

Glasshouse Restoration Project: Two Years On

In Spring 2021, Chelsea Physic Garden began a restoration project of its historic Glasshouses to conserve, improve, reframe, and celebrate their built and natural heritage. As well as preserving the Glasshouses, the Restoration Project is going beyond heritage conservation to help the Garden create value for existing and new audiences.

An engaging activity programme is supporting a wide range of people to develop new knowledge, skills, and connections, as well as improving their health and wellbeing. The spirit and significance of the Glasshouses is being safeguarded, whilst new signage and learning resources are being created to communicate the Garden's collections and heritage, improving visitor experience.

Now, in the second year of project delivery, the Glasshouse Restoration Project has made great progress, which this review has been created to celebrate. The project will be completed by September 2023, coinciding with the Garden's 350 anniversary celebrations.

"We always wanted the Glasshouse Restoration Project to be more than the repair of structures. I could not be more proud of how staff and volunteers have initiated change, enabling us to look beyond our walls and truly become a garden for everyone"

– Sue Medway, Director



© Jess Snowball, Glasshouse Manager



Dolmen
Conservation
www.dolmenconservation.co.uk

Restoring Heritage: Capital Works

The restoration of the Glasshouses began in January 2022, following the final stages of planning and the appointment of specialist heritage contractors. As of January 2023, three Glasshouses have been restored, with works remaining on four structures: the Southern African Glasshouse, Propagation House, Pit Glasshouse, and Tropical Corridor.

To retain the heritage value, significance, and spirit of the Glasshouses, as much original material as possible has been saved. New timber is being spliced with the old beams, Victorian window winding and door mechanisms are being repaired, and the horticultural glass is being removed, restored, and then put back into place.

The main range of Glasshouses are made from Burmese teak (*Tectona grandis*), now a protected material. As part of a commitment to sustainability, a UK grown sweet chestnut (*Castanea sativa*) is being used for the repairs, as an ethical and sustainable source of teak could not be found. Sweet chestnut has the added benefit of highlighting the beautiful and complex frame repairs, which now form a new part of the history of the Glasshouses.

465m² **153**
of glass timber frame repairs

87 **2,604**
tonnes of soil hours of apprentice training

“This was an unusual and complex conservation opportunity. I am very happy to have helped breathe life into these remarkable new structures”

– Dolmen Conservation



The Cool Fernery

The works to the Cool Fernery were completed in May 2022. The timber frame and window winding mechanisms were restored, the interior was relandscaped, its ponds reinstated, ferns replanted, and shading blinds installed. The new interpretative displays and signage will be installed in Summer 2023, across all the Glasshouses. The interpretation in the Cool Fernery will help visitors learn about plant diversity and how ferns have adapted and evolved.

The Fernery now contains 117 different species. 52 of these are new, and many of these have not previously been grown at the Garden. A new planting area has been created by the south door to the Cool Fernery, connecting it to the wider Garden. The filmy fern case was carefully rebuilt in place, whilst the necessary humidity levels for the plants inside were maintained. A rainwater harvesting tank has been installed with a 2,800 litre capacity. This will support the Fernery's water consumption needs and help the Garden become more sustainable and self-sufficient.

“We wanted to show as much diversity in the fern and lower vascular plant world as possible”

– Jess Snowball, Glasshouse Manager



Before building works



© Mark Bothwell



© Mark Bothwell



Protecting Plants: Living Collections

The Glasshouses are home to over 1,200 different plant species, many of which are historically significant, rare, or endangered in their natural habitats. True to the history and purpose of a physic garden, the majority of these are medicinal, herbal, or edible, and all have stories to tell.

The Restoration Project has had to meet the needs of these plants, and the programme had to be phased to work around the plant collections. The restoration will result in the Glasshouses having improved climate controls, creating an environment in which these living collections can thrive.

The Glasshouses' collections were audited and reviewed as part of a site-wide Living Collections Conservation Plan and are now fully catalogued. To curate the plant collections, and as a failsafe against plant loss, many species were propagated to create new specimens, and other plants have been gifted from fellow botanic gardens.

817

plants audited

52

plants propagated



"We know more about the plants we have now and how to look after them in challenging conditions. Moving the plants back into their restored glasshouses has been very satisfying!"

– Nell Jones, Head of Plants Collections



Phase 1: Cool Fernery Decant



Cultivating Stories: Interpretation and Design

The Glasshouses previously contained little interpretation, and visitors could not fully appreciate the plant's properties, origin stories, uses, or their significance for cultures and communities. As part of the Restoration Project, new content will be displayed about the glasshouse plants, as well as the people and stories connected with them, from history to present day. A thorough process of review, research, consultation with critical friends, industry experts, and community stakeholders took place ahead of the copywriting for new interpretation and displays.

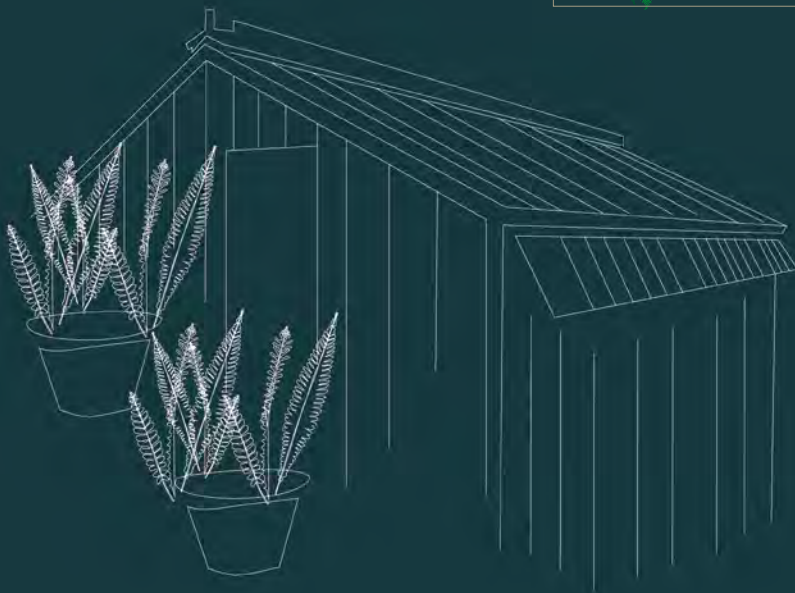
A total of 52 new panels and interpretative displays will be installed across the Glasshouses, highlighting the history of glasshouses, each Glasshouse's plant collection, plant science, select 'star' plants, and horticultural practice 'through the eyes of the gardener'. A more inclusive range of histories and storylines will be featured, supporting the Garden's ambition to be a place for everyone. Lastly, a new audio tour is being created, so that visitors immerse themselves more deeply in the Garden.

"Invaluable. Varied expertise and experience to inform a more inclusive space, helping break down barriers"

– Community Consultation Participant



The plan shows the proposed reconfiguration of the glasshouses. The Propagation House has moved to Glasshouse 4 from Glasshouse 1. The Cool Fernery, located at the other end of the Garden, is also part of the restoration project. © Skellon Studio



"The reconfiguration of the Glasshouses provides an opportunity for better storytelling and an improved visitor experience"


– Frances Sampayo, Deputy Director (Visitor Experience)

250 x 225

Thomas Moore

FERNERY

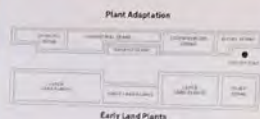
Plant Evolution



The Thomas Moore Fernery is a unique and highly specialized environment for the display of ferns. It was created in 1987 by the late Thomas Moore, who was a passionate and knowledgeable fern enthusiast. The fernery is a testament to his dedication to the study and cultivation of these ancient plants.

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235 x 230
How are the plants arranged?



Through the eyes of the gardener

As you walk through the fernery, you will notice the plants are arranged in a way that allows you to see the evolution of the ferns. The plants are arranged in a way that shows the progression from early land plants to modern ferns.

215 x 255
Where do I grow?

attention

IDEAL TEMPERATURE RANGE

BROWNING WILLOW

Evolution
The Rise of
Early Land Plants

165 x 125

As you walk through the fernery, you will notice the plants are arranged in a way that allows you to see the evolution of the ferns. The plants are arranged in a way that shows the progression from early land plants to modern ferns.

Early Land Plants

Plant	Adaptation
Early Land Plants	Adaptation to land

Early Land Plants

Plant	Adaptation
Early Land Plants	Adaptation to land

Early Land Plants

Early Land Plants



Sharing Stories: Audience Development and Engagement

A varied programme of activities, following consultation with new and existing visitors and the wider community, is in full swing. These activities have engaged over 7,200 people since June 2021, providing opportunities for people from all backgrounds to engage with nature, the Garden, and its stories, and equipping staff, volunteers, and community members with new skills.

There have been several 'firsts', including the creation of a Youth Panel, and programming for Black History Month and LGBTQ+ History Month. The commitment to widen audiences and to make the Garden a place for everyone has been at the heart of these activities. In addition, new schools' programmes, student work experience placements, and professional development for teachers, as well as opportunities for people to volunteer at the Garden, have all been developed as part of the Restoration Project. The creation of a community garden space, affordable memberships, accessible workshops, and free open days have also helped root the Garden in its community.

Examples of this work can be found in the following pages.



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"It was so magical and more than we could have hoped for"

– Project Partner

Black History Month

In a first for the Garden, new schools' programme resources and workshops were developed to acknowledge the contribution of Black people, People of Colour, and Indigenous people to the history of science and knowledge of plants.

In October 2021 and 2022, over 200 children participated in workshops and heard about Mary Seacole's use of herbal remedies; Wangari Maathai, founder of the Green Belt movement; and George Washington Carver, the American agricultural scientist.

"Great, stunning, amazing. I liked when we planted these seeds. I'll remember about the people and plants which help cure people"

– School Child

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LGBTQ+ History Month

'A Dash of Lavender', the Garden's first LGBTQ+ history programme, took place in February 2022 in partnership with Queer Botany, creating a trail, illustration workshops, poetry events, and talks and tours. The programme celebrated LGBTQ+ botanical histories and voices, engaging visitors, volunteers, and staff.

All of the events sold out, 70% of the attendees were first-time visitors and 50% of visitors were aged under 40 years. Participants said they felt welcomed and safe, and that their communities had been celebrated. The programme was further developed with new content on LGBTQ+ Scientists for February 2023.

"I learnt so much about queer and botanical history"

– Participant

"I thought it was wonderful, inclusive, and joyous"

– Participant

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Community Garden

A volunteering scheme was created in June 2022 to help local people to develop a community garden adjacent to our Learning Centre. The volunteers are all previous participants of the Garden's Horticultural Therapy Courses (Help Us Grow), which support vulnerable adults or those recovering from ill health.

The volunteers give their time every Friday mornings, and have researched, designed, planned, and improved the space with the support of a Community Gardener. Through volunteering, those involved have developed skills, gained confidence, created positive relationships, and nurtured their wellbeing. The space has been transformed into a well-cared-for and beautiful garden, which visitors can also enjoy.

"It's like mindfulness in practice!"

– Dan, Community Garden Volunteer



"I found like experience enlivening, inspiring, stimulating, expanding, wonderful!"

– Community Garden Volunteer

Horticultural Traineeship

The Garden has a long-established practice of gardening under glass, a heritage craft that has developed over centuries. An opportunity was created for an entry-level Horticultural Traineeship to support the project over two years. This was advertised widely and supported by a free-access open day to engage potential applicants, of which 100 applied.

Jayyidah-Rae Leonard was appointed as a trainee in March 2022. Jayyidah developed skills and new knowledge and particularly enjoyed researching plants from the Caribbean, leading her to explore her roots and create a Windrush-themed plant tour. Due to ill health, Jayyidah was unable to complete her Traineeship. A second trainee, Ivo Brown joined in February 2023, for 18 months.

"Gold standard in terms of providing accessible pathways into horticulture"

– Social Farms and Gardens



"This has been the greatest experience and the best place to start a horticultural career. I would 100% recommend a traineeship at Chelsea Physic Garden"

– Jayyidah, Horticultural Trainee

Youth Panel

The involvement of young people is a key aim of the project, and whilst the Garden has experience in programming successful youth projects, their voices were missing from this process. A Youth Panel of 12 people aged 16–24 years was formed to co-create activities and support the Garden’s ambition to enhance its appeal to young people and represent their interests and experiences.

The Panel meets monthly to learn about the Garden as a heritage site, visitor attraction, and botanic garden, to support programming and develop content, leading towards a ‘Takeover Day’ in October 2023.



“It would be great to see more youth and a diverse group of people visit the Garden to learn more about it, and to simply enjoy the beauty of it”

– Youth Panel Member



Youth Engagement

In addition to creating a Youth Panel, the Garden has welcomed secondary school students for work experience, participated in Kids in Museums Takeover Days, and is working with the Octavia Foundation on digital skills projects called ‘Plants Have Secrets’.

The ‘Plants Have Secrets’ programme has encouraged young people to engage with nature, whilst simultaneously learning digital media skills to create short films. These films included stories about psychoactive plants, such as tea and coffee, and how plants adapt to their environments and create symbiotic relationships. You can watch these films on our website.

“A unique insight into plants, with a stimulus and activity that will embed a continued memory and curiosity”

– Octavia Foundation

“This has been the best day of my summer”

– Plants Have Secrets Participant



Volunteering

The Garden has long benefited from the gifts of time, knowledge, enthusiasm, and experience that people give through volunteering. A Volunteer Development Manager was hired in September 2021 to support the care of volunteers, the development of new volunteering roles, and co-ordination of an oral history project.

The Volunteer Development Manager has helped create 11 new volunteer roles, welcomed 70 new volunteers, and overseen 3,700 hours of time gifted. Our volunteers have engaged with and supported the new activities and developments that have happened since the Restoration Project began. They feel optimistic about the Garden's future, helping to make Chelsea Physic Garden a more responsive, resilient, and successful organisation.

"I feel well supported, and warmly welcomed by everyone"

– Volunteer



Remembered Remedies

A participatory storytelling project 'Remembered Remedies' worked with ten people referred from local colleges and community centres. Over an eight-week period in May 2022, participants learnt about the Garden and its plant collections and wrote creatively about how they, or their communities and cultures, have made use of plants. As an example, in Iran, dried violet is used to make a tea to combat colds, headaches, and insomnia.

Those involved enjoyed and learnt a lot from the experience, saying that it improved their English, helped connect them with others, and made them less lonely. They saw the Garden as a place that supported their wellbeing and community, and one participant is now a regular volunteer in the Garden's Learning Department.

"I connect again with nature, made me feel more relaxed"

– Participant



"This project brought me back to my childhood, the power of plants is amazing"

– Participant

Acknowledgements

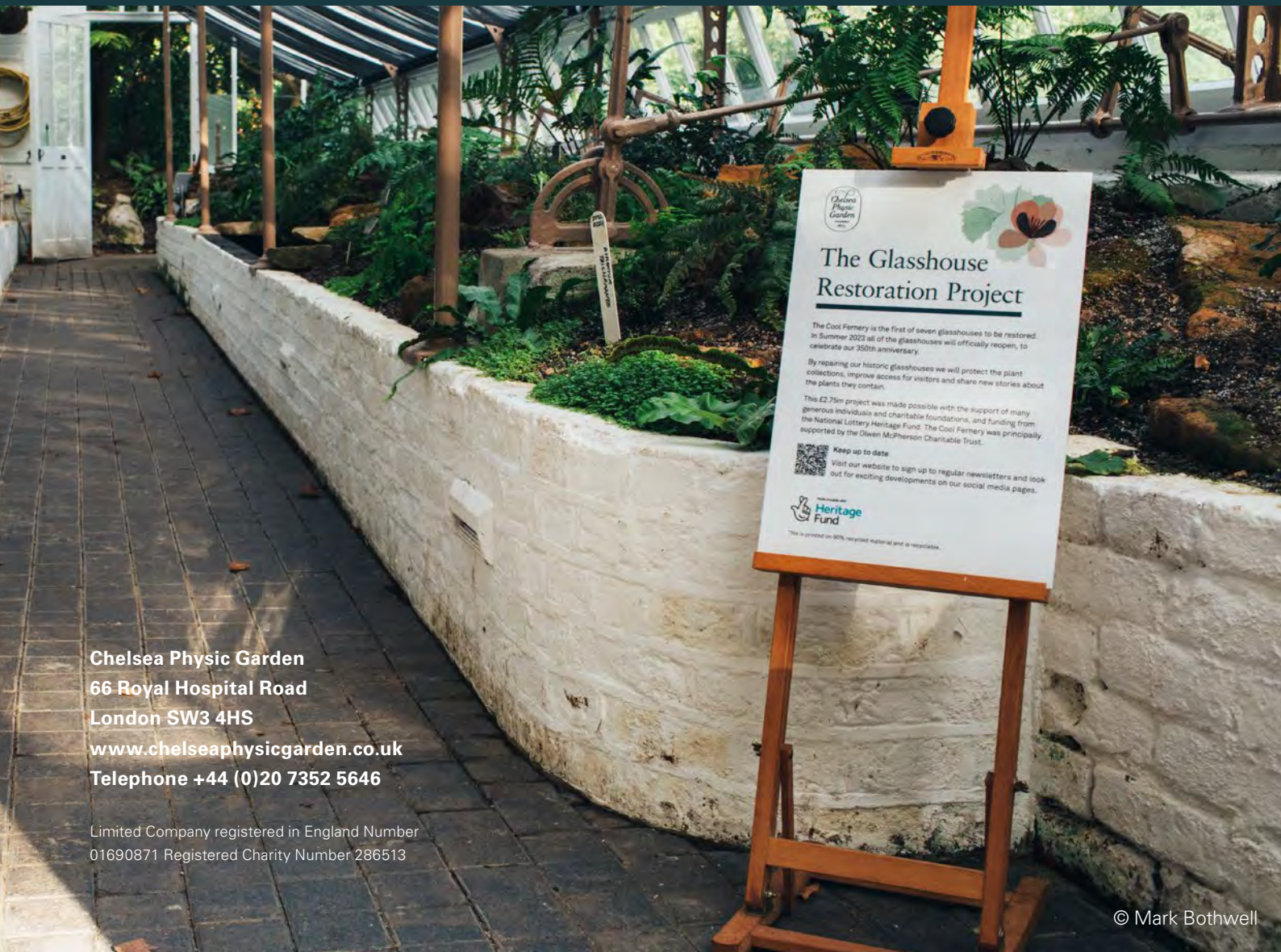
The development and delivery of a major restoration project is a challenge for a small organisation, such as the Garden, especially with the impact of the Covid-19 pandemic and 'Cost of Living' crisis. The Garden's ambition and dedication to think differently about audiences, adopt new ways of working, and become more agile and alert to new opportunities, has resulted in the project becoming more than the sum of its parts.

The Restoration Project and associated activity plan has created a new version of success for Chelsea Physic Garden, based on who is included and welcomed, rather than simply the number of visitors. Thanks to partner organisations, volunteers, and supporters, enough funds were raised to deliver these activities, develop new content, and safeguard the Garden and its plants for the future.

This £2.75m project was made possible with the support of many generous individuals and charitable foundations, and NLHF funding. The Garden would like to thank National Lottery

Players, the Friends of the Garden, donors and those who took part in the Hothouse Challenge, supported by the John Browne Charitable Trust. We are also grateful for the support of: The BAND Trust, The Garfield Weston Foundation, The Olwen McPherson Trust, and The John Armitage Charitable Trust.

The Glasshouses will officially re-open in September 2023, with many more activities planned before, during, and into 2024 to celebrate and welcome people to explore and engage with the Glasshouse collections.



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