Royal Botanic Gardens, Kew – First World War Centenary

PROJECT DELIVERY SUMMARY

**Project title:**
Kew Gardens at War

**Project duration:**
Original project duration 2014-2018, with additional publications 2019-2021. Project leader, Dr James Wearn FLS, is continuing the research.

**Thematic activity**

The First World War Centenary project of the Royal Botanic Gardens, Kew (RBG Kew), delivered four strands of activity to:

1. Highlight the **significance of plants and plant-based products** for wartime activity and post-war remembrance, investigating RBG Kew’s unique role in the war.

2. Provide a **modern perspective on the botanical / environmental legacy of the First World War** through investigating post-conflict landscapes and the evolution of remembrance, contributing to academic research.

3. Commemorate **Kew staff and associates who lost their lives during the war**, affectionately known as ‘Kewites’.

4. Create **living and artistic (botanically themed) tributes** for lasting remembrance.

Through a series of guided tours, temporary exhibitions, popular articles online and in print, academic papers, talks and conference contributions, the project engaged with audiences from interested members of the public to academic communities. These activities and publications are listed on the pages which follow.

**Delivery in numbers**

- **1,400** participants given interactive wartime tours¹ of Kew Gardens (with iPads) – a unique public offer to showcase wartime sociocultural and industrial interactions among war, science, medicine and horticulture.
• >1,000 views of the blog post ‘A tale of two poppies’ within its first month online from 4 August 2014. In 2020, it was still the top viewed Kew Science blog article (e.g. 1,214 views in August 2020).

• >500 visitors to the project launch exhibition ‘Plants, People and the Products of War’ in July-August 2014.

• 200 attendees to ‘Somme 100 at Kew’ event on 6 July 2016.

• 29 sites in France visited during project fieldwork (in partnership with the Commonwealth War Graves Commission, CWGC).

• 15 events, exhibitions and exhibits delivered, with strong and accessible narratives relating to plants, people and war.

• 22 research papers, popular articles and book chapters authored.

• 20 blog articles produced.

• 11 conference contributions, panel discussions and interviews.

1 This number exceeded expectations because tours were daily in November of each Centenary year (one of the lowest months for outdoor visitation numbers), which demonstrated the strong public interest in the subject matter. The first year was a trial and its success ensured that the tours continued through the entire 2014-2018 period. Cross-cutting topics were pertinent to telling stories from both the First and Second World Wars.

New perspectives

The first question that was encountered with some frequency about the time of the commencement of the First World War Centenary period was: “Surely a botanic garden didn’t have any role in the war?” Far from that being true, the botanical and horticultural expertise among botanic garden staff (here focusing on RBG Kew) became uniquely valuable during wartime and in its aftermath – for both world wars.

This project highlighted that RBG Kew was directly involved in the ‘war effort’ through having among its staff a wealth of knowledge of plants and fungi and pre-existing close connections with the British Government as well as many international scientific and horticultural organisations. At the time of the war, much of the war materiel was botanically derived (timbers and fabric coverings for aeroplanes, wood for weapons, wagons and trench revetments, moss for bandages, and so on); plants (especially trees) had strong influences on military strategy in the field; and there was a drive to increase crop production on the Home Front. RBG Kew was therefore called upon by Government ministries, aeroplane manufacturers and other stakeholders – to confirm whether timbers were safe to use, identify materials captured from the Germans, and advise regarding crops and pests.

As men from the gardens headed away for war service, women were employed to fill the labour gaps. Although the social change was temporary at that time (men replacing the women again after the war), it opened up debate about women having roles in horticulture, and the importance of women gardeners became increasingly recognised.

An important phenomenon was that botanists and other scientists/naturalists who went to war did not automatically cease their interests and indeed found new ways to use their skills, whether through writing about what they saw or actively collecting specimens. Collection of plants resulted in around 2,000 specimens being sent to RBG Kew’s Herbarium from the Salonika Campaign alone, forming the backbone of a revised publication of the flora of the region by Kew botanist William Turrill during the 1920s (Wearn, J. 2015. The New Mosquito. Journal of the Salonika Campaign Society 1915-1918 31: 8-14).
The project’s ‘Somme 100 at Kew’ initiative was inspired by RBG Kew’s wartime Assistant Director, Sir Arthur Hill, in his role as ‘Botanical Advisor’ to the Directorate of Graves Registration and Enquiries (DGR&E) and then the Imperial War Graves Commission (IWGC) as it later became known. RBG Kew and the Commonwealth War Graves Commission undertook collaborative fieldwork across former battlefields and current cemetery sites in the Somme Department in northern France, to re-trace Sir Arthur’s wartime footsteps and consider the post-conflict landscape from a modern botanical / environmental perspective. This work led to a joint public engagement event held at RBG Kew on 6 July 2016 (filling the 200-seat lecture theatre), several other activities (see ‘Partnerships’ below), publication of short biographies of Kewites who had fallen on the Somme (two co-authored with living relatives), the publication of a new perspective on the post-conflict landscape of the Somme (Wearn, J.A. et al. 2017. *First World War Studies* 8(1): 63-77), and the discovery that an exception had been made for Arthur Hill in the award of FWW campaign medals (Wearn, J. 2017. *Medal News* 56(1): 29-31).

A key element of the project – arising from the investigation of RBG Kew’s role during the FWW and placing this in the broader context of modern remembrance and landscape change – was a *contribution to academic research on the environmental legacies of war*. Good headway was made through publications and conference contributions, and Dr James Wearn is continuing the research beyond the Centenary project. This area of research is multi-disciplinary and is encapsulated in the term ‘polemobotany’ – the study of plants and botanical landscapes affected by or utilized for military activity (see Wearn, J. 2016. *Journal of War & Culture Studies* 9(3): 271-284).

**Project partnerships**

1. **Commonwealth War Graves Commission (CWGC)** – various activities including:
   - Collaborative amenity horticulture training for Kew’s Horticultural Diploma students in 2014 at Brookwood Military Cemetery, Surrey (the largest military cemetery in the UK).
   - Collaborative fieldwork in the Somme Department, France, with a co-authored Kew-CWGC research published in 2017.
   - Contribution of content relating to Kew-IWGC historic partnership for the CWGC Centenary exhibition at Brookwood Military Cemetery, 2017.

2. **Kew’s volunteer community** – Engagement with c.60 volunteers for the delivery of novel wartime themed tours of the Gardens each year of the project.

3. **Living relatives** – Successful contact with living relatives of three of Kew’s former staff aided publication of accounts of those men’s lives.

4. **London Borough of Richmond’s FWW Centenary partnership** – RBG Kew was an active member of this local partnership throughout the Centenary. Member organisations from across the borough met regularly to discuss ideas and collaborated on advertising events.
   - A poignant photograph of former Kew employee, John Divers, who lost his life in the Battle of the Somme on 9 October 1916 and remains missing, was chosen as the front cover of the partnership’s booklet ‘Events 2016: Commemorating the First World War in Richmond upon Thames.’ RBG Kew’s project researched where John’s final position

- In 2019, as a local legacy of the Centenary, a series of commemorative artworks and accompanying stories were created, commissioned by the London Borough of Richmond-upon-Thames for the ‘Richmond First World War Stories’ project. Among this series is an illustration representing *Kew Gardens’ lasting heritage* from the First World War, from a concept by RBG Kew’s Dr James Wearn. These can be viewed online at https://richmondww1.orleanshousegallery.org/legacy

5. **Newquay Zoo First World War Centenary project** – collaboration with project leader and Education Officer Mark Norris to co-author a paper about RBG Kew’s fallen staff and creation of short biographies of each Kewite listed on the Bronze Memorial Plaque in the Temple of Arethusa in Kew Gardens. See https://worldwarzoogardener1939.wordpress.com/2013/07/19/such-is-the-price-of-empire-the-lost-gardeners-of-kew-in-the-first-world-war/

6. **Grow Wild** – Promotion of engagement with First World War battlefield wildflowers as part of the Grow Wild national outreach initiative. Drawing on the project research, the webpage (https://www.growwilduk.com/blog/wwi-battlefield-wildflowers) highlights plants included in Grow Wild’s seed selections that would have been seen shortly after the battles, symbolising a direct link between the past and present, as timeless in building community spirit today as they were after the war.

7. **Gaze Burvill** – In 2013, an oak tree in Kew Gardens that had been grown from an acorn sent from the battlefield of Verdun was mortally struck by lightning. RBG Kew’s Head of Arboretum, Gardens & Horticulture Services, Tony Kirkham, saved the timber and formed a partnership with furniture manufacturer Gaze Burvill. Two distinctive benches were created: the ‘Verdun Bench’ (unveiled for the Centenary of the Battle of Verdun in 2016) and the stunning ‘Remembrance and Hope’ seat (unveiled for the Centenary of the Armistice in 2018). One side of the ‘Remembrance and Hope’ seat is curved inwards and faces RBG Kew’s Bronze Memorial Plaque in the Temple of Arethusa (symbolising remembrance), whilst the other side is curved outwards, facing the inspiring Palm House (symbolising hope). https://www.kew.org/read-and-watch/how-kew-ww1-seat-made

8. **Award-winning artist Paddy Hartley** – Paddy created and exhibited one of his thought-provoking ‘Papaver Rhoeas’ poppy sculptures on-site at RBG Kew in 2015 and had studied the physical structure of preserved poppies in Kew’s herbarium to aid his project. http://paddyhartley.com/papaver-rhoeas-2


10. **The Royal Parks** – Dr James Wearn provided consultancy (including planting lists from his Somme landscape research) to The Royal Parks to aid the creation of a realistic memorial wildflower meadow at Brompton Cemetery, London. https://www.royalparks.org.uk/media-centre/press-releases/the-royal-parks-unveils-world-war-1-memorial-at-brompton-cemetery
11. **London School of Hygiene and Tropical Medicine** – archival research with LSHTM archivist Claire Frankland led to a co-authored article about prisoners of war using their botanical and mycological knowledge to treat fellow prisoners and cultivate yeast for B-vitamins (largely Second World War focused).

**Lists of authored papers and events delivered**

**Conference contributions and other presentations**


Wearn, James (2019) Interview for BBC Radio 4 programme ‘Poppy’ (broadcast on Remembrance Sunday 8 November 2019 and 9 November 2020 and available online at [https://www.bbc.co.uk/programmes/m000b0qd](https://www.bbc.co.uk/programmes/m000b0qd)


Wearn, James (2017) *In conversation with Kew Gardens*. Dr Wearn was interviewed by the Imperial War Museum for their ‘In Conversation with...’ series to talk about RBG Kew’s First World War Centenary project, 30 August 2017. [https://www.1914.org](https://www.1914.org)


**Research papers and book chapters**


Other published articles


Blog articles online


Wearn, J. (2014) *A tale of two poppies*. Royal Botanic Gardens, Kew, ‘Read & Watch’ blog, 4 August 2014. [https://www.kew.org/read-and-watch/tale-two-poppies](https://www.kew.org/read-and-watch/tale-two-poppies) (this article received >1,000 views its first month online and in 2020, it was still the top viewed Kew Science blog article, including 1,214 views in August 2020).


**Selected news articles and mentions of RBG Kew’s wartime or Centenary activity**

**Telegraph Online (2018) Article about the WWI memorial for horticulturists from The Royal Parks and Palaces.**

“Today’s Royal Parks staff, along with botanists from Kew Gardens, have also helped design a permanent wildflower meadow at Brompton Cemetery to honour the 2,625 Chelsea Pensioners buried there.” [https://www.telegraph.co.uk/news/2018/11/10/royal-parks-gardeners-killed-wwi-remembered-memorial-first-time/](https://www.telegraph.co.uk/news/2018/11/10/royal-parks-gardeners-killed-wwi-remembered-memorial-first-time/)

**The Royal Parks (2018) *The Royal Parks unveils World War 1 memorial at Brompton Cemetery*.** Press release, 7 November 2018. Includes the text: “The meadow will be based on a seed list, provided by Kew Gardens, of the flowers which sprang up in French fields after the Battle of the Somme and will include poppies, cornflowers, loosestrife, mallow and cranesbill.” [https://www.royalparks.org.uk/media-centre/press-releases/the-royal-parks-unveils-world-war-1-memorial-at-brompton-cemetery](https://www.royalparks.org.uk/media-centre/press-releases/the-royal-parks-unveils-world-war-1-memorial-at-brompton-cemetery)

**BBC Four (2018) Dan Cruickshank’s *Monuments of Remembrance*.** In this documentary, Dan Cruickshank visited sites associated with the First World War. Regarding Forceville Cemetery in northern France, Dan spoke about the planting being advised by former Kew Director, Sir Arthur Hill. [https://www.bbc.co.uk/programmes/b0bqscvm](https://www.bbc.co.uk/programmes/b0bqscvm)


Overview of events and exhibits

2014

- Wartime medicinal plants and interpretation was incorporated into the ‘Healing Giant’ display within the Plantasia summer festival at RBG Kew.
- ‘Plants, People and the Products of War’ temporary exhibition in the RBG Kew Library Reading Room. Showcased the botanical side of the First World War, and in particular RBG Kew’s previously untold involvement. More than 500 visitors attended in July-August.
- RBG Kew Horticultural Diploma students visited Brookwood Military Cemetery with CWGC Director of Horticulture, David Richardson, in preparation for a new piece of Kew ‘Amenity Horticulture’ coursework related to a series of cemetery planting design essays completed almost 100 years earlier.
- Launch of annual wartime themed tours of the Gardens, led by volunteer guides. Daily group tours throughout November almost fully booked. This included provision of tailored tours for people with mobility issues via Kew’s Discovery Bus.
- Commemorative merchandise created and sold in Kew’s Victoria Plaza shop and at launch exhibition.

2015

- RBG Kew was one of 10 cultural venues to host ‘Papaver Rhoenas’ – a thought-provoking poppy sculpture for the FWW Centenary created by award-winning artist Paddy Hartley. Paddy had worked with James in the concept phase of the Wellcome Trust funded sculpture, helping to provide information about the physical structure of field poppies, on which the sculptures were based. Exhibited within the Shirley Sherwood Gallery of Botanical Art.
- Related event, focusing on Second World War commemoration – ‘Flags of Liberty’ tulip planting mosaic in April, in collaboration with the Embassy of The Netherlands in the UK (Kew was selected as one of only two UK sites to host this striking visual display for the Dutch ‘Tulips for Liberators’ commemorative project). Planting led from RBG Kew by Head of Glasshouses, Nursery & Display Horticulture, Greg Redwood.

2016

- RBG Kew project exhibit stand of First World War materials at the Museum of Richmond’s ‘Museums at Night’ public engagement event in May.
- In June, RBG Kew’s Somme 100 project: RBG Kew team led by Dr James Wearn met CWGC representatives David Richardson (CWGC Director of Horticulture) and Gareth Hardware (CWGC Head of Horticulture for north-western Europe) on the Somme for collaborative fieldwork to consider the modern remembrance landscape.
- On 6 July, RBG Kew and the CWGC co-hosted Somme 100 at Kew’ evening reception and talks. Guests of honour were living relatives of former RBG Kew Director, Sir Arthur Hill, with about 200 attendees.
- In October, RBG Kew exhibited examples of wood samples from the First World War within the Kew Economic Botany Collection exhibit at the ‘Wizardry in Wood’ exhibition organised by The Worshipful Company of Turners at Carpenters’ Hall, London.
- Launch of a commemorative Verdun Bench at Kew, made from the salvaged timber of Kew’s fallen Verdun oak by Gaze Burvill. Led by RBG Kew Head of Arboretum, Gardens & Horticulture Services, Tony Kirkham.

2017

- September – Kew war project exhibition stand at CWGC Community Engagement event at Brookwood Military Cemetery. Dr James Wearn created a stand to highlight the 100-years of interactions between these two prominent heritage organisations (aided by Chryseida Callanan).
- Promotion of ‘WWI battlefield wildflowers’ as part of the highly successful Grow Wild national outreach initiative. https://www.growwilduk.com/blog/wwi-battlefield-wildflowers

2018

- In November, RBG Kew launched the ‘Remembrance and Hope’ seat within the Gardens, crafted by Gaze Burvill and led by RBG Kew Head of Arboretum, Gardens & Horticulture Services, Tony Kirkham. A new living memorial ‘Verdun oak’ sapling (progeny of the original) was also planted close to the seat. The event was opened by the Director General of the Commonwealth War Graves Commission, Victoria Wallace.
2019

- **Commemorative art created**, representing Kew Gardens’ lasting heritage from the First World War. Commissioned by the London Borough of Richmond-upon-Thames for the ‘Richmond First World War Stories’ project, with concept from RBG Kew’s Dr James Wearn.

[https://richmondww1.orleanshousegallery.org/legacy](https://richmondww1.orleanshousegallery.org/legacy)

Sample of comments* received from exhibition and tour feedback

*Anonymised to enable Data Protection.

“Thank you so much. Amazing. Informative and totally wonderful. Thank you”
(in response to Discovery mobility bus wartime themed tour of the Gardens, November 2014).

“A superb exhibition”
(in response to *Plants, People and the Products of War* exhibition).

“A very interesting collection – a great use of visual representations annotated with thoughtful information. Learnt a lot about the war from alternative perspectives – actually I would like to see more! I look forward to future exhibitions, free or otherwise. Thanks!”
(in response to *Plants, People and the Products of War* exhibition).

“A wonderful example of collaboration between Kew departments which could be a model for other exhibitions. A lot of insights from the exhibition”
(in response to *Plants, People and the Products of War* exhibition).

“Beautiful, thought provoking & very informative, thanks!”
(in response to *Plants, People and the Products of War* exhibition).

“Excellent. Fascinating insight into Kew during the war”
(in response to *Plants, People and the Products of War* exhibition).