003 heat wave there is now a heat wave plan nationally and locally with outreach to vulnerable populations but there isn't a plan for longer term measures in terms of mitigating the problem."



Jaluzot looked at Melbourne as a fantastic example of a city mitigating climate change and incorporating cooling and also looked in depth at Lyon in France who until recently did not have a Mediterranean climate but now experiences a climate similar to Marseille in the 1940s.

"Lyon is an old city much like the cities we have in the UK - so finding space for planting is just as much of a struggle. By mid 2050 Lyon will have the climate of Madrid and by the end of century it will have climate of Algiers in North Africa."

She said: "Lyon isn't built for summer weather (the buildings weren't built or designed with air con) but the city is *feeling the heat*. The UK will experience this in the future. Lyon is important though because it's a place where individuals got together to make a difference. Frederic Segur developed a tree charter and encouraged a range of stakeholders to sign it, including local nurseries."

Piggy-Back on Transport & Infrastructure Projects

"The redesign of the transport plan for Lyon was positioned alongside the climate change strategy - this positioning was important because it's only through connecting the dots in public realm with how we try to manage movement, taking space away from single cars and reallocating it to pedestrian and public transport that we can create the space to fit in some planting.

"Integrating the planting plan with the transport objectives was really important in Lyon. Cities change fast; transport and infrastructure projects are a big delivery channel of change with budgets dedicated to it. The other big engine is private development.

"In Lyon scarcity of water is quite serious so the new planting design chose a plant palette that was drought tolerant: they are also irrigating during heat waves that have strong drought component to them to trick the plants to keep them transpiring and releasing into the environment to maximise cooling.

Bio-landscapes

"There's a real understanding of landscape that underpins the redesign of Lyon's roads. The designers took an interesting landscape connectivity and bio-landscape approach; by incorporating different planting beside the cycle paths and walkways they have used plants attractive to wildlife so it's brought the birds and bees and butterflies down to eye level, but beside the carriageway there are no bushes or shrubs instead they have herbaceous layers so that they don't attract the birds or bees to the roadside where the pollutants are higher and there's the risk of cars. and avoided attracting bees/birds close to the road where the pollutant are higher and there's the risk of cars.

"Lyon is relevant to the UK - they have used trees as a means to an end not an end in of themselves. Trees and plants are being used to deliver multiple specific

benefits. There are specific health objectives in getting people to walk, cycle more, and clear transport objections and cooling objectives. There was an understanding right at the start of what they wanted from the planting scheme. Design not just above-ground; underpasses were converted to collect water, there was structural soil for new trees to tap in to. This planning was embedded in the strategy at the start.

"Lyon can be seen as an example of *collaborative design for holistic infrastructure solutions.* The project has research built in to it so that we can learn from it - it's fine that we don't always have all the answers, what's important is to commit to that research."

A Q&A followed Dr Blanusa and Anne Jaluzot's presentation.

Nick Coslett, marketing manager at Palmstead lamented the lack of a tree policy by the Transport for London team and suggested that the landscape industry suffers when it comes to influencing policy because "it's deeply fragmented and the dissemination of peer-reviewed scientific work rarely reaches us."

Mark Spencer added to the debate by saying that the present data available regarding future temperatures "are frankly wildly optimistic, at best we are in medium but getting closer to worst case and we are underestimating risk."



Raoul Curtis-Machin

Raoul Curtis-Machin, Head of Horticulture at The Horticultural Trades Association was invited to speak at the event on the topic of bio-security and Xylella fastidiosa.

"The media goes to town on diseases but the latest one Xylella fastidiosa has us worried: it's the first one that can literally put you out of business overnight. If there is an outbreak of this in the UK the implications are huge because the host list is so large - it could leap over the fence and cause landscape devastation.

"This disease could affect everyone. As a garden designer or nurseryman you should keep a paper trail of where the plants are coming from. Xylella fastidiosa (X. fastidiosa) is a bacterium which causes disease in a wide range of woody commercial plants such as grapevine, citrus, olive and several species of broadleaf trees widely grown in the UK, as well as many herbaceous plants.

"Last year a new strain arrived in mainland France with a big host range - the strain is also cold hardy so we know the disease is adapting and changing.

"So, what can we do together? Individually we can look, read and listen. Source things carefully and ask for evidence and keep audit trails. Thanks to the plant passport system we can track things - there is an audit trail. So in theory, if everyone signs up and keeps the paper trail up to date then the passport is a tool that will help to contain things."

Response to an outbreak

Raoul Curtis-Machin explained the difference between an 'interception' where the disease can be quickly isolated (as long as it's not spread) and an 'outbreak' which triggers a lockdown within a 10 mile zone and no plant movements from the host list for 5 years.

"What have plants ever done for us?"



Raoul Curtis-Machin asked the delegates to make a noise saying; "It's one of the most valid things we can do." He said that the current tree plan and the scale of tree planting in Britain was "awful."

He added: "the Government has promised to plant 4000 hectares of trees but it's no where near it. How can we have a bio-secure Britain without a healthy supply change?"

There is hope though as Curtis-Machin explained - trade bodies have been arguing for change; "As of now a lot of the grant schemes have been remodelled inside and out and hopefully we will see an improvement the season after next."

Jinny Blom: Designing therapeutic spaces

Jinny Blom, one of Britain's leading garden designers, was warmly welcomed to the stage.

At the top of her profession, Blom is greatly admired and respected in equal

measure by the landscape industry for her integrity and sensitivity to the basic principles of design.

Blom set up her design practice in 2000 in London and has accumulated an extraordinary portfolio of work in the UK, Europe, Africa, Middle East and the USA creating over 250 gardens and landscapes, private and public spaces.

Last year she became a board member of the Therapeutic Landscapes Network, an American non-profit organisation that provides information, education and inspiration about the relationship between health, well-being and landscapes. Blom is also 'Artist in Residence' at Chelsea & Westminster Hospital.

Blom opened by thanking Palmstead for put-on the event and choosing the topic saying: "it's been the most wonderful day and each speech has been riveting and

fascinating. We are all pulling in the same direction.



"What have plants done for us? Plants dignify us as humans. It's not about the money, it's about effort, intelligence, thought and activity; if you build a good environment for plants then you build a good one for people."

She explained that for her a project was more about the 'environment' than the project for one person, client or individual.

"My politics is the politics of influence - of doing things. I worked first with people, then food, then the environment and it actually took me a long time to put all the pieces together to come to the conclusion that what's important to me is 'the space that people live in'. This underpins everything and if you can understand space and if you understand planting, then the rest happens by osmosis. I changed direction literally overnight and became Dan Pearson's assistant for a short while then set up on my own."

Looking at 'drive' and 'direct action' Blom talked the audience through her view of the Highline project in New York, she said: "it's a wonderful place, un-legislated, full of excitement and freedom and imagination, a place where people *directly acted* to do something with the space."

Direct action is something that Blom practices - she has been working recently with Rachel Whiteread on a project in Shoreditch and talked about enjoyed taking part in a 'seed sweep', and directly acting within the landscape.

'Doing' is important to Blom. She lamented: "we don't actually 'do' anything any more as people, my family were involved in building Birmingham and were 'doers' but we don't do things the same way."

It is fair to say that when Blom takes on a project, for example an estate in Scotland or the Rift Valley in Kenya, she involves herself with the landscape as a whole.

She spoke of a project in the highlands of Scotland which enjoys a microclimate but had been taken over by Sitka spruce. The estate owner felt that 'nothing would grow' within the space but Blom showed the delegates a photograph of a solitary Birch growing within the landscape and said "I thought if you look you can see there's a Birch growing - all we need to do is *scale that up*. My job there actually became bigger than just designing a space, it became about saving the landscape."

She told the delegates that she looks further afield to the wider landscape outside the boundary of the client's land.

She referenced her work on a project in Arijiju in the Rift Valley in Kenya. Blom was struck by an environment that, as the cradle of civilisation, signals today to humans that they're; "not the King-of-the-hill - animals are more important and in fact it is the meek who will inherit the earth!"

Blom was tasked by her client to build a courtyard garden within the Kenyan estate. She took time to look at the contours of the wider landscape, to look at where the water would come from, how it would behave. She incorporated a watering hole at the bottom of the natural lugger and encouraged the animals into the space.

Planting was African native and a sympathetic rendering of the space was achieved.

Working to produce therapeutic landscapes is a a big drive for Blom. In her role as Artist in Residence at the Chelsea & Westminster Hospital she has been using art to transform patient experience. She said: "coming from a health background, I very much like keeping my hand in."

The projects within the hospital are being monitored and she said: "everything has an academic background to it so that we can prove that the budget is being used to positively affect patients - we need to show that these projects are successful and



have an impact and reduce hospital budgets overall so that we can roll it out across the NHS. The evidence is strong and is improving."

The interior garden at the Chelsea & Westminster designed by Blom is used within the hospital as a quiet space for the patients, staff and visitors to enjoy, and she said: "it's been proven to improve cognitive function and is a fantastic place for patients who aren't allowed or able to leave the hospital - this is a big group - and it has been used as part of their rehab.

"As a space it's used for meditation, pre-labour patients, rehab patients, mental health and dementia patients."

The planting within the space is ambitious and the planters are made from marine ply and printed formica so that they can withstand the rigours of the cleaning machines and hospital traffic.

Blom closed by saying: "we live in an accelerated place and I wouldn't mind things slowing down! We have become dislocated from the land we live on and that's ultimately worrying. We need to look at how we are going to protect our plants and the wider environment."

