

## **Public Engagement**

**‘An investigation of Canadian public gardens/parks and, exploring their engagement with the general public’**

Work experience at the Royal Botanical Garden and study tour of Toronto, Canada

27<sup>th</sup> April- 11<sup>th</sup> May 2019



*Figure 1. Trillium grandiflorum at Toronto Music Garden*

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## **Acknowledgments**

I would like to extend my gratitude to those that helped me pull this application together and fulfil my dreams. So many dear friends and supportive colleagues have assisted me in alleviating my doubts and helped talking through my many ideas. Without the support of the RHS Coke Trust and The Merlin Trust this life changing trip would not have been possible. I have experienced new working practices, experienced new cultures, grown in confidence, gained deeper assurances of my own skills and the possibilities in my horticultural career. Without the HBGTP scheme giving me the placement to kick start my career then I would not even be in this position writing this report and for this I am truly thankful. Horticulture offers a euphoric feeling of self fulfilment which is felt by all who enter into it, no matter what country you are from.

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- The Merlin Trust
- Professional Gardeners Guild
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- Chris Tarrant, Manager of Plant Propagation and Production, Royal Botanic Gardens, Ontario
- Rowena Davies, Bursaries Administration, Royal Horticultural Society
- Sarah Carlton, Merlin Trust Secretary
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## Aims

- To understand the extent of engagement with the general public in Canadian gardens/parks
- To investigate a range of horticultural displays used in Canadian parks/gardens and their link with the target audience
- To explore the materials used in horticultural displays to engage with the public in Canadian parks/gardens
- To explore the range of plants used in horticultural displays in Canadian parks/gardens
- To investigate the importance of signage at leading the public around the garden/park to areas of significance

## Objectives

- Research the displays/exhibits and identify the target audience, outlining how effective they have been at engaging with this audience
- Identify specific horticultural events/activities in gardens/parks that support interest in exciting and engaging visitors
- Explore trails and pathways in the gardens/parks and understand their targets, analysing how effective they have been
- Research and identify a range of signage types in gardens/parks and state how this relates to each type of user (children, adults, elderly)
- Identify the range of plants used in horticultural displays and explore their aesthetic appeal in the display
- Visit a range of gardens/parks and highlight important horticultural displays/exhibits, investigating what makes them visually appealing and engaging to a specific target audience

## Destination Horticulture



*Figure 3. Me at Eagle Sweet Peas private nursery, Stafford*

My journey into horticulture was a somewhat wavering path. After leaving school I initially followed a career in fine art and design, believing this to be my destiny. However I faltered, feeling unfulfilled and constricted by design.

Eventually I dropped out of university and got sucked into a career with the NHS. Initially this was just to pay the bills but then I got stuck in the routine and for the time being this helped me to tick over. About 5 years in and the daily grind was feeling monotonous and more unfulfilling than before.



*Figure 2 Enjoying the garden in 1991, aged 5*



Much of my childhood was spent with my Mum, Dad and sister down at my Dad's allotment. We would spend long summer days weeding, digging and harvesting. Me and my sister Laura would explore the other plots, intrigued by the range of produce, structures and variations in each plot holders design. Each depicted their own little personality. I was amazed watching *Phaseolus*



Figure 6. Two of my awards at Church Leigh Village show

*coccineus* grow up the wig-wams almost in front of my eyes. Only I was small enough to creep through the gaps to collect hidden beans on the other side. This was my speciality! At a low point in my life, in a garden centre I remembered the feeling of joy and excitement I'd felt back then and picked up the first packet of seeds I liked the look of- *Cosmos bipinnatus*. Back home I sowed the seed, and as soon as the seedlings began to emerge, I was hooked. Years passed, and each year I would grow a little more.

Sometimes I'd share plants with friends, or grow bedding plants to order. The feeling of satisfaction and happiness was increasing every year. When I finally moved out of

home I finally got the allotment of my own and I experimented with everything I could, enjoying the process of laying out and designing the allotment space and utilising it for my needs. I specialised in cut flowers and begun entering village competitions with flowers and produce. Myself and my



Figure 5. Eagle Sweet Peas at Tatton Show

partner renovated a 50 year old greenhouse and we then begun growing under glass. I joined the allotment committee and begun creating a wildlife area on a disused plot, using seed donations to create my own seed mixes. I marvelled in the satisfaction I felt and the connection I felt with others around me with the same values. I started attending the yearly RHS shows and feeling more and more inspired I knew I had to pursue a career in horticulture. I discovered a scheme called the HBGTP scheme which offered career changers the chance to gain experience in a gardening



Figure 4. Gold Medal at Tatton Show



Figure 7. Some of my greatest friends met through working at Trentham. Naomi Paine and Giulio Veronese

role. I applied once to no avail, the second time I got sifted but they specified I needed RHS level 2 so I signed up for a 2-year theory course. After a year I wanted to step it up another level, so I persuaded my employer to allow me to drop a day and I picked up RHS Level 2 Practical at the same time. By this point I was tapping into more feedback after my second application, I needed to volunteer and get experience. My first thought was a local wedding venue with a gothic mansion and garden grounds,

so I volunteered here for a few months. Spending so much time at RHS shows I was aware of multiple medal winners Eagle Sweet Peas and I made contact with them to try and volunteer. To my surprise they replied and I began learning their growing techniques, maintenance, sowing and display work. I was able to work at RHS Tatton Show and Chatsworth, enjoying the interaction with

the public and pleasure the floral display gave the public. By this point I felt ready to apply for a third time for the HBGTP scheme and I was successful in getting a position at Trentham Estate! Spending a year as a trainee and then being promoted to Gardener I learnt so many skills and the position was essential in building up my confidence in the world of horticulture. I met so many amazing horticulturists along the way who are now my long-term friends. Never before had I felt that connection with other people about my passion. At a HBGTP study tour we had a fantastic talk from Mark Matthews at the PGG who had applied for travel funding to research alpine. I was inspired by his passion and enthusiasm and the things he said connected with me and I



*Figure 8. Me at the National Dahlia Collection, Penzance*



*Figure 9. Working at Trentham Gardens*

wanted to explore the world of horticulture in another country. I knew I had to apply for this funding.

Some 18 months later I was finally off on my trip and I couldn't quite believe how far I had come. Just 4 weeks before I was due to fly out and I was offered a Senior Gardener position with the National Trust which I accepted. With the funding and new job my life had turned around full circle. The sense of fulfilment I now had was so far away from what it had been in my previous career. I feel lucky that I was able to turn my ultimate passion into something I get to exercise every day and I owe all of this to those individuals I have met along my horticultural journey that believed in me and gave me a chance.

## **Itinerary**

**Saturday 27<sup>th</sup> April 2019-** Travel from home Manchester Airport via car lift. Fly to Toronto Pearson Airport and connect to Burlington, Ontario.

**Sunday 28<sup>th</sup> April 2019-** Spend day visiting Royal Botanic Garden, Ontario to familiarise self with gardens and areas of interest for volunteer experience. Take in Hendrie Park, Laking Garden and Rock Garden

**Monday 29<sup>th</sup> April 2019-** Commence volunteer experience at Royal Botanic Gardens

**Tuesday 30<sup>th</sup> April 2019-** Volunteer experience at Royal Botanic Gardens

**Wednesday 1<sup>st</sup> May 2019-** Volunteer experience at Royal Botanic Gardens

**Thursday 2<sup>nd</sup> May 2019-** Volunteer experience at Royal Botanic Gardens

**Friday 3<sup>rd</sup> May 2019-** Volunteer experience at Royal Botanic Gardens

**Saturday 4<sup>th</sup> May 2019-** Niagara Parks specifically visiting Floral Showhouse and Butterfly Conservatory. Sometime would be spent exploring the falls which I would fund separately.

**Sunday 5<sup>th</sup> May 2019-** Rest and Burlington Water Front Trail

**Monday 6<sup>th</sup> May 2019-** Volunteer experience at Royal Botanic Gardens

**Tuesday 7<sup>th</sup> May 2019-** Volunteer experience at Royal Botanic Gardens. Travel to hotel in Toronto

**Wednesday 8<sup>th</sup> May 2019-** Toronto Botanical Gardens, Edwards Garden and Rosetta McClain Gardens

**Thursday 9<sup>th</sup> May 2019-** Allan Gardens Conservatory and Toronto Music Garden

**Friday 10<sup>th</sup> May 2019-** Don River Valley Park

**Saturday 11<sup>th</sup> May 2019-** Travel home

## **Travel Schedule Overview**

### **Royal Botanic Gardens**

Royal Botanic Gardens, Ontario is the largest botanical garden in Canada with a mandate to bring together people, plants and nature. There are four distinct formal gardens with a range of historical outdoor plant collections, an indoor Mediterranean Garden and 17 miles of nature trails. Highlights include Hendrie Park which houses a new rose garden, Medicinal Gardens, Global Garden, Prehistoric grove, Woodland Green and White Garden amongst others. It is known as the hub of the garden with children's activities and 'discovery carts.' The RBG centre is home to an Escarpment Garden, Living Wall and Natural playground with seasonal displays in the welcome centre. Within the Mediterranean Glasshouse there are two tiers including a Cacti and Succulent house with peak bloom from late January to early May. There are a good range of spring bulbs, perennials, trees and shrubs timed for display during my visit.

### **Niagara Parks- Floral Showhouse, Butterfly Conservatory and Queen Victoria Park**

The Niagara Parks form part of the Niagara Falls experience and showcase a range of different family activities. The Floral Showhouse is described as a 'lush oasis' with Longwood inspired collections of orchids, succulents, and other tropical plants species which are displayed throughout the year in addition to floral shows which reflect the changing seasons. There are 8 specific shows/displays throughout the year so there is always guaranteed to be something in bloom.

The Butterfly Conservatory is in the grounds of the Niagara Parks Botanical Gardens and contain lush tropical vegetation, waterfalls and over 2,000 butterflies.

Queen Victoria Park is at the heart of Niagara Parks and contains a collection international plants and well-maintained gardens. In spring there are over 500,000 *Narcissus* with carpet bedding style plants schemes. The park aims to create unique visual experiences for visitors.

### **Burlington Water Front Trail**

The Burlington trail is 14 miles long and connects piers, lakesides and beaches across the city. There are various small trails that can be taken across the entire length. Along the way there are various trees and parks containing small displays

### **Toronto Botanical Garden**

These public gardens are designed to inspire and educate within 4 acres of the Don Valley Ravine. The garden offers immersive learning experiences for all ages including special events, courses, garden tours and nature camps. There are various gardens such as the Terraced Garden, Nature's Garden, Teaching Garden, Kitchen and Herb Garden and Demonstration Courtyard to name a few. The entrance planting scheme has been designed by Piet Oudolf whom has designed most of my working area at Trentham Gardens.

### **Rosetta McClain Gardens**

Rosetta McClain is a 23-acre garden described as a 'fully accessible park' which would allow me explore the succession of pathways and their effectiveness at leading the public to areas of interest. The gardens have specially designed signage, raised planters, varied texture pathways and ramps to accommodate visitors of all abilities.

### **Edwards Garden**

Edwards Garden is a former estate garden featuring roses, perennials and wildflowers with an extensive rockery. It is connected through hiking and cycling trails.

### **Toronto Music Garden**

The Toronto Music Garden is designed as a reflection of Bach's *Suite No.1 in Major for unaccompanied cello* and was designed by cellist Yo Yo Ma and landscape designer Julie Moir Messervy. The garden is designed around each dance movement in the piece with sections corresponding to each including a forest grove of wandering trails, a swirling path through a wildflower meadow, an arced conifer grove, a formal flower parterre and giant grass steps.

### **Don River Valley Park and Allan Gardens Conservatory**

The Don Valley River Park is the centrepiece of Toronto's rapidly growing downtown featuring a 200-hectare park. The park builds connections to various neighbourhoods across the city providing visitors and residents to engage in cultural activities, enhancing the environment of the Don Valley. There are sprawling cycle and hiking trails with art installations along the way.

### **Allan Gardens Conservatory**

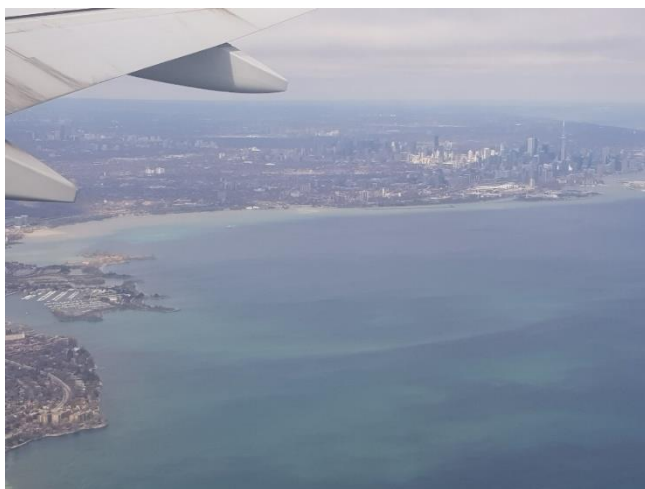
Allan Gardens Conservatory is a 100-year-old 16,000 square foot greenhouse. It contains rare tropical plants from around the world as well as Cacti and Palms. In addition, there are seasonal plantings throughout the year featuring a wide array of spring planted bulbs. The greater park outside of the conservatory represents the northern tip of the Carolinian forest.



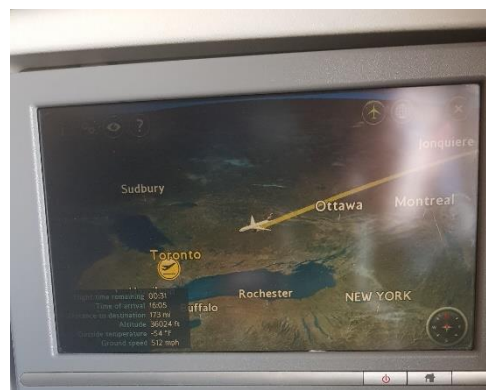
## Travel Diary

**27<sup>th</sup> April 2019**

My day of travel was greeted with the latest storm moving in from the Atlantic, Storm Hannah. As I was connecting from Manchester this meant that my flight was slightly delayed due to the high winds and torrential rain. I sat on the plan on the runway for about an hour while aircraft were queued up to leave.



*Figure 8. First view of Toronto across Lake Ontario*



*Figure 7. Flight progress*

I watched as planes took off with clouds of spray behind them, and then eventually we took off to Heathrow for my connection from Terminal 5 to Toronto. The wind made for some interesting turbulence and landing conditions at Heathrow. After touching down my Toronto flight was on schedule so I spent 4 hours passing the time before taking the transit system over to the C gates for

boarding. At about 12 pm we begun boarding the aircraft but again we were delayed due to high winds meaning planes were leaving and approaching much slower than normal. Although we took off an hour late, we managed to make the time back in the air as the flight only took 7 hours. I arrived at Toronto Pearson airport after a fantastic approach where we took a 180 degree turn around the city and then into the runway across Lake Ontario. The city was lit up in the sunlight and the CN tower dominated the collection of high rises behind it. After meeting up with some family I went out for dinner and then back to my motel and after spending 22 hours awake, I was ready for rest.

28<sup>th</sup> April 2019



Figure 11. First glimpse of the Royal Botanic Garden

understand. Bus stops are referenced by intersection, so I took note of my nearest intersection (Kings Rd) and took the local bus to investigate the Royal Botanic Gardens where I would be working for the next 7 days. I'd already been in contact with the garden over the last few weeks about gaining free entry into the gardens on the Sunday so I could get my bearings and take some photographs. The weather was glorious,



Figure 9. The Breezeway

months prior, it was actually happening! I was directed by the admissions staff on the best walk around the garden, and for me the only place I could start was the glass houses. I'd always had an interest in glasshouses, and with little experience of them this is where I was most excited about working. The Cacti house was small, but the Mediterranean House had some gorgeous specimens. The signage was concise and informative, and I was pleased to see so many families actively teaching their children about the plants as they walked around. Botanic gardens seemed to be somewhere people came to be educated and this enthused me. The paths were inviting into each area and I was pleased to see so many benches allowing me to stop and pause for thought. After taking in the glasshouses, I entered the central atrium which houses a mature green wall operating on a

The 22 hours awake on the previous day hit me hard, and I slept for some time. I woke up feeling refreshed and took a stroll outside the motel to see what facilities were in the area. I was on the search for some wi-fi, so visited a local restaurant for breakfast and begun investigating the public transport system. I'd found Google and Google maps invaluable for providing reliable travel information. Not only did it tell me the prices but it also told me when buses were due and if they were running late. The beauty of the road systems in north America is that they operate on a grid system, and this makes them incredibly easy to



Figure 10. The Upper Med Garden

but cold so this presented the garden well on my first visit. As I approached, I was excited to finally see the garden I had researched for

hydroponic system. I walked through into the main parts of the garden, Hendrie Park which was made up of a collection of formal gardens and an innovative Rose garden which had been newly created in a symmetrical design. I wandered around the rest of the area directly outside the welcome centre which lead to a wildlife area and native woodland garden. It was noticeable just how behind their season were. As I left home the leaves were out on all of our trees, however here the *Magnolia* were



Figure 12. Hendrie Park



Figure 13. Chipmunk spotted on my walk

only just

coming into bloom, and the trees were bare. *Crocus* had just finished flowering and *Narcissus* were just beginning to show themselves. It was evident that they had just recovered from a very harsh winter with snowfall only recently clearing. In April they normally had much warmer temperatures but they had struggled to achieve them so far. The grass appeared tired and brown which I believe was a result of accumulated snowfall and compaction. I took lunch in the gardens café and then headed back out for another walk around the glasshouses before returning back to the motel.

**29<sup>th</sup> April 2019**



Figure 14. The old living wall before getting ripped out

Today I would have my first day working at the Royal Botanic Gardens. It had been a chilly night with temperatures dipping down to 1c which had carried through into the early morning. Workers at the RBG start early at 7am and finish at 3.30pm which helps them complete essential tasks before the general public arrive and minimised their impact on their experience.

I arrived at the gardens to be greeted by Chris Tarrant, Glasshouse and propagation manager. I had a quick tour of the gardens and meeting with Chris and Jim Mack, Head of Horticulture. They explained what was going on in the gardens and how the week would pan out. They spent time explaining the staffing structure and their goals. There had been a shift towards propagation over the last 20 years as previously most plants had been bought in. Now they focused all plant propagation in house, including raising thousands of seedlings to help recover some of the Niagara Escarpment wetlands. Here they would replant

native species to bring back the habitat that once existed but was wiped out by pollution from the steel industry on the outskirts of Toronto.



I was introduced to the glasshouse team headed by Morwyn and her team Alex and Kathleen. I was given a quick tour around their facilities including the Orchid houses, misting bench, Cacti and Succulent house, Mediterranean house and propagation house. In the meantime, 4 volunteers also arrived to help with the team for the day. Today we would be working in the atrium removing the 6-year-old hydroponic green wall.

This had become overgrown, diseased and pest ridden so was due for renovation. An external contractor was used to install the wall and was asked to come back to create the



Figure 16. Progress in re-lining the living wall

new wall. All of the old material was to be sent to the compost by and it was made up of a range of *Monstera*, *Philodendron*, *Ficus*, *Chlorophytum* and *Schefflera*. Most had become so large that they were beginning to stick out of the wall significantly and had begun angling upwards in an undesirable way. We spent time carefully cutting the plants away from the wall so as not to damage the membrane which held the plants. It was made up of a coarse plastic material made by 3M and similar in texture to a coarse wash sponge. This was mounted in sheets onto the wall, and some pieces were damaged and would need replacing. It was a big clear up operation, and some of the roots had worked their way all the way down to the drainage pool at the bottom of the wall. We filled the trailer parked outside, but there was a lot of mess. Some of the plants had been planted using a growing media of soil and perlite which made it messy, but the new plants (some 600 tropical plants

to arrive tomorrow) would have the soil washed from the roots prior to planting. By the end of the day we had managed to clear both walls and begin replacing the sheeting mounted to it whilst a team came in to build the new water and air flow pumps. By the end of the day I was dirty with a head of hair full of mealy bugs but I felt accomplished after completing my first day.



Figure 15. Just some of the waste material going for commposting

30<sup>th</sup> April 2019



Figure 19. The Orchid House

It was another fresh morning in Burlington, and I was thankful I followed advice given to me about packing many layers. I took the bus to the RBG, arriving at 7 am where I let myself straight in and headed to the 'Hedera' which was the office area behind the glasshouses. I was met by Kathleen and Alex and then joined Alex to check temperatures across all the glasshouses and record. We started with the forcing fridges by recording the maximum and minimum temperatures. I had to be politely reminded that Canadians recorded the dates in a totally different format. We then moved to the Cacti house, Upper Mediterranean, lower

Mediterranean, Propagation house, aquatics house and misting bench. We finished off in the Orchid house which was maintained by the Ontario Orchid Society and was accessed through the back of the



Figure 17. *Codiaeum variegatum* var. *pictum* (v)

offices. In addition to misters running 24/7 to raise the humidity to at least 75%, Alex also wet the greenhouse floors in the morning to provide increased humidity. On the way around we had some interesting conversations about the limitations of being a gardener in Canada. So many plants that I took for granted like *Trachycarpus fortunei* or *Dicksonia antartica* which are staples in my gardens are impossible to grow in Ontario. Prolonged periods of cold mean that things have to be absolutely hardy, and even greenhouses in a domestic garden are almost pointless as they do not provide any protection or increased season length for many Canadians.



Figure 20. Re-lined living wall

Today we would be joined by volunteers and some new student gardeners that were starting as part of a summer placement until autumn. We went back to the atrium to continue our work on the living wall. We worked together to apply the lining to the wall, applying another membrane to the first layer and

Flame word			Aquatics			H-11			Bowl			T-11		
DATE	MAX	MIN	DATE	MAX	MIN	DATE	MAX	MIN	DATE	MAX	MIN	DATE	MAX	MIN
4/20/19	12	5	4/20/19	19	15	4/20/19	22	19	4/20/19	20	16	4/20/19	20	16
4/21/19	12	5	4/21/19	16	15	4/21/19	22	19	4/21/19	20	16	4/21/19	20	16
4/22/19	13	5	4/22/19	16	15	4/22/19	25	19	4/22/19	25	16	4/22/19	25	16
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4/24/19	14	7	4/24/19	18	15	4/24/19	25	20	4/24/19	25	17	4/24/19	25	17
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4/29/19	16	8	4/29/19	20	16	4/29/19	25	20	4/29/19	25	17	4/29/19	25	17
4/30/19	16	8	4/30/19	20	16	4/30/19	25	20	4/30/19	25	17	4/30/19	25	17

Figure 18. Recording temperatures in the Orchid House



Figure 21. Washed plants ready for planting





Figure 22. Progress on the living wall

them into the atrium between us and then completed an inventory and split the plant numbers in half so we could use them on each half. There was a range of flowering plants, but it was mainly foliage dominated with many types of variegation. We then set out to remove all soil from the roots by setting up stations in the atrium with a bucket to remove the soil and two buckets to wash the remaining soil from the roots. As the plants would be grown hydroponically, we did not need any soil on the roots so we were careful to remove as much of this as possible. Myself and 2 other volunteers along with 3

students worked in two groups washing the plants off. By the end of the day we had washed around 2/3 of one side of the wall's plants. Using the variegated plants first we begun grouping these together. Variegated plants were grouped together so that the effect 'popped' and created more of an impact as people walked in. Finishing at 3.30pm meant I could take a stroll around the gardens after work whilst I waited for my bus back to the motel, the weather had been sunny and pleasant although it still felt cool.

## 1<sup>st</sup> May 2019



Figure 25. *Ficus elastica* planted with *Philodendron*

I awoke to hear rain hammering on the roof. For a second I was unphased by this, imagining getting into my warm car however, I remembered my commute is by bus in Canada. As I checked my phone on the way to RBG, I saw that over the coming few days the weather was set to get much better, and warmer at last. As I arrived at RBG I met up with Kathleen and Alex again, and we took the student gardeners into the atrium so we could continue where we left off on the previous day with the living wall. Most of the plants were prepared for planting, but those that were left were prepared by the student gardeners whilst I helped

Kathleen and Alex to place the plants into the wall. I

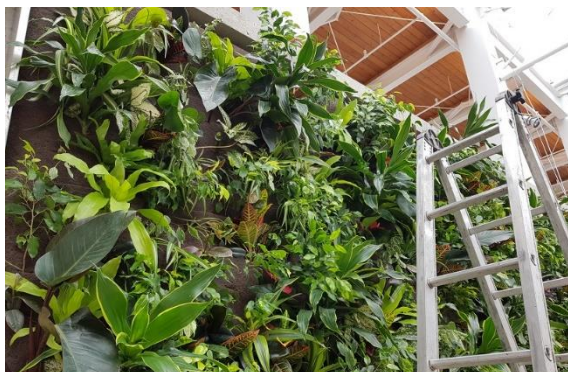


Figure 23. The living wall planting now coming together



Figure 24. Me and Alex working on planting up



helped to set up the wash stations for the student gardeners, and went to meet some of the other volunteers later on. I couldn't recall a time when I had met quite so many people at once. I could feel my social skills in the working environment developing and changing with the Canadian ways. Not only were they more direct at times but they were polite about it too. They were clear with their instructions, and only expected the upmost hard work from their volunteers. This was respected by the volunteers, and they were happy to change their jobs frequently with little to no resistance. I enjoy the feeling of ease that pours out of volunteers, with their contentment for life and willingness to help others feeling almost infectious. Despite working hard, it was fascinating chatting with the range of volunteers and learning about their gardening styles and limitations. Equally they had a fascination for English gardens and styles. Most had connections with the UK and were eager to discuss these at length. I'd had several invitations for lunches and dinners with volunteers and their families, and with it I felt endeared by the warmth of Canadian hospitality.

After break Kathleen instructed another group of student gardener to wipe down scale bugs from the indoor potted plants that lined the top level of the atrium. A short time later we had finished the living wall, and we spent another 30 minutes going over it to check for any pockets that we had missed. This had to be done line by line as most of the pockets were now covered. We continued onto the next wall by root washing the plants that had been separated. As we needed to complete the task a little quicker, we set up an additional washing station. By the end of the day Kathleen and Alex had planted up half of the wall.



*Figure 26. Me and the team responsible for planting the living wall*

**2<sup>nd</sup> May 2019**

Thursday started with a low-lying mist over Burlington. It felt damp but it was not raining at least, although cool at around 5c. On arrival I happened to walk past the atrium to see that the living wall was now completed on both sides. Alex and Kathleen had stopped until 6pm that night to finish the job and the result looked fantastic. All that remained to do was to tidy up the plants that had been left there overnight. They would be brought into the warehouse to be potted on and grown in the greenhouse for use elsewhere, or for any replacements needed. They had anticipated that around 2-3% of the plants would fail so they kept spares just in case. Whilst we were tidying up, I spooked to Chris who asked if I would like to move locations within RBG. Although I had a rough itinerary from the garden, I was beginning to feel more like the glasshouses presented an excellent opportunity for me to study public engagement with displays. The rest of the gardens were slow to transition into spring due to their extremely late season and this meant that there was little for me to see or research at the moment, unfortunately this was totally unpredictable but I felt that between us we were able to adapt the experience sufficiently. Kathleen dealt with a range of potted plants in exhibition spaces, conference rooms in addition to maintain the Mediterranean, Succulent and Cacti house, Orchid and Bromeliad exhibit, Living Wall and Breezeway.

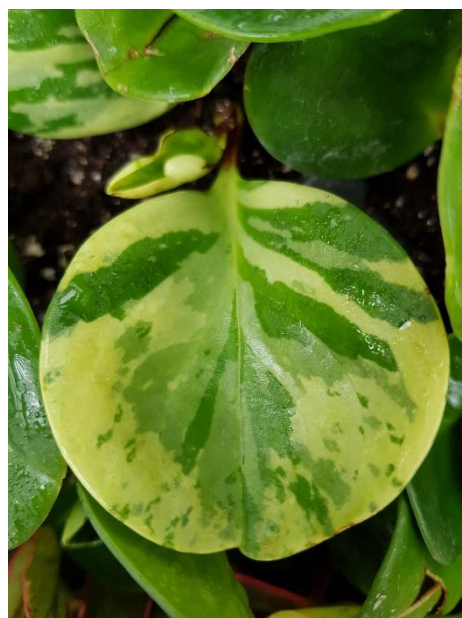


Figure 27. *Peperomia obtusifolia* (Magnoliifolia Group) 'Variegata' (v)

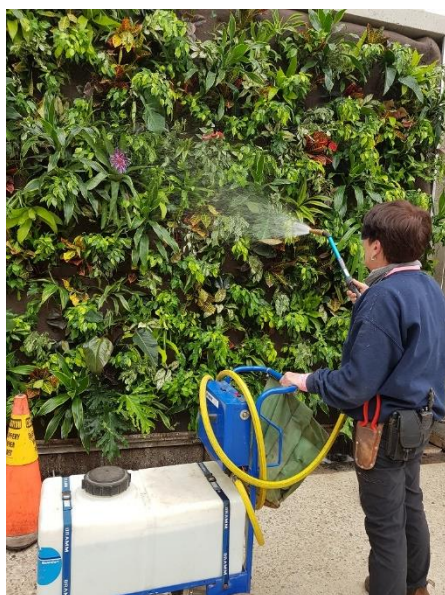


Figure 28. Kathleen misting the living wall

We returned to the living wall one more to mist the plants to increase the humidity. In this initial stage Kathleen stated that they did this at least once a day to help the plant recover from the stress of the transplanting. After this we helped contractors fit the floor grates that sat underneath the hydroponic wall. These had been cut down as the pieces formed part of a jigsaw at the bottom and unfortunately previously these were difficult to move as they're made of solid metal. Now they had been cut into management pieces so that they would be lifted easier providing access to important parts of the pump system below.



We then spent the time helping to fertilise inside the Mediterranean house but setting up some of the students to work on this on a rotation basic. After deadheading and replenishing the Royal Court outdoor pots with more forced bulbs from the forcing fridge, we then moved onto the breezeway. The Breezeway was a symmetrical house, similar to an alpine house directly next to the Mediterranean house. There was a central bed with water feature, and two horseshoe shaped beds at waist height to allow customers to immerse themselves in the beds. Planted in here were seasonal displays of spring bulbs punctuated with evergreens. Kathleen would collect cuttings of many different plants, some from other areas to provide the perennial or evergreen content for the displays. Bulbs were forced using the forcing fridge which were kept in the Hedera. After forcing they would be removed and then brought into the light for a few weeks prior to planting. Nearly every week or two weeks the seasonal display was replenished. The help for this tended to be

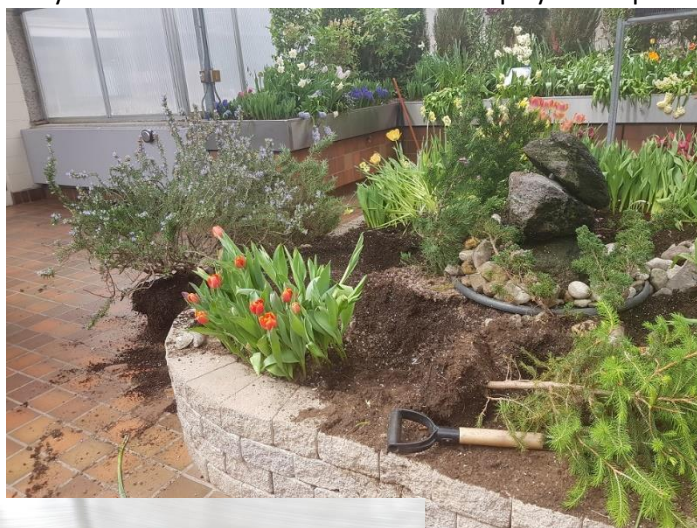


Figure 29. Beginning work on switching displays on the Breezeway

provided by the volunteers who were well aware of the process involved. The plants were easily removed due to their height, and the compost mix they were planted into was extremely free draining with at least 50% perlite. We got halfway through the task before returning for the day to complete tomorrow.

### 3<sup>rd</sup> May 2019

It was another wet start, although warmer weather was promised for later in the day although milder as opposed



Figure 30. Unknown *Cattelya* hybrid

to sunny. As I arrived at RBG I was greeted by Kathleen who asked me to check the greenhouse temperatures with one of the students. We worked through each of the areas recording the maximum and minimums, and then resetting the thermometer. I moved over to the orchid greenhouse where I recorded the temperatures, almost choking on the plus 75% humidity. In addition to the temperature checks here we also damped down the floor. We then moved onto inspecting the living wall for any wilting areas and acting on these quickly by making sure they were securely inside the pockets and contacting the water flow at the back. Using the Dramms we misted the wall lightly from top to bottom and then we focused on misting the potted *Philodendron silloum* and *Araucaria heterophylla*. These were normally misted much sooner but had been left due to other demands with the living wall.

We then had a busy afternoon watering other plants such as the display *Astilbe* in the propagation house, aquatics house and on the misting bench. In the afternoon we spent time clearing the many plants in the breezeway. There were many spring bulbs which needed to be removed as the display would be switched up for the Mother's Day display which would focus on *Hydrangea* and some of the remaining spring bulbs from the forcing fridge. We worked through the raised beds, removing the bulbs and binning them. As they had been forced, we wouldn't be able to re-use these in the

following year. There were many *Syringa* in the beds which had to be re-potted and then these would be sent back up to the arboretum for storage. The work was messy, and it was obvious that one of the limitations of the job was the fact that the public passed through this small area to gain access to the other glasshouses. Lots of soil and perlite were carried through on the public's shoes throughout the glasshouses, and this made for an extensive clean up before we left for the day. By the end of the day we had cleared the breezeway ready to be replanted on Monday.

4<sup>th</sup> May 2019



Figure 31. Me at the Floral Showhouse

My first real weekend in Ontario was to be spent visiting the Niagara Parks horticultural attractions which are situated around the falls. The area lies about a 1-hour drive or 2 hour bus journey away from where I was staying to Burlington. I looked out of the window in the morning to be greeted with grey skies with some mist present. I was happy that it was at least wasn't raining. I set off with the cousin in law, and as we drove out of town over the Skyway bridge which crosses Lake Ontario it was obvious just how misty the weather was. The weather had been getting milder over the last few days but the water temperature had not increased. With such a large body of water there was often mist hanging around that cities on the edge of the lake. Driving along the freeway as we approached Niagara I was starting to notice more greenhouse and fruit growing facilities. It seemed like the temperate climate offered good growing conditions for fruit- particularly *Malus*, *Pyrus*, *Prunus* and *Rubus*. Some of these were grown under glass but others were set out in neat rows across large plantations.

We arrived at Niagara Parks and it was clear that this area had become a large tourist attraction. There were many hotels and Casinos built up around the area towards the falls interspersed with old Victorian hydro-electricity buildings. The mist from the falls was creeping over the road and there was little to no visibility of the falls because of this. We moved through the main road past the falls to our first destination, the Floral Showhouse. This was a large collection of glasshouses raising plants for the surrounding park areas and also for two large glasshouses which had 8 seasonal displays per year. As you enter the Floral Showhouse pathways it was clear that their more temperate climate meant that plants were at least 2 weeks further ahead than they were in Burlington. There were swathes of *Narcissus* in bloom, buds breaking on trees, *Magnolia stellata* in full bloom and all around there was an apparent lush green hue that was absent from some areas in greater Toronto. The entrance area in the Floral Showcase was made up of a small stream with *Orchid* exhibits, small outer beds growing a range of tropical house plants, and then a centre bed which had a looming *Ceiba speciosa* dominating the centre and several *Amorphophallus* at varying stages in their life cycle. One was beginning to bud up. In such a confined area it was hard to imagine working with the stench all day. Moving through the entrance area, we made our way into the first glasshouse. This was an entrance area offering glasshouses in both directions. The centre piece was



a large cherub water feature in white stone surrounded by small beds filled with burgundy *Hydrangea*. I have to say it wasn't exactly to my taste, as the water feature wasn't something I



Figure 32. The first display house

enjoyed, particularly the stark white colour mixed with foliage and deep reds. For everybody else however they enjoyed the impact that they got in this area. They were pleased to see the *Hydrangea*, asking many questions between themselves about how they were in flower so early. We moved to the right into the next room. This was an extension of the *Hydrangea* display but it had been put together much more tastefully and modern in my opinion. The colours were graded from blues, pinks and finally to purples. My one criticism is that these were not tiered also which I feel would have added more impact. I tried to check the tags which were hidden

out of sight but unfortunately, they had only been labelled by colour and not by cultivar. The centre of the glasshouses was designed in this graded way however the outer beds were planted much more sporadically. Between them they had used *Cyclamen*, *Tradescantia zebrina*, *Impatiens* New Guinea Group, *Pelargonium* 'Veronica Contreras', *Asparagus densiflorus* and *Rosmarinus officinalis* clipped into various shapes. The lower plants were close to the ground, with the taller plants used to break up the hard edges of the beds. Drawing your eye into the centre of the beds were tall pieces of *Betula utilis* var. *jacquemontii* branches. These had been used to draw the eye, leading it up and down onto the beds. The pale bark acted as a great back drop to highlight the colours of the *Hydrangea*.



Figure 33. Gorgeous views across Niagara to the U.S



Figure 34. The Cacti and Succulent House

In the next greenhouse was a collection of tropical and succulents. Through the centre were some of the larger leaved varieties, and then on raised benches around the perimeter were potted cacti and succulents. There didn't seem to be much of a theme with the plants in this greenhouse and it seemed to keep a strong focus on variegation which, in some places clashed a little.



Figure 36. Butterfly resting

We carried on about 15 minutes down the road to the next stop, the Butterfly Conservatory. This sat on the edge of Niagara Botanical Garden. The Botanical Garden formed part of the college that sat in this area which offered horticultural diplomas. I had conversed with Curator of Collections Alex Henderson (ex Kew Gardens) who now worked at Royal Botanic Gardens. He had said how excellent the scheme was, and how the Kew diploma model had been used within the college for young horticulturists in Canada. The Butterfly Conservatory was very much a pleasant surprise. I was aware that it had horticultural content but what it did

was made people appreciate the benefit of flowers on an interactive level. As we arrived at the conservatory and through two double sets of doors I was immediately taken aback by thousands of fluttering butterflies. I had been to these conservatories before in Jersey and at RHS Chatsworth Show but nothing quite on this scale. Inside, there were snaking pathways with banks of mature tropical plants and flowers. It was a pleasant surprise to see that most of these plants were labelled, possibly because the Botanical Garden maintained this area. Interspersed within the conservatory were waterfalls and other water features. Of everywhere I had been, this actually felt the most natural and cohesive. The plant displays were well put together, and had much more of a rhythm and flow because of the pathways meandering through each area. The butterflies seemed to flutter by endlessly, some darted and skirted around the back of my neck or ears. In the more humid areas they clung to walls, displaying their vibrant colours or dancing together close to the waterfalls.



Figure 35. Standing outside the Butterfly Conservatory

## 6<sup>th</sup> May 2019

It was a beautiful start to the day as I walked to the bus stop. The skies were clear and as I caught the city news in the morning it had shown a marvellous sunrise. Today would be the warmest day yet. Since arriving I have seen swings from 5c and now, today it would reach 21c. All around the suburb of Burlington I was noticing signs of spring intensifying to the same levels I had witnessed at Niagara.

I arrived at the RBG and met up with Kathleen who was briefing the 3 students and providing them with work lists. She had assigned them set areas and was running through their priorities. Myself and Kathleen walked through the indoor areas checking the water levels on the potted plants. These plants were sitting inside another planted which kept a water reservoir at the bottom. The water was topped up through a small gap at the side, and next to it various water level checkers were inserted depending on the depth of the pot. The leveller would move up and down to a minimum or maximum point. We went to collect the Dramms for watering, and we set to work watering the pots in the atrium and entrance area. One centre piece is a *Physostachys aurea* which stands about 9ft tall in the main entrance. We discussed how prestigious this plant was to most of the gardeners who



could only dream of growing such a thing outdoors. It was amazing to think that something we take for granted could be so coveted by Canadians. After watering the pots, we went back to the atrium to check on the living wall. We had identified that there were some pockets which were not receiving water, and this was clear as the plants were dead. We had been warned by the contractor that this could be the case. These plants were removed and would be covered once the surrounding plants filled out. I used the Dramm to mist the wall to raise the humidity level. After returning to the greenhouses we began removing the evergreens from the spring display to be taken up on a truck to the arboretum. With the temperature rising we needed to open all the events in the Mediterranean House, Propagation house and Cacti House to maintain airflow. At the same time we operated the electric blinds to provide shading across all greenhouses. The misting bench also needed to be checked as some of the plugs were now starting to root and were subsequently taking up more water.



Figure 39. One of the propagation houses divided by area

potted on and there was a good level of clear organisation. I noticed that seeds were stored and labelled by the week they were to be sown also. Morwyn, who organised the glasshouse was getting her students to rotate the plants as we arrived. We were to have a workshop demonstration from Rene, a Swiss nursery owner from Niagara on the Lake. He had almost



Figure 38. Grafting demonstration

40 years' experience of the grafting of fruit trees.

Niagara was famous for

fruit production, so it was sensible that he owned a facility in this

In the afternoon myself and Kathleen went up to the propagation centre. As the RBG has well over 1000 acres this was some distance from where we had been working. We had to take the highway and drive for five minutes to a separate entrance and side road. The centre consisted of one large double greenhouse and several poly tunnels that provided storage and shade for some of the display plants Kathleen used. Inside there were a range of perennials, hardy annuals, vegetables and tender plants in storage. Each area was divided into parts of the garden so that their plants could be clearly organised. The greenhouse rotated around as plants were



Figure 37. Outside the propagation house

area. RBG was trying to increase their number of rare Cherry trees which I had noticed were admired by many Canadians. I assume that the long winters meant that they welcomed the sight of the flowers more so than other nations. Rene had provided *Prunus* roots stocks on F12 which we would use to graft some of a range of the rare *Prunus* collected from across the gardens. The ideal time for pruning the material was at least two weeks past, and the collected specimens had been chilled for 2 weeks at 2c. Rene stated that even at this temperature the buds would break, and that if any were showing signs of green then this concerned him as they had already spent some of their reserved energy. To graft these specimens, we would use the split graft technique. Rene snipped the graft branch above a root and then used a knife to cut a 5cm vertical slide down the middle. The tree material from the desired tree was then cut so that there



Figure 40. The perfect grafting point



Figure 41. *Prunus* scions

was a strip of branch at least 5-7.5cm below a bud. This was then cut at about a 30-degree angle on either side so that it formed an arrow shape. This was then inserted into the root stock branch so that one side of the grafted branch was flush with the trunk. This left a gap on the other side, but the bud just poked out on the other side. Using grafting string he carefully bound the two branches together, ensuring that he did not cover the bud protruding from the branch. Then using a special translucent film, he wrapped around the graft again, ensuring that any exposed area was covered in the tape so that water could not penetrate through, potentially causing rot. This taping was also done at the top of the specimen branch. Rene explained that the use of wax was no longer required and that the stretching tape was now all that was need. Even with these precautions he stated that achieving 50% success was considered good. The staff would begin to graft over the next few weeks, practicing using *Syringa* before using the specimens collected. Chris stated that this was the first grafting attempting at the gardens for nearly 20 years.

**7<sup>th</sup> May 2019**



Figure 42. *Coelogyne mooreana* x *lawrenceana*

Today would be my last day at the RBG and the weather was dreary and miserable as I woke up. The morning was such a contrast from the previous morning with its rich sunrise. I checked out of my Motel room quickly and made my way down to the bus stop.

On arrival at work I was greeted by Kathleen and Chris. We talked through the tasks for the day whilst the students were instructed what to do. I worked with Raymond checking the greenhouse temperatures and alerting Kathleen that the humidity fans weren't running. The temperature had dipped to 16c which



was quite cool. The side vents had been opened by Chris as the temperature in there had reached 34c, so we manually pulled the vents closed to raise the temperature. The temperature would be checked again later in the afternoon. After the temperature check myself and Kathleen set up a room for an event, moving around the indoor plants using the wheels for ease. There would be two events, and the room would be partitioned off using adjustable wall sheeting. After setting up the event myself and Kathleen took the Dramms, and I used this to water the potted Citrus up in the upper med. There were pots clustered around the lift and also on the balcony area. Because of the water run off we had to ensure that wet floor signs were erected to alert the public.

After the watering had been completed, we could finally start preparing the breezeway. The breezeway had been cleared on Friday of all but a few Tulips so these could now be removed. A small water feature was to be added as this gets added to a temporary bed in the middle of the breezeway. Kathleen stated that the feedback generally specifies that the public enjoy the water feature and the 'feeling' that the room emulates. As the display would be for Mother's Day, Kathleen was keen to complete the change of the display in the room by the middle of the week. Kathleen and Raymond began by digging out the temporary bed (the stone walls could be moved) and submerging the water feature base, then the water feature was positioned so it was off centre. The soil was then backfilled and Kathleen began adding many types of *Hydrangea*, Asiatic lilies around the edge of the pool to soften it, and later black die would be added to hide the pump at the bottom. Around the back of the statue some tightly clipped and formal *Buxus sempervirens* were added which gave an Italianate effect. Kathleen instructed



Figure 44. A messy site mid switch over in the Breezeway



Figure 43. Me and my guide Kathleen at the end of my placement at the RBG

Raymond on how to build up the framework of plants for the central bed which would take the focus. Along the way Kathleen was quickly making decisions about plants, deciding not to use the standard *Fuchsia* which looked too thin and then using some small Spider plants to soften the edges of the walls. I picked out the Asiatic *Lilium* from the aquatic house, using the tallest varieties first and

laying these out on the borders that wrapped around the centre. Firstly, we swept the back wall



which had accumulated soil, and then I began adding the lilies in rows with 2 unknown types of *Lilium*, *Astilbe* in between those and then a burgundy lily to complete the line-up. For the remainder of the day I moved back and forth bringing more and more plants out to build up the layers and lay out before it was time to say goodbye to the RBG. When it came to leave, I was kindly presented with a presentation book of photographs from the RBG by Chris Tarrant and Kathleen. They both thanked me warmly for my contributions over the last week and encouraged me to keep in contact and share with them the work I complete at the end.



Figure 46. Beautiful city floral displays in Toronto downtown

It was onwards to the next adventure and my next stop was to Toronto downtown, or Chinatown to be precise where I was to be stopping. I took a taxi out of Burlington and quickly we were stuck in traffic on the main highway into

Toronto but this cleared quickly and I arrived within 50 minutes. Approaching the city, the CN tower loomed above everything, glistening in the late afternoon sunshine which was now beaming down upon me. Toronto bustles on a London scale but with roads 6 times deep. There were trams, cars, bikes, buses and trucks jostling to move from one intersection to the next and I was transfixed by the business and sudden change of pace. Lining the streets of Chinatown there was a mix of chain and independent stores all trying to complete with each other for signage space, little stalls were on the sidewalk here and there selling fruit and vegetables and souvenir goods. My hotel was nestled into the corner of Chinatowns shopping centre, and ran along the side. As nice as the hotel was, I was interested in exploring the city and met up with my cousin in law who showed me into the centre for a bite to eat before returning along the walk of fame, pausing at the beautiful spring pot displays adorning the central area near the hospitals.



Figure 45. Standing on Simcoe St, Toronto with the CN Tower in the background

**8<sup>th</sup> May 2019**



Figure 49. Tulipa 'Flaming Purissima' in the entrance area at Toronto Botanic Garden

My first day exploring Toronto was a glorious one. I walked straight out of the hotel into blazing sunshine and crystal blue skies. Every surface from the skyscrapers reflected this wonderful morning as I walked down to get my first experience of the tram that would start my journey to Toronto Botanical Garden and Edwards Garden. The journey would take approximately an hour and was about 6 miles north of downtown. I like many, clutched onto my cell phone for directions to my next station, subway or bus stop. I admit I had been nervous about navigating the city across so many methods of transport but I found it easy and clear to use. I arrived at Toronto Botanical

Garden and the sun was still shining. This garden stretched out 4 acres and bordered Edwards Garden. Like all gardens in the city it was owned and run by the government who funded the outdoor spaces for the residents and tourists of the city. Because of this lack of admissions, it had a wonderfully open feel. As soon as I walked past the sign, even on the roadside I was greeted by hundreds of botanical labels marking out the entrance planting of perennials and bulbs. Spring was arriving quickly but much of the perennial content was only just beginning to emerge. Tulipa had begun to flower and were in full bloom along with Narcissus, Magnolia and Prunus. I felt lucky to have experienced spring



Figure 47. The Beryl Ivey Knot Garden

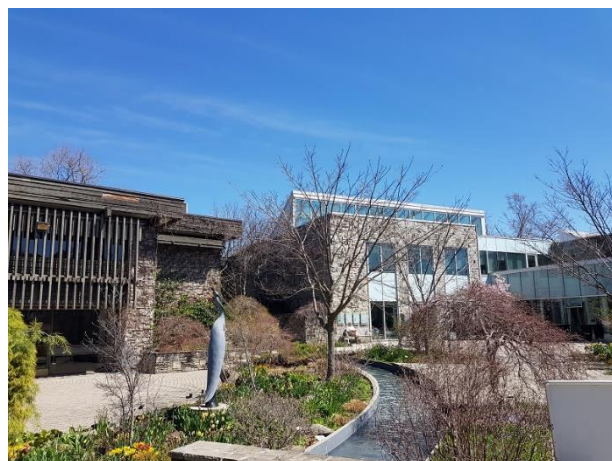


Figure 48. Garden Hall Courtyard

all over again. There was a steady flow of people moving around the garden. I spent a while inspecting the Piet Oudolf scheme on the entrance walk, but alas much of the perennial content was not emerged. However, Piet had used some beautiful *Acer griseum* to punctuate the scheme and their bark is some of the most stunning you will see as it shimmers in the sun. I moved through to the modern areas planted around the main centre, pondering at the coveted flowering plants and sitting by the man-made stream which cut through the hard landscaping. I walked through the presidents show garden and into the woodland area. The gardens were small but well cared for and all around there were volunteers working. *Prunus* blossom was of much interest to the public who had been waiting for its arrival for some

time. The botanical labels were particularly useful for the spring bulbs. I had spent much time working in a public garden listening to the public asking for everything to be labelled and here was a clear display of this. However, as much as I also thought it was a good idea, I have to admit I thought



it was a little overboard, and there were just so many labels it actually detracted something away from the display.



Figure 51. Edwards Garden with focal *Salix babylonica*

The transition into Edwards Park was not a clear one other than it was obvious that the space opened up into a sloping grass area adorned with mature trees. On the hill side was a large fountain which was not in use, and all around there were small beds of bulbs on the flat level at the top of the hill. Edwards park sprawled around in a circle with a valley running through the middle with a small stream.



Figure 50. Wilket Creek flowing through Edwards Garden

Cutting over were bridges and viewing points which were marked with benches. There were families drinking coffee on the side of the stream and many visitors posing for photographs on this wonderful spring day. I walked across the other side of the valley to the 'Learning Garden' which was at the top of a very steep hill and featured a vegetable and fruit plot with a small learning centre and outdoor area. Here, small children and clubs would come to grow produce and learn from workshops which were hosted here. After taking a last walk around the park I took 3 buses to my next destination, the Rosetta McClain Garden which was south east of where I was, and an hour away.



Figure 53. The empty pergola

It felt a little out of the way, and I was aware that the area was more residential due to the number of schools nearby. The garden was at the edge of Lake Ontario but somewhat raised off the shore line. I was a little confused as I arrived at Rosetta McClain gardens, as there were no signs going into the car park or indeed anywhere near the entrance. Eventually I found a small plaque towards the back of the gardens but I noticed that the garden lacked any story or explanation of what it was about. There were mature trees set in grassland that appeared to have individual dedications. There

were

many benches set about the sprawling paths which led up to a circular area where large boulders sat. There were pergolas all around. There were the odd spring bulbs dotted around but no really content as it seemed to be mostly made up of perennials. Along the edge of the garden there was a glorious view of the lagoon like Lake Ontario which glistened in the sunlight. I walked around the remainder of the park which had a sprinkling of



Figure 52. Central area with pergola and seating



spring bulbs set in two large beds, but overall, I was confused with the story of the garden. I think it would have been fairer to call it a park.

9<sup>th</sup> May 2019



Figure 54. Entrance area at Toronto Music Garden

vortex. The approach to the garden was denoted by a sign, with an inviting curved entrance pathway. The garden started at one end of a plot of land which worked down the main road. The pathways were curving and depicted musical notes. The beds were planted in a natural style, with the native flower of Ontario the *Trillium* poking up here and there. There was a good mix of natural stone used in various sizes cascading over onto the pathways to break up the lines. In places there were mounds where you could view the garden from different perspectives.



Figure 56. Jackdaw enjoying the natural stone water feature

The weather forecast had promised rain today for much of the week, however when I woke it was a little overcast and grey. As the day went on the weather brightened up in the afternoon before turning to showers in the evening for a couple of hours. Despite this, the weather was mild at around 14c it was pleasant to walk around in.

I started the day by walking down to the waterfront to the Toronto Music Garden. This was about a 40-minute walk from the hotel in a straight line. As I approached the shore there were some strong winds whipping up between the tall buildings which seemed to create a



Figure 55. End point of Toronto music garden showing grass amphitheatre and CN Tower

Little rooms were created with the swirling paths in places with a feeling of peace and enclosure. At one end of the garden there was a small amphitheatre which was tiered with natural stone, and used for musical events in the summer. It was great to see Cardinals using the garden, and I spent time watching them and the other wildlife using the bird bath created from a hollowed-out boulder. Even though the pathways were laid out using concrete like the sidewalks in Canada, their curving nature softened them somehow and in other places other landscaping

materials were used too. There were cobble effects, block paving and a type of red concrete which had a stone effect.



Figure 58. Berczy Park, Leader Lane, Toronto

The park sat next to a church and was made up of large beds cut into a symmetrical pattern with many benches lining it. Inside there were many dog walkers taking advantage of this green space, and such a hive of activity with wildlife. Squirrels, Sparrows and Pigeons surrounded the park floor. I watched several cheeky squirrels scurrying inside the *Tulipa* adorned beds. The *Tulipa* were just beginning to colour in cool yellow tones. Against the back drop of newly emerging leaves and ancient architecture they shone.



Figure 59. Central planting area inside entrance

gardens and park surrounding it could breathe in this busy city. The park surrounding was much like any other. Mature trees and several park benches in a square shape and to the side lay Allan Gardens. The entrance was flanked by two informal beds filled with *Tulipa*, *Narcissus* and *Viola*. The first thing I noticed out here was the lack of labels but this did not detract from the beauty of the colour pallet. Warm orange and yellows with purple and pink *Hyacinthus* set back and dotted around in an informal manner. Outside the

My next destination was the Allan Gardens conservatory. Instead of using the public transport system I decided to walk the hour-long journey as it would take me through the centre of the city, through James' park to the conservatory. I would be able to see parts of the city I hadn't yet seen. The journey took me along the water front, taking in the financial district with its large reflective sky scrapers with many areas under construction. After passing through I then moved north towards James' park which was full of people enjoying the sunshine which was beginning to creep in. The

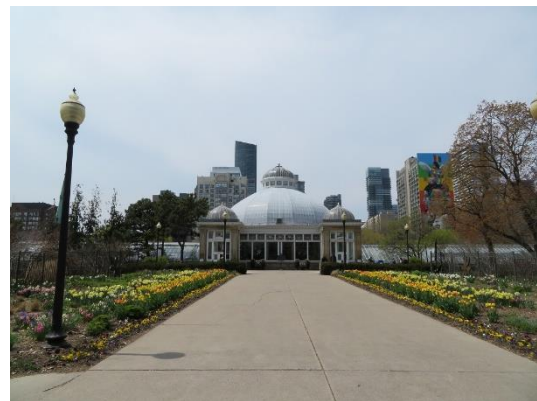


Figure 57. Entrance approach to Allan Gardens Conservatory

After an hour I began to notice that the street signs begun to change to read a subtext of 'Garden District.' I expect this had something to do with the concentration of parks in the area, and there were some old houses here too which actually had front gardens. There were parts of this area that reminded me of London, with almost a Victorian terraced feel. I approached Allan Gardens Conservatory via 'Horticulture Avenue,' a fitting name indeed. First, I saw the huge dome centrepiece of the greenhouse looking almost dwarfed by the skyscrapers around it. Fortunately, these had been set back slightly so that the



Figure 60. 'Garden District' street sign



Victorian conservatory was a plaque commemorating its history which I read, and then onwards into the first room. This was the domed room holding much of the larger tropical plants. Like some of the other indoor display houses I had seen, its main focus was *Hydrangea* and *Lilium*. These made up the basis of the ground display interspersed with many tropical plants in between. The circular nature of this area made it intriguing and mysterious. Again, around the edges were benches for people to enjoy the space and indeed people were reading or relaxing in here. I walked into one of the side greenhouses, a sloping curving path led around a central bed. In here it seemed to be mainly Mediterranean plants interspersed with seasonal bulbs and annuals. There were many *Tulipa*, *Hyacinthus* and *Narcissus* but also *Pelargonium* were in flower. I had noticed that the glasshouses in Canada seemed to use the space to provide colour with bulbs and bedding unlike anywhere I've been in the UK. You would not normally cross these two over and



Figure 62. Second glasshouse

we do like to have a distinction. The colour is to

provide interest for all ages. There was a distinct lack of signage in here, particularly for some of the bulb varieties which people seemed most interested in. The next house was a mix of tropical plants put together for foliage colour and texture, mixed with flower colour. It felt bright and the colour palette was hot. There were Orchids growing in cork bark up one wall and a water wheel feature with Turtles swimming in the pond

beneath. A huge Bromeliad display was here too, with varying leaf variegations. The last house was made up of Succulents and Cacti displayed in high beds with some hanging from the ceiling. These were not as big as I have seen in others houses but it was still interesting to see.

**10<sup>th</sup> May 2019**



Figure 63. Installation by Ferruccio Sardella depicting 5 Toronto rivers

Today would be my last day in Toronto before flying back home on the following day. I woke up early and began to investigate the best spot to enter Don Valley River Park. The area is vast with many different entry points due to it being a public parkway. I spoke with my brother in law, a Toronto born now living in London. He said that the Brickworks would be a good entry point. This acted as an educational facility having previously been an industrial site producing brick for the city of Toronto's buildings. I arrived after 3 public transport trips spanning the trams, trains and finally a bus from Davisville in old town.



Figure 61. First glasshouse entrance ramp





Figure 65. View of the Brickworks

Arriving at the site there was a large car park and lots of industrial buildings which had been re used for educational signage, exhibits, shops and a café. It was going



Figure 64. Brickworks living wall

through a period of development which meant that the main atrium area was not accessible. However, I looked around the rest of the building to understand its environmental message before heading off to investigate some of the trails directly outside the building. I would have travelled further, but after breaking my toe 2 weeks before travelling out it was beginning to hurt significantly after 2 weeks of solid walking. There were many school trips looking around the area. To the side of the main building were children's gardens and a natural playground. The area directly outside the brickworks was made up of many small lakes, joined up with cladded boardwalks and luring crossing paths which could be seen from a distance. On the hill side were newly planted saplings, protected by tree guards and more curving gravel pathways. The area almost looked like it was set inside an old quarry. On the one side there were mature trees yet to the other side it was obvious It had recently been developed. All around people were enjoying the walks and open spaces. It seemed to be an area frequented by dog walkers. In the mature woodland area, the paths were elevated and heading off to the East of the city. Down on the flats there were many vantage points, stones and seats to take advantage of the area.

## 11<sup>th</sup> May 2019

I arrived at the airport in Toronto to take the flight home on the night flight. At Heathrow I connected to Manchester and my trip had come to an end.

## Evaluation of Visits

### **Breezeway at Royal Botanic Garden, Ontario**

**Target Audience:** All ages

It was evident that this area needed to appeal to a wide range of visitors as it marked the entrance area to all of the glasshouses inside the RBG Centre. Spending a lot of time passing through here and working in here to switch over one of the displays I was surprised how many people engaged with this area. Many young children were brought in here to engage with the colours, scents and to establish a connection with older generations memories such as grandparents who were escorting them around. Benches were placed in the corners of this small space and these were often frequented by those over 60 who enjoyed the serenity of the space.

#### **Horticultural exhibits/ displays**

On arrival the main focus in this area was on spring bulbs. These were forced using the forcing fridges in the main compound. The framework was created with a range of mature shrubs which were grown at the propagation house. For the spring display these were set in rows around the edge in an almost formal shape. The spring bulbs used in this area mainly picked for their colour and impact and as such there was little cohesion when it came to colour schemes. I understood that this was mainly to appeal to a wider audience. The use of spring bulbs forced in pots meant that many of the bulbs such as *Tulipa* were pale and in places etiolated with flowers fading quickly. The growing medium in the beds was a very free draining compost with much perlite added, so it meant that little moisture was retained and they needed watering often. The layout of the Breezeway was very formal, with much repetition in places.

#### **Signage, pathways and materials**

The nature of the raised beds around the perimeter was very effective. This allowed the public to engage with the exhibits much more easily and they were all within a line of sight for those entering and leaving the area. Wooden benches placed in front of the exhibits allowed the users to smell flowers such as *Hyacinthus* as they sat and relaxed.

In the centre of the room was a lower bed with a power point underneath allowing Kathleen to add a water feature. Customer feedback had stated that this feature was enjoyed by visitors in particular, as it added a serenity to the space and created a 'zone of tranquillity.' The water feature on the second switch over of the display was a very formal Greek style statue with a pouring jug. This to me had a very formal feel and alas was a little boring for the space. Although the sound of the water was most important, seeing this as you first entered the room did make the space feel a little boring and I felt the colour of the statue clashed with the terracotta tiles and pale rough rock used to build up the border of the centre bed. The raised beds around the edges had a metal edging I felt could have been softened with another material such as a stone cladding to match the centre bed.

The signage particularly for the spring display was excellent and engaging. It assumed that no one had a prior knowledge of spring bulbs and sought to educate users, particularly the school children who frequented the space often. It offered advice about how users could grow spring bulbs and how they had put the display together. It was colourful, and blended well into the display but also stood out enough to be noticed as people walked through.

The paths through the space split into two around the central bed. This worked well as those entering and leaving could go on different sides into the Mediterranean house and RBG Centre. This did prove a problem when it came to switching the displays over as we needed to block one side of the area which caused congestion. Also, the amount of soil and debris on the floor from switching over meant that it was getting carried through on footwear meaning a lot of cleaning needed to be done throughout the switch over. It would have been more useful to close this area, but due to it being the sole entrance from the glasshouses this was not possible.

## Conclusion

The Breezeway is an effective opening space to the main public glasshouses. It is an opportunity to present customers with an impactful display to create a good first impression. As an entrance space I felt like it could have been much bigger to allow a freer flowing movement of customers through it. The tightness of the space meant that switching over displays was difficult and messy.

The range of colours was wide but the diversity of the plants used was quite small. I think this was largely due to keeping the familiarity in this area to connect with the public. It was such an interactive space it was important for customers to look around the space and understand what the plants were so they could discuss this, particularly with young children.



Figure 67. Signage placed amongst bulb display



Figure 66. Liliium Asiatic hybrids (l) mixed with spring bulbs to fill gaps created by spent bulbs



Figure 68. Ranunculus asiaticus 'Aviv Rose'



Figure 69. Looking up to one of the seating areas in the corner of the Breezeway





Figure 71. A colourful central bed in the Breezeway used as a water feature bed and to move visitors around the upper beds



Figure 70. Signage relating to the spring bulb display

## Camilla and Peter Dalgish Atrium Living Wall at Royal Botanic Gardens, Ontario

**Target Audience:** 0- 40 years

The Atrium sits in a building originally designed to be an environmentally friendly space, and as such it has building has Gold status LEED (Leadership in Energy and Environmental Design) certification. The building uses cutting edge design, utilising rainwater for the hydroponic wall system and underfloor heating pipes. Shading is provided over head for summer sun, and the removed to allow heat to enter in the winter and the living wall acts as a humidifier and air filter.

The living wall forms the centre piece at the bottom of the atrium where events are often held for education. The public walks through this area to get to the other parts of the garden, using the lift across the other side. I spent the first few days working here and noticed the age range of those visiting tended to be those up to 40. The main interest came from families and younger adults. Young families liked the green ethos of the building and I spent time with one family who homed schooled their children. Every Friday they liked to bring their children to the botanical garden to teach them something new about a plant. The living wall works on a hydroponic system which is starting to creep into new buildings more and more not just in North America but around the world. The wall was some 12ft high and allowed the public to view it from the top and bottom. You can also walk right up to it with no barrier, so it provides an exciting interaction for younger generations. Students and school trips seem to enjoy this area, as the seating at the bottom allowed people to spend more time around it.

### Horticultural exhibits/ displays

The living wall is a fully immersive display and I feel like it evokes many senses. You have the sound of the water trickling behind the membrane and pooling above the pump at the bottom, drips falling from the foliage onto plants beneath and bright foliage colours and flowers. The plants were sourced from growers in Florida and feature a range of what we would commonly refer to as houseplants, however these have been selected for the colour and vibrance. There were many colours, with plants like the *Codiaeum variegatum* tying the varying types of foliage together. When we planted up the rejuvenated wall, the contractor suggested that we grouped together variegated foliage to make the surrounding plants 'pop', and I feel this was effective. The living wall displayed how houseplants can be grown with relative ease without any need for soil and the fact that the majority

were so recognisable but with the odd tweak in cultivar meant that this exhibit was instantly relatable.

**Plants used:** *Aechmea 'Del Mar'*, *Codiaeum variegatum*, *Chlorophytum comosum*, *Schefflera arboricola*, *Ficus elastica*, *Ficus elastica 'Variegata'*, *Dracaena deremensis*, *Dracaena fragrans (Deremensis Group) 'Lemon Lime'*, *Philodendron selloum*, *Ficus bejamina*,

### Signage, pathways and materials

The path into the atrium was through the main RBG centre, and anyone who wanted to visit the wider gardens needed to go through this room in order to access it. This meant that there was a lot of footfall in this area. The pathway was clear down to the living wall, with two staircases on each side. Although there was signage relating to the purpose of the atrium space there was little in the way of signage to explain what the living wall was for. As the rejuvenation of this area had only happened when I was there it's possible signage would be added later. I felt like it would be good to explain a little more about the hydroponic system that the public could not see. Also, throughout the RBG there was no signage relating to its position. There had been some media around the living wall with videos posted on Facebook but it would have been good to put some signage up while we were building so annual pass holders could have been more aware. A good idea for the future would have been to add a list of the plant names so others could attempt to grow at home. Plants could even be up for sale on the 'Gardeners Advice' kiosk in the main atrium.

### Conclusion

This is an amazing addition to the Royal Botanic Gardens, and it offers a real talking point for all the visitors. It displays an innovative approach to growing plants in a different way, and in a way, which is being repeated more and more around the world. I think the content of the living wall was just right, with a balance of colour and lush green foliage. Not only that but I think it was on trend too with a tropical theme. It's a great exhibit to show the evolution of horticulture and did need some further signage. The atrium did lack colour and draw, although elsewhere there were plenty of potted plants, but the overall atrium needed more colour and not just from the wall. As it was used as an event space, I think its dual purpose is what drew it back. Looking at the content of the potting mix it did appear that peat was used to grow the plants. As this wall and area had more of an environmental focus, I thought it would have been nice to have sourced the plants from a peat free source, especially as the plants had their soil removed once they arrived on site anyway. I understand the logistics of this may have been difficult, but it could have been a nice talking point or maybe the plants could have been brought in without soil seen as they were to be grown hydroponically anyway.



Figure 73. Looking towards the top of a part finished living wall



Figure 72. The finished living walls





Figure 75. Finished left side living wall



Figure 74. Progress on the left side living wall with volunteer Ann, supervisor Kathleen and contractor Monique



Figure 78. Further planting progress



Figure 76. Me planting divided *Ficus benjamina* into the living wall



Figure 77. The tired old living wall showing the protruding growth

## Cacti and Succulent Collection at Royal Botanic Gardens, Ontario

**Target Audience:** 16 +

Cacti and Succulents arid appearance means they have little appeal to a younger audience. Although the spikey are interesting it's not something that parents would encourage children to engage with so it was evident that they didn't tend to dwell in this area. Adults tended to like the varying sizes and shapes of the structures and particularly the variegated specimens.

### Horticultural exhibits/ displays

The cacti and succulent collection borders the Mediterranean glasshouse and sits in a pocket on the side, with a stairway to one side leading up to the 'upper med' area. It is a small area, about 10 x 3 metres long, with some collection staggered in pots from the entrance to the Med house. The collection was quite small and really only enough for somebody to look at for ten minutes or so. The majority of the exhibit was on two long raised borders in very free draining compost which was screened off on one side with Perspex to prevent the public from touching some of the exhibits. The majority of the public walking through this area visited it specifically, as it didn't really lead in any



one direction other than another route to the upper med garden. I got the impression that the annual ticket holders didn't visit this area frequently as there was little change in the appearance of the beds because of the slow growing nature of the area, however it presented interesting facts to new visitors that could be used for school children also.

**Selection of plants used:** *Agave titanota*, *Euphorbia lactea* 'Cristata', *Echinocactus grusonii*, *Agave gentry* 'Jaws', *Agave lophantha*, *Euphorbia ammak*, *Euphorbia greenwayi*, *Agave angustifolia*

### **Signage, pathways and materials**

Certain specimens like *Echinocactus grusonii* were highlighted on 20 x 25 cm signs positioned at the top of the raised beds. Detailed on the signs was information about its native country and historical information. This was a good way of engaging with the exhibit although if the signs appealed to a younger audience then this may help lead a different target audience into the area. The pathways lead from the Breezeway towards the left where the behind the scenes propagation house was. The path then leads around the area to some metal steps to the upper med garden. The pathway was wide enough to accommodate wheelchairs and pushchairs but the fact that there was no through route out of the other side meant that this audience didn't enter the area. The Perspex looking through into the beds was transparent to allow smaller children to see through although I didn't feel it was needed as it was no more dangerous than the bed that was unprotected on the other side.

### **Conclusion**

The Cacti and Succulent area was overall informative for such a small exhibit. The use of signage to tell a story about some of the more unusual exhibits was a good idea, and situating them on a pathway through to another area was effective although it could have been closer to the door. The location of this area could have been strategic due to most of the plants being dangerous to young children, and they were situated in an area that halted you as you walked through which would stop children running. The use of the Perspex, raised sides was a good one as it protected some of the plants, however it did create a visual barrier which seemed to put a few people off looking. The more engaging side was the side without the Perspex, which was at waist height and was visible coming down the steps from the upper Mediterranean garden. Using the corrugated metal on the raised beds gave the area a somewhat industrial look, and I feel like a plainer, smoother material would have softened the area a little more and drawn the eye up the plant exhibits. Some of the signage was a little small which did prevent some older customers looking too far down closely at it. I couldn't see this area hosting many events due to its size but I had seen regular updates on Facebook about the collection relating to using *Agave* for Tequilla, or when one would flower. In terms of maintenance for the staff, this area really took so little and we didn't spend any time working on it.



Figure 83. *Mammillaria candida*



Figure 81. *Pachypodium lamerei*



Figure 82. *Euphorbia ammak*



Figure 79. Entry raised bed in the Cacti and Succulent area



Figure 80. The best looking bed next to the stairway to the upper Med



Figure 84. Raised bed with perspex sides to protect smaller specimens



Figure 85. Informative signage about Cacti and Succulents

## Niagara Parks Floral Showhouse, Niagara Falls

**Target Audience:** All ages

### Horticultural exhibits/ displays

The Floral Showhouse was made up of two distinct glasshouse areas, and one small entrance area. With there being at least 3 areas, it had enough to appeal to all audiences. The main purpose of the Floral Showhouse area was to house the large greenhouses behind the scenes to provide bedding plants and dot plants for the Niagara Parks around the falls.

As you walked into the atrium, there really was something for everyone. A large *Ceiba pentandra* dominated the central planting area, with many tropical plants densely planted around it to give a lush effect. Around each corner were four low beds which took advantage of one window to the outside. Scrolling around one side of the central display was a stream effect water feature with *Philaenopsis* pinned into various points. The central area created such an impact as you entered the main entrance, and really helped to create an intrigue to travel further inside. Because of the size of this central exhibit it was difficult to see where the till area was to get in. All ages were entering the Floral Showhouse, from families with small children to much older people. Interestingly the space was also utilised for wedding photographs. Because it was such an aesthetic set of 'showhouses' it made a great backdrop. As we arrived, a wedding also arrived and proceeded to have a few photographs in various parts of the showhouse. It was such a visual destination and I noticed that other photographers were here also, some at college age and others retirees.

The first 'entrance' area to the two glasshouses was very formal in appearance. There was a heavy use of *Hydrangea* *Geranium* at a mid-level, with *Chlorophytum comosum* and *Hedera Helix* giving a cascading effect over the bottom edge of the displays. The formal area set the precedent for the next glasshouse and there was a large Greek, bright white-water feature as a centre piece. This was similar to the one used in the breezeway at RBG. Although the white did compliment the whites of the *Hydrangea* it also made the area more appealing to older generations who perhaps appreciated a more traditional water feature design. There formality was intensified by the layering and matching of the colours in the display to the stone work patterns on the floor. The water feature seemed to be collecting money and it was nice to see older generations encouraging young children to throw money into the foundation to make a wish. The location of this display made it difficult for customers to linger in the area, and they tended to flow through into the other greenhouses. On the right hand side was a continuation of the *Hydrangea* theme, but the added twist of *Betula* trunks gave a more modern appeal with the blues, pinks and purples contrasting against the bright bark. This area had a wow factor which appealed to all audiences and again many professional photographers were using this space as it was so accessible to them.

Across the central area on the other side was a Cacti and Succulent house (predominantly) which also featured a central feature of mainly variegated houseplants. This was a fairly standard set up for a greenhouse, with waist height benches accessible via rectangular path around the central area. The first sight as you entered the glasshouse was a stepped water feature lined with *Alocasia x amazonica* 'Polly' which I wasn't hugely fond of due to its unnatural appearance. The rest of the glasshouse however I found engaging and exciting. There was a good range of potted Cacti and Succulents with contrasting leaf shapes and textures, often grouped together to form groups with varying foliage shades. At the centre, the tropical house plants gave height and structure, and created a barrier from the other side of the glasshouse to allow more shade loving plants to thrive and to create and to create intrigue about the opposite side. As a lover of all things variegated



*Hibiscus tiliaceus* 'Tricolour' took my breath away with its almost all white foliage. *Sedum* in pots were allowed to tumble onto benches in places whilst positioned randomly next to other plants such as *Polyscias fruticosa* and *Spathiphyllum*. Of all the glasshouses this is the one I was least looking forward to but I was actually pleasantly surprised by the amount of content in such a small place and how they had brought a Cacti and Succulent exhibit to life by contrasting with other plants to add emphasis to certain areas.

**Selection of plants used:** *Tradescantia zebrina*, *Betula utilis* var. *jacquemontii*, *Chlorophytum comosum*, *Senecia cineraria* 'Silver Dust', *Asparagus densiflorus*, *Hedera helix*, *Araucaria heterophylla*, *Hibiscus rosa-sinensis* cv, *Manfreda undulata* 'Chocolate Chips', *Agave attenuata* 'Kara's Stripes', *Orthosiphon stamineus*, *Hibiscus tiliaceus* 'Tricolor', *Kalanchoe gastonis-bonnieri*, *Crassandra infundibuliformis*, *Amorphophallus bulbifer*.

### **Signage, pathways and materials**

The pathways into the floral showhouse were very clear, with visible signs in and around the falls. The glasshouses seemed fairly busy and were advertised by the dense planting of bulbs outside and extravagant water feature directly in front of the entrance. Throughout the glasshouses, signage was minimal and, in the *Hydrangea* dominated houses there was little to no signage about the plants their purpose was purely aesthetical. In the Cacti and Succulent house however, there was plenty of signage displaying botanical names, some printed and some hand written. It seemed that this area was kept meticulously labelled as much as possible. The *Hydrangea* areas understandably had no signage due to the density of the plantings and the fact that it was all propagated in the glasshouses hidden behind the scenes. Pathways were made of concrete slabs and were purely functional, however there was stone cladding in places to mimic a drystone wall effect. I wasn't entirely sure why this was the case other than to perhaps provide some kind of textural contrast or to detract from the greenhouse frame.

### **Conclusion**

The floral showhouse was a pleasant surprise. Initially before visiting I imagined that the showhouses would be entirely full of plants in a formal display but the botanically displayed Cacti and Succulent collection acted as a good contrast. I didn't expect there to be such a large exhibit in the entrance area, but it really did create an intrigue for visitors arriving in the entrance area. What the Canadians seem to use quite heavily is groups of variegated foliage. In gardens and glasshouses in the UK this use is nearly always separated, presumably to stop the busyness created by the mottled foliage and contrast. In Canada, they seem to group these together and it was mentioned to me by the owner of the living wall company that they do this to make it 'pop.' It creates a vibrancy that draws in the eye, although admittedly it can be a little busy for some. The formality of the *Hydrangea* beds does seem to appeal to Canadians in particular who enjoy a connection to UK gardens, in particular Victorian gardens. The *Betula* used in one of the glasshouses added a modern twist which highlighted the colours in a different way. I feel that signage was quite lacking overall in the glasshouses. It was often unclear which direction we were to move in next throughout the glasshouses, with no explanation of why displays had been put together in a certain way, or even factual information about how many plants there were, man hours taken to care for the plants etc. This would have added an extra level of engagement and appreciation of just how much work goes into putting them together, which I feel often goes unnoticed. There seemed to be little to no information about any events that might be on over the next few months. I was aware that the

displays changed over every so often but there was no real advertising of this and the Niagara Parks guide only detailed a basic summary of the area.



Figure 90. *Amorphophallus titanum*



Figure 89. Looking up towards the back of the mixed display greenhouse



Figure 88. *Crossandra infundibuliformis*



Figure 92. *Amorphophallus bulbifer*



Figure 94. *Ceiba pentandra*



Figure 93. First large glasshouse



Figure 91. Unknown *Hydrangea* simply labelled 'purple'



Figure 87. Entry planting area



Figure 86. Unknown *Hydrangea*, labelled 'Blue'





Figure 96. The central bed in the second glasshouse



Figure 95. The captivating *Hibiscus tiliaceus* 'Tricolor'

## Niagara Parks Butterfly Conservatory, Niagara Falls

**Target Audience:** All ages

The Butterfly conservatory was reflective of most of Niagara Parks in that it has people from all ages there. It had a strong tourist drive to it with some heavy commercial aspects on arrival such as a super imposed photograph with a butterfly in your hand. Sitting on the side of the Butterfly Conservatory was the Niagara Botanical Garden where their student program was run. It was accessible to many students who tended to it as part of their study program. Inside there were many families milling around, using the gift shop and being tempted into the conservatory via large glass windows from the main atrium looking through to the main house. Older couples and student showing around their families filled the butterfly conservatory. This exhibit really did appeal to all ages and allowed the public to connect with nature at an interactive level. Admission was relatively low or could be purchased as part of a combination ticket. Around the butterfly house there were food tables at varying heights for the butterflies. This allowed the public to view them at different heights depending on the age, and they were kept far enough back so that they couldn't be disturbed. Signage in the form of botanical name tags was used in various places which provided interest for older audiences.

### Horticultural exhibits/ displays

The main focus of the display was centred around flowering plants for butterflies, and foliage to provide resting spots and cover. The butterfly conservatory spun around in a circling path to a central point, with different levels and resting spots. In the centre was a manmade waterfall which was done very tastefully and actually looked very realistic. In one spot, there was a Greek inspired white statue similar to that in the Floral Showhouse and this was the only thing I saw out of place. Raised beds were used with realistic stone cladding had groundcover plants cascading over the edge to soften the appearance on the eye. Compared to the other glasshouses I'd visited I would say that this glasshouse had the smallest amount of content with much more repetition. Because of that in some ways it had a much more natural feel and its limited selection of plants was related to the fact that its primary purpose was the provide nectar for the array of butterflies. The plants also acted as natural resting points for the butterflies and so they needed to provide structure and texture for butterflies to sit on at varying levels for the public to view.



**Selection of plants used:** *Petrea volubilis*, *Alpinia vittata*, *Pachystachys lutea*, *Dyopsis lutescens*, *Pandanus utilis*,

### Signage, pathways and materials

Signage relating to actual plants and displays was minimal with it only really being there to point out the plants in the glasshouse to keen horticulturists. Because of the link to the Niagara Botanical Garden where the students were based next door, I feel that the tags were there to help them catalogue and better inform their students. There was no signage on the paths or elsewhere relating to where the public could find particular plants and little link between the butterflies and their food source being the flowers. Pathways were done well and they flowed from the entrance point in the conservatory through an around the whole conservatory to a central point, from there you could loop back around or crossover to the other side. This tended to be the main point the public would pause and take a seat, often looking up about at the abundance of butterflies dancing around them. In the central area were large boulders which had been placed as large edger's but also doubled up nicely as seating for those wishing to rest.

### Conclusion

The Butterfly Conservatory offered a great spot for people to experience something that would not normally get to do, and a rest bit from the chaos of the falls and surrounding areas. It actually had far more horticultural content than I had originally anticipated, with much more continuity in the plantings. The plants in the conservatory were planted much more for height and structure as opposed to some of the other places I had visited where lots of different things were crammed into one space. There was little offered by the way of events at the conservatory and space was limited inside due to it being laid out only to pathways. The main draw for the conservatory was the butterflies and everything else was secondary. Speaking to some other locals they had no idea about the conservatory and I feel its placement away from the falls had its advantages and disadvantages. On one hand it offered a hidden oasis away from the main tourist zone but on the other hand perhaps it wouldn't be utilised as much as people would have to drive out to it or use public transport. The conservatory was an add on or extra to the botanical garden next year and I believe that it offered an extension to the student's studies and a chance to research the butterflies as part of their work.



Figure 98. Butterflies on one of the feeding tables



Figure 97. Seating area through on of the main central pathways



*Figure 103. Looking through one of the planted beds*



*Figure 102. A tatty but beautiful butterfly pausing flight*



*Figure 101. Colour and structure from mature plantings*



*Figure 100. Naturalised rock waterfall forming a centrepiece in the conservatory*



*Figure 99. Me and my fantastic cousin-in-law Andrea*

## Toronto Botanical Gardens, Toronto

**Target Audience:** Age 18- 50

Of all the places I visited it was clear that this garden was the most modern of them all. Whereas a lot of what I'd seen previously had a degree of formality, there was a much looser and more modern feel to the Toronto Botanical Gardens. The entrance area was planted by Piet Oudolf, and although there was little to see, my experience of Trentham had led me to anticipate some of the plants in this area which was matched by what was actually on display when I got there. The use of an innovative designer appealed to a serious horticulturist who was of an age where they may have studied them or come across them by visiting various gardens around the world. There was a small formal area and formally planted bulb display but this formed a small part of the offering and was perhaps included to appeal to the older audience. The way that the Toronto Botanical Garden tied into the neighbouring Edwards Park meant that it was much more accessible to families who may have been using the amenity space next door for picnics and drifted through to the Botanical Gardens. The free entry allowed a degree of accessibility too, as did most of the public gardens in Canada and therefore it made it much more accessible to a wider audience. The commute to the

gardens was achievable, taking about one hour from city centre on the subway and various buses as well as there being a large parking lot on site.

### **Horticultural exhibits/ displays**

The winter had lingered for some time in Canada and as I arrived in the gardens the weather was beginning to show signs of warming up and it was a glorious day. Although spring was now in full swing there wasn't a huge amount to see which I feel the gardens acknowledged. As such there was a wide array of varying types of *Tulipa* and *Narcissus*. On arrival, the entrance area was a Piet Oudolf planted welcome area, and there were signs pegged in situ denoting the plants he had used. In some places like Trentham this was frowned upon more so as the design would not want to be shared on this level so it was refreshing to see this level of engagement with customers. It felt as though the area had just been cut back so it was hard to judge to winter impact and I wondered if the bulbs that had been placed throughout the design had been chosen through consultation with him. *Acer griseum* shone through his design more than any other plant I'd see, with its glistening bark reflecting brightly in the morning sunlight. Its structure and colour were most welcoming. To the side of the welcome centre were disjointed areas of hedging which were used to create structure and shelter around the entrance as well as holding benches for customers to sit in. The *Fagus sylvatica* 'wave' style was almost exactly the same at Trentham on the edge of their Floral Labyrinth except in shorter rows. The hedges contained a metal framework which I felt was a little over industrial for the design. The visitor centre was clear and contained lots of information about workshops and events although it was clear that the gardens steered clear of engagement with younger children. Elsewhere there were mass plantings of *Euphorbia myrsinites* tied in with *Tulipa* 'Fire of Love' providing a bright contrast between acid green, lemon, white and red. A *Magnolia x loebneri* was the focus of much attention as its luminous bright white petals were putting on quite the show against the clear blue skies. For many Canadians this would be some of the first blossom they had seen and it had swarms of people surrounding it taking photographs. In one corner of the gardens there was a garden which would be normally filled with hardy annuals dedicated to growing for bees. Next to it the small glasshouse and then further around there were a small courtyard area.

**Plants used:** *Narcissus* 'Lemon Glow', *Narcissus* 'British Gamble', *Narcissus* 'Jamestown', *Narcissus* 'Prom Dance', *Narcissus* 'Pueblo', *Narcissus* 'Loveday', *Tulipa praestans* 'Shogun', *Tulipa* 'Havran', *Tulipa* 'National Velvet', *Tulipa* 'Angels Wish', *Acer griseum*, *Larix decidua* 'Pendula', *Magnolia x loebneri* 'Merrill', *Sempervivum calcareum* 'Sir William Lawrence', *Iris pallida* 'Variegata', *Euphorbia myrsinites*, *Salix elaeagnos*,

### **Signage, pathways and materials**

Of all the gardens visited there was a vast array of different materials used here, most of them smooth and elegant giving modern feel. The materials were light and helped to give the illusions of space. Such as large smooth pavers, raised metal edged beds and pale-dry stone wall inspired brick work. The welcome building had a simple and modern design with large windows. All around there were paths made up of bricks, cobbles, gravel. So many different materials and textures were used in different ways to show case areas in certain ways. In the Garden Hall courtyard there was a sunken garden with a beautiful sunken stream running along the bottom and a stone bridge. The sheltered space was used for growing tender perennials and shrubs and double up as an outdoor space for gatherings. Signage was abundant, with hundreds of small black neatly labelled signs denoting almost every single plant on display. These we also left in situ throughout the seasons, clearly showing where certain plants were about to pop up as it moved into spring. I always like to encourage the use of signage where possible but I felt that leaving the signs where they were was a



little off putting when looking at the borders. So early on in the season when everything was so low to the ground, the eye was just obstructed by the sheer volume of signs, and needlessly in some cases. What was useful was the use of labelling around groups of bulbs or which there were so many. There were useful, informative signs about certain areas of the garden with designs and small drawings. Each of these was placed and used perfectly. Pathways were clear and wide enough to accommodate various streams of visitors. What I also liked is how they sprawled out in different directions inviting visitors into different areas some of which appeared secretive and mysterious as they were shrouded by shrubs or trees.

## Conclusion

My experience of Toronto Botanic Gardens was an excellent one. The garden was clearly signposted and accessible from the city and offered an exciting modern experience for those that passed through. It is an excellent idea having both the gardens and park next to one another which encourages a much wider audience across the two places. There was plenty of content in the gardens even so early in the season although it was mainly from spring bulbs. There was a professional feel to the place and a good level of detail put into the maintenance and presentation in all areas. There was a steady flow of people coming in and out of the gardens even on a weekday. The garden was utilised for events but these tended to be from weddings and parties which were set in the garden courtyard and then external groups could use various spaces inside the visitor centre. The branding surrounding the garden was clear but I couldn't find much information about how it had got to that point and why it existed.



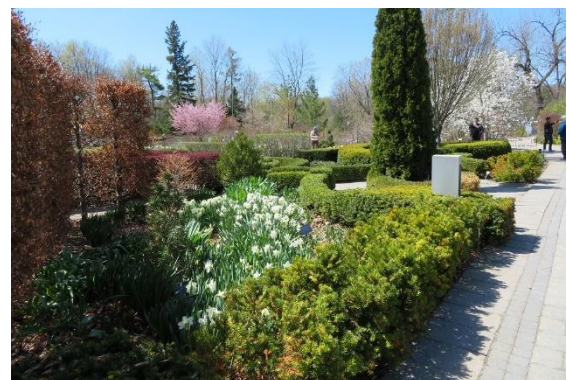
*Figure 105. Well selected Tulipa and Narcissus outside the welcome centre*



*Figure 104. The main welcome centre and beginning of entrance planting including botanical name tags*



*Figure 107. The edge of the Beryl Ivy knot garden*



*Figure 106. The Beryl Ivy knot garden*



Figure 108. Clear branded signage showing plans with an explanation of the area



Figure 110. Tulipa praestans 'Shogun'



Figure 109. Signage amongst the bulb display



Figure 112. One of the function spaces on the edge of the courtyard garden



Figure 111. The courtyard gardens

## Edwards Park, Toronto Botanical Gardens, Toronto

**Target Audience:** All ages

The park, like many in the UK was there to act as an amenity space for all ages. Unlike UK parks there was nothing in the way of play equipment for children and I got the impression its purpose was the engage with children on a natural level away from the distractions of play equipment. A small 'teaching' garden on the far edge of the park was used to appeal to children and engage them through tending to their own allotment plots and seeing how plants grew up close. There was an array of sprawling pathways throughout the gardens, skirting in and out of riverways and across bridges. There were benches for people to use and little alcoves surrounded by deciduous trees and hedging and vast areas of open close-cut grass spaces. On the edge bordering the botanic gardens there were formal beds on the edge of an area of deciduous trees with an ornate water feature

**Horticultural exhibits/ displays**



There was little in the way of specific horticultural displays. The park land was mainly made up of wide grass expanses for people to play games or picnic on. There was an area planted out with a mix of *Tulipa* and *Narcissus* which followed through a woodland glade at the top of a sloping grass area. Throughout the woodland area was a mix of deciduous trees and conifers.

### **Signage, pathways and materials**

Signage was good with many post containing maps of how to get around the park and where you were situated in comparison to where the botanical garden was. In the 'learning' garden there was a sign talking about a bug camp. The bug camp was an area of long grass and the sign acted as an informative piece of information to children and adults who may not be keen on seeing long grass in what is traditionally a short grass area. There were no plant labels but this was not the nature of the park with its primary focus being on providing outdoor space for people living inside the city. Pathways were a mix of pressed gravel, paving and grass which were well kept to keep the flow of traffic moving freely throughout.

### **Conclusion**

The park offered a good contrast between the botanical garden next door. I was unsure where the link was between them or which came first. There was a very open and free feel to the park and it seemed to be used by so many people who seemed as though they were very familiar with the area. It was very much a local's park and there were many dog walkers here. I wouldn't say that it broke any boundaries in terms of horticultural content but this is what the botanical gardens was next door for. In comparison to the small spaces the botanical gardens had the park presented wide expanses with little feeling of constriction.



*Figure 114. The teaching garden showing school plots*



*Figure 113. Unknown Rhododendron at the top end of the park*





Figure 116. Formally planted transition from Toronto Botanic Garden into Edwards Park



Figure 115. Creek running through the middle of the park

## Rosetta McClain Gardens, Toronto

**Target Audience:** All ages

With it being a parkland, it had much appeal to different ages although from walking around it was obvious that there were lots of retirees using the gardens and this was largely due to there being retirements villages nearby. The open views across Lake Ontario attracted people writing and drawing but they were not really focussing on the park space itself. There was some play equipment for children on the edge of the gardens but it had a disconnect from the gardens and there wasn't really very much for people to see over spring time which seemed to lead many people to do a lot of walking around the parameter and not really looking inside.

### Horticultural exhibits/ displays

I think this is one of the things that let the garden down most of all. The main focus of the garden were pergolas with climbing roses and perennials. There was so little content throughout. They could have focussed more on evergreen shrubs or winter / early spring flowering shrubs but there was virtually nothing to see other than the structures that held them. At the centre of the pergolas was a large boulder which did add structure and drama but there was nothing to compliment it or set it off. A little effort had been put into some formal flower beds at the entrance from the car park, with a small amount of *Tulipa* poking through. The conifers throughout the main pathways on the perimeter were pleasant to look through. I found myself very switched off by the garden and very unclear what its message was.

### Signage, pathways and materials

Signage was not great. Even the sign on arrival didn't denote what the gardens name was, merely a link to the Toronto City management. I could not find any signage relating to who Rosetta McClain was or what the story of the garden was which I feel was so important when naming a garden specifically after somebody. What's more there were no explanations or signage relating to any of the structures or hard landscaping. The only real signage related too many memorial trees which were peppered around. Many of these had fake flowers and shrubs attached to them. I understand

the need for memorial trees but I didn't understand why fake flowers were used or why the city was encouraging the use of plastics in an open space near large expanses of water and wildlife.

## Conclusion

It's probably evident that I was most disappointed with this garden. I'd travelled quite far out to see it from my previous destination and I was confused as to whether I was even in the right place when I arrived. There was such a stunning view of the lake on one side of the garden but these were underutilised views which were covered by weeds and ugly metal mesh fencing. The story was not clear and I had the feeling it could have been a memorial garden but the fact it was not explained made me feel that there was little respect to the person it represented. The garden was way out of the city, with the skyline visible in the distance and this led me to believe that maybe it was a little forgotten because its place was so far removed from the centre.



Figure 118. The entrance to the Rosetta McClain garden



Figure 117. Pergola structure forming the centre piece of the garden



Figure 120. Couple enjoying the fine weather



Figure 119. Formally laid bulb planting on one side of the park

## Toronto Music Garden, Waterfront, Toronto

**Target Audience:** 16+

This garden was one of the highlights of my trip even though it was a last minute add on to my itinerary and there wasn't a great deal that could be found out about it before I arrived. The garden appealed to most people of young adult age and above and its wonderfully accessible paths meant that a wider target audience was in mind. There were excellent links from downtown on the land train to the harbour front, commuters working on the edge of the business district could use the garden as a sanctuary and yacht owners were able to use the garden once they had docked nearby. The design of the garden was new and innovative, based on Bach's Suite No.1 in G Major for unaccompanied cello. There were twists and turns some hidden from sight. The majority of the garden was planted up with native species but with large drifts of *Narcissus* and *Tulipa* providing colour. There were open areas of cut grass on varying levels and tiers to provide shelter and sanctuary for those picnicking and there were some lovely open views across the harbour. For families, small children and enthusiasts it also presented a spot for them to watch the nearby small airport planes taking off and landing as well as the array of boats docking into the harbour.

### **Horticultural exhibits/ displays**

Each area in the garden is inspired by a different part of the First Suite for Unaccompanied Cello composed by Johann Sebastian Bach in 1720. This split the garden into seven distinct areas which flowed through into each other but also represented a different feel depending on each part of the musical piece as below:

**Prelude-** An undulating riverscape

**Allemande-** A forest of wandering trails

**Courante-** A swirling path through a wildflower meadow

**Sarabande-** A Conifer grove in the shape of an arc

**Menuett-** A formal parterre garden of flowers

**Gigue-** Giant grass steps that dance you down to the outside world

The concept of the garden I felt was inspiring, and if anything reminded me of the kind of garden you would see presented at RHS Chelsea or another RHS show. Walking around the garden you could feel the connection with the music, the sweeping curving pathways invoking a feeling of creativity and being led by the music. It didn't matter that the garden wasn't abundant with flowers or foliage at the time of year because your eye was only drawn to what was there because of the use of shade and structure with deciduous and evergreen trees/shrubs. Within the garden I had my first sighting of *Trillium grandiflorum* and it was pure magic shining through the clearings and dancing on the wind, a beautiful site in the state where it is welcomed as its native flower. In some ways it was a shame I didn't get to see the gardens as abundant as they would be later in the spring or summer but it did mean that I got to see emergence of fresh new growth and the promise of what was to come. In this state I could see it stripped back to its bare bones and the fact that I found such enjoyment and tranquillity in the garden shows that it's a real success in my eyes.



**Plants use:** *Trilium grandiflorum*, *Pinus strobiformis*, *Lamprocapnus spectabilis* 'Alba'

### Signage, pathways and materials

The pathways were a real success here. Like much of the public pathways in Canada these were put together using a smooth concrete in blocks. The smoothness of the pathway added to the wonderful flowing feel of the twisting and turning. Using the same material throughout actually gave some continuity to the garden and it didn't really need any texture adding in. There was good signage on arrival and at each entrance of the garden there was an explanation with a map. As you flowed through from one end to the other there were more signs explaining each part of the garden, some with accompanying poems or quotes relevant to the space. Railings were used to keep the public off the garden in certain places as well as notices making people aware that the public or dogs should not be in those areas. Another quirky feature of this garden was the use of metal frames on posts which were added for the public to pose for photographs behind or in front of. This then helped to advertise the garden on social media outlets which trend well in a city environment. The use of ornate frames and fencing helped to keep the feel of an old-fashioned garden, yet the modernity of the curved paths and beds added a different twist. In one central area there was a beautiful natural water feature which was made up of several large stone boulders with a pool bored out of the middle. I stopped there for a while and watched as birds bathed in it and admired the tranquillity of this city space.

### Conclusion

Getting a city space like the Toronto Music Garden must have taken careful planning and a clear vision and this is certainly clear when you walk through. So much thought has been put into the clear signage and flowing nature whilst being sympathetic to the landscape on the edge of the harbour. There was a steady flow of people walking through including commuters and dog walkers. For a garden maintained by the city it was done surprisingly well and I even saw workers working in the area as I walked around. The garden appealed to so many and also hosted music concerts, weddings etc in the grass step space. There was space for a small stage and amphitheatre type design to the steps which would have fit in a small crowd. It felt that the space was relatively new and had been put in with the development of the harbour space further along, perhaps to attract wealthy yacht owners onto the shore line to explore the city. The content in the gardens appeared good from what I could see and many evergreen shrubs and trees were used to create shelter throughout the year.



Figure 122. Entrance to the Toronto Music Gardens



Figure 121. Cardinal bird enjoying the garden

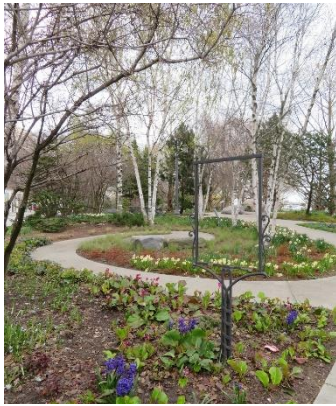


Figure 124. Themed frame to encourage photography and social media

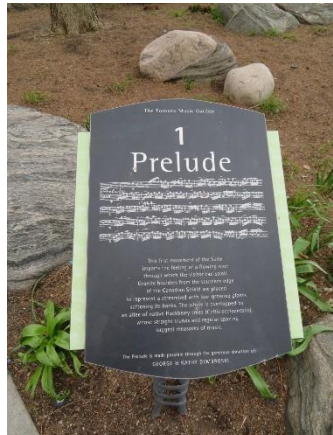


Figure 123. Clear signage displaying the theme of each area



Figure 125. Garden incorporates the waterfront and CN tower backdrop



Figure 127. The 'Menuett'



Figure 126. Swathes of Narcissus adding vibrancy on a dull morning





*Figure 130. At each end of the garden there was clear signage*



*Figure 129. White Narcissus with a deep orange cup contrasting with the Betula wonderfully*



*Figure 128. Densely underplanted Cornus drummondii*



*Figure 132. The amphitheatre and CN tower in the background*



*Figure 131. Smooth, sweeping pathways*

## Allan Gardens Conservatory

**Target Audience:** All ages

Allan Gardens was the most accessible of all the gardens in Toronto being within walking distance of downtown it sits in an area known as 'The Garden District.' On first approach, Allan Gardens is seen slightly dwarfed in the middle of the hustle and bustle of the skyscrapers around it surrounded by a small park. The entrance is planted up with formal bedding on arrival to the very extravagant domed entrance. The exhibits vary between tropical, unusual, formal, quirky, lush and exuberant. There really was something for all to see whether your interest was in Victorian style bedding or bright and bold variegated foliage. There were around themed glasshouses although there was no clear theming message. There were no real exhibits to engage with small children but all of the glasshouses were engaging and planted at all different levels with sprawling pathways and exciting hiding areas for children to walk through.



## Horticultural exhibits/ displays

The initial entrance display was planted out for opulent effect. On arrival you were greeted with dense tropical foliage which was underplanted with a seasonal display of bright *Hydrangea* and *Hedera helix* 'Glacier'. There was a very cold feel to this colour scheme which I assume for most was a real crowd pleaser. The formality suited the story of the beginnings of the Allan Conservatory which was built in the Victorian era. Contrasting the entrance area, a turn to the right from the central area led you down a ramp into lush area of foliage through to raised beds planted seasonal spring bulbs such as *Tulipa* and *Hyacinth* interspersed with *Narcissus* 'Thalia'. At one end was a pool of water with Greek statue water feature of Leda the Queen of Sparta at the centre. This was a little oddly placed with being at around shoulder height. Although there was signage relating to her, I wasn't entirely sure why it was in position in the first glasshouse, or its relevance to the rest of the displays. The next glasshouse seems to be themed towards bright and bold foliage with *Codiaeum variegatum* var. *pictum* acting as a focal dot plant. Path ways snaked along a rectangular glasshouse with a glass Orchid case at one end leading over a metal bridge with water wheel and Turtles swimming in the pool below. On the other side of the bridge a vast collection of varying bright Bromeliads. The next few glasshouses were filled with an array of mature tropical foliage and flowering plants specifically with contrasts between green and burgundy foliage and bracts. This glasshouse flowed through to a very small cacti and succulent house with potted and hanging specimens planted all around.

**Plants used:** *Magnolia grandiflora*, *Ligularia tussilaginea* 'Aureo-maculata', *Cupressus torulosa*, *Callistemon viminalis*, *Blechnum gibbum*, *Ruellia makoyana*, *Elettaria cardamomum*, *Sansevieria cylindrica*, *Pachypodium lamerei*, *Myrtillocactus geometrizans* 'Cristata', *Kalanchoe pinnata*, *Aloe marlothii*, *Kalanchoe beharensis*, *Cryptocereus anthonyanus*,

## Signage, pathways and materials

Signage was good on arrival with a clear explanation of why the conservatory was there including old plans and news articles about its construction. Throughout the conservatory were some tired and old signs, some so old that the names had now changed. The signage was basic about plant groups such as 'Banana' and 'Palms' with a primary school level explanation. The disappointing thing is that there was no explanation about how or why exhibits had been put together or indeed any directional signage. Some plants were labelled in places but they were not necessarily the statement plants that people would want to know about. Pathways were smooth and inviting with good accessibility for disabled. There were features in the glasshouses that I felt weren't sympathetic to the Victorian design such as imposing metal railings, crazy paving and poured concrete floors. It almost felt like a clash of many years of development.

## Conclusion

There was such visual stimulation in these small spaces for those living in the city. They were so accessible to all through their free entry policy and easy access from downtown. Areas were planted up well with a mixture of mature and newly planted areas. There was something to appeal to almost every age with the appeal for people to come back over again to see something different. There should have been more seating areas for people to enjoy the spaces as I feel it would lend itself well to an educational setting where people could learn and draw in the spaces. There was no mention of any events in the space and this would be due to the size restriction.



*Figure 136. Tulipa densely planted on the entrance to the Conservatory*



*Figure 133. Allan Gardens Conservatory entrance*



*Figure 135. Entrance dome with feature Hydrangea display*



*Figure 137. Looking up into the dome*



*Figure 134. Bougainvillea 'African Sunset'*



*Figure 139. Bedding plants in one of the side glasshouses*



*Figure 138. A lush palette in another side greenhouse*

## **The Brickworks at the Don Valley River Park, Toronto**

### **Target Audience: 4- 40**

On arrival it appeared that the target audience would be much wider. There was the promise of pathways and walks but after walking around the visitor centre looking at the signs etc it was evident this was very much a learning space. Within the centre there were groups of children ready to be escorted around on guided tours and then further around on the paths there were more groups of children being led around the site, moving through different workspaces and pausing around wildlife areas such as ponds and bird boxes. Appealing to younger generations in this area makes sense as the aim is to teach others about sustainable living, recycling and utilising the space in cities to encourage biodiversity. As such there were exhibits such as a living wall and a rainwater garden which showed people how water could be collected easily and re-used for other purposes. There was a definite industrial feel to the place as the Brickworks had once produced many of the bricks used to create some of Toronto's iconic buildings. Therefore, it was fitting that the building had been recycled and reused as best possible without too much development. There was an element of rawness about the place, showing how things had been stripped back and this starkness helped to keep the messages they were trying to convey in each area clear. The Brickworks wasn't just appealing to children but I feel there was a strong focus on showing the Millennial generation what they could achieve, to inspire and get people creative when it comes to recycling and considering their daily actions and the impact on the environment. There were recently developed pathways for walks in and around the Don Valley but these were yet to establish in most places. There were newly planted saplings planted onto hillsides to create shelter which had been planted in co-operation with community groups and you could see how this area would become popular over time once established.

### **Horticultural exhibits/ displays**

The focus of each display in the Brickworks centre and surrounding grounds was the promote sustainable living. One area, and Installation piece was a sculpture used to depict the flow of the 5 rivers in to the Don Valley from water shed. The five rivers of Mimico, Humber, Don, Highland and Rouge are shown using metal and moss. The watersheds are areas of land where water from meltwater, rain, springs and streams drain to a common body of water. The piece aimed to show



how animals use the flow of the water and in turn pollinators group around these rich sources of water and nutrients. There was clear signage talking about how Toronto's watersheds suffer from pollution because of drain off from hard surfaces. Similar to the living wall at the Royal Botanic Gardens there was to be a living wall at the Brickworks. The external 'skin' would moderate the internal temperatures, conserve energy and act as a palette for art in the community. Individual metal panels will be interchangeable, giving artists a chance to create living visual pieces with can change with the individual objectives of the Brickworks. A second living wall was included inside the centre with small tropical house plants individually labelled with the names and groups who made the 'Evergreen' facility at Brickworks a reality. On the site of an old clay quarry, surrounding walks showed a variety of habitats including wetlands, meadow and forests where native wildflowers thrived and included links to the industrial past and how the landscape may develop in the future.

### **Signage, pathways and materials**

Signage at the Brickworks was vitally important for clearly interpreting the message. Even though there were many visual prompts, this space was very much about educating people and creating powerful messages with words. As soon as I arrived there was a clear map of the area and explanation about what the building was and the message it was trying to take forwards. There was an informative visitor centre with a reception guide and signage throughout. Horticulturally there was little to see other than out on the walks where things had yet to establish. Even though there was no direct link with plants it's important to note that the overall purpose of the area was to promote sustainable green living which in turn would create better environments for our plants and wildlife.

### **Conclusion**

The Brickworks on the edge of Don Valley really did show a powerful message about conservation. In a large city where the message could be lost it presented such an excellent journey of discovery for young minds. There was clear signage with excellent branding and clear messages. The renovations were completed sympathetically with a good number of new exhibits to get people interested. The accessibility like all open spaces in Canada was excellent and allowed people to move freely in and out. I feel like the whole centre was a glimpse into the future and that we would be getting much more of these kinds of buildings created in spaces where there was nothing before. Horticulturally there wasn't a lot to see but I feel glad I visited to see what the city was trying to do to slow its polluting effects.



Figure 140. Entrance signage



Figure 141. One of the interactive learning spaces for school groups



Figure 144. Wonderful contrasts from Betula and brick work



Figure 142. Example of some of the park signage



Figure 143. The living wall in the centre, with each plant dedicated to a beneficiary



Figure 146. Looking back towards the Brickworks from the pathway



Figure 145. Reflection areas leading on from the boardwalks

## Conclusion

When I set out planning this trip originally it was after visiting Vancouver and being inspired by the green ethos of the city and the relationship between the city and its dramatic surrounding landscape. I was so eager to find out how Canadian's engaged with horticulture. What I found is that Canadians have a deep-rooted love of their surrounding landscapes. They celebrate it in everything that they do, be that in Cherry festivals or the 'cottage country' culture of having their lodge out in the country. They are always aware of their uniquely vast and beautiful country and they celebrate the spaces they have and make them available to all with most being managed by the state. They are a nation deeply interested in English culture and gardens with an ever-growing connection to their roots around the world. They are genuinely interested in different cultures, ideas and techniques and not afraid to try different things. I found Canadians to be direct but kind and deeply passionate individuals. Working with Canadians in horticulture taught me that in England we take some things for granted such as the range of plants we can grow and despite our messed-up seasons we really don't have a winter like a Canadian one. The length and severity of the winters in Canada mean that they celebrate the spring and their outdoor spaces like no where in England. They utilise them and respect them and use them at every opportunity they can when the weather allows. There are keen horticulturists in Canada too and I've forged friendships with most of the volunteers I worked with who are so intrigued by my life and career in horticulture. And careers in horticulture are hard to come by in Canada it seems. The majority of opportunities are in arboriculture and horticultural opportunities confined to gardens in and around cities. After talking with students, it was refreshing to see local schemes working so well and it was interesting to learn that the production of Marijuana has led to a massive increase in students seeking careers in horticulture yet there is debate about whether this is a sustainable career long term.

The staff of the RBG were most welcoming and went to so much effort to accommodate me and ensure I settled in and got the most of my experience. I spent my time with a valued member of the team Kathleen from whom I learnt valuable management skills and most importantly skills I can directly apply to display work in glasshouses.

For me, I was so nervous about applying for the scheme and taking a step up in my career. I felt that perhaps it was a little out of my depth or out of my reach but what I found was that your passion goes a long way in any of this and it drives you forward throughout the process of planning and in those moments of nervousness and self-doubt. What I gained from the experience was an understanding of horticulture in another country, learning different skills from a group of people removed away from English techniques and pre-conceptions. I have gained a respect for my surroundings and the opportunities available in England and this has empowered me to carry on learning and progressing in my career. Canadians are so respectful and in touch with their surroundings and their love of the diverse native species they have helped them to understand the limitations of what they can grow and how they can use these native species to create and manipulate their open spaces. Moving into a career with the National Trust this understanding of native species and natural outdoor spaces is even more important. The skills learnt working in glasshouses with displays and tropical plants is invaluable, with unique experiences such as working on the creation of a living wall.

Successfully planning and completing my trip has left me with a sense of pride and confidence in myself that I couldn't have got any other way. I continue into my career in horticulture with more determination than ever and with the knowledge that it really doesn't matter where you go, the passion for horticulture is shared universally.



## Statement of Accounts

<b>Expense</b>	<b>Cost</b>	<b>Total</b>
<b>Air Fare</b> Manchester to Heathrow, Heathrow to Toronto Pearson International Toronto Pearson International to Heathrow, Heathrow to Manchester	£638.23	£638.23
<b>Transfers</b> Taxi from Toronto Pearson International to Burlington, Burlington to Toronto Downtown	£134	£134
<b>Bus Fares</b> Burlington Knights Motel to Royal Botanic Garden x 16 Burlington Knights Motel to Niagara Parks Toronto Day Transport x 4	£40 £21.50 £32.80	£94.30
<b>Accommodation</b> Knights Inn Burlington x 10 nights Super 8 Downtown Toronto x 4 nights	£517 £427	£944
<b>Food</b> At £25 per day for 14 x Days	£350	£350
<b>Gardens Admissions</b> Butterfly Conservatory and Floral Showhouse	£12	£12
<b>Travel Insurance</b>	£32.96	£32.96
		<b>£2205.49</b>
<b>FUNDING</b>		
<b>RHS Coke Trust</b>		£812
<b>Merlin Trust</b>		£800
<b>Personal Contribution</b>		£300
		<b>£1912</b>
<b>Overspend (covered by myself)</b> Mainly to due increases in flight and accommodation costs between submitting quotes and receiving money		<b>-£293.49</b>