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Photography in the Glasshouse by Ivor Graney

When a photo holds the attention of the viewer it has achieved its purpose. A common problem that will downgrade an image is something in the background that competes with your subject, causing the viewer's eye to wander and quickly lose interest. This problem is easily fixed when the subject is a potted plant. All you have to do is place a board 1 metre behind the plant which will hide those distractions. I use a piece of Masonite that I painted pale green, the same paint I use for the window sills and eaves. As you can see I put the board on a small easel. The back of an old chair would also do the job. I also use a plank across two bench tops to display the subject and can quickly take several individual plants in a short time. I select the plants I intend to capture in soft light; it could be the early morning light, or later in the day when the sun is low in the western sky. Although my glasshouse has shade cloth blinds I still avoid taking a picture in the harsh sunlight between 10am and 5pm through summer as it fails to capture the delicate hues that can be seen in the petals and is very noticeable in red flowers. Shade or overcast conditions are good, better still is the sun filtered by a cloud. When I update an image I can usually anticipate when the buds will open and I make sure I check the plant in the morning while the light is still soft. I may get another chance later in the day if I think an improvement is possible. We are spoilt today with the digital camera, taking a shot then immediately being able to look at the result and adjusting as necessary. This can give great encouragement when trying to get that perfect picture. Many of my friends use a compact camera; they use it in "auto mode" getting excellent results in morning light and late afternoon. I use an SLR with the old lenses I bought when film cameras were the norm. Most shots are taken with the sun behind me or coming in from one side, however there is always the exception to the rule. I illustrate it below with a back-lit Parodia *leninghausii*. Note here I use a board behind with a dark surface this also highlights the spines. Photos that are taken with the sun low in the sky behind the plant will leave the front in shade and require some of the sunlight reflected back onto the front side of the plant, or you may simply use the flash. I prefer reflecting back the soft light as I can see what the result will be before pressing the button.

Aluminium foil wrapped over a piece of Masonite works very well as a reflector. It is best to wrinkle the foil before placing it over the sheet; this will cause lots of small reflections and less bright spots. A two dollar windscreen heat reflector from bargain basement or the like can be cut into six reflectors. I am holding one in the first image illustrating this article. It is an excellent reflector. I can roll it up and store it with the camera and is always handy. Try a reflector out on one of your plants that is side-lit. It is fascinating to see how much of the plant is under lit, and how to throw more light over the body of the plant that is shaded by its own flowers. Take a photo then take another without the reflector and compare the two shots on your PC and you will be hooked. As previously mentioned I found that red flowers lose their subtle shades when taken in full sunlight, the petals take on an overall red, looking more like lipstick than the complex shades you will capture when the sun is filtered by a cloud. Note the variation through the red spectrum in these two photo's Echinopsis *famatimensis* above is better taken the moment the sun is behind a cloud, this will ensure the dark tints on the tips of the petals will be recorded. A bright cloudy day will also be good for this. When taken in full sun this delicate detail is lost. *Echinopsis formosa* below also showing the delicate hues when photographed the same way as above.

Echinopsis lageniformis below taken from a low angle, this informs the viewer this is a tall plant. I used a dark board as a background to make the flowers dramatic and allude to nocturnal pollination.

There is much pleasure in sharing your photos with someone and even more so when you have put extra effort into taking them. My interest in photography goes back to my youth but I didn't become a passionate photographer until I was into my thirties. Joining a camera club and having your work criticized and the good points talked about, learning from the judges what I should have done to make this a better picture has made me use my camera with greater skill and given me much pleasure.
Look at the subject from different angles, pick up your camera and look again filling the frame. Take several shots and compare them on your PC. Have fun with your photography and take the time to create your image rather than settle for a record shot. Experiment with light and composition and do try reflecting natural light back onto your subject, there is much enjoyment to be gained with attention to detail.

There are more of my images on the 8th CD that were taken using the same techniques illustrated in this article.
Below are the key points to remember.

- Use the soft early morning light or late afternoon when the sun is low.
- Look for opportunities to take when the sun is filtered by a cloud, even if it's momentary.
- Hide that distracting background with a painted board.
- Reflect light into those dark and shaded areas to give your image impact.
- Look at the subject from different angles

Die Sukkulenten - Sammlung
Zürich

The Succulent Collection
Jürgen Lenz

In May 2013 Rosi and I visited our families in Germany. A few months before we went we had read an article in the Cactus and Succulent Journal of the Cactus and Succulent Society of America about “Die Sukkulenten Sammlung” in Zürich, Switzerland. Being in Europe we took the opportunity to go there to see one of the largest Succulent Collections in the world. A 6 hour journey on the Inter-City Train from Frankfurt, Germany brought us to Zürich.

Around 1920 a certain Jacob Gasser operated a specialised cactus nursery in Zürich. Due to ill health he was forced to give up his business and collection. He wanted to sell his plants individually. Several Zürich City officials, including the director of the Botanical Gardens at the time, recognised the great scientific value of Gasser’s private collection.

Because of the looming World Economic Crisis of 1929, the City of Zürich was unable to purchase the collection. Fortunately a Store owner, Mr. Julius Braun, bought the entire collection for the sum of 20 000 Swiss Francs. The collection consisted of 1,516 individual plants of 652 species, most of them cacti.

He donated the collection to the City of Zürich, with the condition that it be open to the public. Both locals and visitors to Zürich were highly interested in the collection. Due to the financial constraints the original plan to build a whole suite of display greenhouses had to be abandoned. By 1931 a single greenhouse, for the princely sum of 36 000 Swiss Francs, was built. It attracted 12 500 visitors in its first two years. Then, as now, the admission to the collection is free of charge.

In 1947, the Giant Plant House was built. By 1968 the Succulent Collection consisted of seven greenhouses, but only three were open to visitors. The last big renovation happened between 1982 and 1984, with newly built glasshouses and the renovation of the old glasshouses and the rockery, which houses winter-hardy succulents. During the winter months, temporary roofs of plastic across the rockery protect the plants from excess moisture. In seventeen cold frames central heating was installed, to protect numerous small-growing succulents that like plenty of fresh air and bright light, such as globose cacti from the South-American Andes, or Crassulaceae and Mesembs from Africa.

Now the available space was completely exhausted and no further expansion is possible but still the collection continues to grow.

Today ‘Die Sukkulenten Sammlung’ in Zürich is visited by about 50 000 visitors each year. About 1/3 of the visitors are tourists from abroad, as far away as Australia, as we can testify. For this reason all the information is displayed in German and English. The only exceptions being short texts for plants of special interest, for space reasons these texts are only in German.

Every year for the flowering of the ‘Queen of the Night’ Selenicereus grandiflorus, the doors are opened for at least one night. As many as 500 people visit just to have a few glances at the enormous flowers. Some times many more than 20 of the awesome flowers are blooming at once.

For over 80 years the collection has grown to more than 25 000 plants of about 6500 species.

A great deal of the information that formed the basis of the “Illustrated Handbook of Succulent Plants” Series, was derived from the database of the Succulent Collection.

Main Entrance, Succulent Collection, Zürich

America Greenhouse

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Pachycereus pringelei


Opuntia Galapageia


Echeveria gracilis


Tacinga inamoena ssp inamoena


South-America Greenhouse

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The genus **Pilosocereus** has 40 species from Western Mexico to Peru and North-East Brazil. A waxy layer on its skin gives it its blue look. The funnel shaped fleshy flowers open at night emitting an unpleasant foul smell to attract Nectar Bats for pollination.

Epiphytic Plants:

do not grow on the ground, but on branches and tree trunks. They anchor their roots in the bark. Dust, decaying leaves and animal excrements accumulate in the cracks of the bark, providing fertiliser. Epiphytes are not parasites (like mistletoe for example), as they do not tap into the host plants vascular system. Epiphytes need a lot of light, which they can only get in the tree tops. However it is very dry up there, as rain water quickly runs off. Hence there are many succulents among the epiphytes of the tropics and subtropics.

Tillandsias (Bromeliaceae) about 500 species from south-east USA to Argentina, grow mostly as Epiphytes on trees, shrubs and cacti. Tillandsia usneoides even grows on telephone wires. Dust in the air provides enough nutrients for the plant. Insignificant yellow flowers appear in spring.

Succulents in Madagascar

> Africa Greenhouse

Adenia gummifera. The genus Adenia is widespread across Africa to South-east Asia into the North of Australia.
About half of more than one hundred species are stem succulents with woody climbing shoots with leafs which dry up in the dry season.

Adenia gummifera var. gummifera (East and South Africa) is the longest succulent plant. The Succulent Collection got its female plant as a 30cm seedling in 1976. Since then it has grown once around the Africa House.

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Monsonia


Gerradanthus macrorrhizus


Fouquieria columnaris


Sesamothamnus
lugardii


Hoodia gordonii

Sansevieria stuckyi
The genus sanseveria grows mostly in Africa. Its about 60 species all have succulent leaves. Some of them have a thickened rhizome. Sanseviera stuckyi has up to 3m long stringy fibrous leaves. It blooms in Autumn. The flowers open at night and have a pleasant scent.
The Succulent Collection got the plant in 1950 as a cutting.

Monstrous Succulents

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Myrtillocactus geometrizans crested form

Cold Frames

Echinocereus 60 species and **Coryphanta** 57 species occur mainly in Mexico. Many Echinocereus species form large groups by offsetting and hence require adequate space. They bloom in spring with often large, red flowers. Coryphanta flowers appear in the summer and late summer and are usually yellow. We were there in spring so I can only show you Echinocereus flowers.

1 E. longisetus
2 E. cinerascens
3 E. pentalophus cv. albiflorus
4 E. scheeri var. obscuriensis
5 E. pentalophus
6 E. scheeri var. koehresianus

Rebutia

One of the goals of the Collection is the conservation of biodiversity. To achieve this, broad selections of different species of selected genera are cultivated such as Rebutia seen in this photo.

W spent two days in the Succulent Collection and circled this treasure house many times always finding new exiting plants. Unfortunately the cold and wet spring we had in the last few weeks in Germany followed us to Zurich. In the few short breaks when the sun broke through the clouds we rushed outside to look at the Cold-frames and the Rockery.

All of you who plan a journey to Europe remember “Die Sukkulenten Sammlung” in Zürich, Switzerland.

A visit to Rudolf's Garden in New Zealand

Jürgen, Rosi Lenz & Fiona Ludbrook

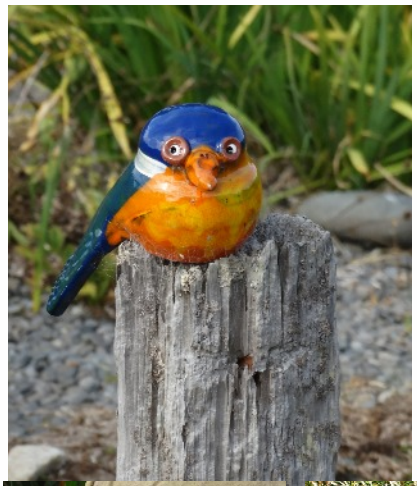
Rosi and I went to the New Zealand Cacti and Succulent 'Mini Convention' 2014, where we met Ballarat cactus and Succulent Society Patron Rudolf Schulz, who took up residency in the south of the north island of New Zealand. Rudolf and his Partner Christina invited us to visit their home.

Now free of growing succulents and cacti for commercial purposes, Rudolf and Christina are engaged in creating a wonderful garden. Rudolf let his artistic and sculptural bent range free. For instance, you will find Rudolf's new species of cactus barbed wirus, wooden snailus giganticus, a previously undiscovered species of wood loving giant snail and magic mushroom concretus, as well as a permanent foraging kingfisher, impressionist like ladies promenading in miniature, a carton of carefully placed German Easter eggs, and many more items of equal artistic merit are scattered throughout the entire garden, indicating that Rudolf, may end up being as well regarded for his work as a sculptor as he is an authority on cacti and succulent species!

Christina is now the one who holds up the succulent part of the plant collection. Rudolf was keen to point out that the green house and its contents of succulent species were Christina's domain. Rudolf functions only as an advisor to assist Christina in nurturing along her collection.

Rudolf now enjoys utilising a wide selection of species beyond cacti and succulents. He was proud to show us such things as New Zealand grass, daisies, bulbs and a wide range of flowering and deciduous plants. The only sign of Rudolf's history as a nurseryman is two rows of bottle trees, which he uses as his own unique form of a piggy bank!

In April 2015, New Plymouth, New Zealand will hold the next Cactus and Succulent Convention. A good opportunity to catch up with Rudolf.




Past - Present - Future Wall

Written material is welcome to be submitted to the above address.

Cover *Agave victoriae -reginae* Photo Paul Moroney