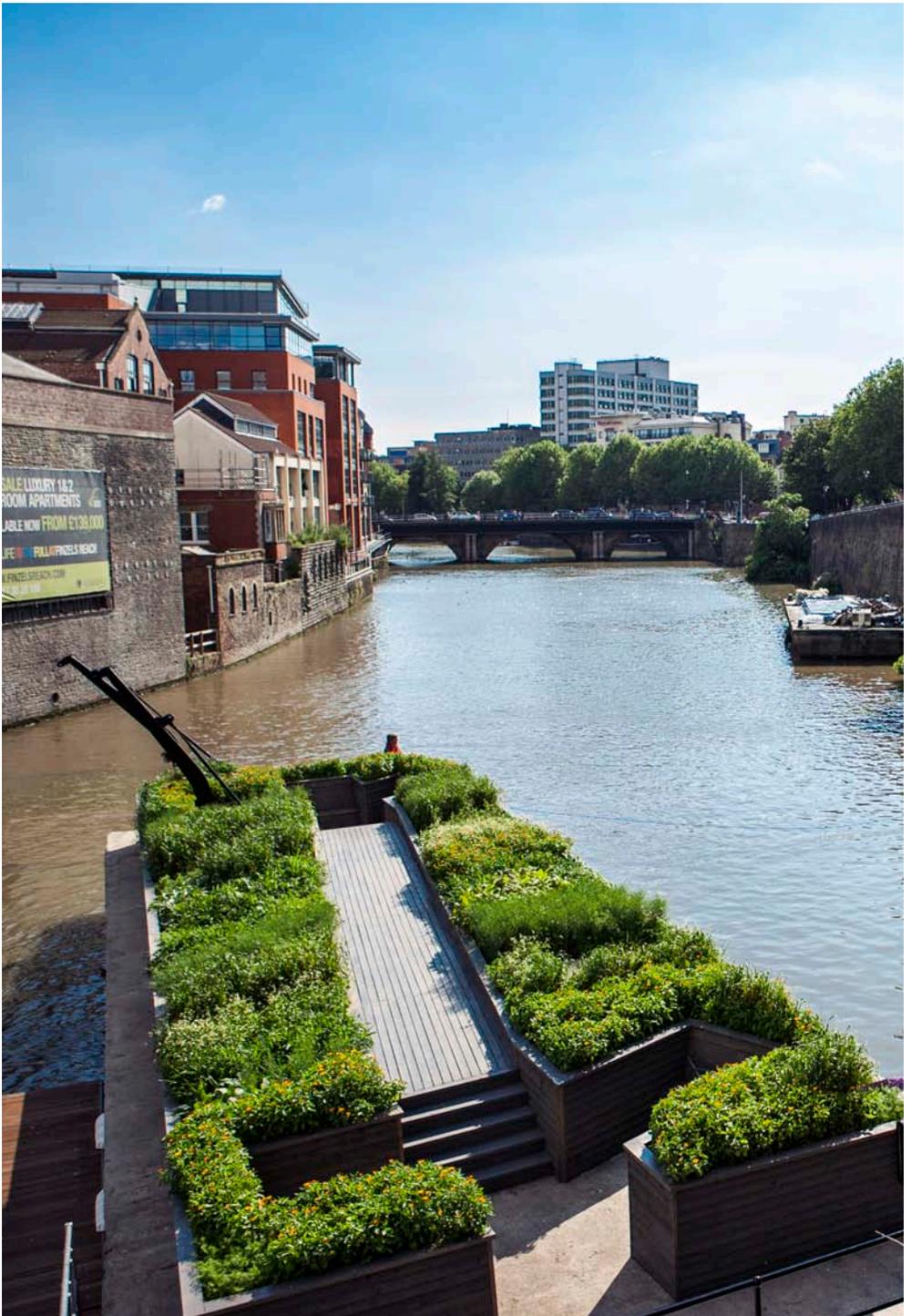


Summer–Autumn 2015

# Seeds of Change: A Floating Ballast Seed Garden



**ARNOLFINI**



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# Welcome

This year, Bristol celebrates its new role as European Green Capital – the first UK city to win this prestigious award. As part of the city's year-long celebrations, the 2015 *Seeds of Change: A Floating Ballast Seed Garden* programme will be our busiest yet, with boat trips, talks, screenings and events running from June to October.

Located on Bristol's historic harbour, just off Castle Park, the garden is brought to life each year by Arnolfini, the University of Bristol Botanic Garden and Bristol City Council. So far our work on and around the garden has reached over 6000 people across the city. Over 500 school pupils, teachers, community group members and community workers have benefitted from the project, coming together - many for the first time - to learn about ballast seeds, plant life, Bristol's history and to share stories and ideas about heritage and diversity. This unique project, that has inspired so many to pick up a spade for the first time, has given rise to 16 new garden spaces across the city.

This year, we are very excited to welcome back Floating Ballast Seed Garden creator Maria Thereza Alves to Bristol for a special talk about the project. This will be followed by a special event with Kew Gardens who will be telling us about their Millennium Seed Bank Project, that is fighting for the survival of plants in the wild.

As always there will be lots for families to get involved with, including a workshop with artist Anna Francis and the chance to create masterpieces that are inspired by the garden and its ecology.

We also welcome acclaimed, folk duo *Eyes For Gertrude* who will be giving an intimate, stripped-back performance on-board a Bristol ferry as it floats down the canal and docks at the garden.

We hope you can join us for this extraordinary year on-board the Floating Ballast Seed Garden, as we celebrate our past and continue to plant our future.

Aldo Rinaldi, *Senior Public Art Officer,  
Bristol City Council*

Helen Davies, *Director of Audience  
Engagement, Arnolfini*

# Seeds of Change: About the Project

***“... at the end of the last Ice Age, the British Isles were home to only a handful of plants... The majority of these introductions (the plants that came later) occurred over two centuries between 1735–1935”***

Sue Shepard, *Seeds of Fortune*

*Seeds of Change* is the overall title of an ongoing ballast seed garden project from Brazilian artist Maria Thereza Alves. Alves was originally invited to come to Bristol in 2007 to develop a project for the group show *Port City* at Arnolfini. During this period, Alves researched the sites where ballast - the earth, stone and gravel that

was used to weigh down trading vessels when they docked and was carried all over the world - would have been offloaded around the Floating Harbour. She dug up small samples of earth from these sites, in which seeds were buried. With the help of local individuals and groups (many of whom have family links to the port cities Bristol traded with), these seeds were germinated. The resulting array of plants, which were grown from these original sites, became a living embodiment of the port's trading history, and reflected the different global routes traveled by Bristol merchants. Alves says, “*Seeds of Change: A Floating Ballast Seed Garden* is an attempt to re-establish the complex histories of ballast flora.”

Working with the University of Bristol Botanic Garden, Arnolfini and Bristol City Council, Maria Thereza Alves created the Floating Ballast Seed Garden in June 2012. Constructed from a disused grain barge, the garden is populated with a variety of non-native plants, creating a living history of the city's trade and maritime past. The garden was originally commissioned as part of the London 2012 Festival, a spectacular 12-week nationwide celebration, bringing together leading artists from across the world with the very best from the UK.

Since launching the Floating Ballast Seed Garden, Arnolfini has run a large public engagement programme, working closely with project partners University of Bristol Botanic Garden and University of Bristol Centre for Public Engagement, including school visits, family planting days and boat tours led by botanists, historians, curators, performers, local chefs, and storytellers.



(Image above) *Seeds of Change: A Floating Ballast Seed Garden*, photo Max McClure 2012



## Ballast Flora

**“I’m always amazed at the variety of people that are engaged by the complexities of plants, how they arrived, and how they contribute to the landscape. I thought that by being able to access a garden made up of ballast flora, visitors would be pleasantly surprised by how many of the plants are actually very much part of their everyday lives... I hope my project allows the viewer to consider how human activity has affected the landscape, from economic policies to river and land trade routes, and subsequently, how this has influenced the ‘look’ of the English landscape.”**

Maria Thereza Alves

Ballast flora is a category of plants that has become part of the English landscape. It refers to the product of seeds which were brought to this country in the ballast on ships, particularly between the 18th and early 20th century when it was commonly used in mercantile shipping. Ballast generally consisted of sand, stone, earth, pebbles, shells or other cheap materials that came to hand, which was used to balance ships if their cargo was too lightweight. Arriving in port the ballast was unloaded (often clandestinely to avoid taxes), and with it came seeds from all around the world. These ‘ballast seeds’ can sometimes lie dormant for hundreds of years in the port.

# Seeds of Change: Bristol 2007 By Maria Thereza Alves

The Atlantic triangular trade route involved manufactured goods from England being shipped to Africa in exchange for enslaved Africans who were then traded in the Americas for colonial goods.

Bristol was one of two leading English ports in the transatlantic (and therefore slave) trade. Later Liverpool would be the world's leading slave trading port. Ships therefore frequently returned with ballast to their homeport.

According to Kenneth Morgan in "Shipping Patterns and the Atlantic Trade of Bristol, 1794-1770", by the mid-19th Century, sugar production, which had been the main cargo exchanged for slaves in the West Indies, had so diminished or was so monopolized that it was common for ships to "trade in ballast" and return to Bristol.

"Slave Cargoes were more valuable than colonial goods cargo. A single slave cargo required four to six direct trade operations with the West Indies to remit its income in colonial goods." It appears that the slave

trade resulted in a great deal of ballast crossing the Atlantic to homeports in Europe.

The formation of the English Landscape therefore coincided with a time in English mercantile shipping when ballast was used primarily as a direct result of the slave trade.

Through the work in Reposaaari, Bristol and to some extent, Liverpool, it has become evident to me (once again) the importance of involving community groups in research of their own locale. They have important knowledge and approach the research from productive perspectives beyond those of academia.

Because the English landscape was formed during England's intensive slave trade, which resulted in much ballast and therefore seeds arriving in English ports, it is necessary to create an "English" Landscape Research Institute. It would function to promote active investigations and participation in the history of Bristol between its residents and scientists and academics.

# Floating Garden Design

The Floating Ballast Seed Garden was designed by German designer Gitta Gschwendtner and aims to give the visitor an opportunity to experience the garden from various levels and perspectives. The raised bed structure, with its sunken paths and seating areas, immerses the visitor into the garden, while the elevated central pathway allows an overview of the entire garden emphasising its water-based location. The architecture of the garden works with the structural constraints of the concrete grain barge, with an elevated planting bed that conceals the barge's large hold space where grain was loaded onto the vessel for transport. Sustainability is an important aspect of the project, and both the garden's irrigation system - using water pumped straight from the floating harbour - and its lighting system, are powered by solar panels. The construction materials used are also sustainable, including pine that was treated with an environmentally friendly oil stain to soften its appearance and preserve it from weathering.

## Planting Design

Most of the Floating Ballast Seed Garden species have been grown by human agricultural systems for thousands of years. The planting design, conceived by University of Bristol Botanic Garden Curator Nicholas Wray, serves to reflect this. Each plant species is grouped in

informal swathes across the barge in natural flowing shapes interleaved with neighbouring plantings. The result is a semi-natural display that nevertheless places the plants in a domesticated context. Bold plantings of each species are used so individual plant shape, colour and texture can be appreciated by visitors viewing the barge from Castle Park some 10m above. By grouping plants in this way visitors to the barge can feel they are in a traditional agricultural field full of wild flowers. This is particularly evident when sitting in the barge's two sunken wells surrounded by plants at eye level. Visitors experience the planting's movement as plants sway and move in the wind. With the onset of late summer, many plant species dry out and greens and vibrant colours change to shades of brown. These brittle, dry stems develop an acoustic quality that can be heard when sitting on the barge. The backdrop of the large south-facing, stone, retaining wall soaks up the sun's energy, promoting early growth and allowing some Mediterranean species, like squirting cucumber *Ecballium elaterium*, to survive the cool wet Bristol winters. Each species has been chosen to add interest to the display. Known aggressive weeds and highly toxic plants, whilst documented as ballast species, have been omitted to reduce the risk to the environment and public safety. The established plants have been joined this year by a series of guest plant species. These have been documented as growing on ballast dumps in South Wales ports during the 20th Century. As Bristol receives guests during its 2015 European Green Capital Year the plant guest species will appear on the barge for people to meet and enjoy.

# Maria Thereza Alves

Maria Thereza Alves was born in Sao Paulo, Brazil in 1961. She researches social and cultural phenomena and was one of the co-founders of the Green Party in Brazil. Alves focuses on concepts that question social circumstances; concerning what we think we know, who we think we are and to look instead at where and how we actually are at this time. She attended the Cooper Union School of Art in New York City and in 2006 she was awarded a DAAD scholarship (Deutscher Akademischer Austauschdienst/German Academic Exchange Service). Her work has been exhibited widely across Europe and North America. Recent exhibitions include the Paris Triennial, Guangzhou Triennial, (DOCUMENTA 13 in Kassel, the Sao Paulo Biennial, the Taipei Biennial, Manifesta in Trento, the Prague Biennial, the Athens Biennial and the Lyon Biennial where she received the Prix de la Francophonie.

# Gitta Gschwendtner

Born in Germany in 1972, Gitta Gschwendtner moved to London in the early nineties to study design at Central Saint Martins, Kingston University and the Royal College of Art. Following graduation from the RCA furniture MA in 1998 she set up her independent design studio in London working on a diverse range of projects ranging from product, interior and exhibition design to public art installations for arts, cultural and corporate clients. Gitta's studio focuses on conceptually rigorous, visually intriguing, functional design across several disciplines. Her clients include British Council, Crafts Council, Design Museum, DuPont Corian, Geffrye Museum, Habitat, Innermost, Mathmos, Peugeot, Purves & Purves, Royal College of Art, Science Museum, Sony, Twentytwentyone, Victoria and Albert Museum and the Wellcome Trust.



(Image above) *Seeds of Change: A Floating Ballast Seed Garden*, photo Max McClure 2012

# Boat Tours and Events

All boat tours are £7/£5 concessions, unless otherwise stated, and depart from Arnolfini. Please book by calling Arnolfini box office on 0117 917 2300 or visit [arnolfini.org.uk](http://arnolfini.org.uk)



Floating Ballast Seed Garden. Photo: Arnolfini, 2013

## Garden Planting Days, Castle Park

Friday 5–Saturday 6 June, 11am–2pm

Join us in Castle Park as volunteers from the University Botanic Garden plant the beds of the Ballast Seed Garden for another year. Learn more about the garden and planting scheme, including newly introduced plants for 2015.

On Saturday 6 June families are invited to visit our activity tent and take part in fun drop-in activities with a plant theme.

## Something & Son Unorthodox Spaces

Saturday 27 June, 2.30pm–4pm

Something & Son is a London based arts practice that seek inquisitive and experimental solutions to the social and environmental challenges of our time, often involving the transformation of unlikely spaces. Recent projects include a sustainable farming initiative on a Folkestone rooftop and the *The Sweat Oratory* for Kinsale Arts Festival. Company founder Andrew Merritt will lead a visit to the floating garden and a talk about the practice's projects.



Sweat Oratory. Something & Son.  
Photo PJ Rankin



## **Soil Residency Talk: Sophie Mason & Clive Adams**

*Saturday 4 July, 11.30am–1pm, £15/£13  
concs (price includes a botanical cocktail  
and canapes)*

Join Bristol residency artist Sophie Mason for a talk on her work on board the Ballast Seed Garden followed by an ‘in conversation’ with Clive Adams, Director of The Centre for Contemporary Art and the Natural World. After this conversation you are invited for botanical cocktails and summer canapés at the opening of *Soil Culture* at Create Centre, a summer celebration of UN International Year of Soils 2015 hosted by CCANW, Alys Fowler and SOIL SISTERS.

## **The Floating Cinema Tour to the Ballast Seed Garden led by Nina Pope and Karen Guthrie (Somewhere)**

*Thursday 9 July, tours 3pm–5pm and  
6pm–8pm*

Join artist collective Somewhere for an afternoon of special tours to the Floating Ballast Seed Garden aboard The Floating Cinema. Somewhere will discuss their practice before you explore the garden on foot. There will also be screenings of related short films on board the cinema. The Floating Cinema Tour is curated and produced by UP Projects and supported by Arts Council England, British Film Institute and Canal & River Trust.

## **Tour of the Ballast Seed Garden led by a University of Bristol Botanic Garden Volunteer Guide**

*Wednesday 15 July, 6.30pm–8pm*

Your tour host will explain the principles behind the design, how the plants are raised and established, introduce you to the plant species and explain how the garden will be developed in the future.



## **Eyes for Gertrude: Live Acoustic Duo (Music Event)**

*Friday 17 July, 7.30pm–9pm*

British female duo Eyes for Gertrude write full-hearted, unforgettable songs. Piano pulsed, accordion tinged, guitar swooned melodies are shaped around captivating observations of the everyday. The band have had a whirlwind 2014, playing live on BBC Radio 4's Loose Ends show and performing at a host of UK festivals including Larmer Tree and Glastonbury.

## Tour of the Ballast Seed Garden led by a University of Bristol Botanic Garden Volunteer Guide

Wednesday 22 July, 6.30pm–8pm

Your tour host will explain the principles behind the design, how the plants are raised and established, introduce you to the various plant species and explain how the garden will be developed in the future.



Floating Ballast Seed Garden. Photo Arnolfini 2013



Meadows at the Olympic Park.  
Photo Nigel Dunnett

## Nigel Dunnett: The Dynamic Landscape

Saturday 25 July, 6.30pm–8pm

Join horticultural specialist Nigel Dunnett for a special tour to the Ballast Seed Garden followed by a talk on his practice. Dunnett is Professor of Planting Design and Vegetation Technology, and Director of The Green Roof Centre at the University of Sheffield. His work revolves around innovative approaches to planting design, and the integration of ecology and horticulture to achieve ecologically-tuned landscapes. Dunnett was one of the principal planting design and horticultural consultants for the London Olympic Park.

## Boat tour with Nick Wray, Curator, University of Bristol Botanic Garden

Wednesday 29 July, 6.30pm–8pm

Join Nick Wray for an in-depth look at the design and plants of the *Ballast Seed Garden*. Wray will introduce you to favourite varieties like the squirting cucumber and several new species that have been added during 2015 to mark Bristol's year as European Green Capital.



Floating Ballast Seed Garden.  
Photo Arnolfini 2013

## **Boat Tour & Talk with Yrjö Haila: Second Nature Urban Agriculture: Making Cities Productive**

*Saturday 1 August, 2.30pm–4pm*

Yrjö Haila is a leading expert on ecology and environmental sciences in Finland, as well as an ardent advocate of environmental protection and an active writer. Haila will be discussing the work of internationally-acclaimed artists who are inspired by the environment, including Richard Long, Maria Thereza Alves, and Giles Clements. Haila will consider the symbolic force of natural elements in our every-day surroundings.



Floating Ballast Seed Garden.  
Photo Arnolfini 2013

## **Tour of the Ballast Seed Garden led by a University of Bristol Botanic Garden Volunteer Guide**

*Wednesday 12 August, 6.30pm–8pm*

Your tour host will explain the principles behind the design, how the plants are raised and established, introduce you to the various plant species and explain how the garden will be developed in the future.



Floating Ballast Seed Garden.  
Photo Arnolfini 2013

## **Tour of the Ballast Seed Garden with Cathy Lewis**

*Wednesday 26 August, 6.30pm–8pm*

This special tour will include an overview of the garden's new plants with horticultural researcher Cathy Lewis.

## **Tour of the Ballast Seed Garden led by a University of Bristol Botanic Garden Volunteer Guide**

*Saturday 5 September, 2.30pm–4pm*

Your tour host will explain the principles behind the design, how the plants are raised and established introduce you to the plant species and explain how the garden will be developed in the future.



Maria Thereza Alves at Port City Exhibition, Arncliffe, 2007

## Boat trip and Q&A with Nick Wray & Maria Theresa Alves

*Monday 14 September, 6.30pm–8pm*

Join this special event with a rare boat trip and talk by Brazilian artist and co-founder of Brazil's Green Party, Maria Thereza Alves. Alves is the creator of The Floating Ballast Seed Garden and will be in conversation with Nick Wray, Plant Curator of University of Bristol Botanic Garden. The talk will feature an in-depth look at the design, planting style and evolution of the *Ballast Seed Garden*.



Courtesy of Kew Millennium Seed Bank © Royal Botanic Gardens, Kew

## Kew Millennium Seed Bank Boat Tour and Talk

*Wednesday 23 September, 6.30pm–8pm boat tour, 8pm–9.15pm lecture*

The Millennium Seed Bank Partnership is an international conservation project coordinated by the Royal Botanic Gardens, Kew. Its purpose is to provide an “insurance policy” against the extinction of plants in the wild by storing seeds for future use. In April 2007, it banked its billionth seed. This event will feature a boat tour to the Floating Ballast Seed Garden and a talk led by a representative from Kew who will discuss the project.

# Family Events



Anna Francis. Photo Glen Stoker



Floating Ballast Seed Garden.  
Photo Arnolfini 2013

## Family Workshop with artist Anna Francis

*Saturday 29 August, 2.30pm–4pm*

Artist Anna Francis uses drawing, mapping, performance and photography to investigate the impact that artists can have on their environments. Join Anna for a family-friendly workshop, explore the language of plants, and make your own Japanese ikebana.

## Family Storytelling Boat Tour

*Saturday 26 September, 2.30pm–4pm,  
£5/£3 concessions & children under 12  
(free for under 5s)*

Join Cassandra Wye, international storyteller, on an amazing adventure to the Floating Ballast Seed Garden and discover the secret skills of the plants hidden there. From miracle cures and and marvelous inventions, meet the plants that have changed our world!

For more family friendly activities, drop into Arnolfini's Light and Dark Studios between 1pm and 5pm on this day to make fantastic creations.

## Halloween Ghost Tour

*Saturday 31 October, 2.30pm–4pm,  
£5/£3 concessions & children under 12  
(free for under 5s)*

Join us for a family friendly Halloween boat tour to the Floating Ballast Seed Garden. Dress up as your favorite ghost or ghoul and join storyteller Michael Loader for a spooky storytelling river tour to our Floating Ballast Seed Garden. Watch out for terrifying tendrils, vicious vines and carnivorous creepers!

For more creepy activities drop into Arnolfini's Light and Dark Studios between 1pm–5pm on this day to create your own costumes, backgrounds and props for our spooky film *Attack of the Giant Plants!*

# Port City

**Salsola kali from Africa was found on ballast in Avonmouth. Amaranthus albus from North America was found on a ballast tip on Grove Quay.**

The people of the Susu, Gola, Limba, Mende and Yalunka tribes were among those enslaved on Bance Island in Sierra Leone and taken by Bristol slave ships to Jamaica to be sold in order to replace the indigenous Arawaks (who had been traders and travelled long distances from island to island in their canoes) none of whom survived contact with the Spanish (or the English, who came just a little later). These ships would then continue onto the Carolinas to bring slaves to replace the indigenous work force there, the Cherokees, two-thirds of whom were also not able to survive contact with the English. Ballast taken from Jamaica (with seeds which could have come from any of the islands with which the Arawaks had traded) or the Carolinas, and therefore from anywhere along the east coast where Cherokees traded, could mix with seeds accidentally coming from any of the villages which were attacked by slavers in Sierra Leone. Among the villagers were the Sasu who were originally from Guinea and were also traders, nomads and farmers. The Limba

are autochthonous to Sierra Leone. The Gola are from Liberia. The Mende, who were originally from the Sudan and were traders with neighbouring countries such as Liberia, Ivory Coast and Guinea. Seeds from any of these places could have arrived in Bristol and been unloaded in the ballast dumps at the Wapping Quay, which is now the site of M Shed.

Slavery was not abolished in Sierra Leone until 1928 but it remained widespread until the 1970s. It has the world's highest maternal mortality rate. Life expectancy for men is 42 years old. The UN has declared Sierra Leone today the most inhospitable country in the world, based on poverty and poor quality of life endured by its citizens

**Senebiera pinnatifida from Argentina was found growing on ballast in Bristol. Pisum arvense from Portugal was found on a ballast heap in Wapping Quay.**

Sebastian Cabot, possibly a Venetian but who considered himself to be an Englishman from Bristol, was a good friend of the mayor of Bristol, Robert Thorne, who had a soap factory in Seville, and a business of trading Africans and Canary Islanders who had been made into slaves. Thorne invested in Cabot's trip to La Plata River in

Argentina where, with African slaves, he enslaved some Amerindians; most probably the Guarani, whose territory also includes parts of Brazil, which the Portuguese colonized. The Portuguese were the first Europeans to have a monopoly on the slave trade. Maybe these plants arrived in Bristol because of Cabot? Colonization forced the Guarani on a migration movement in search of “a place without the Bad” to settle in. The Guarani did not find it. Some of them ended up in Mato Grosso where Marçal de Souza, a Guarani who fought for land and indigenous rights, was assassinated in 1983. Brazil abolished slavery in 1888 but in 1984 Maria Thereza Alves’ Uncle Antonio was still afraid to travel outside of his village in the state of Parana for fear of being made into a slave.

An incomplete list of some of the indigenous languages which no longer exist in Argentina includes: Chané, Güenoa, Chaná, Abipón, Payaguá, Mbeguá, Lule, Manek’enk or Haush, Teushen, Allentiac or Alyentiyak, Toconoté, Millcayac or Milykayak, Omaguaca, Cacán, Kunza or Likanantaí, Comechingon or Heniacamiare, Sanavirón, Het, Yagan, Yámana or Háusi-kúta.

In Brazil 75% of the languages became extinct after colonization and at the time of writing this text, (2007) at least 133 languages were endangered.

Text by Maria Thereza Alves, reproduced from the publication *Port City: On Mobility and Exchange*, Arnolfini, 2007.



(Image above) Maria Thereza Alves, *Seeds of Change*, Port City, installation view, Arnolfini, 2007.

# Guest Plant Species

As part of Bristol's tenure as European Green Capital 2015, the plants on this year's Floating Ballast Seed Garden includes a number of guest plant species which have been introduced in honour of the city's yearlong celebrations. The plants, which have been grown by the University of Bristol Botanic Garden, were researched by horticulturalist and garden designer Cathy Lewis. These plants have been documented as appearing on ballast dumps in other UK ports, particularly in South Wales, during the 19th Century. The plants on the Floating Ballast Seed Garden have been sourced from European Botanic Gardens and commercial seed suppliers, and grown at the University Botanic Garden before being planted on the barge.



Maria Thereza Alves, Salsola kali plant illustration, 2007

## Erysimum cheiranthoides

### Family

Brassicaceae

### Common name

Treacle-Mustard or Wormseed Wallflower

### Origin

Native to most of central and northern Europe and northern and central Asia. It is now naturalised in western and southern Europe and North America.

### Description

A short lived, leafy perennial, it produces an abundance of yellow flowers from late winter to spring. Being rich in nectar they are attractive to bees.

### Other

It is found growing on rocky ground, on cliff faces and locally can be found growing in the Avon Gorge and on old walls in the City.



## Saponaria vaccaria

### Family

Caryophyllaceae

### Common name

Cowherb, Cowcockle, Cow Basil, Cow Soapwort, and Prairie Carnation

### Origin

A common cornfield weed in eastern and central Europe

### Description

Part of the same family as Pinks and Carnations, *Saponaria vaccaria* is an annual, growing to about 1m with a branching habit. It has blue-green, waxy oblong leaves and a profusion of pale rose-pink flowers.

### Other

Found growing in dredged soil near Bristol and in ballast around Cardiff and Penarth Docks. The seeds are used in Chinese medicine. It is rich in saponins, a soap-like substance capable of bonding oil and water, and is currently being investigated as an anti-cancer drug.



## **Anagallis arvensis var. caerulea**

### Family

Primulaceae

### Common name

Blue Pimpernel, Poor Man's Weatherglass

### Origin

Northern Africa, Azores, Madeira Islands, Canary Islands, Europe, western Asia

### Description

A low, spreading herbaceous plant, short-lived, with soft, square stems and small, egg-shaped, stalkless leaves. The flowers have five petals and are dark blue or purple in colour.

### Other

The botanical name comes from the Greek *ana* meaning 'again' and *agallein* 'to delight in', and refers to the flowers' habit of opening in full sunshine and closing with the approach of bad weather. This is also how it attained the common name 'poor man's weatherglass'. Recorded in ballast in Barry Dock, and a frequent grain introduction.



## **Ononis natrix**

### Family

Fabaceae

### Common name

Yellow Restharrow

### Origin

A native of sandy shores in southern Europe

### Description

Part of the pea family, this is a dwarf bushy shrub growing to about 60cm, with yellow flowers lightly veined with red, and hairy, pea-like pods.

### Other

It has become naturalised in the UK on rubbish tips and waste ground and recorded in Cardiff as a ships' ballast introduction. Members of this species were commonly called restharrow as the tough stems would stop the harrow. In herbalism *Ononis natrix* is used to treat bladder and kidney problems.



## Chrysanthemum segetum

### Family

Asteraceae

### Common name

Corn Marigold

### Origin

Eastern Mediterranean

### Description

This annual grows to 45cm with large, bright yellow daisy-like compound flower heads. The fleshy leaves are covered with a waxy layer that gives them a bluish colour. It has a preference for light, moderately acid soils. Once a common weed of cornfields, it is now described as a vulnerable species.

### Other

Recently renamed *Glebionis segetum*, but also listed as *Xanthophthalmum segetum*. It is a good nectar plant and valuable for insects. Recorded growing in ballast near Swansea as well as on tips and wasteland around Britain as a bird seed and spice-alien.



## Echium italicum

### Family

Boraginaceae

### Common Name

Italian Viper's Bugloss

### Origin

Mediterranean Region

### Description

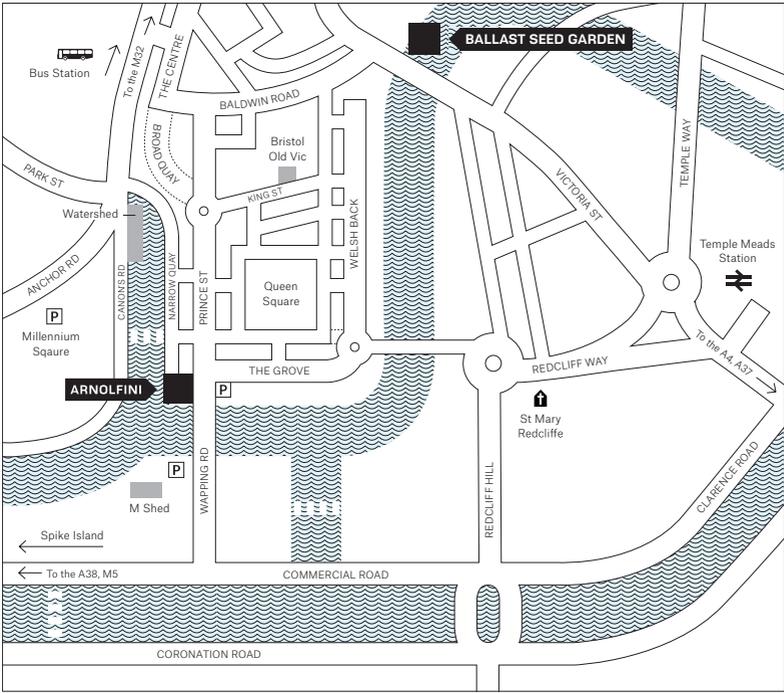
A hairy biennial plant producing a rosette of hairy grey-green leaves in its first year followed by a pyramidal inflorescence bearing hundreds of small pale mauve – pink to white flowers, rich in nectar. Found growing in the wild by roadsides, field edges and in olive groves throughout the Mediterranean region. After flowering the plant dies, but each inflorescence produces thousands of seeds ensuring the next generation. Now found growing as a weed in North America and many other countries.

### Other

Found growing in the wild by roadsides, field edges and in olive groves throughout the Mediterranean region. After flowering the plant dies, but each inflorescence produces thousands of seeds ensuring the next generation. Now found growing as a weed in North America and many other countries.



# Garden Location and Access



The Floating Ballast Seed Garden is located on the North side of Bristol's Floating Harbour, between Bristol Bridge and Castle Park water taxi stop. The garden is visible from Castle Park and may be accessed by the public by boat, or by one of the specially programmed boat trips and talks organised by Arnolfini and booked in advance.

To book a trip call 0117 917 2300 or visit [arnolfini.org.uk](http://arnolfini.org.uk) for further information.

The garden is partially accessible to wheelchairs, with a ramp from the pontoon landing station adjacent.

# Further Information

## Commissioner and Funding

*Seeds of Change: A Floating Ballast Seed Garden* was commissioned by Bristol City Council as part of its public art programme. The project was funded by the Ashley, Easton & Lawrence Hill Neighbourhood Partnership, with the kind support of Bristol Harbour Authority, Arnolfini, Ramboll, University of Bristol Botanic Garden and Avon and Somerset Probation Trust Community Payback team.



Supported using public funding by  
**ARTS COUNCIL  
ENGLAND**

**BRISTOL**  
EUROPEAN  
2015 GREEN CAPITAL

## Art and the Public Realm Bristol

Bristol is one of the leading cities in the UK for public art commissioning and for its programme of projects with artists of local, national and international significance. Its programme focuses on the development of visionary public art works across the city, outside of the conventional gallery and museum setting. To date over 100 commissions have been produced within a diverse range of contexts. [www.aprb.co.uk](http://www.aprb.co.uk)

## Friends Group

Seeds of Change is a five year project which will culminate in 2016. As part of the legacy of the project, Arnolfini and the City Council are working to establish a friends group. We are interested in hearing from individuals, particularly those who live around the floating harbour or on house boats who may be interested in being involved. For further information please contact Aldo Rinaldi - Senior Public Art Officer at Bristol City Council on 0117 922 3064 or [aldo.rinaldi@bristol.gov.uk](mailto:aldo.rinaldi@bristol.gov.uk)

# At a Glance

All boat tours are £7/£5 concessions, unless otherwise stated, and depart from Arnolfini. Please book by calling Arnolfini box office on 0117 917 2300 or visit [arnolfini.org.uk](http://arnolfini.org.uk)

#BallastSeed

## June

Friday 5	Planting	Garden re-planting day: Castle Park	P 12
Saturday 6	Planting / Family	Garden re-planting day and Family Workshop: Castle Park	P 12
Saturday 27	Boat Tour / Talk	Something & Son: Unorthodox Spaces	P 12

## July

Saturday 4	Boat Tour / Talk	Sophie Mason and Clive Adams: Talking Soil	P 13
Thursday 9	Screening	The Floating Cinema	P 13
Wednesday 15	Boat Tour	Guided Garden Tour	P 13
Friday 17	Performance	Eyes for Gertrude	P 13
Wednesday 22	Boat Tour	Guided Garden Tour	P 14
Saturday 25	Boat Tour / Talk	Nigel Dunnett: The Dynamic Landscape	P 14
Wednesday 29	Boat Tour / Talk	Nick Wray, Garden Curator	P 14

## August

Saturday 1	Boat Tour / Talk	Yrjö Haila: Second Nature Urban Agriculture	P 15
Wednesday 12	Boat Tour	Guided Garden Tour	P 15
Wednesday 26	Boat Tour	Guided Garden Tour	P 15
Saturday 29	Family	Family Workshop with Anna Francis	P 17

## September

Saturday 5	Boat Tour	Guided Garden Tour	P 15
Monday 14	Boat Tour / Talk	Nick Wray & Maria Theresa Alves	P 16
Wednesday 23	Boat Tour / Talk	Kew Millennium Seed Bank Boat Tour and Talk	P 16
Saturday 26	Family	Cassandra Wye Storytelling	P 17

## October

Saturday 31	Family	Halloween Ghost Tour	P 17
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# SoilCulture

4 July - 26 August, open Monday - Saturday

## EXHIBITIONS

'Soil Culture: Young Shoots', and 'Dirt Dialogues'

## SOIL SATURDAYS & FOOD HAPPENINGS

4 July - 22 August

A Summer of Exhibitions, Soil Saturdays & Food Happenings to celebrate the UN International Year of Soils during Bristol, European Green Capital 2015. Produced by Centre for Contemporary Art and the Natural World in partnership with Touchstone collaborations.

The Create Centre  
Smeaton Road  
Bristol BS1 6XN  
0117 922 4370

[ccanw.co.uk](http://ccanw.co.uk)  
[touchstonecollaborations.com](http://touchstonecollaborations.com) (07904 333015)

Debra Solomon, Soil Culture artist in residence at Schumacher College, Dartington.  
February 2015. Photograph courtesy of the artist. [www.urbaniahoeve.nl](http://www.urbaniahoeve.nl)



Supported using public funding by  
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GREEN CAPITAL



2015  
International  
Year of Soils

**CCANW**



**touchstone  
collaborations**



# Are you green-fingered or keen to learn more about planting, growing and harvesting?



## Friends of Whitchurch and Hengrove Community Orchard

British artist David Thorpe has created a design for an Orchard of fruit trees to be planted in November 2015. The Friends group are looking for individuals to join them in nurturing the trees, and to establish a programme of events to celebrate the history, skills and knowledge associated with fruit growing in the community.

To get involved contact: [futureperfectbristol@gmail.com](mailto:futureperfectbristol@gmail.com)  
or visit: [www.futureperfectbristol.org/hengrove](http://www.futureperfectbristol.org/hengrove)

The Whitchurch and Hengrove Community Orchard is part of the Future Perfect, public art programme commissioned by Bristol City Council and curated by Jes Fernie and Theresa Bergne. Future Perfect is the first public art programme to be funded through a Neighbourhood Partnership in which governance is extended to members of the Hengrove community.

