

Climate resilient planting for future UK climate conditions



Zac Willitts

**4th - 26th September
2024**

A study tour of the mediterranean and west France researching ways we can prepare for the UK's future climate conditions through planting and design.

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Itinerary

4 th	Full day of travel from Sheffield to Barcelona
5 th - 8 th	Barcelona
9 th	Cultidelta nursery with Enric Sancho
10 th	Barcelona
11 th	Early morning travel from Barcelona to Montpellier, maximising time in Montpellier
12 th	Pepiniere Filippi with Olivier Filippi
13 th	Travel from Montpellier to Antibes stopping off in Marseille for a few hours in the middle of the day
14 th	Ciancavare nursery and Antibes with James Basson
15 th	Domaine du Rayol meeting Jeremy Tritz
16 th	Monaco quarry
17 th	Antibes
18 th	Full day of travel from Antibes to Nantes
19 th	Nantes with Jacques Soignon
20 th	Morning in Nantes and then travelling to International garden festival Chaumont Sur Loire
21 st	International garden festival Chaumont Sur Loire
22 nd	Morning at the festival then travelling back to Nantes
23 rd - 25 th	Nantes
26 th	Full day of travel from Nantes back home



Introduction

I have written this report in the style of a diary documenting what I found interesting in each day and the conversations I had with so many interesting people along the way. I went on this trip with my friend and peer James Horne. At the time of the trip we were just about to start our fifth and final year of Landscape Architecture at the University of Sheffield. This trip has been an insight into mediterranean planting and how we might be able to prepare for our future.

Throughout this trip I recorded a daily video speaking about something that interested me on that day, I posted this to my Instagram account @zACLandscape

If you would like more information about anything I have written in this report or about using any of the photos I have taken then please contact me on my instagram to get my email address.

Purpose

By 2050 London is predicted to have the same climate as Barcelona. Sheffield to have the same climate as Nantes. We need to transition to plants able to withstand these conditions. How can I plan for city design for a future so different to what I'm being taught now? For me, it is vital to understand the behaviour of plants in our future climate.

My aims are to:

Study in private and public gardens, nurseries, and botanical gardens in Barcelona, Montpellier, Meze, Antibes and Nantes; Learn directly from plantspeople, designers and landscape architects about their plant palettes to understand plant resilience and vulnerability for UK; Discover how vulnerable current UK species are and look for swaps and adaptations we could use in our existing schemes as environmental conditions push us into a new bio-region; Form a list of plants based on my travels through Southern Europe specific to Sheffield; Share the information with my cohort; Use the knowledge to inform my future designs and those of other landscape architects; Integrate my findings into my final project to be presented in June 2025.

I've planned this trip to study resilient planting in the cities that already have the climate of Britain's future.

Acknowledgements

There are too many people to thank for their help making this trip happen and for supporting us along the way. These acknowledgements are for the people who were influential in making the trip come together.

James Horne for the many nights we spent up planning this trip and for putting up with me and recording my daily video for the entire trip!

My Mum and Dad for their patience in being the sounding board for the idea behind this trip and for the great lengths of time they spent checking through my application.

John Little, Will Tomson, and James Simpson for supporting the trip by being my references for the trip.

Richard Scott for putting me in contact with Jacques Soignon who we met in Nantes and was incredibly generous with his time.

I am extremely grateful to Merlin Trust, Hardy Plant Society, and Mediterranean Plants and Gardens for their support in funding this trip, without them none of this would have been possible.



Costs

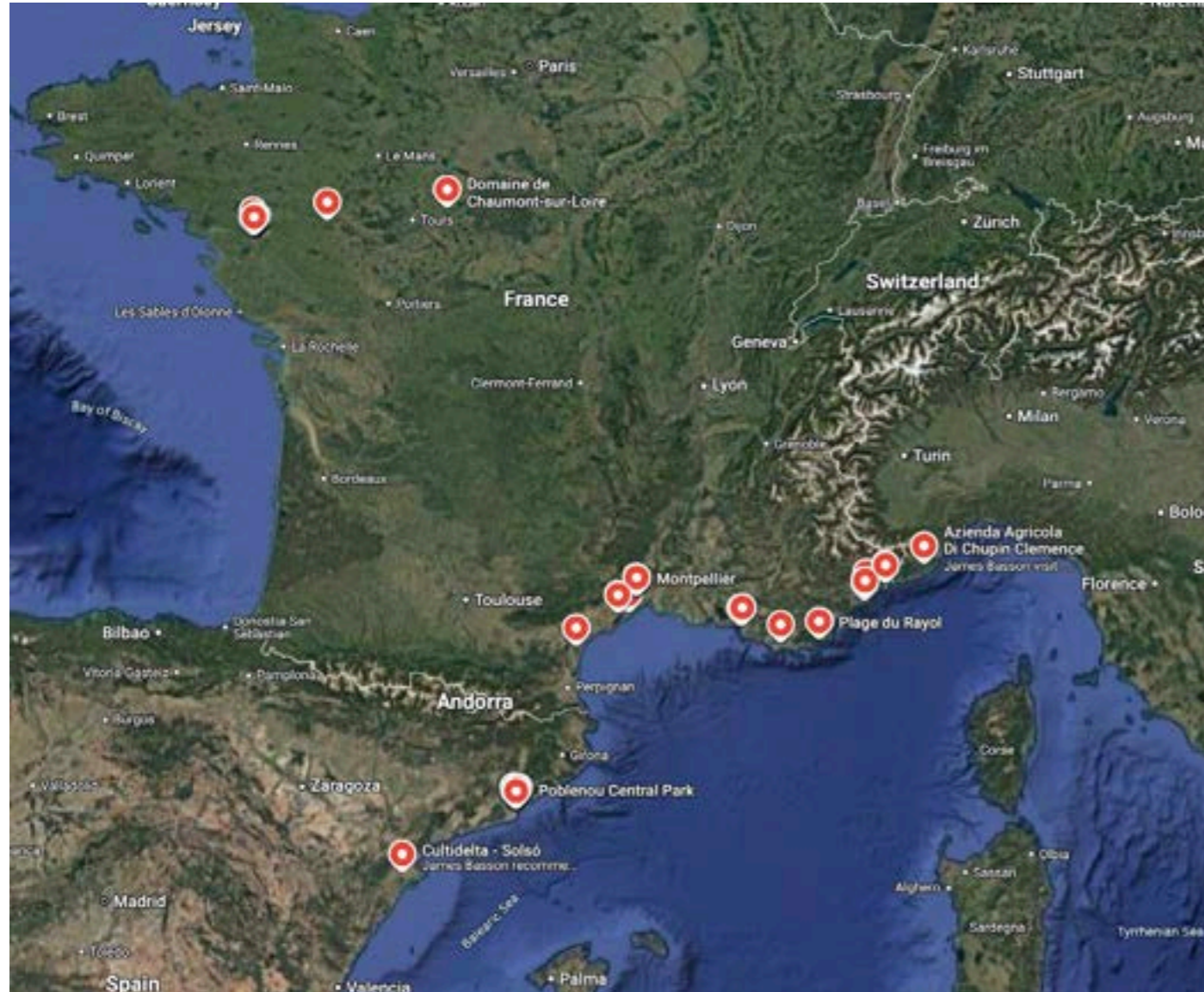
Flights:	Trains:	Public transport:	Accommodation:	Food:	Other:	Total:
£82.12	£312.28	£49.08	£485.20	£581.30	£72.89	£1582.87

Grants received:

The Merlin Trust - £750, Hardy Plant Society - £500, Mediterranean plants and gardens - £300, Total: £1550

Map of places visited

Below is a map of almost every place we visited on our trip including some places where we ate or walked past that looked interesting. It is also accessible to see in more detail at: <https://maps.app.goo.gl/bHfCazQQAtyMaaE36>



Google maps 2024, Study tour. Available at: <https://maps.app.goo.gl/bHfCazQQAtyMaaE36> Accessed: 17th November 2024

Wednesday 4th September

James and I met up early doors to walk down to the station in Sheffield ready for the first leg of our journey. Everything went very smoothly today travel wise and once we reached Barcelona at about 9pm we were ready for some food! A friend had suggested somewhere to go and so we had some lovely pizza in a small restaurant before getting an early night ready to start our big trip tomorrow!

Thursday 5th

On our first day in Barcelona we visited some gardens in the Montjuic region which were suggested by Teresa Garceran. This is one of the greenest areas of Barcelona with a multitude of parks including both the old (founded in 1930) and the new (opened 1999) botanical gardens. Montjuic is one of the highest points, set in the southwest of the city.

The first garden we visited is Teatre Grec park, built around an ancient Greek style theatre in 1929. Formal beds of Roses are edged with Box and surrounded by Cypresses sempervirens in both hedging and tree form. Some of the sections of Cypress were very sparse, I think this might have been from a mixture of drought and perhaps and at other times not enough sun. In the beds of Roses there was a significant amount of what I think is *Ophiopogon japonicus* a common cultivated plant used as ground cover. We saw a lot of *Plumbago auriculata* around the Mediterranean. In Barcelona we were told this is a bit of thug. There were some specimens which were ~10m wide and ~3m high, enormous.



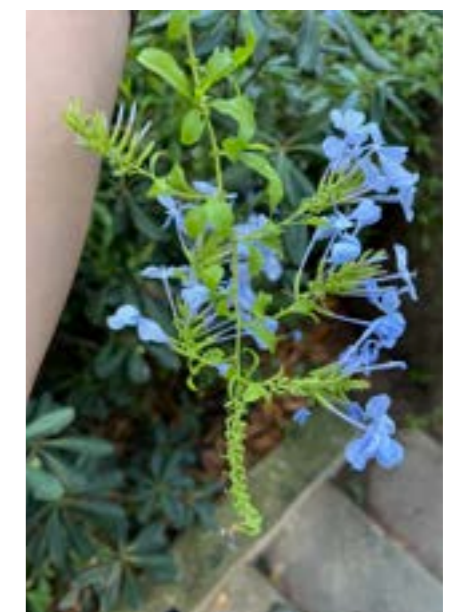
Cypresses sempervirens as hedging



Range of shapes of tree species up the mountainside



Cypresses sempervirens in tree form



Plumbago auriculata



Formal flower beds edged with *Buxus sempervirens*



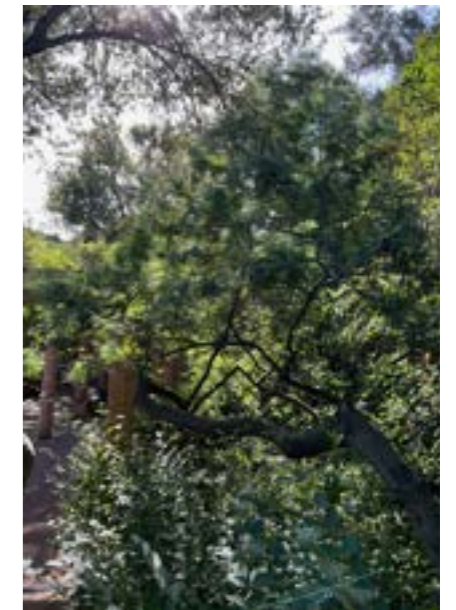
The theatre carved into the cliff face



An interesting form of *Wisteria sinensis*



Wisteria sinensis over a lovely brick pergola



Acacia dealbata clambering out towards the light



Ipomoea tricolor



Rose sp. with *Ohiopogon japonicus*



Nerium oleander



Cypressus sempervirens trained over a metal dome

As we reached the end of Jardins de Laribal there was another series of rose beds which were in full flower, edged with *Euonymus japonicus*. There was a *Cistrus* sp. tree on each corner, some were doing better than others even just 2m apart. Some of the *Euonymus japonicus* has been attacked by a pest or disease, we are unsure what exactly it was. There was a row of Yew which interestingly was dying from one end to the other, is it heat or disease? In the centre of this part of the garden was a sunken pond, it looked relatively healthy and with plenty of cover. A good balance between letting light in without losing too much water to evaporation.

The Aleppo pine is a very impressive tree which we typically saw leaning over dramatically. Used a lot in the public realm. It looks very similar to the Scot's Pine but is bigger than I have seen before. Further along this path was the *Wisteria sinensis* which has grown in the form of a tree, where other climbers were struggling to the extent I couldn't Id them.



Pinus halepensis the Aleppo pine, in Jardins de Laribal towering over the path



The pillared pathway with a lovely contrast of colours



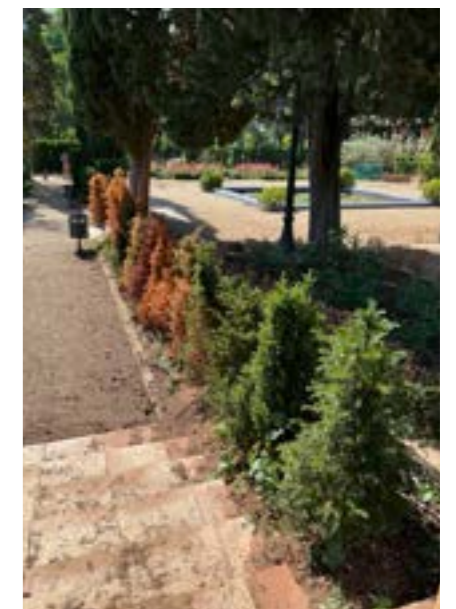
Something has been nibbling away



Citrus sp. tree alive



Citrus sp. tree dead



Yew dying



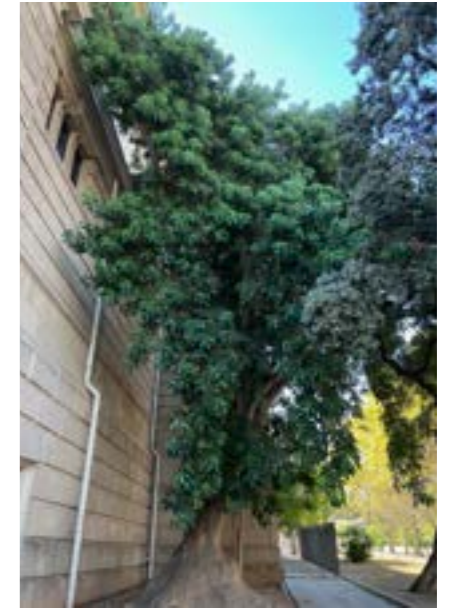
Rose sp. with *Euonymus japonicus* edging



Ophiopogon jaburan



Platanus x hispanica the London Plane



Phytolacca dioica

Unfortunately the old botanical gardens (Jardi Botànic Històric) was closed for renovations so we continued onto the new botanical gardens (Jardi Botànic de Barcelona). This is a fascinating botanical garden and one which I have wanted to visit for a long time. The park is laid out into different geographical regions, topography was a major issue in the design of the gardens as it is on a mountain. To solve this problem the paths have been laid out to follow the topography and are very striking to walk along. Of course the planting is very interesting too. Today we only went through the south African section as we were still tired from travel the day before.



Euonymus japonicus dead



Water lily in the pond

We went walked around the front of the Museu Nacional d'Art de Catalunya which looks down to Plaça de Catalunya. There were various impressive trees outside here but you could really feel the effect of the heat as we left the cover of the gardens. We were met with an enormous *Eucalyptus* sp. which interesting was retaining most of it's bark for the first few metres of its trunk. Around the side of the Museum we saw two suprising things. First of all *Phytolacca dioica* which has a trunk which I think looks almost like hippos breaking the surface of water. Secondly was the London Plane trees. They looked bleached, with no camouflage bark they were very pale. They looked very scorched by the sun and clearly were struggling.



James and *Agave americana*, *Agave stricta*, *Yucca rostrata*, *Arecaceae* sp.



Aloe maculate syn: *A. Saponaria*



Impressive *Eucalyptus* sp. tree



Pinus halepensis outside the Museu Nacional d'Art de Catalunya



Aloe barberae



Alyxia ruscifolia



Alyxia ruscifolia fruit and leaves



Xanthorrhoea glauca



Agapanthus sp. just gone over



Eryngium paniculatum flowers finished but great structure



Dragonfly

After catching the bus down the hill we went to meet a friend at a restaurant on the beach and had dinner after watching some of the sailing. A very warm (in both senses) welcome to the city. Then we headed back to our accommodation and got a very good nights sleep!

Friday 6th

We started off today by visiting the CosmoCaixa natural history museum which is in the west of Barcelona. We came here to try and find out some more about the history of Barcelona and to see the large indoor tropical rainforest. There was lots of epiphytes on real trees and faux trees. Periodically there was a rain event to emulate the conditions of the rainforest. A lot of the plants in this rainforest are ones which we ended up seeing later on in our travels through Barcelona.



Above and below water in the rainforest



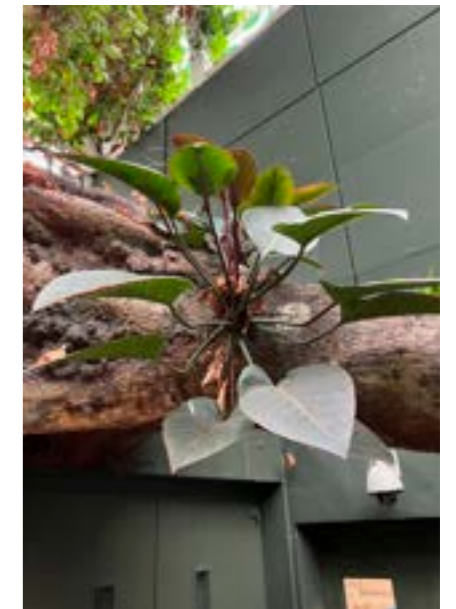
The full extent of the rainforest



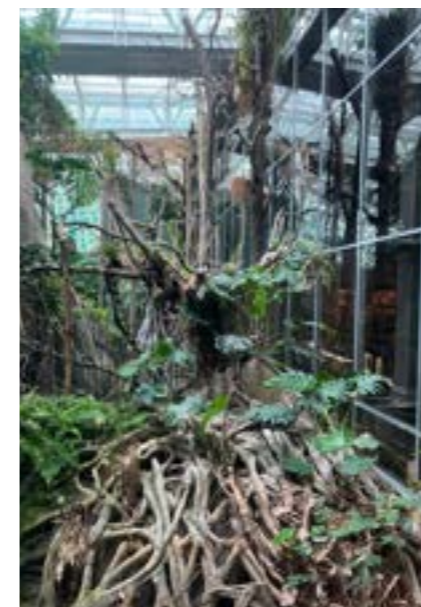
Grey-winged trumpeter in the foreground and two Roseate spoonbill in the background



Philodendron erubescens



Spathiphyllum cochlearispathum



Monstera deliciosa



Pinus halepensis in a courtyard of the museum

As we left the museum there was a green wall which looked slightly sparse. This could be expected given that it is towards the end of summer now. Multiple methods were used for this green wall, some fabric pockets, some packed earth with a metal grid, and a metal cage system.



Packed earth on the lower section and metal cage on the top section



Plant species planted in the green wall



Fabric pockets



Aeonium sp. in the green wall

We noticed a few bits of street planting on our way down into town.



Brachychiton populneus seed pods



Brachychiton populneus leaves

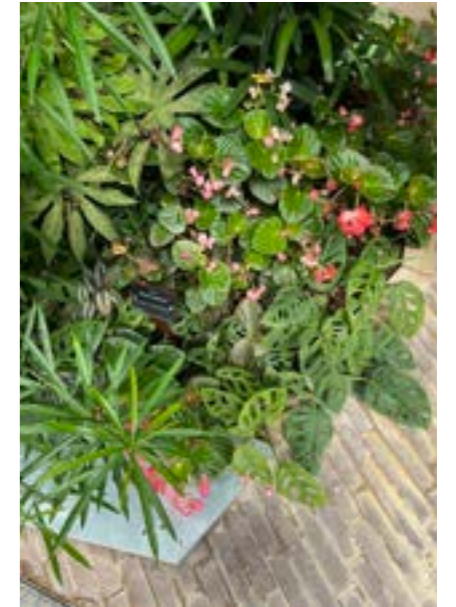


Plumbago auriculata growing through the fence

Next we went down to the centre of Barcelona and visited the L'Hivernacle in the Parc de la Ciutadella. This is a very beautiful and ornate conservatory, built in 1887. On one side was planting which required more moisture but still full sun and heat. On the other side was a series of tomato and herb trails.



Wrought iron details of the conservatory



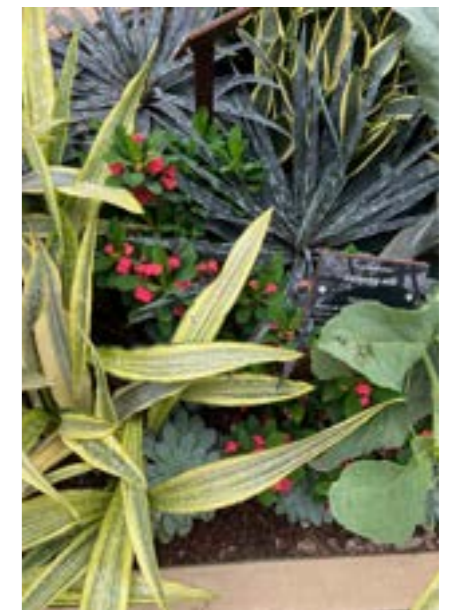
Monstera adansonii and *Begonia* sp.



Agave X '*Moonglow*'



Dracaena trifasciata subsp. *Laurentii*



Euphorbia milii



Note the large *Musa basjoo*



Tomato trails



Pampas grass on route through the gardens

Our next building was the L'Umbracle which is in a very similar shape to a conservatory however it has wooden slats which provide shade but still allow the heat to get in, creating a tropical / subtropical environment. This was very lush and certainly felt tropical. Some of the key species here were *Livistona chinensis*, *Beaucamea recurvata*, *Strelitzia alba*, *Howea forstenana*, and *Phoenix roebelenii*.



Livistona chinensis, *Strelitzia alba*, *Phoenix roebelenii*, *Philodendron selloum*



Nephrolepis cordifolia



Liriope muscari

We then left Parc de la Ciutadella to visit Fernando Lua at Glories Parc, a project that he is leading on. I met Fernando Lua at the Beth Chatto Symposium last weekend, thank you to one of my lecturers from university, Elisa Olivares Esquivel, for connecting us. Fernando is a landscape architect who works in Barcelona for ACPA and Agence Ter. The Glories Parc replaces a major roundabout that used to be here, the road now runs underground. This park is a fantastic resource for the city to have, in an area of very high density there was a need for more open green space. Fernando explained how there is a series of SUDS and rain gardens surrounding the park and a large circular SUDS system around a grass area in the centre of the park.

Half of the park has been completed and the other half is under construction at the moment, including a new tram stop. This is surrounded by a terraced cacti garden, originally this was going to be shrubs but then due to concerns of people hiding in the shrubs, cacti were used instead.

Some of the SUDS had been less maintained than others and so *Salvia microphylla* "Red bush" had become very leggy and dominated the entire bed.



Salvia microphylla "Red Bush" taking over the SUDS



Salvia microphylla "Red Bush"



The impressive roof structure of L'Umbracle



Plumbago auriculata



Cacti garden down to the new tram stop



Brachychiton acerifolius in the SUDS bed

On the other side of the park there was a rain garden which was more diverse, however a lot of grasses have got in. It was very lush, due to the rains which happened just before we arrived, the first in many weeks. We caught the end of the *Jacaranda mimosifolia* flowering, this would be in complete purple when in full flower.

All of the water that is captured in these SUDS and rain gardens is stored in a large tank underground and allowed to percolate down to the aquifer. The water table is quite high in this location and so in order to build the tunnel for the road they needed to build a tank. This meant that the park could also feed into it, then use those water reserves for irrigation around the rest of the planting.

Around the childrens play area is a fence which has very dense planting of *Phillyrea angustifolia* which helps to soften the fence.



Jacaranda mimosifolia in the rain garden



Phillyrea angustifolia

To our surprise the large area of grass in centre of the park was very green. This may be partly to the recent rain but also because it is irrigated. There is also a SUDS 'moat' around it and bridges with gates so that during the day it is closed off. During the evenings it is then opened for events. This is to try and reduce the amount of foot traffic during peak heat hours. The reasoning behind the grass is that there is nowhere else nearby that has open grass and due to the high density of people here it was seen as beneficial.

The SUDS that surround the grass have had lots of plants self seed into it and a lot of the original planting has been lost. This is down to a lack of management. However this has led to some interesting sections where the self seeded plants are very impressive. Fernando shared with us a list of spontaneous plants which he has seen during his visits: *Achillea millefolium*, *Cenchrus longisetus*, *Chamaerops humilis*, *Cirsium vulgare*, *Convolvulus arvensis*, *Ipomea indica*, *Torilis arvensis*. Some of the grasses planted survived but at the start there were four *Stipa* sp. planted: *Stipa barbata*, *Stipa pennata*, *Stipa capillata*, and *Stipa (anachterum) calamagrostis*.



SUDS around the lawn



Unidentified umbellifer in the SUDS

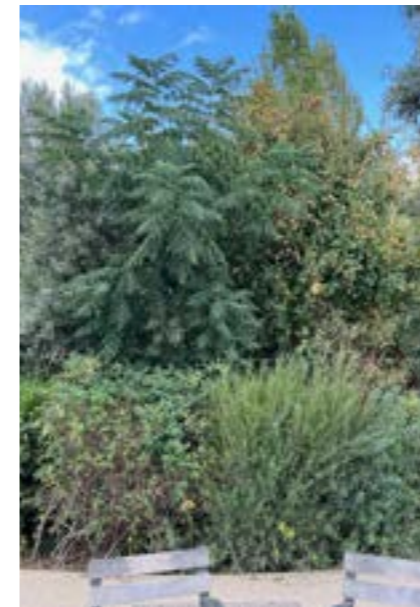


Phlomis sp. in the SUDS



The large amenity grass

Around the park there are 'biodiversity pods' which are fenced areas surrounded by hedging then trees within the fence line and then an open scrub area in the centre. This creates a ring of ecotone which is great refuge for birds and insects. They have been strategically placed so that they don't impact the flow of the park or block views around corners. Doing it this way means that they can get more habitat into the park and hide the more wild sections which people may not be so accustomed to, yet.



A 'biodiversity pod'



Pistacia lentiscus a great shrub that you will see again later



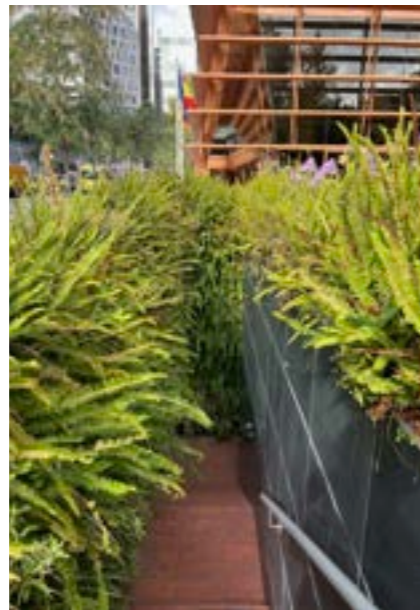
Olea europaea

A large structure was constructed for a sports area, for basketball and table tennis. This has a mesh which facilitates climbers to form a green wall around it. Three species of climbers were planted here *Passiflora caerulea*, *Trachelospermum jasminoides*, and *Jasminum officinalis*. The *Passiflora caerulea* didn't survive.

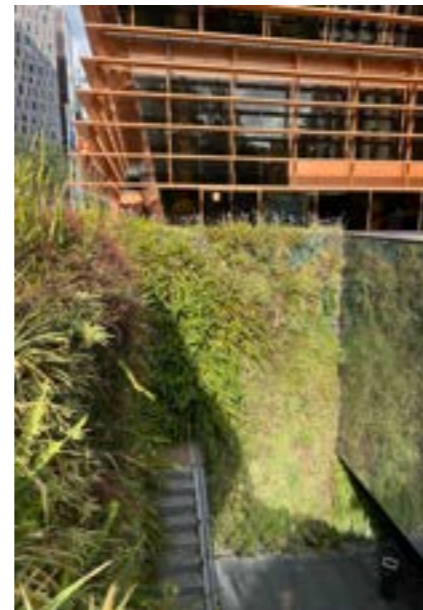


Sports area surrounded by *Trachelospermum jasminoides* and *Jasminum officinalis*

Outside of Glories park there was a sunken green wall which was thriving. Covered with *Nephrolepis cordifolia* and *Tulbaghia violacea*.



Steps down through the green wall



The green wall

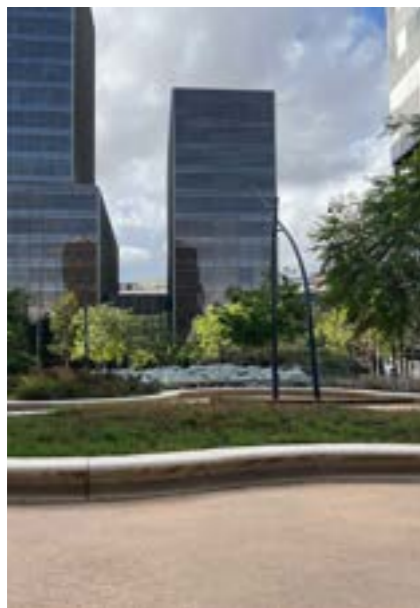
After Glories park Fernando took us around various other parks in the Poblenou district. The Jardins De Ca l'Aranyó which has a large electrical building for the district. This has enormous wisteria growing up it. It was great because the wisteria is planted straight into the ground and so they are doing really well. There is a good wire structure all the way up the building so the wisteria isn't impacting the building itself. It wasn't doing too well on the northeast side and we think this is because it is windy and there isn't enough sun. This park looks great from plan view. It was quite busy with group of teenagers and people walking through. Planting for the most part was very good however there was one section of grass which was dying.



Wisteria sp. growing well



Wisteria sp. struggling on the northeast side



Dying grass and interesting shapes of planters



Cineraria 'Silver Dust' an echo of the colours of skyscrapers



Cineraria 'Silver Dust'

We then walked down the first bit of road for the super block which was interesting. A lot of the pots for trees were empty which isn't surprising. There was a play area in the crossroads which was getting a bit of use. It is an interesting trial run but the newer ones are much better where they have actual planting and have re done paths and roads etc.



Empty pots in the street



The playground

Next we went into El Parc i la Llacuna del Poblenou which was very interesting because it had water. It wasn't great habitat but there was a little bit of planting in the water. The terrestrial planting was nice here though, there was a lovely purple *Pennisetum setaceum* 'Rubrum'. In the corner of this park was the only allotments we saw in the entire city. Amusingly a pumpkin had escaped and started growing in the park.



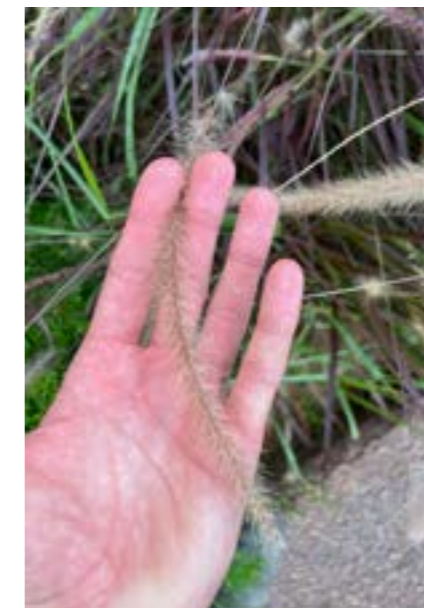
The shallow pond



Allotments with pumpkin escaping



Pennisetum setaceum 'Rubrum'



Pennisetum setaceum 'Rubrum' head



Pennisetum setaceum 'Rubrum' leaves

Next we walked along Pl. Isabel Vilà which has been pedestrianised and has some quite nice planting. It is all in blocks, making it easier to manage. They have temporary fences up at the moment which look bad, but they do have on some of them a really nice thick rebar low fence which works well. They should just put that along it all and it would look great. There was one square of planting along here that was grass which seemed a bit strange. It wasn't accessible for people to use.



Ficus elastica with both the bad fence and good fence



Plumbago auriculata



An attempt at training Plane trees over a metal structure



Schefflera actinophylla, *Asparagus aethiopicus*, *Perovskia atriplicifolia* and *Gaura lindheimeri*



Bed of *Tulbaghia violacea*



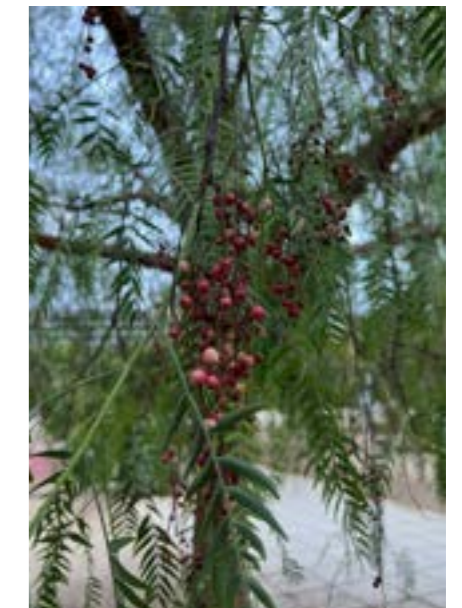
Blocks of *Pennisetum setaceum* 'Rubrum', *Gaura lindheimeri*, and *Tulbaghia violacea*



Agave dying in big steel stacked pots



Cacti waiting to fall off big steel poles



Schinus molle seeds which taste strongly of pepper

After our very big day today we headed straight off to bed as we want to get up early tomorrow and head back to the botanical gardens before it gets too hot!

On our way back we looked at Poblenou Central Park which was an underwhelming mess of strange 'sculptures' which essentially were finding unique ways to kill plants. The most interesting part of it was the surrounding wall which was covered in *Bougainvillea glabra*. This would have been incredible to see in full flower, although still impressive to see such a big green wall.



The *Bougainvillea glabra* green wall



A window through the green wall into the park

Saturday 7th

We headed off in the morning to the Jardí Botànic de Barcelona and spent a few hours going around. It was brilliant. We saw lots of amazing plants, lots of spiky ones that could kill you. My favourite section was the woodlands of the Canary Islands. The eastern oriental Canary Islands did not look nearly as good. The Californian section was very bare and looked like it was struggling a lot, maybe they are changing over the planting and this grass is temporary. Chile looked really good. Western Canary Islands looked good.



Map of the botanical gardens



Amphitheatre with trees for shade



Euphorbia lomelii in the Mexican section



Flowering *Acacia karroo*



The corner of the Californian section



Euphorbia sp.



Part of the Californian section



Juniperus californica in the Californian section

Eastern Mediterranean section



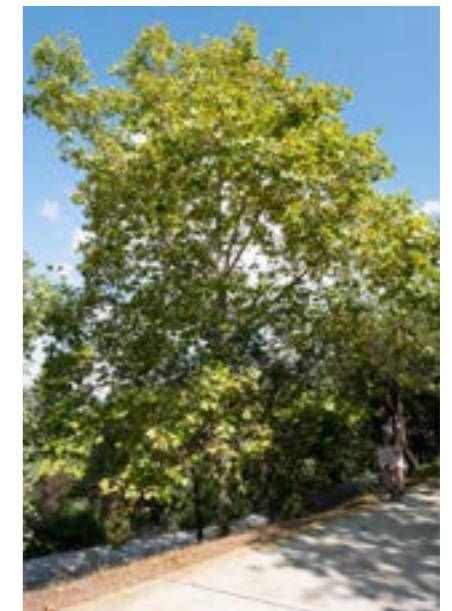
Centaurea babylonica



Quercus ithaburensis



Quercus cerris

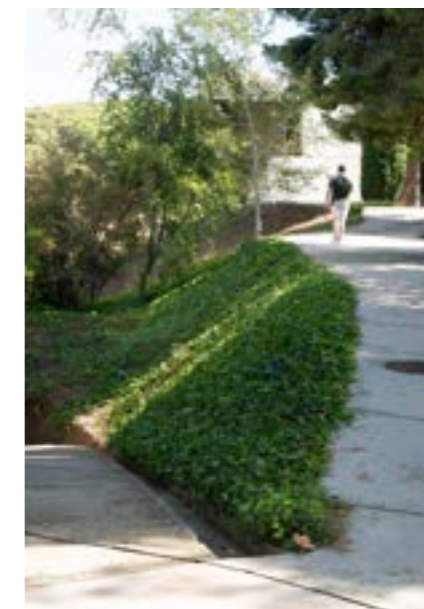


Platanus x hispanica

Western mediterranean section



Quercus robur



Bank of *Hedera helix* in the shade



Pinus halepensis

North African section



Rosmarinus officinalis



Euphorbia cyparissias



Clematis flammula



Quercus x cerriodes

Canary island section



Quercus faginea



Pinus canariensis canopy



Pinus canariensis trunk



Euphorbia balsamifera



Looking up through the Canary island section into North African section



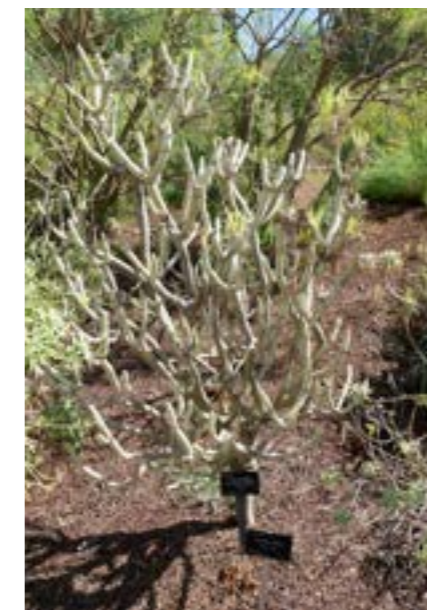
Teucrium chamaedrys



Cistus 'Grayswood Pink'



Euphorbia regis-jubae



Senecio kleinia



Arbutus canariensis



Bank of volcanic rock with *Euphorbia canariensis* poking through



Echium nervosum



Onopordum carduelium



Teucrium fruticans and *Ephedra altissima*



Euphorbia balsamifera



Fern growing from a *Phoenix canariensis*



Euphorbia piscatoria



Euphorbia piscatoria

We saw a bonsai section with lots of very good looking bonsai trees, such an impressive craft. There was also a garden for insects section. It had a good range of habitat material, was next to a reasonable size meadow (not flowering at the moment) and there was a spiral of stone with planting into it and bare sandy gravely ground next to it.



Pollinator garden



Habitat features



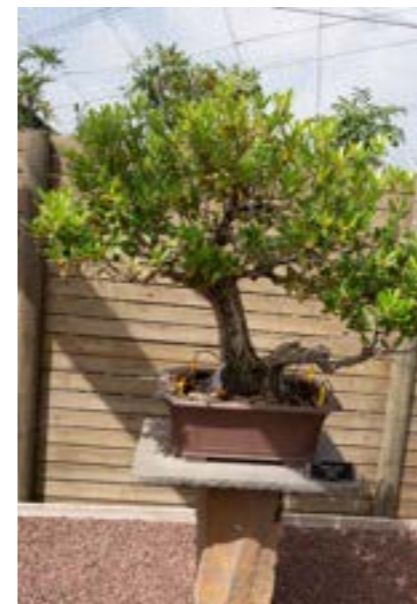
Dry stone spiral, dry condition aromatics at the top and wet condition perennials at the base



Bougainvillea glabra bonsai



Quercus suber bonsai



Arbutus unedo bonsai



Pinus sylvestris bonsai



Acer palmatum bonsai

The last section is near to the entrance / exit and is the ponds. They have a great density of plants around the edge, lots of *Pontederia cordata* (can spread quickly, so needs managing) and there was *Equisetum hyemale* which looked kept in check. One interesting thing I noticed was that *Arbutus unedo* was really struggling in the shade and was basically dead, in the full sun it was thriving. It looks very good as a shrub and as a tree.



Arbutus unedo dying / dead



Arbutus unedo in full sun in the North African section



Substance on the leaves of *Arbutus unedo*



Bank of *Arbutus unedo* doing very well



Pontederia cordata



Equisetum hyemale

Our next stop was Jardins de Mossèn Cinto Verdager. An amazing park, the healthiest looking planting we have seen. Lots of water and a pond at the top and a larger one at the bottom. Cascade of square ponds down the hill with water dropping from one into the next. Not much water lost to evaporation as there is a lot of surface cover. This is the first place we have seen frogs. There was lots of dappled shade which we think is why it is so healthy here and the grass is surviving. Very busy park with lots of people sat around and a few children's parties and things happening too. The steps down into the park were great, they have a little bit of soil behind the step which then has plants growing in it. The most effective was ivy, it covered the entire back and made a lovely set of steps. There was also a very good view out to the sea with the cable car crossing overhead.



Hedera helix growing in a designed gap behind the steps



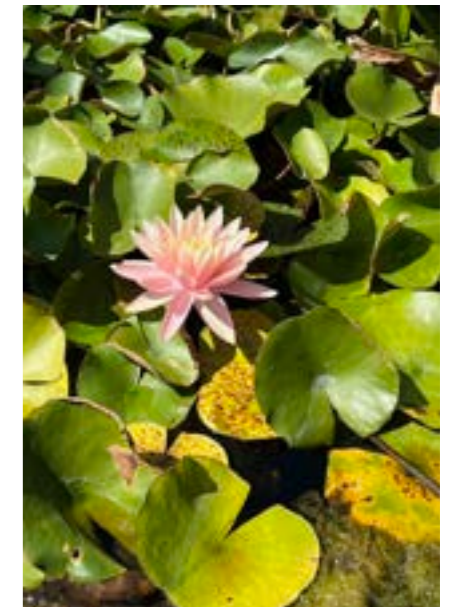
The lowest of the square ponds and a lovely bank



Water spill over between each square pond



Nelumbo nucifera



Nymphaea sp.



Canna indica at the base of the cascade where it is slightly damp



Nymphaea sp.



Looking down the cascade



Violet carpenter bee



Nymphaea sp. and frog

The last park we went to was Jardins de Mossèn Costa i Llobera which has an amazing cacti garden. This is where I recorded my video for today. We thought the cacti was a brilliant idea and it worked really well, there are so many interesting forms and different colours it is great. Although when planted into gravel it can form a bit of a sterile environment. We were thinking of ways that you could improve this, such as sowing meadow through it or adding in habitat features like a log wall. There is a conversation to be had about it in public spaces but I think it would work. An issued raised by wildwastes on instagram was how gardeners will garden it. We discussed it and have thought of some ideas, maybe having strips of meadow or using mat forming xerophytic plants. We then walked round the rest of the garden and saw some amazing agave and other cacti, some sedums, and some more spiky trees and shrubs. There was an amazing old agave inflorescence hanging off the side of the mountain behind us. Very cool to see.



The cacti garden with a steep bank of Californian palms behind *Oreocereus trolli*



Scatterings of *Echinocactus grusonii* and other Cacti



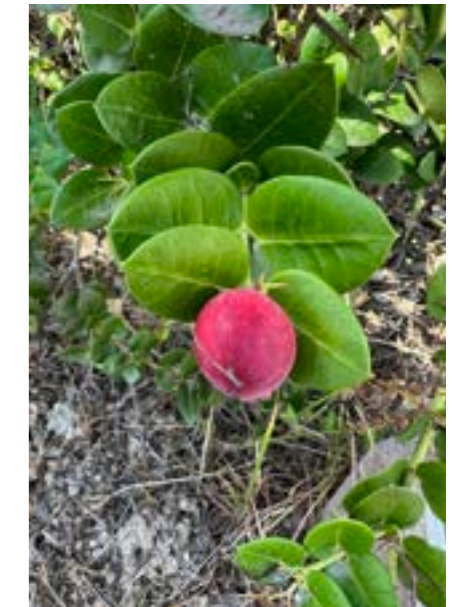
Cable car which goes to the top of Montjuïc, the Americas cup happening at sea



Large cacti with lots of supports and *Fouquieria splendens* growing through it



Carissa grandiflora



Carissa grandiflora fruit



Cacti being used by what looks like a puppet master



Cycas revoluta



Smaller *Cycas revoluta* with the cliff face of Montjuic behind



Agave inflorescences falling down the cliff face

After this we went down to the beach and had a swim. The beaches here are all man made, built for the Olympics. So they are about 2m deep for a long way out, it made the waves great fun as you could jump up and down easily.

Sunday 8th

Today turned out to be a much shorter day as there was torrential rain all morning. It was very surprising after such a hot and clear day yesterday. We left the house in the early afternoon about an hour after the rain stopped. For the most part it was as if it hadn't rained at all. We went down to Glories Park to see how the SUDS were getting on. As expected all of the water had drained away. The only remnants were in some of the tree pits where the ground had been compacted. Fernando explained to us that the *Quercus suber* trees which had been on the roundabout originally were put into an on-site nursery, to then be re-used in the new park.



Quercus suber tree pit filled with water



Quercus suber planted in the lawn



The temporary nursery

After this we went down to the beach and had a swim. The beaches here are all man made, built for the Olympics. So they are about 2m deep for a long way out, it made the waves great fun as you could jump up and down easily.

Monday 9th

I am really looking forward to today as we are visiting Enric Sancho and Mihealea from Cultidelta nursery. We had an early start as we got the train from Barcelona-Sants to Aldea-Amposta station.

They drove us from the train station to their old nursery which is close to the coast. This has very strong winds of up to 120km/h and is very exposed. They don't use any of the poly tunnels for keeping plants, just when first germinating. Interestingly they have sorted the plants based on the conditions which they will work in. So, some for coastal conditions, for inland, for stabilising banks. He explained they are thought about in either an ornamental way or an environmental way. The biggest pot size he does is 50L and he has issues with people asking for bigger pots for things. He explains that it just won't work to put them in a bigger pot, the plant won't grow. Enric grows plants in harsh conditions to improve their hardiness. Interestingly he grows them in cocoa husk and peat moss. Now this seems like quite a luxury growing medium, but they explained that they have tried to grow in different substrates, and it doesn't work. He has a big focus on root systems and wants very long root systems. This substrate seems to be working well as the plants that he has put into his experimental gardens are all from the nursery grown in cocoa husk and peat moss. The root structure managed to break down through the clay and rocks. He waters everything very little in the experimental gardens. His philosophy is that the plants may look terrible in summer without any water but if you water them a little bit then suddenly, they look amazing again. So, he says water 4/5 times in a year during summer to ensure the look. However, aesthetics is the last thing he thinks about. First you need to think about the conditions, what are you growing into, what is the pH, how much wind is there, what is the aspect, what is the minimum and maximum temperature, and importantly who is going to be looking after it. Each plant should be chosen for its capacity of adaptation.



Shrubs and trees in the first nursery



Leucophyllum frutescens which grew small where Enric found it in Tenerife but here it grows big



Looking down the first experimental garden, clay soil



Yucca rostrata



Perovskia atriplicifolia



Salvia apiana



Euphorbia sp.

Moving round to the main production area of the nursery.



Shaded planting into deep gravel to prevent winter wet and shade while on clay



Processing *Dodonea viscosa* var. *Purpurea* seeds



Agapanthus sp. which was flowering for a second time this year. The first time Enric has seen this happen



Seed sorting

Another experimental bed which has two levels. Here Enric is trailing using a membrane to try and reduce the amount of maintenance. He says that he doesn't like using it but it is important to trail these things.



Walking to the garden



Teucrium subspinosum



The two levels

To create new flat areas for the nursery retaining walls have been built and the slopes between levels planted.



Long linear planting with many herbs and aromatic including *Rosmarinus x lavandulaceus*

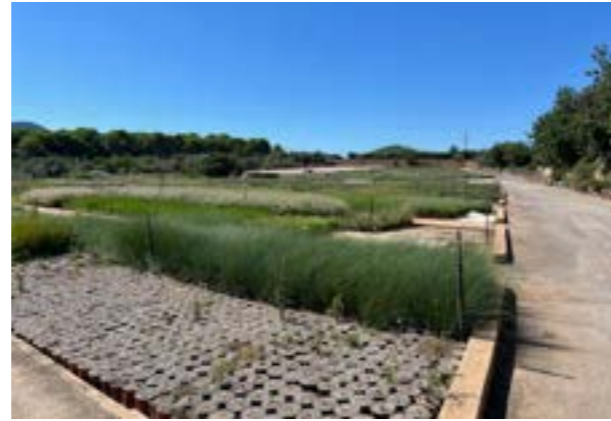


Euphorbia sp., *Stipa* sp., *Hesperaloe funifera*, and others

The last experimental bed we saw was a new one that was planted at the end of June this year (2024). It has been watered every 10 days and now it will not be watered again ever. This is just enough water for the plants to get established and now they will fend for themselves. The conditions here are very tough as the substrate is rock and clay with 200mm of gravel on top. There is a mound at the top of the bank which means that the water on this slope is almost non-existent.



The new planting



View across the top most nursery area, the grass in the foreground is *Muhlenbergia capillaris*



The substrate under the gravel



The top of the bank looking down



Brownfield site

There were a lot more plants here than I haven't been able to fit into this report and Enric is constantly finding more to experiment with and cultivate. I would highly recommend look at their website cultidelta.es and reaching out to Enric if you have any questions. He is extremely knowledgeable and very happy to help. He stresses how important it is to know the conditions of where you are planting. As we saw with the *Leucophyllum frutescens* which was small in Tenerife but in the conditions here has grown huge. The conditions even changed across the span on 200mm up or down a slope. Moral of the story: ask more questions!

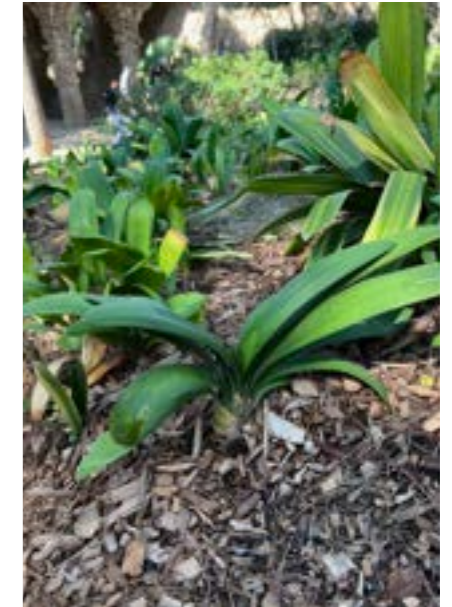
We then took the train back to Barcelona and enjoyed the scenery, including an interesting brownfield site.

Tuesday 10th

Today we went to park Güell which was incredible. A 14 hectare park which was designed by Gaudí with the intention of having 70 houses on it in different plots. This was based on an idea of the English landscape. The park spans across two hills and is full of winding paths and some steps. This was intentionally designed by Gaudí to make getting around the park easy given the dramatic topography. I think this was to make the housing accessible to as many people as possible. It also meant that the viaducts could be built with the paths.



Agave sp. in a raised planter along one of the footpaths / viaducts



Clivia miniate under Aleppo pines

On a plot of land allocated to one of the 3 houses actually built there was a terraced vegetable garden, which was the plan for all of the houses. There was the Austria garden next to one of the houses which is now the museum. This is called the Austria garden because in 1977 Austria donated some trees here.



Terrace veg garden looking out across the city and to Montjuic in the distance



View down the Austria garden, note the *Plumbago auriculata* in the foreground



Hibiscus x rosa-sinensis flower



Hibiscus x rosa-sinensis pink cultivar

We were told later on by our friend David that the main plaça which has the very famous mosaic benches actually collects water. The water then makes its way down through pipes hidden in columns below to a large tank. This water is then used to irrigate the rest of the park. An early 1900s SUDS.



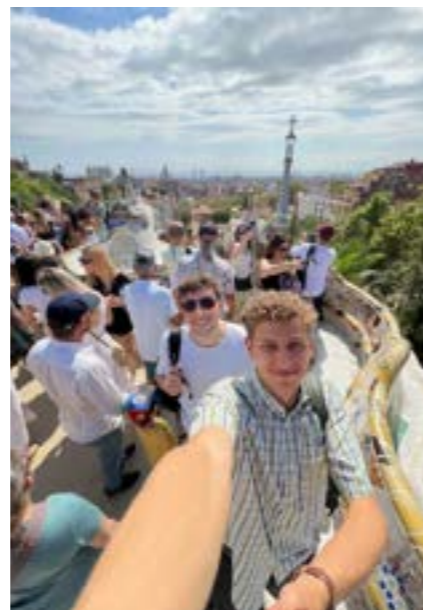
Pillars on the level above the plaça with *Bougainvillea glabra* growing up them



Maintenance on the plaça removing self seeders



The columns water flows through underneath the plaça



James and I at the mosaic benches, being very touristy

The architecture is very interesting as well, a lot of it feels like it is about to fall in on you at any moment and other parts look immaculately cut and formed. All of it though flows well and means you don't get stuck or very tired walking around.



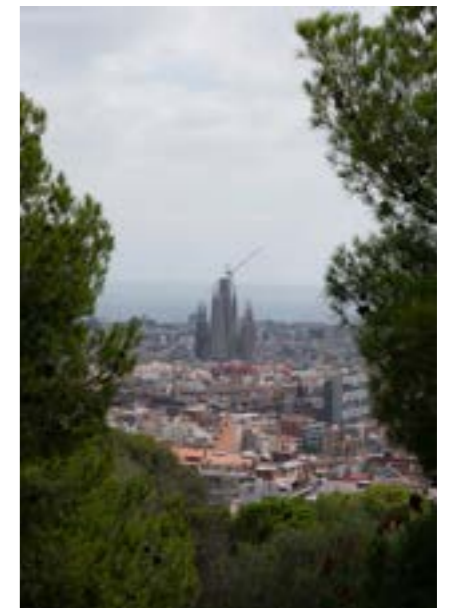
View across to one of the raised footpaths / viaducts



One of the three houses that was built



Precarious looking structure



Sagrada famillia under construction

This was a fascinating park to see, I wonder what it would be like if all 70 houses had been built. It does have a certain sense of the English countryside to it, with some obvious changes like mosaic benches and ornate viaducts. I think what would be interesting to find out is what the management plan is for it, given it has historical significance. Did Gaudi have a plan for the gardens around each house? I would like to think so.



Balcony garden on our way back home

This was our last day in Barcelona so we met up with some friends and went out to a very lovely restaurant where we had tapas from Spain, Catalunya, and Galicia. This was a very nice way to end our trip in Spain, off to France tomorrow.

Wednesday 11th

We set off early today. Our train out of Barcelona was at 8:19. This went smoothly and it was a lovely view out of the window all the way to Montpellier.



The view from the window on the train to Montpellier

Once we arrived in Montpellier we walked up to the Botanical Gardens. This was brilliant because first of all they were free. This was a beautiful botanical gardens with so many different areas. There was a massive bamboo forest. A pathway teaching you about the changing climate which I need to translate. Various raised beds, one full of aromatics and interesting ones to touch. There was an incredible pond which was full of *Nelumbo nucifera*. It left the most wonderful seed heads. We saw this plant in Barcelona too. There is a very big glasshouse which is against a wall. Full of cacti and succulents. Unfortunately it was closed but a lot of these are the ones that were being grown outside in Barcelona I think.



Lantana camara



Nelumbo nucifera in the pond



The last flower of *Nelumbo nucifera*



Enormous leaves of *Nelumbo nucifera*



Lantana camara with a White-banded digger bee on



The glass house



Agave victoriae-reginae in the greenhouse, we saw this outside in Barcelona

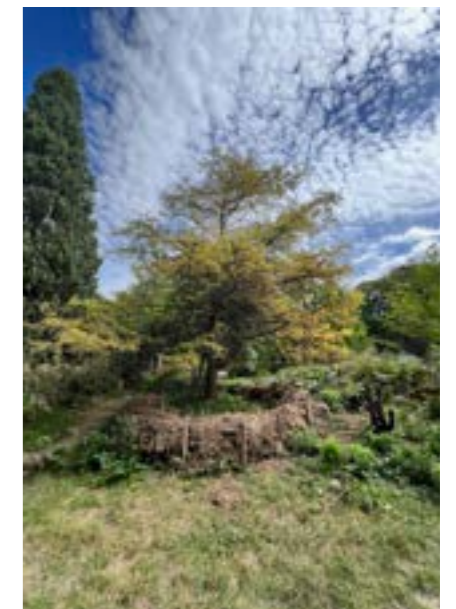
They also have a large section with big volcanic rocks with various plants I got photos of. Including fennel which the birds love. We stood here for quite a long time with Jean Louis who is one of the staff at the botanical gardens. He said that he has worked there for a long time and has started experimenting with various things. The one that he was explaining to us most was about using a dead hedge around a *Taxodium distichum* to try and reduce the amount of water that he needed to use for it each year. The theory is that by having a dead hedge the water from the rain will be retained around the root system of the tree. This is the first year he has tried it and he hasn't watered the tree once. It looked a little like it was struggling but we will see if it manages to adapt. There were various other dead hedges around the gardens and I wonder if they are for the same purpose. They are also now not cutting an area of meadow and not watering it to see what will happen. Again only started this year. I must try and find out his contact to ask how these projects develop. He had to take a call and so ran off before we could exchange details.



Perovskia atriplicifolia on the mound of volcanic rocks



Euphorbia sp. nestled amongst volcanic rocks



Taxodium distichum surrounded by dead hedge



Ephedra altissima



Desmanthus illinoensis



Euphorbia characias



Trichocereus huascha

There is a very old section of the gardens as well. This is the first botanical gardens in France and the third in Europe. It was originally used by doctors for medicinal plants. There is a large orangerie. However this section was mostly closed. It would be good to go again hopefully when their renovation works are finished.

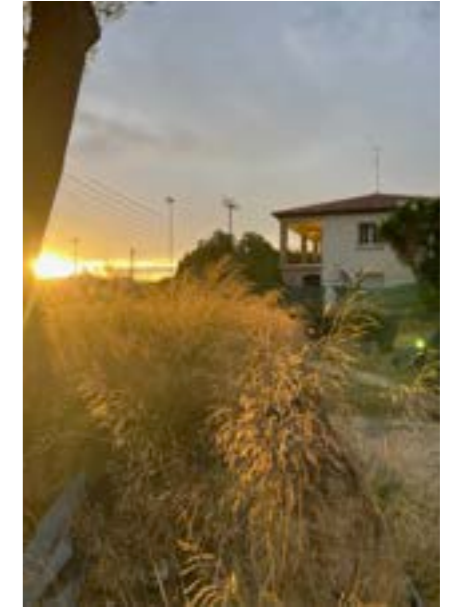


The orangerie

The last thing I saw today on our way to our accommodation was a plot for someone's house, and basement I imagine. It has clearly been left for some time and some grasses have colonised this 'pit'. It looked absolutely stunning with the sun falling behind it.



Deschampsia cespitosa in a pit



Deschampsia cespitosa in a pit

Thursday 12th

Another very exciting day today to come and see Olivier Filippi, his nursery, and his private experimental garden. To get here was a short train journey from Montpellier to Sète and then we took a bus around the Étang de Thau towards Mèze. On our way to the station we saw a plant which has become very invasive around here, *Arundo donax*.



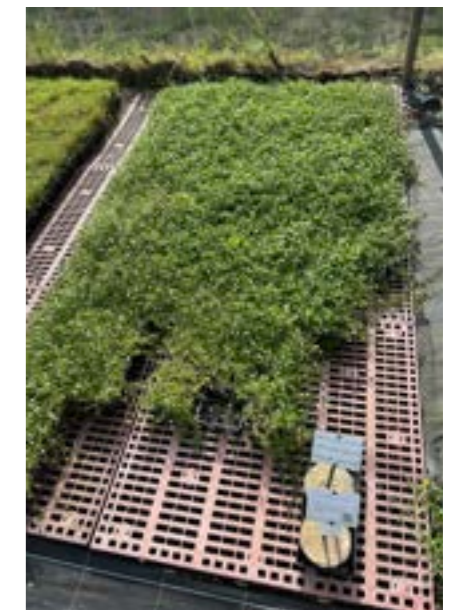
Arundo donax alongside the railway line



Phyla nodiflora var *canescens* on the path on the way to Pepiniere Filippi



Arriving at Pepiniere Filippi



Phyla nodiflora var *canescens* being sold in Pepiniere Filippi

I took a million photos going round the nursery as there were so many interesting plants. In this report have I only included some of the most interesting ones or plants which we saw elsewhere. Olivier's website is fantastic and has a lot of information on there about each plant. Do check it out: jardin-sec.com
 It was great to spend a lot of time here to see which plants he was selling and what we had seen and will see out in gardens and parks and the wild.



One of the polytunnels



Tulbaghia violacea which we saw lots of in Barcelona



Epilobium canum 'Western Hills'



Ferula communis subsp. *cardonae*



Polygonum scoparium



Origanum dictamnus



Carpenter bee on James' finger



Perovskia atriplicifolia



Plumbago capensis not the *P. auriculata* we saw in Barcelona

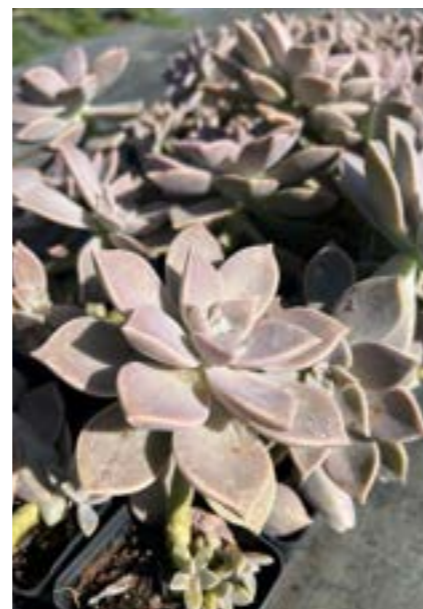
After going around the polytunnels this morning we then went to sit on a beach around the corner which was made of shingle. This was really interesting to see, a man made beach formed from the shellfish industry.



Delosperma cooperi



Malephora lutea



Graptopetalum paraguayense



Soda inermis



Anthemis maritima



Salicornia dolichostachya



Metal frames in the Étang de Thau which shellfish lines attach to



The shellfish industry



Looking back into the garden, including metal goat



Mixture of textures using shrubs



Looking up from the beach



The shell beach

We also had the opportunity to look around his experimental garden which was fascinating. The use of shrubs and sub shrubs in this way with a few herbaceous plants here and there is a fascinating sight. It looked amazing. Using shapes and foliage colour and seed heads to have the garden looking good in summer (when it should look the worst) is an impressive feat. There are a few small trees around providing some much-needed shade for other plants. This is something that we need to be doing more of, using shrubs in this way to retain moisture and help shade perennials from the harsh summer sun.



Phlomis sp.



Mixture of colours using shrubs



Small 'pits' around each plant to help retain water



James touching one of the more dense shrubs



Amaryllis paradisicola

Olivier experiments a lot and is a leader in the world of lawn alternatives. Using drought tolerant species such as *Zoysia tenuifolia* & *Achillea coarctata* and allelopathic plants like *Hieracium pilosella*.



Olivier's 'lawn' which gets no water and uses allelopathic plants



Test beds in the nursery

There are some cypress trees which are providing great vertical structure. There are some large Aleppo pines in the back near some other cypress' which make a very shady spot.



Cypresses sempervirens



The shady corner



Cyclamen sp. under the Aleppo pines



Roof tile hoggin habitat

He has a habitat section where there is an interesting structure made with roof tiles and hoggins. It is quite understated. I think that you could use a brighter coloured roof tile and really make it pop.

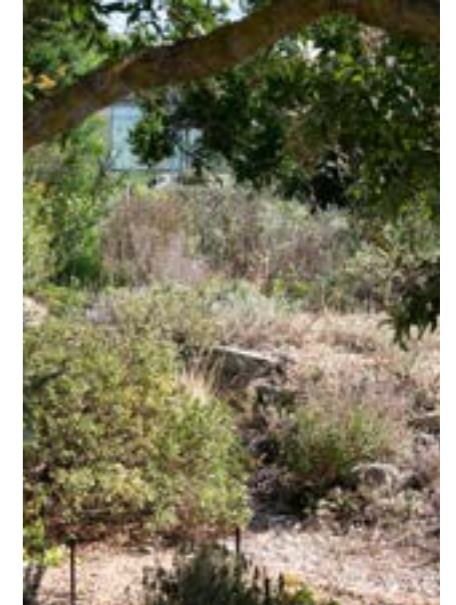
We then visited the other experimental garden, which is publicly accessible from the nursery. This was again very interesting and a useful tool for potential customers to come and see the potential of the plants that Olivier is selling.



Lonicera implexa



Euphorbia spinosa behind *Thymus capitatus*



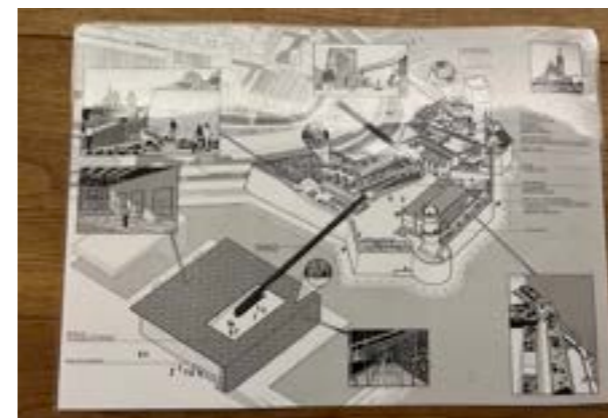
Rocky outcrop of the experimental garden

So grateful to have been able to look around Olivier's garden and speak to him. I would highly recommend all of his books as sources of inspiration as well as information about capacity for drought, including how many months specific species can be in drought.

We spoke a lot about how unpredictable our future is. We can expect to have more severe weather events and for longer periods of time. The UK might experience say 5 years of drought and then 4 years of very wet then 2 years of drought and so on. The future of our planting needs to be able to cope with this drastic range of conditions. As Enric Sancho said in Barcelona, we need to be using plants with a large capacity for adaptation.

Friday 13th

This was another travel day, we needed to go from Montpellier to Antibes. We had to change trains in Marseille so decided to get there in the morning and leave in the afternoon. Olivier Filippi had recommended that we go and see Mucem, a very impressive museum with multiple exhibitions. Most importantly though it has a bridge across to incredible mediterranean planting in The Gardens of Migration within the fort Saint-Jean's historic walls.



Map of the bridge to fort Saint-Jean



Mucem building



The gardens behind the fort's walls

Unfortunately for us the mistral meant that there were 50+ mph winds and so the bridge was closed! Disaster! We looked around in Mucem and saw some interesting exhibitions and then decided we could look at some other parks around Marseille before our train.

I think it must be the effects of Friday the 13th because every other park in the city was shut too with signs on all gates saying that they were closed from the strong winds. I imagine this must be due to the risk of trees being blown over onto people.

Despite the lack of parks we did manage to find some street planting on a relatively new staircase. Interestingly each of the trees had their common and scientific names on, good to see that the city is trying to educate people on which tree is which.



Celtis australis



Ziziphus jujuba



Quercus ilex



Looking up the staircase

After then waiting in the station for a bit we hopped on our train to Antibes. I was sat opposite a small French child who had a knack for dropping everything, making the train ride feel very quick and humorous! As we pulled in to the station we were met with a fantastic sunset catching the top of the Alps which made up for a rather uneventful day!



Sunset in Antibes

Saturday 14th

We had a fantastic day today with James Basson and Helena Coates who picked us up in Cannes-sur-Mer. We then drove over to Ciancavare nursery up some very narrow and steep roads on a mountain in Italy. Along the way to the nursery, we discussed lots of things like water, lawns, native vs non-native plants, design trends, etc. It was really good to speak to them and we were all on the same page about the future of planting design and the challenges we may face.



The view across the valley from Ciancavare

Ciancavare nursery is run by Clémence and Danny, they started it 20+ years ago in this romantic location. They had no access to a quarry and no way to get materials up here. To improve the soil they added a top layer of rubble and gravel, whatever they could get, then they rotavated it into their clay soil. It seems to be working well! To improve the drainage they added 200mm gravel drains running along the walls to try and take away the water as quickly as possible to a lower area of their land. This is essential as they catch all of the water running down the mountain behind them.



The dry stone walls with drains behind



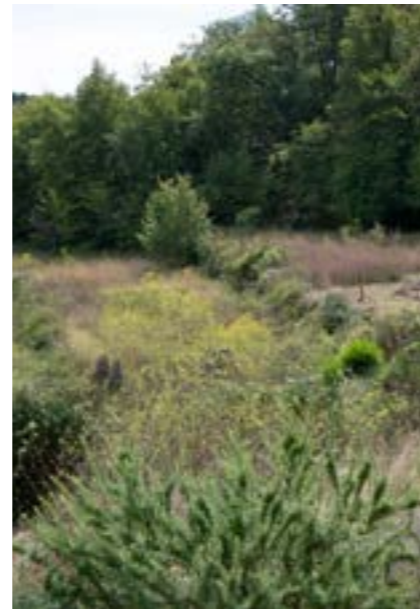
Growth out of stone



Looking out across the nursery



Nests of wild carrot amongst planting on the top terrace



Looking across into the more wild area with stands of fennel

They used to grow plants for Chelsea flower show for James Basson, put in the back of a little van, driven all the way down the mountain then packaged up in Imperia before making their way to Chelsea. One of the key features James was interested in was keeping the dead growth from last year with the new growth coming through. This meant you show more of the life cycle of each plant. Making them more fragile to transport though...



Foeniculum vulgare growing in one of the terraces



Euphorbia dendroides growing from one of the dry stone wall terraces

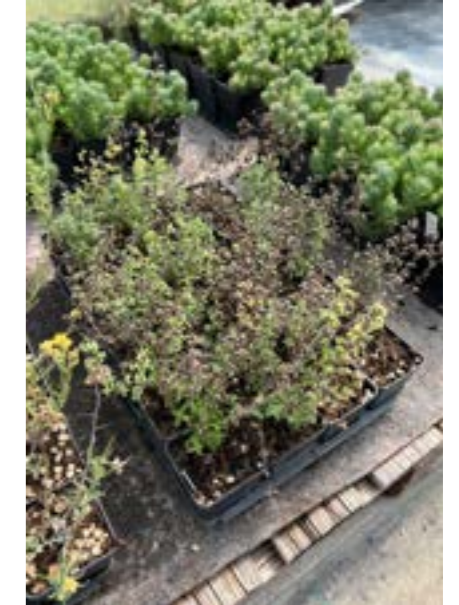
Very interesting to me they have trial beds of sand with gravel to try doing bare root planting. I believe that this is the future of planting in the UK and so it was fascinating to see bare root planting being experimented with here. James explained that it will work for one of his clients as they are only an hour and a half away. In this climate the issue for bare root plants is transport. You also need a team of people who understand how to handle and plant bare root. Additionally they are trying with growing things here to put into pots to carry on. They have found that this is working ok and helps especially for plants which are hard to get going in pots so this is a good way to start them off. They are growing two impressive looking bulbs of *Drimia maritima* which are dormant at the moment but will have big leaves over winter. It then flowers similar to *Eremurus*. We were told that it is a good bulb for green roofs.



Discussion around experimental bare root raised beds



Drimia maritima



Origanum heracleoticum

They are a fascinating nursery. The reason that James uses them though is because they have fantastic plants, they are very strong plants and an interesting range.



Foeniculum vulgare



Euphorbia dendroides



Artemisia versicolor

We had the most amazing lunch here with food homemade by Clémence, Danny, James, and Helena. The onion soup which Helena made was incredible and so I asked for the recipe and am looking forward to trying it myself!



Delicious lunch spread



Uncovered plant stock

We then went to a garden which they have done various phases on in Antibes. It was a stunning garden. Such a large space and designed so coherently. A very reserved palette of plants using mainly foliage and structure for interest (similar to what we saw Olivier Filippi doing in his own garden).



Looking along the first section of garden

This long section is a series of rooms which have all been planted with the walls being pistachia. The pistachia has been planted in a certain way and kept pruned that it is like a wedge. So looking along the garden you don't have a harsh block but a more dynamic slide which adds more depth. You see this especially when walking along the upper path. It took the client a few years to get used to have this planting style here as it could be perceived as messy but with a few tweaks and a bit of time he is on board with it.



View back through the garden



Looking down from the upper path

James explained that when people come to take photos of Mediterranean gardens they take them in spring when they are full of colour and flowers. So when clients come along and say that what that the whole year they are surprised when in summer a lot of things are dead or dormant. We had an interesting conversation about how some plants die well and other die looking bad. So we need to really think about that when looking at aesthetics and choosing the right plants. James does this very well.



Pathway with *Thyme sp.* growing in the cracks



Sculpture in the garden



Fantastic olive tree



The view out from the garden along the coast



Looking out across Antibes

The client wanted somewhere to host friends so a large section of planting around pavers was designed which looks fantastic. There are lots of mounding plants and some ground covers all weaving between the pavers. James and Helena said that some of the mounds were too big and so need to be taken out. They self-seed very easily and so it is fine to take it out as another will pop up nearby.



Lomelosia cretica mounds next to the swimming pool and events area



Looking over the pool



The water's edge

James and Helena then dropped us off at our airbnb and we said goodbye after an absolutely amazing day.

Sunday 15th

Domaine du Rayol. Travel nightmare!!

We set off in the morning at about 6am and got back at 10pm.

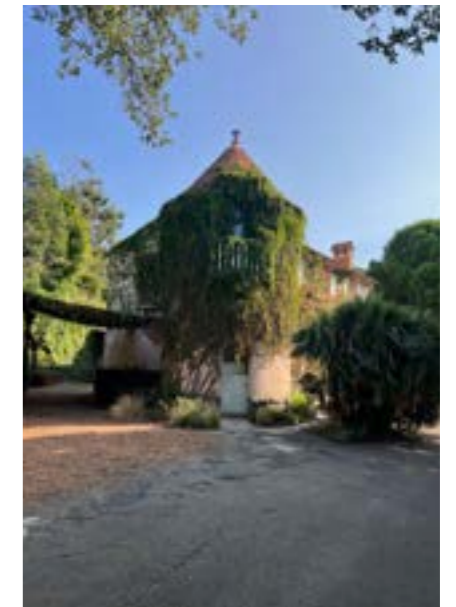
On the way there our travel was all as expected, getting to Domaine du Rayol at about 10:30am. This meant that we had a few hours going around the gardens before meeting with Jeremy Tritz, the head biologist at the gardens.



Out across the water from the entrance building



Brilliant pot with *Aeonium* sp. in



The old house, now a restaurant covered in climbers

The gardens are fascinating, there is a long history of various rich men owning it and then it was also a hotel for a while. In 1998 it was redesigned by the famous French designer Gilles Clement. There was a museum in one of the old houses which gave a lot of information about the design and there was also a very nice drawing showing Gilles' design for the gardens.



Gilles Clement's drawing of the gardens

The gardens are laid out like a botanical garden with different regions however none of the plants have any names on them. The idea behind it is that you have plants from all of the mediterranean bio geographic areas and not just the Mediterranean geographic region. This is a very interesting concept and ties in very well with what this trip has been about. Jeremy told us about the Köppen climate classification (https://en.wikipedia.org/wiki/Köppen_climate_classification) which shows areas of similar climatic conditions around the world, such as where there are mediterranean conditions. This is going to be a very useful tool for future work, especially academic work.

Jeremy recently went on a trip to California to see the mediterranean conditions there and he has published an article on his findings. This has then included what they are planting in their Californian section of the garden. However, Jeremy explained that it is extremely tricky to get seed back into France because of how the gardens are set up. If they were a botanical garden then it would be easier because there are processes in place for that.



Inflorescence in the Californian gardens



Palms in the Californian gardens



Kalanchoe beharensis in the Californian gardens



Amaryllis belladonna in the Californian gardens



Cacti in the Californian gardens



Cacti in the Californian gardens



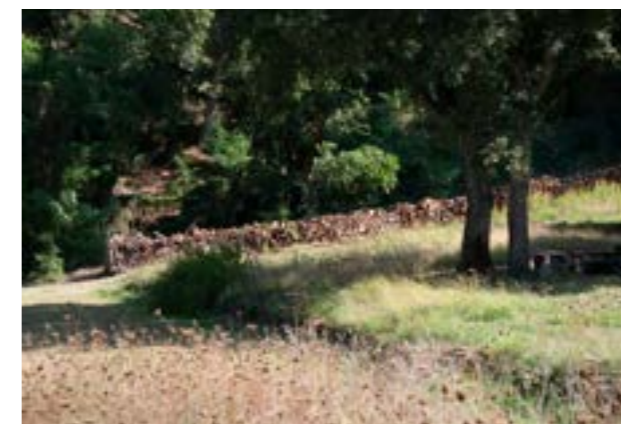
Cacti in the Californian gardens



Cacti in the Californian gardens

There are some very dry areas of the garden and then some which are more shaded and so are more akin to tropical planting. They carry out a lot of research here, including marine work as they have a private beach area which they can launch expeditions from.

We had a beautiful lunch here. I had a tuna which was done in this half cooked way again which was very nice. James had a lovely looking lamb joint on mashed potato. His looked a lot more filling than mine did. Although mine was very tasty.



Long log wall in the meadow section



New Zealand wetter section in the valley



Looking out from the main building as we left

After the gardens we went down to a beach while we were waiting for the bus to Toulon.



Walking down to the beach

At 17:00, 30 mins before the bus was scheduled to arrive we went up to the station to wait for it in case it was early (hint: it wasn't early). We waited here until the time it said on the bus station and then we waited until the time it said on google maps and the bus still wasn't here. A different bus went by which was 20 mins past scheduled and so we thought ah let's wait for another 20 before anything else. Our bus still didn't arrive even after 40 mins. I found a piece of paper on the floor and wrote out Toulon on it to prepare ourselves for hitchhiking back. Then just as I was colouring it in James shouted bus and the bus we needed arrived. I have never spun around so quickly. Now this bus takes an hour and a half to get to Toulon and we had about an hour and 45 mins before the last train of the day left Toulon to go to Antibes. So we were sat on this bus trying to figure out what other options we had. We would either have to stay in Toulon for the night or we would have to try and get some other mode of transport to Antibes. The option that I found was to get a coach to Nice airport and then there was a bus from Nice airport back to Antibes. This would cost us about €40 each. Toulon hotel probably more. It would also mean we were getting home at about 2am. Luckily we got to Toulon station at 20:03 which gave us 10 minutes to catch the last train. The train ended up being slightly delayed so we left Toulon at about 20:15 and then got into Antibes at 21:45. We still hadn't eaten anything since lunch because we had been stuck waiting or on bus / train. So we tried looking for something but also because it was a Sunday nothing was open. We ended up giving up on food and just went back to the flat. I had a single large tomato for dinner as that is all that I had. Not the most extravagant meal.

An eventful and slightly nerve wracking end to what was otherwise a fascinating day with beautiful weather, gardens, food, and the good company of Jeremy.

Monday 16th

Today was a short but sweet visit to Monaco. James Basson had suggested that we visit an old Roman quarry in the mountains above Monaco.



The view down into the main quarry section



Different colours of the limestone



A secondary area of the quarry with more shrubs



Euphorbia dendroides

There were absolutely stunning views down into the harbour. We saw a lot of interesting plants today, shown in the photos.



Odontites lutens



Pinus halepensis



Prospero autumnale



Cistus albidus



Pistache lentiscus



Olea europaea



Ononis minutissima



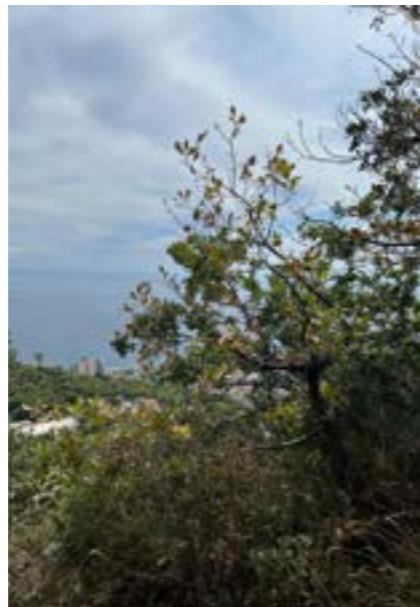
Satureja montana



Thymus sp.



Petrorhagia saxifraga



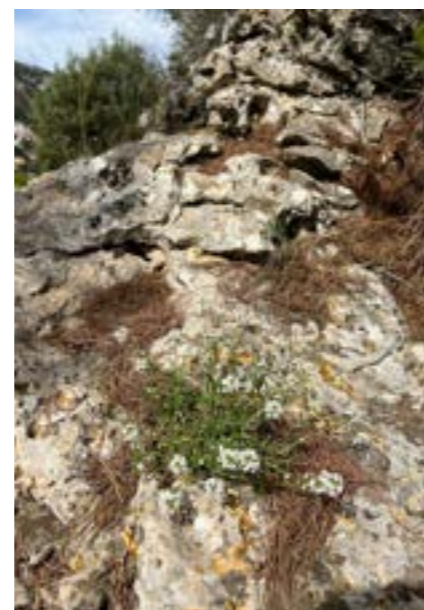
Quercus pubescens



Lagurus ovatus



Juniperus communis



Lobularia maritima

On my Instagram @zaandscape the video for this shows how amazing this place was better than I can put in words. We saw a praying mantis when we arrived which was amazing, I have never seen one before. We saw it as we were clambering over one of the impressive rock faces which had tiny *Euphorbia dendroides* and Sedums growing from every crack.



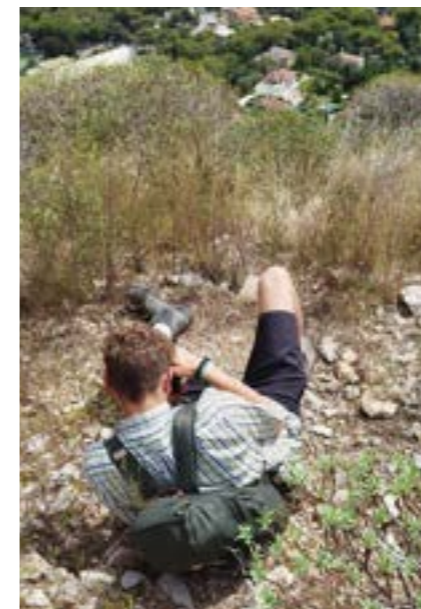
Praying mantis



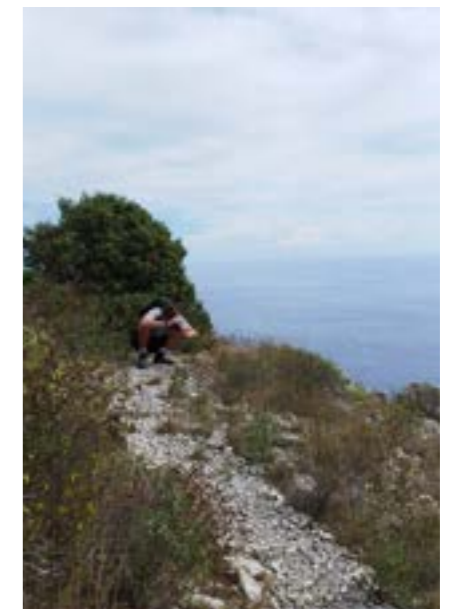
Euphorbia dendroides growing from cracks



Sedum growing from cracks



Me taking photos. Courtesy of James Horne



Me taking photos. Courtesy of James Horne

It was very bizarre walking around Monaco with such a mix of people from the mega rich coming in on enormous yachts to people like us just popping in for the day.



Me exploring one of the rock faces. Courtesy of James Horne



Looking over the harbour

Tuesday 17th

We had a slow start to the day going to the beach in the morning to look at maritime plants and habitat in the old town defensive walls. This is a harsh environment to grow in but there are a few plants which have really thrived like *Crithmum maritimum* which was growing on the ground and all the way up the walls. After a bit of a scramble we got to an impassable point and the vegetation really dropped off, the conditions here are just too harsh.



The beach hidden behind the sea wall



The sea wall



Shrubs growing in a more sheltered spot



Matthiola incana



Crithmum maritimum



The rocks we scrambled over



Harsh conditions

On our way back we took the more conventional route along the sea wall, the top. There are a series of inquisitive sculptures along this walk which were made from bronze and captured the movement of these figures incredibly well.



One of the bronze sculptures



The poets garden with bronze sculptures on wire



Gazania rigens

Just as we got back to our accommodation a storm rolled in and so we hunkered down and watched the flashes of rain come in sideways soaking our balcony! We then got an early night as tomorrow is a big day of travel.

Wednesday 18th

Big travel day today going from Antibes to Nantes via Paris. Luckily our long 5 ½ hour train from Antibes to Paris was luxurious, it felt like first class. We were promptly humbled as we got on a very hot and packed bus to race across Paris to catch our next train off to Nantes.

This really was the most delightful city to walk in to. There was lovely planting and big open space, a small carpark for drop off but there were no big roads only a quiet tram. As we walked through a large sculpture caught our eye which was a green fingered giant.

We sat by the river for a bit after dropping our bags off at our accommodation and I did my video for the day here speaking about London Plane trees. They were absolutely humongous compared to all of the London Plane trees we saw around the Mediterranean, looking much healthier here. The climate here is far more temperate and actually closer to the current UK climate.



Green fingered giant



Plane trees



Across the river Erdre, enormous London Plane trees in the background



Beautiful sun reflecting off a metal clad building in the background

After our big day of travel we headed back to the accommodation and got a good nights rest.

Thursday 19th

In the morning we went to Les Machines de l'Île. The Island of Machines, no words can describe the intricacy and the scale of the work happening here. There are huge warehouses which have big and small machines that are operated by people, engines, or electricity.

We went into the main exhibition showing of all of the beings that would have been on the Heron Tree project if it hadn't been cancelled.



Side view of the elephant



A drawing of what the heron tree would have looked like



A well decorated bird which you can control to 'dance'



The humongous moving elephant which you can ride



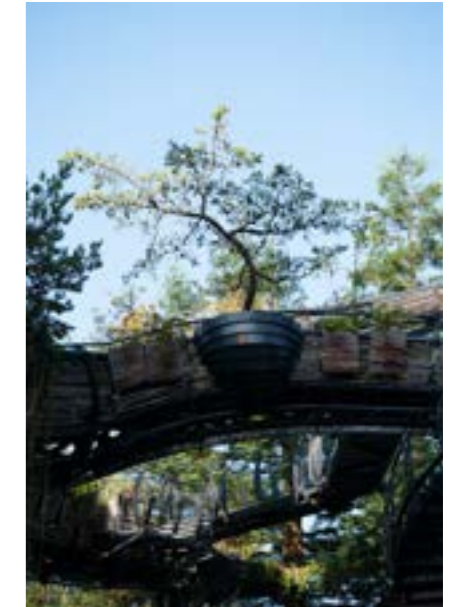
Curious jars of things in a greenhouse room in the exhibition



Gaura planted en mass in the public realm in Les Machines de l'Île



Pine tree in a small planter on a prototype arm of the heron tree



Pine tree in much larger planter of the heron tree

Then we met up with Jacques Soignon in the afternoon at the botanical gardens. The information about Nantes today is a culmination of many conversations with Jacques including some other days such as travelling to and from Chaumont festival.

Jacques was head of parks and director of the botanical gardens for 20+ years and has been working in the parks department for 35 years. He has done a lot of work with artists and sculptors improving the cultural work in Nantes. The website levoyagenantes is the place to get information, this started 25 years ago and a lot of the work Jacques has done has influenced this.

The green line is a fantastic way to find out about the parks and sculptures around Nantes. It is a physical green line which runs around the city that you can follow to be lead to interesting pieces of work and parks. There is a map and also the website that has a guide on it.



The green line in front of a very impressive looking restaurant



Giant wooden hand 'holding' up the tree

Nantes used to be called 'green Venice' because of its canals and rivers and now a lot of them have been culverted and many turned into parks.

There is a 600,000 population including suburbs in Nantes and so it is of comparable size to Sheffield.

There is a section of carnivorous plants in the botanical gardens which is very useful to be able to see which insects are using the area. In place of a formal garden Jacques changed it over to being wild and they are starting to have more wild areas everywhere. This is using plants as they would be found in plant communities in the wild.



Carnivorous garden



Wild garden

The glass houses are very beautifully crafted and interestingly a new one was bought which one of the staff found on eBay and then Jacques bought it. It took quite a lot of money to actually build all of the structure and bring it up to modern standards. But as with a lot of what Jacques has done he convinced the board to buy it and then worked from there to get the rest of the funding.



Inside one of the original glasshouses



More recent glasshouse



Inside the recent glasshouse

They still have large areas of grass which I understand. They have the water here to not worry about using too much on the lawn. I think that it helps to frame the views of the rest of the gardens. The only improvement I would make it letting people sit on it but then you have the issue of the grass being degraded by people or people littering etc. There are plenty of other areas even within the gardens for people to sit on grass.

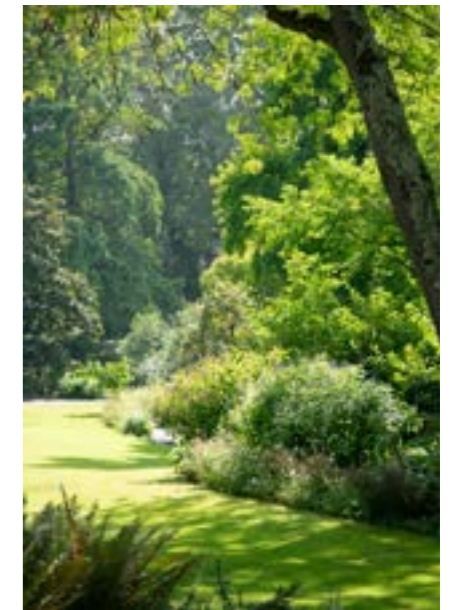
There are lots of interesting benches in the garden, working with different artists to make the sitting experience more fun. I think that a lot of the work that Jacques has done has been about having fun and making the city a better experience for as many people as possible.



Bendy bench



The grass lawn

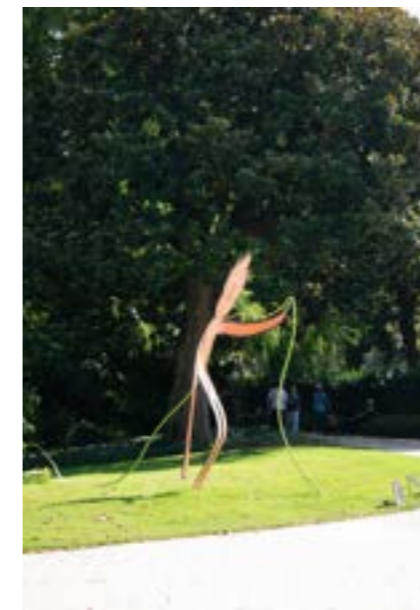


Large border along the lawn

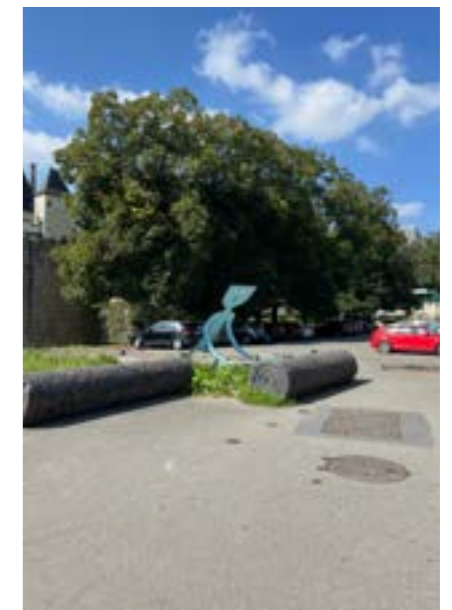
There are sculptures throughout the garden, one artist in particular Jules Julien who has made these big steel people doing funny things, such as one in the pond with an arm out either side and his head in the middle. There is also one wrapped around a tree at the main entrance from the station. Then one of the most important ones is the one holding the start of the green line.



Pond sculpture



Green line sculpture



Jules Julien sculpture rolling away the tarmac in the city centre

At the botanics there is a section outside the restaurant which has edible plants which anyone is free to take. This is something that Jacques started across the city with these patches for anyone to take food. This was happening at the same time that incredible edibles was happening in the UK.

The gardens hold a large collection of camellias and magnolia. There is an inconspicuous route through camellias which when they are in flower children go through and do essentially a treasure hunt for the different flowers. But while they are not in flower you wouldn't know that there is a path there. A considerate design decision working with the seasonality of the plants. This is next to a big statue of Jules Verne who was born here. He wrote the story Around the world in 80 days. There is also a large wooden statue of a man which is very recent. This is above a pond and has water running out of the top of it down the body. Because it is wood it will change over time and adapt, which is the intention.



Veg outside the restaurant

We then walked out of the botanics and it was interesting to hear Jacques say that they actually gave up some of the botanics to give to the public realm to integrate it better. There are some nice big planters outside the gate with seating on. Similar to those outside the crucible in Sheffield. The fence they put up afterwards is very nice. Secure but still looks very permeable. So you can see into the botanics easily but obviously when it is closed you can't get in.

This then took us out onto the first section of a long section of regeneration linking out to Le Jardin extraordinaire. Two of the phases have already been completed, one by Phyto Lab. Then there is one more phase which is currently being finalised before it will then fully connect up to le Jardin extraordinaire.



Wooden statue



Wooden statue through the camellias



Jules Verne statue



Wooden statue

The green line then runs around the city to various very interesting things and past lots of shops and restaurants. When the green line was first put there the shops along the route had the option to sign up to work with le voyage a Nantes and do some silly artwork or something outside the shop, this then means they are included in the group. For example a butchers had model heads of lots of animals mounted on the shop front but all with funny silly wigs on. As we walked through town Jacques pointed out a tree which he had planted 30 years ago and is quite rare. James and I have never seen this species before, let alone as a street tree. It was *Platanus orientalis var. insularis*.



Platanus orientalis var. insularis



And the leaf



The last magnolia flower



Gunnera next to the pond



Caramel tree (which really does smell of caramel)

Next we went to Jardin interior which has been Evor's work since 2018. He transformed a large area of flat concrete roof space into an absolute haven. There is such a high density of planting now, all in pots and it looks fantastic. He has done it in a small courtyard right outside his building as well. This all looks so impressive, especially from above where you can see all of the different leaf shapes and textures. He worked with Jacques and voyage a Nantes and there is a staircase leading up to a viewing platform so people can see it from the same level as the planting. This was important as you can't have people actually going onto the roof for their own safety but also the risk of them damaging the plants. There is also a shutter that closes at 7pm and opens a 10am which protects the courtyard overnight so that no one comes in and damages or steals the plants.

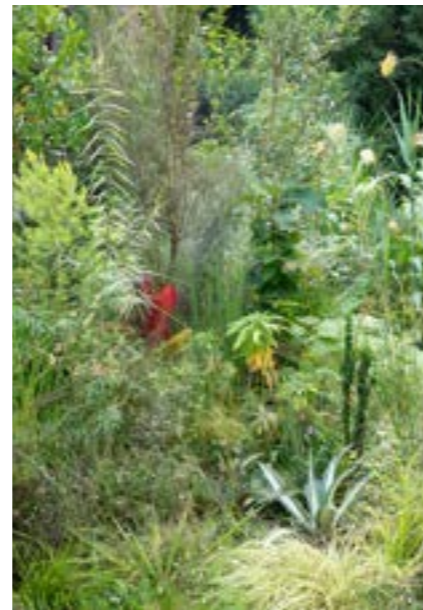
Evor waters this and has an irrigation system set up. He tries to water as little as possible but because everything is in pots you have to water a bit. Eventually the garden will reach its peak as the trees will get too big for their pots. I wonder what he will do then, I think he has a plan.



Evor's Jardin Interior



Evor's Jardin Interior



Evor's Jardin Interior



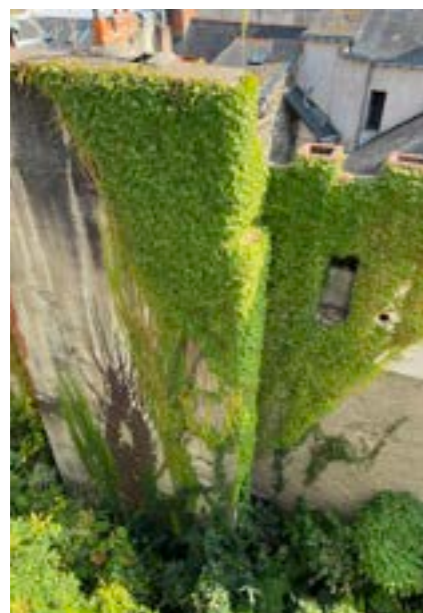
Evor's Jardin Interior



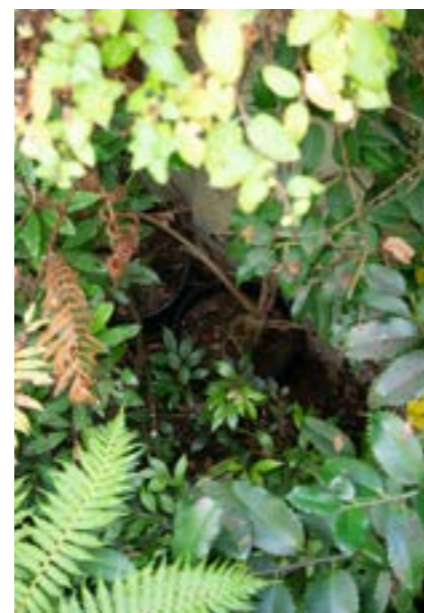
Evor's Jardin Interior



From above



Climbers



The pots at ground level

Next we walked over to the Square Jean-Baptiste-Daviais which has a very early one of the edible gardens in. Jacques explained that there was push back that by putting picnic benches there would be a lot of homeless people using them. So Jacques put a lot of picnic benches to make sure that there was enough for everyone to use. This seems to have worked as there was a lot of people using the park.



Edible garden



Densely planted most recent end of the new park development



Looking down from the castle in the city centre on our way to Square Jean-Baptiste-Daviais

We then went to the River Erdre where we recorded my video yesterday and did the video for today with Jacques here. This was really good to get him on camera explaining what we had spoken about during the day. What a wonderful first day in Nantes and a huge thank you to Jacques for his generosity.

Friday 20th

We went to Le Jardin Extraordinaire this morning after Jacques suggested it yesterday and it was outstanding. On our way there we saw some interesting pieces of sculpture, carved from tree trunks. I give a good summary of the facts about Le Jardin Extraordinaire on my Instagram @zandscape and so will show some more of the specific plant species and features here.



Crows nest sculpture which you can go on



Carved tree trunks



Hibiscus sp.



Incredible seed pods



Grasses used throughout the Jardin



Pennisetum catching the light



Stepping stones across the 200mm deep 'river'



Massive gunnera



The waterfall



Looking down into the park



The next phase of construction which is where the Heron Tower was planned to go, now it is going to be a natural swimming pool

There is a building across from le Jardin extraordinaire which Jacques and his team wanted to get rid of it because it is pretty ugly. The architects on the team said no because it has a significant historical aspect that it is one of the first uses of reinforced concrete. The building is now staying and will become a museum for the imaginary. This is linking with the stories that Jules Verne wrote.



The building in contest



A fantastic building next door completed covered in plants

Mid-afternoon we met up with Jacques, his wife, and Evor to begin the trip to Chamont Sur Loire. We stopped off at a chateau called La Constantinière along the way, just below Angers. The chateau was lovely, it used to be a hotel in the middle of agricultural fields and the building was falling down a bit. The couple that own it now have put a lot of work into it and the house looks amazing and they have really developed the gardens. Jacques visited 20 years ago and there was empty fields but now it is brilliant. It is based on gardens in Versailles. Part of the idea is that it is like a farm here but with lots of things going on all complementing each other and in small quantities. Interesting to visit.



The geese



Landform changes around the pond forming impressive shapes



Evor in front of Hydrangeas matching the shade of window frames



The one white hydrangea

Then we carried on the journey to Chaumont. Once we got to Chaumont Jacques dropped us off at our hotel and check in went smoothly. It was a very nice 3 star hotel with a pool and restaurant and everything. But it was the same price as anything else in the area so made sense. It was on the other side of the road to the garden festival entrance which was very helpful. We could see the entrance from our room. We had a look at if there was anything about to eat and there wasn't much. So we went down to the restaurant in the hotel. This turned out to be a great decision. We both had an amazing steak which came with a big piece of pasta wrapped around a mushroom thing which is what you put in a beef wellington. This was all on a red wine Ju which was so tasty.

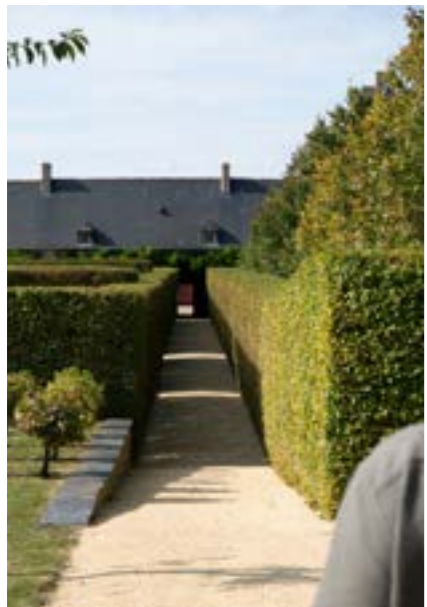
After a lovely meal we then settled in for the night ready to get started early the next day going around the festival!



The aforementioned meal

Saturday 21st

We started by watching the gates waiting for them to open so we could go down and get our tickets to start going around the festival. This was fascinating to see. It is a 6 month long festival from the end of April to the start of November. There are the grounds with sculpture and a big castle, permanent gardens, and temporary gardens. There are a few of the temporary gardens that have been here for more than this year such as Evor's garden where this is the second year of it being here. And they have asked him to keep it for another year. In the entrance section there is a garden replacing a lawn, designed by James Basson and he asked us to have a look at it and send him some photos! It is a series of sedum mats on top of each other as they were not allowed to put down sand or gravel. Then other things have been planted into that. Recently there have been some glass sculptures added to it which adds some more shapes to the mix.



Very well kept hedges adding much needed structure



Beautiful pots of agapanthus along the large stretch of water as you come from the dining room



Cacti in the veg garden



The Castle



Looking across the La Loire valley from the castle



Interesting sculpture within one of the buildings



James' garden section wide shot



Stables with sculpture



Plan view of the garden



Bright red sedum

We spent the most time in the temporary gardens and there were a few which really stood out, our favourite was the Pomoloflore garden which was as if construction had stopped on a site and nature had taken over. This looked fantastic, the planting was great, the seating was well crafted with large pieces of rubble, the construction aspects were clear. It all worked really well and looked fantastic. You could seriously see how you could make a garden from this.



Low growing heather



Construction waste crafted into seating



Acros across a ditch



Rhus glabra 'Laciniata'



Some other visitors across the haze of the garden



Glass sculptures through the garden



The other side, smaller block size



Echinacea



Wonderful purple grass

The other one that we really liked had large planters with sedums growing up along the edges and was planted into rubble. The other one we really liked was Evor's because of how dense the planting was. It had much higher density of plants than the majority of other gardens and felt right. This is a show garden and is only temporary and so it is worth putting in the big plants to get the big effect now. There were lots of other gardens too which looked lovely.



Big planters with sedums growing up edges



Bee on the Buddleia



Planting into rubble

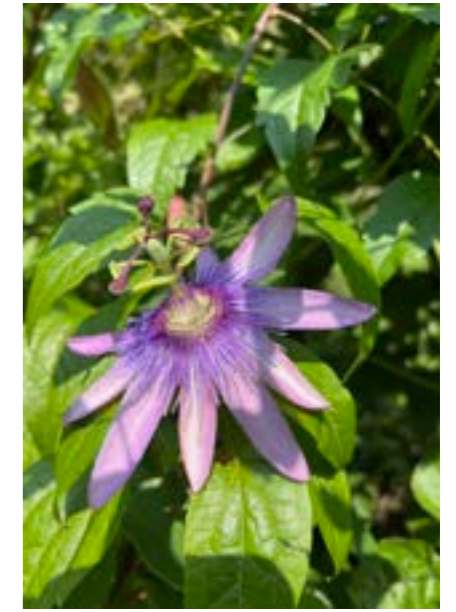
Throughout the festival this year there was a big theme of rebirth from logs. Using deadwood to symbolise the new life that is brought from death. It was great to see this awareness being brought out about how important it is to have dead material in our landscapes.



Tree stumps covered in moss



Incredible *Acer palmatum* 'Sangokaku' next to the tree stumps



Passionfruit flower



Pines on a white sand background



'Tree' in the middle of a pond



Fantastic blocks of grasses throughout



The grasses glowing in the sun with many admirers



Grasses glowing



Evor's garden entrance



Close up of a plant on the 'tree'

This weekend only is when the nursery people come to sell their plants and they get judged. Jacques is on the jury for the judging of these stands. We went to see his stand where he was selling his books and magazine. We looked along the rest of the stands which was good as I managed to find some plant names which I wanted to know.



Nursery stands

Jacques invited us to a meal tonight which turned out to be in a big hall at the accommodation of all of the nursery people. This was fantastic, there was lots of people and lots of food. Jacques picked us up from our hotel and then we went to the shop and he picked up some bits and bobs. We were the first ones there. It was a little awkward as people started filtering in as we didn't know who could speak English and who couldn't! We made ourselves busy and then Jacques introduced us to a few people. We got chatting and it was great, lots of nice wine and interesting foods. Although I spent far too much time chatting that I didn't actually eat a huge amount of food.

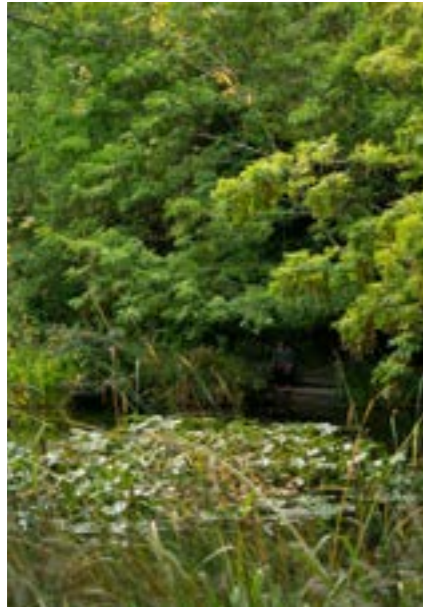
I am so grateful to Jacques for bringing us to this gathering as we had a great time speaking about the differences in horticulture between the UK and France. Comparing our approaches to gardening and the cultural difference in which plants are used.



The mostly eaten spread of food!

Sunday 22nd

We spent the morning going around Chaumont festival having a look at some of the permanent gardens. These are ones in a different section which have more established planting and contain a lot of sculpture. There are also various pieces of land art throughout this section of the gardens.



A lovely spot to rest next to a pond in one of the gardens



Lespedeza thumbergii



Lespedeza thumbergii close up



Eucomis comosa



Pines felled and their journey to a circle



Eggs in a volcano



Lemon squeezer



Rosmarinus officinalis 'Barcelona'



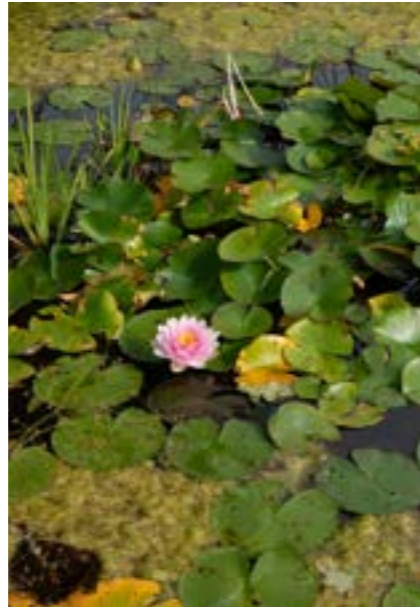
Rosmarinus officinalis 'Seven Seas'



Rosmarinus officinalis 'Spice Islands'



Glasshouse with willow used to form most of it



Vibrant water lily



Fantastic tree in front of a yellow monolith

We then explored the other permanent section of the grounds which is the large sculpture park next to the castle. It felt far more like an English country park here with large expanses of long grass and individual trees. Mixed in with sculptures.



Deadhead from a tree stump

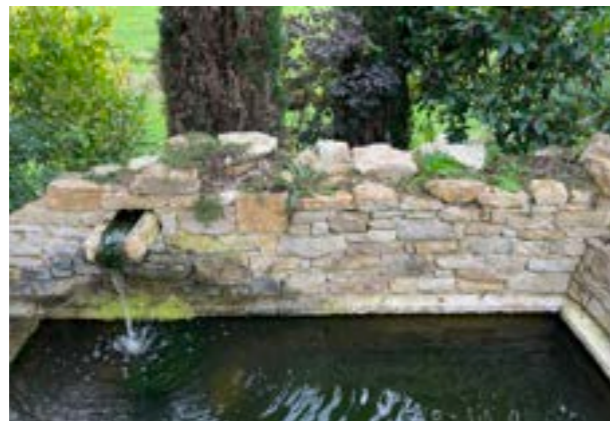


Burnt wood figures standing tall



Rope people

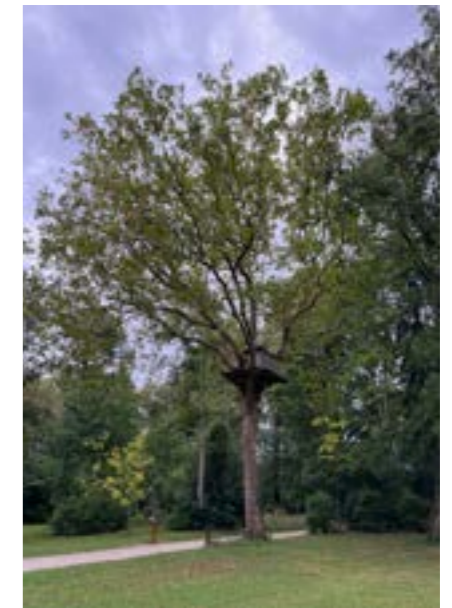
One of the permanent gardens was a mediterranean garden which was fantastic to see in this climate. There was obviously fewer species here than we had seen in our travels around the mediterranean but the feeling and atmosphere matched perfectly. It really did take us back a week or so.



Water spout feature



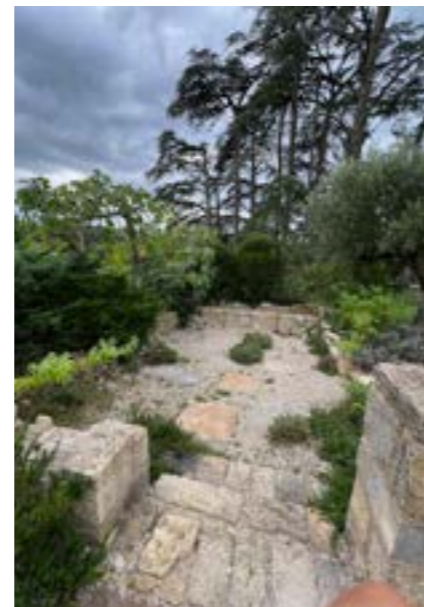
Huge painted log pile



Tree house



Mediterranean garden olive tree with *Erigeron karvinensis* in the foreground



Looking down into a lower section with the iconic mounding shrubs

Just as we were about to leave it started to rain and so we headed over to Jacques and in the nick of time as we got into the car the heavens opened and it was torrential rain. On the drive back we had lots of good conversation which I have written about on the 19th.

We got back to Nantes where it was lovely and sunny and we got a photo together before Jacques and his wife set of home to get ready for their trip to Venice tomorrow!



Me, Jacques, James

Monday 23rd

Today we wanted to explore some more of the south side of Nantes. We were staying in the North and had only seen that and the centre. So first we went to the l'île de Nantes to see the east side. There is a large park section which had a go ape style adventure park and huge poplar trees. Then onto the far east corner under the railway line turned out to feel slightly dodgy but also somewhat rainforest like.



Poplar trees in the park



Dodgy edgelands dead wood



Dodgy edgelands rainforest feel



Muddy banks

From here we walked past the biggest Carrefour I have ever seen and had some lunch sitting on the edge of the river. We wanted to get over to Prairies de Sevre park which looked interesting on google maps. It is the first of a series of parks following the La Sèvre Nantaise out into the countryside from the city centre. Evor said that he grew up in one of the houses along this river and his mother still lives there. Once we got to park we were very surprised to see cows! They were the sweetest looking cows in with a donkey. On the signs they explained that they are variously moved throughout the park to graze different sections. This is a fantastic management technique being used and really should be an example for everywhere! Probably due to other forward thinking management techniques there was a big variety of trees in the park including: Ash, *Quercus robur*, *Quercus pratensis*, *Populus nigra*, Cherry, Hazel, Stone pine, Scots pine, *Salix alba*, and Bay.



Donkey



Vicious looking horns



Another colourway of cow in the distance



Natural archway



Fantastic ash



Cows nibbling

We then walked along the tow path of La Loire west towards a bridge across to a section of the island we hadn't seen. This turned out to be a fantastic brownfield of an old railway sidings. With lots of the rail still there. Lots of interesting substrates mounded with ruderal plants growing up them. From a design perspective it was fascinating to see the material testing that had been started for I imagine new pathways or roadsides if this is to become housing.



Buddleia in the brownfield



The storage yard



Piles of stone material



Pile of stone material with minimal vegetation



Test sections



Square clipped London Plane trees



Euphorbia as a 'weed' on the way to the brownfield site



Arbutus unedo around the corner



Wonderfully bright coloured fruit on *Arbutus unedo*



Looking west across the brownfield land

This brownfield is just below Les Machines de l'île and so we walked through that and saw the design school (appropriate place for it). Then off back to our accommodation again.

Tuesday 24th

Jacques recommended that we visit the Cemetery park arboretum in the North of Nantes just outside the outer ring road. This was a lovely day to visit both weather wise and timing as it is the anniversary of my grandmother dying so I could say a few words for her. The park was designed in the early 1950s and then first burial was in 1979, of Charles Friesé who was the cemetery's designer. It has developed as an arboretum too which is very interesting in cemetery design as it helps with wayfinding and a sense of grounding to a location. At the south entrance there is a map of the park but also a guide to specific interesting trees.

We took it very slowly here and enjoyed our time walking around embracing the detailed design decisions. I thoroughly enjoyed visiting this cemetery and think that the design and planting choices have worked fantastically.



Signs and the start



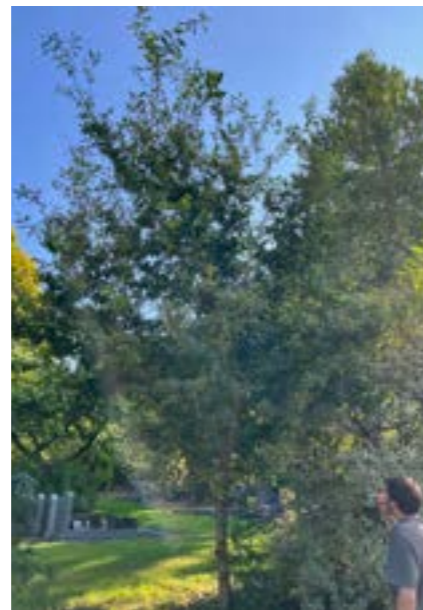
Signs and the start



Rubbish and washing station beautifully crafted



Large plant pot alongside the edible garden within the cemetery



Quercus myrsinifolia



Quercus myrsinifolia acorn



Looking along one of the paths



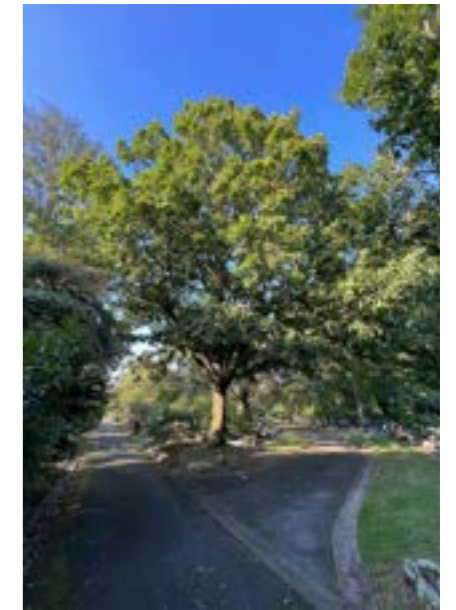
Long lawn with wildflowers and lined with pines



Quercus x schochiana



Quercus x schochiana leaf



Quercus canariensis



Cornus capitata



Cornus capitata flower heads



Magnolia martini



Quercus coccinea



Quercus coccinea leaf



Quercus ilex



Quercus hartwissiana



Quercus hartwissiana leaf



Magnolia 'Wada's Memory'

In the evening at dinner, Evor mentioned that he was part of the people pushing for collections to not just be in one park or garden but for the whole city to be a collection. We sort of saw this today with a sign for CCVS saying that the cemetery park holds part of the collection of camellia and magnolia for the city of Nantes. Another part of this collection is in the botanical gardens. This is a very interesting concept in comparison to the UK national collection model.

Wednesday 25th

On our last day we were surprised with quite a lot of rain! We had walked past the Natural history museum on one of our other days and so made the trip to go inside this time. It was very cool to see, I particularly enjoyed the geological section. There were many pinned butterflies and taxidermy animals explaining the natural history but I enjoyed the hand drawn butterflies which were displayed in one room, very amusing! On our way out we saw the stairwell was lined with panels of all different types of wood.



Hand drawn butterfly

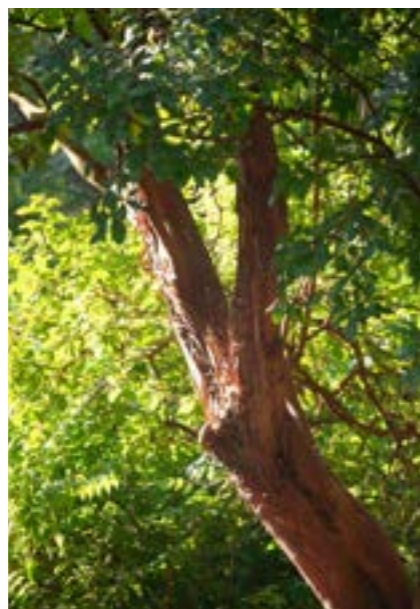


Wooden panel

As we made our way back to the accommodation to hide out from the rain we ventured through the botanical gardens which was impressive to see in torrential downpour. I looked through the 'plant library' style section and got some photos of interesting species. Comedically I asked James to record my video for the day here which meant I got completely soaked through and we spend the video trying to find spots for James to stand under some shelter! It is an amusing video if you fancy watching it on @zaandscape



Itea ilicifolia



Amazing bark on *Arbutus x andrachnoides*



The light catching *Arbutus x andrachnoides* lovingly



Wonderful leaf colour on this *Aesculus x woerlitsensis*



Gomphrena haageana 'Qis Red'



Brunnera macrophylla 'Looking Glass'



Pentas lanceolata 'Northern Lights Lavander'



Aster eriocoides 'Snow Flurry'



Euphorbia polychrome



Eupatorium capillifolium 'Elegant Plume'



Carex buchananii 'Red Rooster'



Across the 'plant library'

We then hunkered down once we got back to our accommodation and I had a very stressful time trying to make a green screen video with some more photos from our trip to Chaumont festival. It turned out ok but after a lot of retakes and many laughs from James.

Thursday 26th

Time to travel home and what a journey it was! I think we took almost every mode of transport today. Starting with a walk to a café next to the tram stop where I had my last French beer. A short tram ride across the island to reach the opposite side of La Sèvre Nantaise from Prairies de sévres and we ran down in the rain to see a statue Evor mentioned to us yesterday. It is of a woman holding an eel and represents the transition from the spiritual to the real. It was well worth seeing and was next to the most enormous plane trees we had seen, the biggest in Nantes!



The statue



Avenue of big plane trees (bigger ones in my video on Instagram)

We then got on a bus to the airport which we managed to catch just in time! Arriving at the airport was easy peasy and hardly any queuing but landing back in the UK was a little scary as there was a major storm. We landed well enough and made our way back off home after what has been an enormous trip. Learning so much from so many people and landscapes.

Conclusion

The underlying aim of this trip was to study landscapes and plants around the mediterranean to learn what we might be able to use in the UK with our rapidly changing climate. Ultimately the conclusion that we came to is that there is no one size fits all, as we saw at Cultidelta and Pepiniere Filippi just the difference of a slope or a bowl under a plant makes all the difference. I have learnt a lot from the entire trip but I think my biggest takeaway is the importance of asking the right people the right questions at the right time.

The approach to planting that I think we need to adopt in the UK is to do more trails with both native and non-native plants. There should be less focus on where the plants have come from and more about how well they may perform in the future and what their capacity of adaptation is. One of the species that I was most impressed by was Pistacia lentiscus for how often we saw it both cultivated and in the wild. Bright red berries and evergreen it looked outstanding in the Monaco quarry and in the many parks we saw it.

Throughout this trip I have met so many fantastic people and have followed them online and look to keep up with their work into the future. This culture of sharing information and helping each other grow makes me so happy to be part of the horticultural world. I am taking the findings from this trip and putting them to use in my final masters year of Landscape Architecture and University of Sheffield. I am going to continue this research and experiment myself both through design and practical application which I will document on my Instagram account @zaandscape. We are in a very exciting time at the moment with lots of potential for new species and planting combinations, focusing on plant performance and then working with that to develop new novel ecosystems and aesthetics.