Report: One Week at Bremen Rhododendron Park

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All photos belong to author

Thanks to:

I would like to firstly give a huge thank you to the Merlin Trust and the RHS Rhododendron Camellia & Magnolia Group for funding this study trip and being so helpful and responsive to my questions at the beginning of this process. I hope the below report does their financing justice. Furthermore, I would like to thank Tom Jackson from Hidcote Garden for aiding with my application, and Lottie Allen from Hidcote for allowing me the time to undertake it. Most importantly, I would like to thank the team at the Rhododendron Park in Bremen with a special mention to Martin Monthofer for his dedication in training me for the week in English, and for being patient with my strong, northern accent. Finally to Hartwig Schepker for liaising with me throughout the planning and for taking time out of his busy schedule to take me to Schröder's nursery for what was an invaluable part of this study trip.

Project Brief:

I was inspired to put together this trip after attending a lecture by the garden's Director, Hartwig Schepker, as part of a week-long monograph into the Rhododendron species last year. I am currently in the final week of my National Trust apprenticeship at Hidcote Garden where I have been learning an array of horticultural techniques. I am particularly interested in Rhododendrons due to their historical significance within the UK garden scene and I think it is important to sustain the historical significance of these plants in British gardens for the next generation. I have undertaken trips to private rhododendron collectors as well as Bodnant Garden in the lead up to this trip to further deepen my knowledge of the species.

The reason I chose to plan this trip to Bremen specifically is because the garden there has the largest collection of rhododendrons anywhere in the world, with over 650 wild forms and 3,700 cultivated species. This area of Germany is also the home of the largest rhododendron nurseries in the world and they supply around 80% of Europe's stock plants each year.

Itinerary:

Date	**Location**	**Description**
21/02/25	London Luton Airport to Berlin Brandenburg	Outbound flight to Germany
22/02/25	Berlin Botanic Garden	A trip to Berlin Botanic Garden
23/02/25	Train from Berlin Hbf to Bremen Hbf	
24/02/25 - 27/02/25	Work experience at Bremen Rhododendron Park	Working alongside Martin Monthofer, Head of Training
28/02/25	Trip to Schroeder Nursery in Oldenburg	A visit to the Schroeder nursery with a tour by the head nurseryman
01/03/25	Bremen Airport to London Stansted	Return flight to the UK

Report:

Berlin Botanic Garden

To get into the groove for a week working with the Rhododendron species, I was keen to head to the Berlin Botanic Garden as the garden team there has a glasshouse dedicated to Rhododendrons, Camilla's and Azaleas. I arrived around midday on a lovely, sunny Saturday and had a tour around the tropical and cactus houses before being shown the dedicated space for these three species. There were some towering examples of *Camellia japonica (*see pic 2) which were in flower, as well as some fine specimens of the smaller *Rh. simsii 'Inga'* (see pic 1).

Pic 1: Rh. simsii 'Inga' in full bloom.

Pic 2: a great example of a single stem form of Camellia japonica with shady, undergrowth planting.

It was well worth the visit and in total filled a good chunk of the afternoon, due to the scale of the grounds, garden and glasshouses, and for only €6.00 it was great value for money. One of my main take-homes from speaking with the staff there was that although there has been a general decline in interest of these 3 species for the last 100 years (mainly due to their scale and space available in rural gardens nowadays), these smaller shrub varieties are seemingly popular with the visitors which is promising for the continuation of the genus.

Bremen Rhododendron Park

Day 1:

The day started quite early as the team began work at 7:15 am. I met the Head of Training, Martin Monthofer, who I would be shadowing and working with for most of the week. I was then introduced to the rest of the team of around 25 people working in various positions in the Rhododendron Park, Botanic Garden and glasshouses.

Our first task for the day was to water the Borneo room in the Botanika, which comprises of an array of plants from the rainforest region, including tropical rhododendrons *Rh. zoelleri* (the cover image of this report) from New Guinea, the only species from Taiwan *Rh. kawakamii* and the rarer *Rh. himantodes* from Borneo which is very difficult to propagate, so a real treat to see in flower in a European garden. Until spending time in this room, I had not realised that one third of the whole Rhododendron species come from more tropical climates.

Pic 3: Rh. kawakamii from Taiwan, the country's only rhododendron species.

Pic 4: Rh. himantodes with its scaled petals. Difficult to propagate in Europe.

For the rest of the morning I was shadowing Martin in the glasshouse as he watered the collection of *Rhododendron sect. Vireya*. In this collection, there are around 400 individual plants of this tropical Rhododendron species split across two glass houses. Many of these are still containerised as even though many of these plants are 10 years old and more, they have a lot more vigorous top growth than root growth so prefer being in pots in their adolescence. Each of the *Vireya* glasshouses had a different climate to accommodate the large number of rhododendrons in this section, and new plants are moved between them to find the best results.

Pic 5: warm climate Rh. sect. vireya as stock plants.

The highlight of this first day was discussing Martin's initial successes with the hybridisation of *Rh. 'Moser's Maroon' x Rh. yuefengense* to hopefully create an aesthetically pleasing foliage plant, along with an interesting flower. Usually, rhododendrons have one or the other but not both. The propagation process was only in its early stages but could be an interesting plant for the future for both nurseries and consumers alike.

Pic 6: early stages of Rh. ‘Moser’s Maroon‘ & yuefengense hybridisation.

Day 2:

One of the key aspects of this trip was to work on the propagation of the rhododendron species and on day two I began right at the beginning, with seed sowing, cuttings and

graftings. We were sewing native varieties from the Alps as well as species such as *Rh. longesquamatum* due to their rarity in the garden.

Pic 7: seed sowing on top of peat compost and sphagnum moss topping.

The seed sewing element of the day was interesting due to the setup of the clay pots and material used by the team for their propagation. In contrast to my previous work in glasshouses on my apprenticeship, I was using a peat-based compost with additional perlite as well as sustainably grown peat moss (sphagnum) to undertake the seed sowing. Naturally we had a long debate about the ethical use of peat and what the garden team's plan is for 2030 when the composite is (planned to be) banned in Germany. Outside in the cold frames they are already undertaking experiments with reduced peat and peat free composts to test which of these may be suitable going forward. This data is also being fed to nurserymen in the region and back to the compost companies as this deadline approaches to try and best ready everyone for the change.

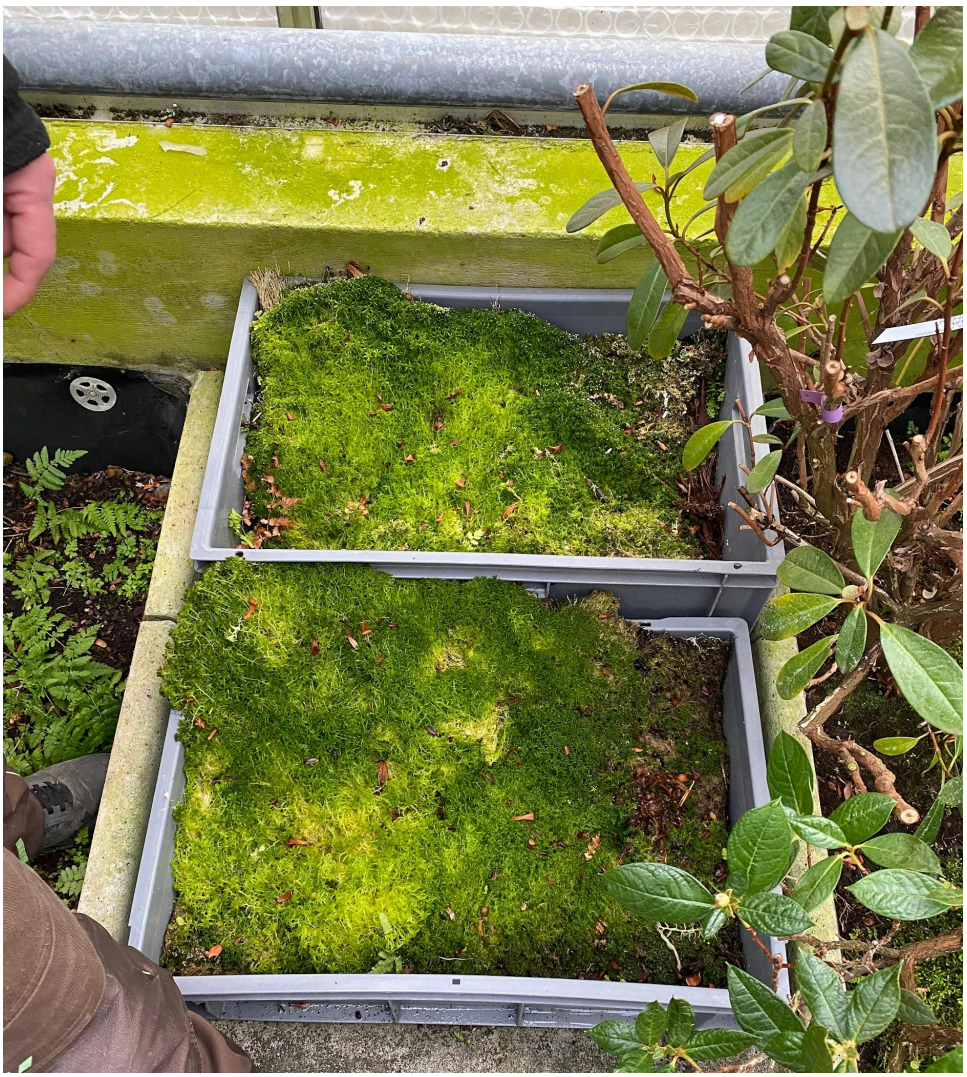
Pic 8: trials underway using Rh. 'Cunninghams White', in reduced peat (left) and Rh. English Roseum peat free (right) compost.

The thing I found most compelling on the second day was the grafting exercises and theory behind root stock choices when grafting.

There are three main root stocks they choose for grafting in the nursery:
1 - *Rh 'Cunningham's White'* (a classic, reliable rootstock used by most nurserymen)
2 - *Rh. smirmak* (a cross between *Rh. smirnowii* and *Rh. makinoi*, used mainly for species grafts and hybrid & species grafts with heavy indumentum)

3 - *Rh. ‘County of York’* - a more recent discovery of which is a good rootstock for woodland shrubs in the modern climate due to its heat and phytophthora resistant nature.

Pic 10: 11 new varieties added to the misting bench.



Pic 11: sustainable sphagnum grown onsite in boxes, and replaced every 5 years.

Day 3:

The third day comprised the management of collections and how they are organised once they have reached maturity, alongside helping collect graft material from the various sections within the garden.

First off, I was asked to check the salt content of the Japanese Azalea collection which was going out for display next week. The reading on the salt meter gave an indication as to whether the plants could take another fertilisation before being displayed or whether they were already high in salt content.

Pic 12: indoor azaleas (Rh. simsii) and others in small and larger forms (in next house) ready for display.

Once outside we rode around the different gardens and Martin explained the ordering system in each one. The new German hybrid collection is ordered in alphabetical order which has its advantages when you're looking for graft material as we were in this period of the day from hybrids like *Rh. 'Rexima'*. This particular plant was actually quite difficult to take graft material from, as the new growth is fairly substantial and wouldn't take on normal root stock such as *Rh. 'Cunningham White'* due to the root stock being thinner than the top foliage. After collecting a good few samples, we stored them in water in the fridge to be grafted the next week and Martin explained how best to manage this material once they are refrigerated.

Pic 13: the early flowering Rh. sichotense from the far east, especially Russia nr Vladivostok, partly deciduous flowering rhododendron.

The species garden at the park is organised differently and each bed/area is categorised into Rhododendron subsections such as Rhododsta, Pontica etc. The downfall with this type of organisation is that the plants in similar sections can cross pollinate more easily, meaning seed collections from this area may not produce exact species for sewing and hybridisation. From a visitor's perspective during the non-flowering season, these plants can all look fairly similar and difficult to differentiate without labels, which again is difficult for the garden team collecting propagation material should plants have incorrect or missing labels.

Pic 14: map showing the extensiveness of the park.

The Japanese azaleas are organised into beds by breeders which generally means that each row is a different colour as most breeders look after similar colour palettes. By contrast, on the opposite path, they are organised A-Z which means that sometimes very similar colours are next to each other, but finding the plants is easier for the garden team.

The most striking thing about this day was that when we were riding around collecting the grafting material, sometimes I came to a plant which was to be grafted and felt that it was not suitable to be collected from due to its poor vigour, leaf colour, shape etc. This opened discussions with Martin about why certain hybrids are to be saved and whether, with all of the other pressures on gardeners in a changing climate, saving these poor hybrids should be the focus of their work. Similarly with the *Rh. vireya* hybrids, many of which were lost from England after the First World War due to lack of trained personnel and wartime pressures (300 plants went down to 8 after the war), in our current climate of rising bills and energy costs it is possible to question how realistic it is to keep these collections alive in European gardens and glasshouses.

Pic 15: one of my favourites of the Vireyas section; Rh. quadrasianum var. rosmarinifolium.

Day 4

For the final day in the garden, I was looking into techniques and guidance on potting up larger established shrubs and also how the team in Bremen plan and plant their new borders, including relevant after-care and pest and disease issues.

The team use their own compost blends for potting up the different species and hybrids once they reach maturity. Most of the plants we were working with were between 12 and 20 years old with different vigour and levels of establishment. The team use an array of air pots when planting shrubs of up to 12 litres to allow better circulation amongst the roots, whilst the compost is kept moist with regular watering.

Our first blend was for the collection of Himalayan epiphytes and consisted of a mixture of 100% rough peat, coconut chips, perlite and Zeostrat (a pure mineral mixture of lava, pumice and zeolites). These elements are mixed roughly in the quantity (1:1:0.5:0.5). This mixture is only used in the garden for the Himalayan epiphyte as it is very free draining but able to hold a lot of moisture, emulating the ground conditions of these plants in the wild. It is also worth noting here that the coconut chips had been pre-washed and are only suitable once washed for about four years. The final element to add before potting up was a scattering of microrisel fertiliser in each pot, to give the roots a boost.

The second blend which is used for every other rhododendron in the glasshouse apart from the above epiphytes and vireyas is a more simple concoction of mixed sized peat chips, perlite and a small amount of microrisel fertiliser per pot. The technique for potting is very similar to any other kind of small shrub you would pop up in a glass house.

Pic 16: Rh. vialii from the himalayan epiphytes collection.

For the afternoon, I learnt about the final stage of the programme which is planting the raised shrubs in the garden. Although Bremen has a good climate to raise rhododendrons successfully (hardiness zone 8 with low fluctuations in temperatures) the soil structure in the garden is a loam based substrate which isn't ideal for growing rhododendrons directly into.

Therefore, the process for creating new beds in the garden is quite a lot of work as they have to dig out between 10cm - 30cm of topsoil to remove funguses, weeds and old roots, before planting. Into these shallow trenches, they firstly add drainage systems, then a layer of sand and finally their own homemade topsoil blend of peat, leaf litter and bark chips (around 1:1:1) to create a suitable composite for the species and hybrid collections.

Fortunately, due to the length of time it takes for rhododendrons to mature, this process isn't done very regularly and there are space limitations too.

Again, another really enjoyable and informative day with a lot of observations, most notably around the manpower needed to create a garden of this size when huge amounts of earth have to be discarded and soil structures re-established.

Pic 17: potting up a 14 year old Rh. moupinense 'Fulmar'.

Day 5

For my final day in Bremen, I spent the morning working with the hot and cold climate vireyas in the glasshouse before Hartwig kindly took me to the Schröder nursery in the Ammerland region for a tour of one of the largest rhododendron nurseries in the world.

Historically, the Schröder nursery is interesting as it was one of the first to begin mass production of rhododendrons using the ‘Ammenveredlung’ form of grafting. This approach uses two cuttings, rather than a root stock and a cutting, which means the process is a lot faster (around one year quicker) and more grafts can be done per minute by a worker. Fredo Schröder was one of the pioneers of this technique meaning his son Timo is now able to produce over 1.5 million rhododendrons each year as well as other to-order plants like *Prunus lusitanica*, Ericas and grasses. The primary business is to sell plants less than 5L or 3yrs old to the garden industry in Germany, Holland and Belgium.

Pic 18: front entrance to the Schröder nursery, pioneers of the ‘Ammenveredlung’ graft.

As part of the tour, Hartwig showed me an old Ghent azalea which he has been working on bringing back to market over the past 4 years. (These old Ghent varieties were raised between 1830 and 1900, but then neglected after WW2 after they were crossed with *Rhododendron molle* for a larger, more desirable flower. These new hybrids, broadly known as the Exbury and KnapHill Azaleas, were unfortunately susceptible to powdery mildew unlike the original Ghent azalea.)

We also spent time looking around the 12 hectares of stock plants that the nursery has in the surrounding fields combining a variety of species of rhododendrons, deciduous azaleas and their own collection of around 2000 hybrids which are also part of the German rhododendron gene bank.

Pic 19: one of the stock plant beds for foliage plants including Rh. ponticum 'Cheiranthifolium' (foreground),

Towards the final part of the tour, we looked at some samples of *Rh. micranthum inkarho 'Bloombux*' which is fairly new to the market and is being sold by suppliers as a replacement for box hedges in Europe. What is interesting about this new plant is that it is very subtly marketed as a rhododendron so as not to scare the modern day buyer.

Pic 20: rediscovered, as yet unnamed, Ghent Azaleas which Hartwig is distributing.

The biggest takeaway for me from the day was the scale of the place and the care and thought that has gone into the technology in order to create masses of healthy plants for gardens all over the world. It was a real honour to be able to look around and talk about the stresses and strains of running such a big operation, when consumer tastes are forever changing.

Pic 21: one of the glasshouses with underfloor heating for a selection of plug plants.

Conclusion and reflections:

This trip was very informative and enjoyable and has given me a greater understanding of the varied genus of Rhododendrons. I have learnt, from seed to planting-out, how the team at the Rhododendron Park work and how I could look to emulate their techniques once back in my own workplace. Working in UK gardens, you are always going to come across rhododendrons so to have had some specialist training in this field will be invaluable for my career. That being said, it will be interesting to see the change over the next 5-10 years, both in the UK and in Germany, as the industry moves towards peat free models and the climate warms up, and how the plants and the collections in both countries react.

Linked to this are the ever-new hybrids that are made each year, which still only consider aesthetics rather than how feasible it is going to be to keep these plants alive. Going forward, I expect more hybridisers to consider the changing environment, rather than 'yet another pink flower' when creating their new plants, similarly to what Hartwig has been doing with the old powdery mildew resistant variety above.

A further observation I have considered as part of this report is the sustainability of keeping a vast array of the genus alive under more day-to-day pressures, like the costs of heating glasshouses, which is a problem for an array of woody shrub breeders across the board. I feel however this is a worthy cause, as a lot of these plants are not able to be found in the wild anymore due to deforestation and agricultural land use in their native habitats, so it's crucial to keep some of these plants in alternative settings in Europe ready for reforestation when required.

A final more worrying and slightly sad observation is still the negative connotations associated with the genus and the lack of enthusiasm by the world-wide consumer for the shrubs anymore. Naturally, the short flowering time, perceived growth and habits have been deemed unsuitable for the smaller gardens of today, as well as the attitude that they are poor as pollinating plants. As I have witnessed as part of my trip, these characteristics are greatly misplaced as we now have a great amount of smaller varieties on the market, and other woody shrubs and bulbs have a far worse attraction to pollinators in modern gardens. The question that I am left asking is: are there enough people in the rhododendron industry, from gardeners to nurserymen, to manage and change the perception of these collections, or ultimately has the page already been turned on this vintage shrub?

Costings:

Expense	Description	Cost (£ - GBP)
London Luton Airport to Berlin Brandenburg	Outbound flight to Germany	£47.48
Bremen Airport to London Stansted	Return flight to the UK	£41.67
Train from Berlin Hbf to Bremen Hbf		£56.00
Airport parking		£34.00
Airbnb for 9 days		£725.00
Travel insurance		£21.95
Food	Supermarket shops and evening meals	£216.92
Other expenses	Tickets for gardens and public transport	£48.20
TOTAL		**£1,191.22**