Building 'Water Donkey'

An educational adventure along the Grand Union Canal in London saw children design, build and launch a narrow boat. By *Rosie Potter*

Greenfields Nursery School and Children's Centre in Southall, west London is located close to the great man-made waterway that is the Grand Union Canal, and this year its children helped establish the first Children's Sculpture Garden on its banks.

The canal, originally named the Grand Junction Canal until joining the Regent's Canal around 1930, was opened in 1800, and the main section runs from Brentford, where it joins the Thames, to Birmingham. It has 'arms' leading to Leicester, Slough, Northampton and, of course, runs through London where it joins the Thames again at Limehouse. Now used mainly for leisure traffic, the canal was originally built during the Industrial Revolution to transport cargos of, among other things, coal, timber, iron, silk, cotton and spices on horse-drawn barges.

The opportunity to create the Sculpture Garden was made possible by Southall Transition, a collaborative initiative that aims to build sustainable communities. Through the scheme, the children and their families were able to engage more closely with their local environment and explore the important role of the canal in the industrial, social and ecological development of the area.

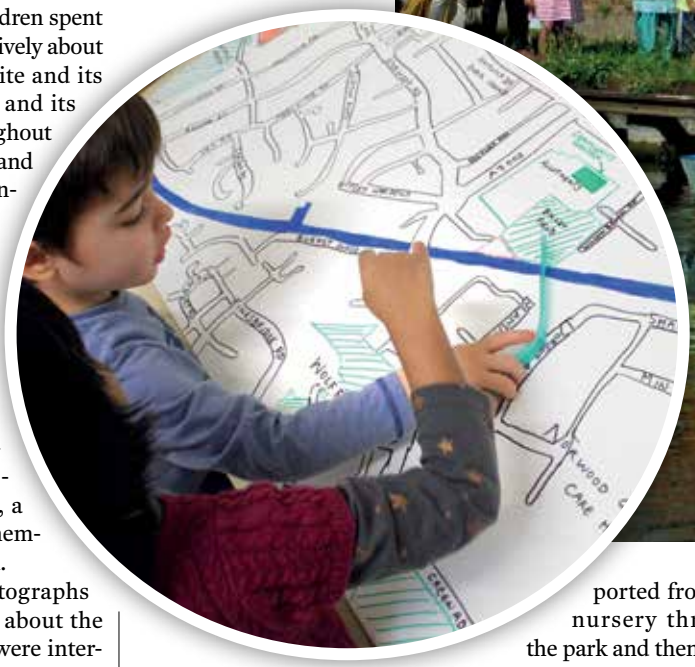
This meant that the children spent a lot of time thinking creatively about the development of the site and its relationship to the canal and its environs, supported throughout the project by Kirstie Reid and me, as the centre's artists-in-residence.

PLANNING AND DEVELOPING

Planning began with a working party 'group walk' to the canal, through Recreation Park, with the children accompanied by artists, practitioners, the park ranger, a landscape architect and members of Southall Transition.

The children took photographs and spoke to the experts about the history of the area. They were interested to know that canals were a major trade route for transporting goods and that the canal close to their nursery was actually 137 miles long, running all the way from London to Birmingham – 'My cousin lives in Birmingham,' commented one of the children.

Seeing the narrow boats going up and down the canal and waving to their owners gave the children the idea of building their own narrow boat – a vessel that might be transported from the nursery through the park and then floated up the canal to the nominated site for the sculpture garden.



Above: examining a map of the Grand Union Canal; and the finished Water Donkey setting off

Children began by looking at maps, measuring distances and discussing how to transport their boat. They located key points of departure and arrival on the map, together with roads, parks, bridges and the trajectory of the canal itself, and anticipated times and distances in relation to the journey.

UPSKILLING

At the beginning of each day, in order to develop and support the children's skills in making their boat, we explored a wide range of natural and man-made materials, plus a set of tools.

In this way, the children became confident in selecting the most suitable and cost-effective materials for their project. For example, the children were encouraged to request specific adhesive tapes by name – such as gaffer tape, masking tape, Sellotape, parcel tape, double-sided tape – according to their appropri-

The children first made a canoe from withy; and a 'lobster pot'

ateness for the work that they were undertaking.

Similarly with paper and drawing tools, the children made experimental drawings on different grades of paper, such as cartridge paper, sugar paper and newsprint, and worked with media including pastels, coloured pencils, wax crayons, graphite, charcoal, paint and brushes, felt-tips and ballpoint pens.

Their practical research into boats began with the children weaving a canoe-like craft, first using mainly natural materials, including withy, soaked first in water, and bamboo from the garden, then adding wide strips of a light, waterproof man-made material. The children then wove a similar structure, which they referred to variously as a 'fishing hut', 'beehive' and 'lobster pot'.

The children had hands-on roles

The children engaged with this form for some days as they continued with the string work while physically inhabiting and moving it in spiralling patterns around the nursery.

BUILDING

The children then began to investigate more closely the idea of building a narrow boat like the ones that they had seen on the canal. In particular, they loved the idea that the old narrow boats used to be pulled by horses walking along the towpath, so we now needed to find a suitable horse for our adventure!

Once again, we invited parents to work with children over the spring holiday to develop ideas and designs upon which we would base our final craft. This resulted in more than 40 ingenious 3D models and drawings being submitted for selection.

During the course of the project, the children learnt the subtle differences between canal boats, barges and traditional narrow boats. They then created their own design, in recycled cardboard, to give a sense of shape and scale, and used this information in the construction of the final vessel. One child asked, 'What can we use to fix it together?', to which another replied, 'Your body, bricks and twigs.'

Empty plastic bottles provided buoyancy

Building the boat meant the children had to work with tools – drills, screwdrivers, hammers and nails, keep in mind their construction plan and choose materials that would ensure the boat was both buoyant and water-resistant. For buoyancy, we used the 60 recycled five-litre plastic bottles that we had used in making our raft, which we went on to float in the sea at Littlehampton in a previous summer (see More information).

During construction, we made scaled plans, and decided that as the boat was so long and thin, we would make it in two parts and bolt it together when we reached the water's edge.

As well as discussing construction methods, trade and cargos, the children also debated practical problems, such as how to transport the boat across an undulating landscape. One child asked, 'How are we going to get it uphill?', and another suggested, 'Wheels – it goes up and down, up and down, and finally gets to its destination.'

There was the question of how to propel the boat along the water. One child said, 'We have to put it on the water and blow very hard all together', but another child disagreed, 'No, we have to attach the horse and then we launch the boat – it's going whoosh – and stops at Norwood Green.' And there was the problem of leaks to consider: 'When there's a leak, a boat sinks, then everybody needs to swim.'

Up for discussion too was a name for our craft, and Jay's excellent suggestion of 'Water Donkey' was finally agreed upon – just as donkeys have been used to transport materials for centuries, so too have boats and canal systems, contributing significantly to our social and economic development.

LAUNCH DAY

After an intense period of work by the children, the construction, painting and weather-proofing of their narrow boat was completed in time to meet the final deadline, and the boat was launched into the Grand Union Canal on 5 July.

Accompanied by a colourful ➤

caravan of children and their families, the boat was drawn approximately one mile up the canal by two ponies from Ealing Riding School and installed on the site of the dedicated Children's Sculpture Garden at Bixley Fields, where it will remain as a piece of semi-permanent artwork. There are proposals for it then to be replaced by an ongoing series of artworks emerging from selected projects by other children's groups across the Borough of Ealing.

On the afternoon of the event, families ate a picnic lunch before walking to Top Locks further up the canal, where they were treated to a full demonstration of the locks in operation. The children eagerly helped open and close the lock gates to allow two boats to pass through, so giving them a much clearer understanding of how vessels travel up and downhill along a waterway. One child explained, 'The boat came, it was floating on the water... if the lock is open, the water stops overflowing and it goes up and down.'

Then we returned to the sculpture garden, where children were able to enjoy pony rides and re-examine their narrow boat in its new location.

LAYERS OF DISCOVERY

Realising this project was far from straightforward. As well as the challenge of designing and constructing a half-scale narrow boat that would float, we also needed permission from the Canals and Rivers Trust to float it up the canal without causing any hazard to other canal users.

This meant applying for a licence and for special permission for a horse to walk along the towpath. We also had to undertake various risk assessments relating to nesting birds along the route, the possibility of horses falling in the canal and potential vandalism to the boat once it had been established in a public space.

Greenfields' chair of governors, walking alongside families at the event, commented, 'Listening to the conversation of the children, seeing their pride when the boat floated (and the relief of the adults) and their eagerness to know the names of the plants and birds, and realising that 95 per cent of them had never walked by the local canal, made all the detailed planning and form-filling meaningful.'

The children are already returning to the site, bringing extended families and friends to see the work and taking time to relax in the garden.

Above: building and painting the narrow boat; and (inset) a model cargo boat

At the start of the project the children visited and learned about the canal

MORE INFORMATION

- *'Walking with whales', 'Floating ideas', 'Home grown'* and *'Shelter from the storm'* by Rosie Potter detail other creative projects at Greenfields Children's Centre, including the trip to Littlehampton, and are available at: **www.nurseryworld.co.uk**

Positive experiences outdoors are central to head teacher Ellie Larkin's vision of the natural environment as a platform on which to build children's health and social welfare, as well as a sense of democratic and cultural cohesion – which can be difficult to find in other situations.

Overall the project involved the children in many layers of discovery, experimentation and problem-solving, all of which required quite sophisticated levels of understanding. As always, the children were in the vanguard, driving the development of the creative process through their blue-sky thinking, energy and enthusiasm, plus their palpable sense of adventure.

This is something that we would wish to inspire in all our young people, by giving them the confidence to know that their curiosity and ideas are respected and that there exists a forum for those ideas to be articulated, so that in the true spirit of creative exchange everyone can learn from each other.

Equally this project emphasises Greenfields' commitment to involving the whole community in the life of the school and providing children with high-quality experiences in a rich and empathetic learning environment – one in which children explore ideas with their peers and with adults, while remaining independent thinkers; a place too where adults are constantly researching, learning and evolving. ■

Rosie Potter is artist-in-residence at Greenfields Nursery School and Children's Centre, Southall and a senior lecturer at Wimbledon College of Arts, part of the University of the Arts London